

RISK RESPONSE IN COMMERCIAL PROPERTIES

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DECLARATION

I Mary Karimi Kaaria, hereby declare that this research project is my original work and has not been presented for a degree in any other University.

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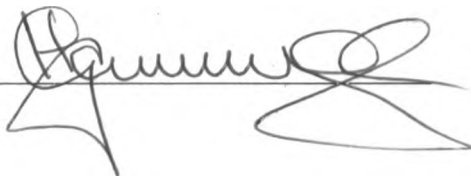


DECLARATION BY SUPERVISORS

This research project has been submitted for examination with my approval as the University Supervisor.

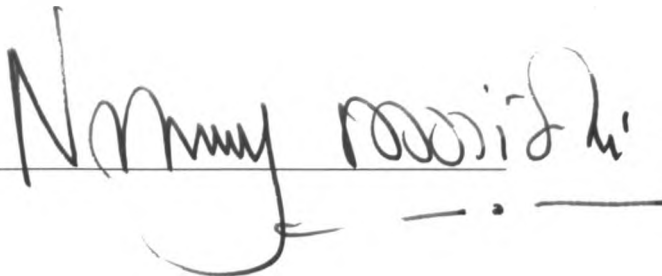
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Signed: _____



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DEDICATION

I dedicate this work to God through his son Jesus Christ 'for I will say of the Lord, He is my refuge and my fortress, God in whom I trust (Ps. 95.2)'. He has given me energy and clarity of mind throughout this course and brought people around me who have been of great help.

ABSTRACT

Commercial properties are exposed to financial, physical and legal risks that affect the profitability and the value of the property once they occur. The losses that result from these risks are direct, indirect and consequential. For the property owner to meet his objective of wealth maximisation these losses must be eliminated or mitigated. It is therefore important for all the risks to be responded to by controlling and financing them.

The objectives of this study are to identify risks that commercial properties are exposed to; to establish ways of responding to risks identified; to determine the factors that influence selection of risk response tools and; to recommend the most effective tools of risk response in commercial properties. The study hypothesizes that the choice of risk response tools is directly influenced by its cost.

Primary and secondary data collected was geared towards meeting the objectives of the study. Primary data was collected through administering of questionnaires to property managers and discussions held with the property managers and persons in the risk and insurance industry. Secondary data for the purposes of this study was obtained from books, journals, research papers and documented reports.

The data collected was analyzed by use of descriptive and inferential statistics. Frequency distribution was used to establish the risk response tools while the risks with the highest frequency of occurrence were identified as the risks

commercial properties were exposed to. Frequency of occurrence was also used to determine the criteria of selecting the response tools. The correlation between the factors influencing selection of risk response tools was also determined. The information was presented in text, charts and tables.

Once the risks were identified the study went further to explore into ways of responding to these risks and the factors that influence the choice of the risk response tools used. The criterion used by property managers to select response tools is an important lead to establishing why some response tools are preferred to others. This study found that cost is the main factor influencing the choice of risk response tools used.

The risks identified were grouped into two. These are risks specific to individual properties and risks common to all properties. Those common to all properties are: physical risks caused by perils such as fire, floods and natural calamities; financial risks such as taxation, economic recession and voids among others and legal risks resulting from statutes, agreements, contracts and law of tort. The risks that are property specific include those associated with the tenant mix, location, lease structure and the building installations and structure.

The overall objective of the study is to recommend the most effective tools of risk response. The tools used in risk response are insurance, retention, prevention, loss control, transfer and avoidance. Effectiveness being in terms of cost of the tools selected and their ability to eliminate or mitigate risk and losses resulting

from an occurrence. All tools of risk response were found to be of importance in risk response and therefore should be combined in a way that they complement each other. The use of the loss matrix method in selecting combinations of risk response tools was recommended.

The property owner who possesses the duty of care towards his tenants and other users of his property should have risk response tools in place to control risks and to finance them once they occur. The property owner is further responsible for ensuring that these risks do not occur in the first place.

The study recommends the use of the minimum expected total loss approach, which is part of loss matrix method for selecting the combination of risk response tools that may be used to respond to risks. This approach considers the cost of various risk response tools used to minimise the occurrence of risk and the loss that upon an occurrence.

Further recommendations have been made towards the practice of risk response in commercial properties and the contribution of professional bodies such as the Institute of Surveyors of Kenya (ISK) and institutions of higher learning such as the University of Nairobi on the importance of teaching risk management. Recommendations have been made on areas of further study in the field of risk management that will assist in building a body of knowledge in a subject that is still considered new.

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CHAPTER 1

INTRODUCTION TO THE STUDY

This chapter introduces the study area and gives an outline of the issues the study addresses. The study objectives, hypothesis and methodology are given in this chapter. It also serves as an introduction to the research project giving the importance of the research to the property owners and managers as well as to the public in general. It outlines the direction the researcher intends to take in answering the research questions or objectives of the study.

1.1 INTRODUCTION

During the economic life of a building the amount spent in recovering from disasters, accidents or losses caused by various risks that could have been averted, is likely to be significant compared to the initial capital cost of the building. A building in itself may be exposed to certain risks that result to the investment in the building being further exposed to consequential risks. The building may incur direct loss if it is destroyed, or incur consequential losses such as loss of value or loss of its use resulting to loss of income and / or additional expenditure on the building.

An investor puts up commercial property either for rental or for own use. The main objective for the investment then is the expectation of an overall growth in wealth by expectation of a return. The investor of the building must consider the

risk of loss of capital or loss of income. Ways to respond the risks that may lead to loss of capital or income of the investment must be established.

After construction commercial properties are managed with an aim of earning income from the building and ensuring business continuity for the occupants of the buildings. Commercial properties are managed for the purpose of preserving the structure in good working condition and further to ensure preservation of income and value of the building. The investor must consider the risks that the building is exposed to and ensure safety to the users of the building. Good management therefore requires the application of skill in caring for the property so that it may retain its value to the landlord and tenant. The present and future economic benefit to be realised from ownership of the property must be conserved.

The risks faced by property investors are physical, financial and legal risks. Risks are not necessarily concrete entities such as computers or motor vehicles, which are studied without subjective bias. Risks cannot be measured in objective unambiguous terms as they are based on perceptions that are neither neutral or value free (Toft & Reynolds, 1997). Owners of properties perceive risks differently, therefore, they respond to a threatening situation based on their perception. Different persons create their own criteria with which risks are interpreted and measured. The perception of the investor to risks therefore is crucial in assessment of risk.

The property sector in Nairobi has of late experiences a number of risks such as voids, controlled tenancies, fire, reduced rental values and floods resulting from poor surface drainage. Toft and Reynold (1997) writing on physical risks stated that seldom does a month goes by with out a major catastrophe occurring somewhere in the world with consequent tragic toll of death, injury or property damage. These disasters occur in people's homes, transport system, communities and especially their workplaces. These disasters are often described as unforeseen or technical failures.

If not checked, risks lead to disasters. Disasters can be avoided all together through planning while their effects can be controlled or financed. Risks are responded to by controlling them and financing them. Risk control helps prevent incidences, plan for their response and mitigate losses when they occur while risk finance is about financing risks once they occur. Risks are controlled by avoidance, prevention, transfer and loss control while risk financing entails insurance and retention.

Mitigation and elimination of risks includes physical and procedural measures which can be summarised as:

- Compliance with health and safety regulations.
- Safety audits.
- Substitute of hazardous material and substances.

- Security and fire precautions,
- Safety procedures.
- Compliance with building and environment legislation.

Whereas the above can reduce risks, residual risks will remain. The residual risks are responded to by transfer and funding such as the underlisted:

- Contingency funds.
- Insurance covers.
- Emergency procedures.
- Leasing commitments.
- Legal safeguards.
- Continuity planning.

The cost associated with risk response methods include:

- Insurance premiums
- Maintenance and service contracts.
- Safety installations e.g. fire fighting equipment.
- Training on safety and security.
- Legal fees for legal safeguards in agreements and contracts.
- Contingency funds.

- Costs of fulfilling statutory requirements

Carey and Turnbull (2000) stated that evaluating and controlling risks effectively will ensure opportunities are not lost, competitive advantage is enhanced and less management time is spent *fire fighting*.

1.2 PROBLEM STATEMENT

Commercial property owners perceive that cost of a risk response method is the determining factor in choosing the method of responding to risks. Some property owners have opted not to undertake even the cost-effective risks control measures for risks that properties are exposed to. In some cases there is reluctance to adopt prevention measures, as they require expenditure in advance without guarantee of return.

Risk response measures selected for risk exposures have been based on spending as little as possible on risk response. Mitigation and prevention methods of risk control have often been overlooked due to the initial capital investment and this has promoted the use of risk transfer and financing which has been thought to be less costly. Though risk financing is preferred, once a risk occurs, it does not reinstate the property to the exact position it was prior to the occurrence, whether in terms of income or value.

In considering risks caused by natural catastrophes Kunreuthen (2000) noted that the cost of natural catastrophes have risen steadily in the past thirty years, not

because of global warming, but rather because of increased property development in hazardous areas. The global challenge we face is not only to reduce the losses to future adoption of cost effective loss prevention or loss reduction measures while at the same time providing adequate financial protection following a disaster. Kunreuthen further noted that many fatalities resulting from natural catastrophes could have been avoided had building codes been enforced in hazardous areas.

Risk is the product of a hazard or vulnerability to a hazard. It is the probability or likelihood that an adverse event occurs during a period of time or resulting from a particular challenge (Royal Society Study Group, 1992).

Risks can be classified as:

- a) Direct risk such as fire, fraud, structural defect, war etc;
- b) Consequential risks such loss of profit as a result of a direct risk;
- c) Social risks such as moral liability and consumer pressure;
- d) Legal risks such as civil liability, statutory liability or contractual liability;
- e) Political risks such as government intervention, sanctions or acts of foreign governments and;
- f) Financial risks such as incorrect marketing decisions and inadequate inflation forecasts among others.

It is necessary to recognise that risks in commercial properties are concerned with safety. Safety in commercial properties has been checked by use of legislation and maintenance manuals and building manuals. Safety procedure and compliance with legislation are not sufficient as they cover the risks a building is exposed to in piecemeal. Risk control therefore becomes part of safety management as it interlinks these aspects. Lack of safety management measures begets legal risks such as public liability.

Quality management of properties must include control of risks. It is not sufficient to have property that is well managed in terms of cleanliness, rent collection, occupancy, and amenities and not take risk into consideration. Toft and Reynold (1997, 10) wrote that.

We do not argue that quality management and risk management are the same: they cannot be because risk management also encompasses many other issues including those related to safety. Although the two activities have similar aims, the prevention of unwanted incidences, the consequences for an organisation are likely to be significantly different where a customer is injured through a safety problem rather than inconvenienced through a quality problem. Clearly where an organisation causes injury it can lead to claims for compensation in civil courts, prosecutions, fines or in extreme circumstances imprisonment. Typically, the worst outcome from a failure of product quality is a loss of custom.

On general observation, investors do not ensure that an elaborate risk survey is carried out for commercial properties. Time is not taken to identify risks that may occur in a property. Controls are mainly kept in place due to statutory requirements or to keep up with the trends in the property market. Hardly is a

study carried out and recommendations given and followed on risks that a property is prone and ways of controlling the risks. Persons involved in commercial property management need to be sensitive to the risks that the investment is exposed to. The risks associated with particular hazards may be underestimated in terms of frequency and severity.

In real estate development and management the field of risk management has not been recognised as an important aspect. Gichunge (2000) in a study of risk management in the building industry concluded that the management of risks in the Kenyan building industry is rather ineffective and exposes the client, consultants and contractors to various risks. Lack of proper risk management lead to high costs of risk finance in terms of insurance premiums and costs retained.

Toit & Rooyen (1998, 103) stated that for management to effectively manage the pure risk area it must be able to measure the performance of the risk control activities. One would then have to measure cost saving that accrues from losses that have not yet occurred and which may (or may not) have been prevented by risk control measures. There is no single, absolute way to measure the effectiveness of the risk control method undertaken. Several techniques, for instance, historic loss expenses that reflects past loss events have been used in the past. The fact that losses would have been prevented from occurring in the first place should be considered.

Carey & Turnbull (2000) in relation to business risk stated that.

Once identified risks must be prioritised. This can be done initially by examining the 'gross' risks associated with an event or situation. Once gross risks are prioritised the directors need to decide in each case their preferred control strategy for avoiding or mitigating them. They need to identify those who are best placed to manage and account for these risks. ... Such systems can identify problems before disaster strikes, when corrective action can still be taken. Once a control strategy has been agreed the residual risk remaining in the business can be assessed. There are various strategies for managing risk. This include accepting it; transferring it partially or fully to another party, eliminating it by adopting an exit strategy; controlling it through building safeguards into the operational process; or ensuring that staff manage it.

This study aims at examining the risk response tools used currently in responding to the risks that commercial properties are exposed to after the building has been occupied. The study also aims at recommending the effective response tools that should be used. In achieving this, the study identifies the risks that commercial properties are exposed to after occupation, the ways in which these risks are responded to and the criteria used to select the tools used for risk response.

1.3 OBJECTIVES OF THE STUDY

This study plans at achieving the following objectives.

- a) To identify risks that commercial properties are exposed to.

- b) To establish ways of responding to the risks identified in commercial properties.
- c) To determine the factors that influence selection of risk response tools.
- d) To recommend on the most effective tools of risk response in commercial properties.

1.4 HYPOTHESIS

The choice of risk response tools is directly influenced by its cost.

1.5 SCOPE OF THE STUDY

This study looks into risks that commercial properties are exposed to after occupation and the ways in which these risks are responded to. Risk response is studied in terms of risk control and risk finance. The study covers commercial properties that are already occupied.

The properties covered in this study are multi tenancies and owner operational buildings of more than four floors located within Nairobi and managed by qualified property managers.

1.6 ASSUMPTIONS

The study assumes that during design and construction of the properties, risks were responded to as required in the various statutes and Local Authority by-laws and have been issued with Certificates of Occupation.

1.7 RESEARCH METHODOLOGY

1.7.1 RESEARCH DESIGN AND INSTRUMENTS

This study encompasses both theoretical and practical aspects of risk response in commercial property management.

The research for the purposes of this study research has been carried out from primary and secondary sources. The secondary data has been gathered on areas relevant to this study by conducting literature review. Administering questionnaires, carrying out inspections and discussions was carried out for purposes of collecting primary data required from the field.

The population of this research is commercial properties in Nairobi. The sample of 30 properties was selected by simple random sampling of the population.

1.7.2 DATA COLLECTION AND ANALYSIS

The mode of collecting data for this study was:

- Literature review was carried out to examine the theoretical approaches to risk control with particular emphasis on risks and risk response tools. Books, journals, reports and research papers have been reviewed among others.
- Questionnaires were administered to property managers managing the selected commercial buildings in Nairobi. This was aimed at collecting data on the practice of risk response in property management. The history of losses and their frequency and the risk response methods employed was considered.
- Discussions were held with various persons in the field of risk management and insurance to establish to establish the areas most prone to risk in the commercial properties and the emerging trends in risk response in commercial properties.

The data collected was analysed by use of the following methods.

- Qualitative methods were used for the non-quantifiable data collected from discussions and interviews. This has been presented in form of a problem tree depicting the causes and effects of risks in commercial properties.
- Quantitative methods were used where quantities are being analysed by use of descriptive statistics to establish the frequent risks that commercial properties are exposed to as well as the frequently used response tools. The importance placed on factors that influence the selection of tools used was

established by use of descriptive statistics. Inferential statistics was used to investigate the relationship between the risk response tools used.

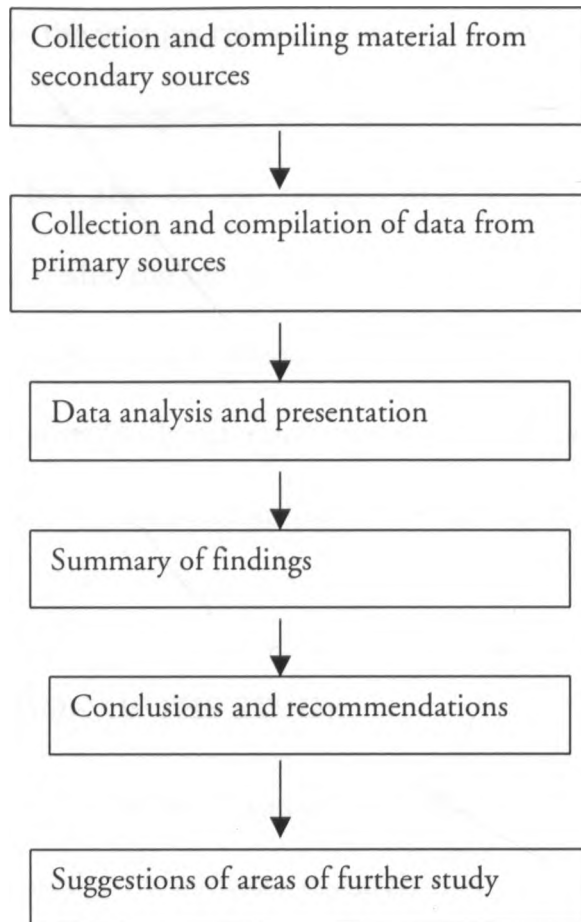
The findings have been presented inform of tables, charts, graphs and written text.

1.7.3 VARIABLES OF THE STUDY

The study considers the following variables:

1. Risks.
2. Risk response tools.
3. Factors influencing selection of risk response tools.

1.7.4 METHODOLOGY FLOWCHART



1.8 SIGNIFICANCE OF THE STUDY

The study explores factors influencing the selection of risk response tools and establishes whether cost is the overriding factor. The study attempts to establish ways of reducing losses caused by various risks that commercial properties are exposed to and ultimately increase the income through saving in terms of reduced cost of risk and risk response.

The significance of this study is to sensitize the property managers and owners on the need to use the various risk response tools available most effectively. The risks that commercial properties are exposed to not only have effect on the property owner but also on the tenants and users of the property. Upon occurrence of a disaster the landlord, tenants and users are all affected though not equally. The direct and consequential loss experiences by the three parties may be eliminated or/and mitigated by use of risk response tools. The tool selected should be effective in terms of cost of the tool and in responding to risks.

1.9 ORGANISATION OF THE STUDY

Chapter one comprises of an introduction to the study, the problem statement, objectives of the study, hypothesis, research method and design as well as the scope and significance of the study.

The second chapter contains secondary data being literature review on risk management, risks in commercial properties, risk response tools and factors influencing selection of the response tools.

The third chapter concentrates on primary data collection on the risks commercial properties are exposed to. The data analysis will establish the major factor considered in choice of risk response tools for the risk identified and the contribution of cost in selection of the control method. Secondary data collected

from the field survey is used in this chapter to complement the primary data collected.

The fourth chapter being the last comprises of the conclusions of the study and recommendation on the most effective risk response tools and the way these tools may be selected as well as test of the hypothesis and suggestions on areas of further study.

CHAPTER 2

A CONCEPTUAL FRAME WORK OF RISK RESPONSE IN COMMERCIAL PROPERTIES

2.1 INTRODUCTION

Risk is an integral part of business and its management has been found to be essential in income earned and business continuity. Risk response is part of the risk management process that ensures that risks does not occur and that the loss incurred as a result of an occurrence are minimized or eliminated altogether. In real estate, risk response encompasses both business and physical risks associated with the property. This chapter reviews literature on risk response in commercial properties.

In order to establish the risk response methods and how they are selected, this chapter has reviewed literature on risk, risk management process and the risks that commercial properties are exposed to. The method of identifying the risks those commercial properties are exposed to and the ways in which risks can be measured have been studied. From this the chapter proceeds to establish the ways those risks can be responded to and the factors that influence the selection of the risk response tools.

This study lays emphasis on risk response, which entails risk control and risk financing. Most of this chapter therefore has been dedicated to risk response as an integral part of risk management and the influencing factors in selection of

risk response tools as well as the effect of the tools selected in the overall value of the property.

This chapter consists of an introduction to risk, risk management, risk management process, risks in commercial properties, risk response in commercial properties, selection of risk response methods and cost related to risk response tools.

2.1.1 RISK

The concept of risk taking can be traced back to early Greek and Arab civilisation, however, the idea of attempting to manage organisational or business risk is a relatively new concept. Uncertainty and risk have been a part of man though little thought was given to it. Bernstein (2000) wrote that:

Human beings were never allowed to forget that they were helpless before the fates of the gods or whatever exogenous power struck their fancy. God's will in an endless variety of formats determines the future. The greatest mathematicians among the Egyptians, the Assyrians, the Greek, the Romans and the scholars of the middle age never considered risk measurement or risk management worth their time, keenly aware of the uncertainties as they may have been.

Risk is the variation in the outcomes that could occur on a specific period in a given situation. Risk is also defined as the uncertainty to a financial loss. This regards uncertainty, and the concept of loss, which is the failure to retain possession and enjoyment of something of value. The degree of risk is related to the ability to predict the outcome of an occurrence. If a risk can be reduced the future becomes more predictable and manageable.

Risk is the product of a hazard or vulnerability to a hazard. It is the probability or likelihood that an adverse event occurs during a period of time or results from a particular challenge.

Uncertainty is the doubt a person has concerning their ability to predict which outcome will occur. Uncertainty arises when one is aware of the risk in a given situation, but is not confident on the extent of the risk. Uncertainty cannot be measured; it is subjective in nature. According to Toit and Rooyen (1998) uncertainty comprises of:

- ◆ Whether an event will take place and;
- ◆ If an event occurs what the outcome will be.

2.1.2 CLASSIFICATION OF RISK

Risks can be classified as pure and speculative risks (Brockington, 1993). Pure risk is when there is a chance of loss but no chance of gain, for example natural calamities. Speculative risk is where there is a chance of gain as well as a chance of loss, for example a financial investment. Pure and speculative risks exist hand-in-hand. A building owner is exposed to both pure risks of accidental damage to the building and speculation risks such as the raise and fall of rental values. Risk managers are involved mainly in speculative risks.

Toit and Rooyen (1998) further categorised risk as follows

1. End economic risk:

These are risks that affect the end profit of an organisation or business. These risks are described in the portfolio theory of diversification as speculative or specific risks and un-speculative or market risks.

Specific or unsystematic risks are those specific to the industry or business.

They include:

- ◆ Workers strikes
- ◆ Entry of new competition in the market.
- ◆ Loss of a bid or contract.
- ◆ New innovations or creations.
- ◆ Increase in cost of inputs and resources.

Market or systematic risks are those common to all industries. They include:

- ◆ Change in interest rates.
- ◆ Increase in corporate tax.
- ◆ Increase in inflation
- ◆ Introduction on restrictive credit policies by the Central Bank.

2. Incidental or financial risks. These are risk that arise from business transactions or transactions in financial assets. They are:

- ◆ Interest rate risk associated with loss of income due to change in interest rates.

- ◆ Liquidity risk, for instance where a bank is unable to pay depositors.
 - ◆ Investment risks such as variation in value of financial instruments due to market changes.
 - ◆ Credit risks such as where a debtor fails to meet his obligations.
 - ◆ Currency or foreign exchange risks resulting from fluctuation in foreign exchange rates.
 - ◆ Capital risks associated with loss of capital.
3. Pure risk: These are risks that represent the possibilities of loss or no loss situations. They are further classified as:
- ◆ Fundamental risks. Those arising from losses that are impersonal in the organisation. They may arise out of economical, political or social interdependence of society and also out of physical occurrence.
 - ◆ Particular risks. These are losses originating from discrete events that have an essential personal cause such as accidents.

Total risk comprises of end economic risk, incidental risk and pure risks.

Risks may be subjective or objective. Objective risks are those which are same to all persons or properties facing the same situation. Subjective risk is an individual's estimate of objective risk (Williams and Heins, 1989).

2.1.3 COST OF RISK

Stuzl (2000) referred to cost of uncertainty as arising from the unexpected losses that do occur and the uncertainty itself even if no losses occur. The economic costs of risk are:

- a) Costs of unexpected losses to the firm, organisation or individual such as a damaged door as a result of an explosion.
- b) Cost of the uncertainty itself. This is firstly, the physical and mental strain caused by fear and worry, and secondly, the cost of distortion in the use of the resource be it land, buildings, capital or technology causing inefficiency, over or under supply of goods or services and fluctuation of prices.

The cost of risk is the loss of property, lives, incomes and the resources used to manage accidental loss. This involves the value lost in actual incidences and the cost of resources devoted to managing the risk associated with the asset or activity. The costs include:

- a) Insurance costs associated with the cost of insurance premiums and the opportunity cost of amount spent on the premiums that could have been spent generating profit.
- b) Self-funding costs for uninsurable losses.

- c) Risk response expenditure associated with the cost of time spent on identification and evaluation of risks, the operational and procedural cost of risk response measure.
- d) Administrative expenses such as costs of reporting and investigating loss occurrences cost on an in-house risk management department and the cost of handling insurance matters and self-insured losses.

2.1.4 RISK MANAGEMENT

Risk management is the identification, measurement and treatment of property liability, and personnel pure-risk exposures (William & Heins, 1989). It is the action taken to deal with potential for injury, loss or damage. It is based on the proverbial phrase 'an ounce of prevention is better than a pound or cure'. Risk management is aimed at minimising incidences and permit rapid response to those that do occur, to mitigate losses as fully and efficiently as possible. Proper risk management enables a business to handle its exposures to accidental losses in the most economic way. This way losses and expenses are reduced thus increasing profits.

The development of risk management began in 3000 BC with the technique of sharing risk among the Chinese merchants. This later became the fundamental principal in insurance. About 1200 years later the Great Code of Hammurabi provided for the transfer of the risk of loss from merchants to moneylenders. Babylonians, Greek and Phoenicians merchants also adopted this.

During the Renaissance and the Reformation era commerce and finance began spread and there was technology change in agriculture and navigation. In 1654 Blaise Pascal and Pierre de Fermat demonstrated for the first time how probability was calculated. This was later to be used in insurance.

In 1738 the idea of utility was discovered. This aspect of utility was later used in decisions related to risk as risk involves not only calculations of probability but also the value of the consequences of the risk-taker. In 1800 Francis Galton discovered regression to be the second component to mean, which gives the idea that everything returns to normal in the long-run. Scientists who followed Galton showed that this notion held in vast range of situations, including weather patterns, stock markets, games of chance, frequencies of accidents and economic cycles.

In 1916, Fayol recognised risk management as a separate management function and referred to it as security management. Although Fayol's perception of the security function was limited in scope, compared to the present day risk management function, it did give early recognition to the need for a security and loss-control function in the organisation (Toit & Rooyen , 1998).

Risk management should be proactive and attempt to identify and measure hazards and control the risks of their occurrence before they occur. This notion of risk management as a proactive and mainstream management task gained ground in the United States of America in the mid 1950's and early 1960's.

Bachner (1991) stated that the need to become ever more involved in risk management stems in large part from our civil justice system. It is continually imposing more responsibility on owners to make their facilities safer for tenants, residents, employees, visitors and others.

The objectives of risk management in commercial properties should be consistent with the objectives of property management. Property management seeks to advise on the establishment of an appropriate framework within which to oversee property holdings to achieve the agreed short- and long-term objectives of the estate owner and particularly to have regard to the purpose for which the estate is held (Scarret, 1995). The main objective of the property owner is to obtain return in terms of rental income earned or saved, for satisfaction of personal tastes and preferences and to increase wealth. Risk management should aim at enabling the fulfillment of the objectives of the property owner.

2.2 RISK MANAGEMENT PROCESS

William & Heins, (1989) listed the six steps in the risk management process as follows:

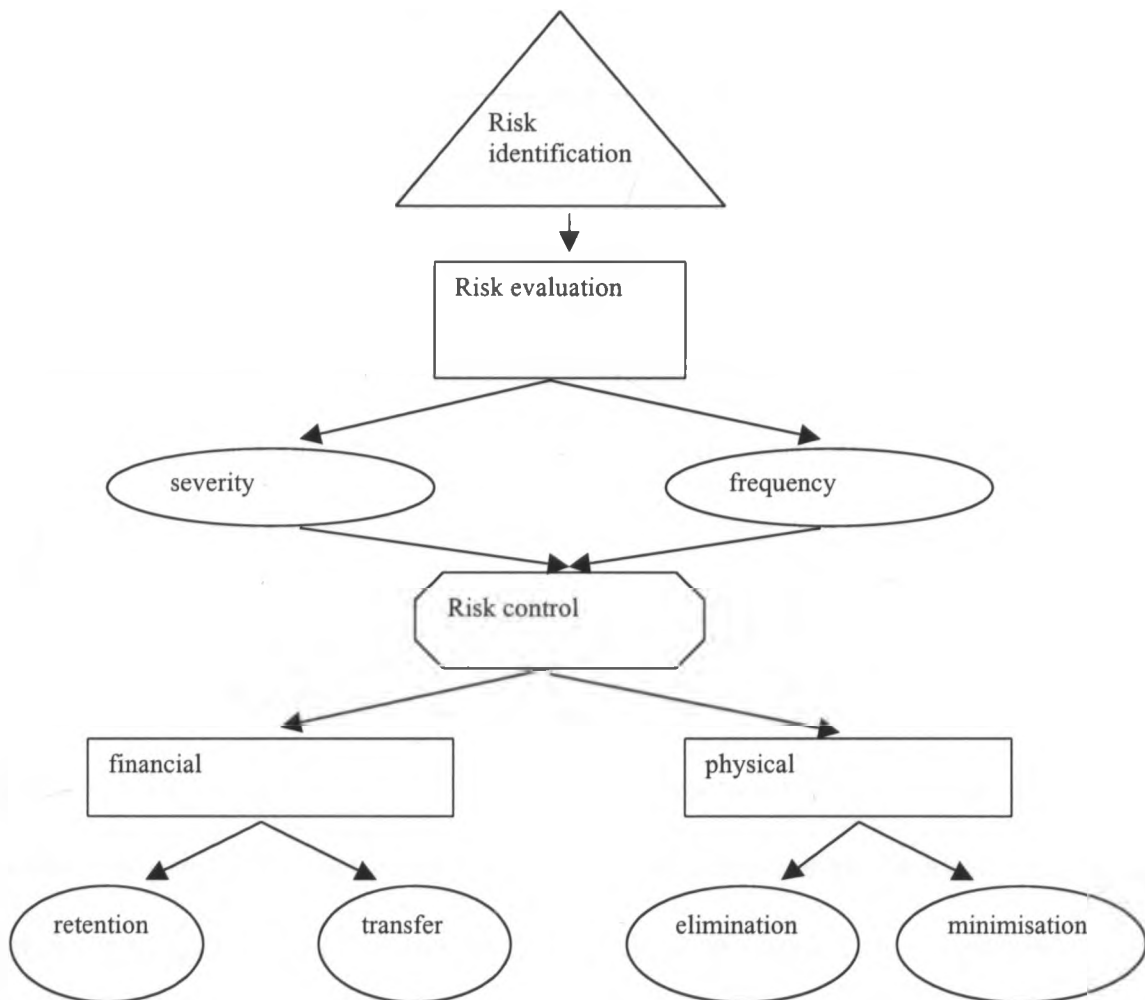
- i, To define the objectives the organisation wishes to achieve from the risk management process. The objectives may include survival following catastrophic loss, stable earnings and low long-run costs.

- ii, Upon establishing the objectives of risk management the risk manager identifies the loss exposures of the business or property.
- iii, The next step is to measure the potential losses during the budget period associated with the exposures. Measurement includes determination of :
 - a) the probability that losses will occur;
 - b) the impact these losses would have upon the financial affairs of the property should they occur and;
 - c) The ability to predict the losses that will actually occur. This enables one to prioritise exposures.
- iv, The risk manager then selects the best combination of tools to be used in attacking the problem. The tools include:
 - a) avoiding the exposure;
 - b) reducing the chance that losses will occur and if they occur reducing their magnitude;
 - c) transferring the potential losses to some other party and;
 - d) Retaining or bearing these losses internally. The risk manager must consider the present financial position of the organisation or business. In selecting a proper combination of tools, the risk manager must establish the costs and other consequences of using each combination.

- v, After deciding among the alternative tools of risk treatment the risk manager implements the decision made.
- vi, The results of the decisions made and implemented in the five steps above, must be monitored to evaluate the wisdom of those decisions and to determine whether changing conditions suggest different solutions.

The risk management process may be summarised in the following figure.

Fig 2.1



Title: The risk management process.

Source: Dickson (1984)

2.2.1 RISK IDENTIFICATION

Risk identification is the process by which a business systematically and continually identifies property, liability and personnel exposures as soon as or before they emerge. This is the first step in the risk management process. It is concerned with exposing potential loss producing situations. All potential losses must be identified, as those left out cannot be managed.

To identify potential risks, all losses that could occur to any business are listed down and countercheck to ensure those related to the business are not left out. Risk identification may be carried out in-house or by an out-sourced consultant.

There are two approaches in identification of risks. These are:

1. The traditional approach: The process starts by identifying the perils to which an organisation is exposed to such as fire, floods and storm and then assessing their potential resulting impact. When using this approach care should be taken not to leave out other sources of loss that may not in themselves be perils.
2. The risk-sensitive approach: This is where the risk-sensitive areas and the possible loss production activities are determined, then the perils identified which may trigger off such events and their likely impact on the enterprise are determined. This is preferred to the traditional approach as it gives a comprehensive and logical pattern of risk identification.

Toit & Rooyen (1998) stated that it is recommended that the process of risk identification commences by first pinpointing the risk-sensitive areas and situation with significant loss potential, and then proceeding to the identification of perils and hazards associated with each risk sensitive area.

The potential losses may be classified as:

- ◆ Property losses - further categorized as:
 - a) direct losses associated with repair and replacement damaged or missing property;
 - b) indirect losses such as need to rehabilitate the building as a result of a direct loss and;
 - c) Net income losses such as interruption of business due to a direct loss causing the building to be untenable.
- ◆ Liability losses arising out of damage to or destruction of others' property or personal injuries to others.
- ◆ Personnel losses that arise from the loss through death or disability of an employee, customer or owner or loss to the personnel as a result of death, disability or unemployment.

Property losses are caused by physical, social and economic perils. Physical perils include natural forces, explosions and fires. Social perils are such as theft, vandalism, embezzlement and negligence while economics perils are caused by

internal and external forces such as debtors, economic recessions and management errors.

2.2.1.1 Risk Identification Methods

Risks may be identified by physical inspection of the premises, personal interviews, documentary evidence and use of checklists. Each of these methods is aimed at collecting certain information that may assist in identifying risks. Depending on the nature of risks being identified and the organisation, one method may be applied or a combination of all or various methods. The risk identification methods include the following.

2.2.1.1.1. Physical inspection

When beginning a risk identification exercise it is important for one to begin with physical inspection of the property in order to get a feel of it, to identify the loss-producing situation and the perils and hazards that may cause the situation to occur. The physical inspection should be carried out with the assistance of the personnel on site in order to tap the expert knowledge of the staff who is more familiar to the operation of the building.

Toit and Rooyen (1998) suggested that the inspection should cover every aspect of the property including the offices, warehouses, canteen, recreational facilities, common areas, ablution area, parking bays and emergency exits among others. This should enable the person inspecting to identify risks in the following areas:

- i, The premises: susceptibility to floods and fire damage, construction material, potential liability to third parties, conditions in the leases concerning liability for repairs and insurance.
- ii, Utilities: Reliance on public utilities, stand-by equipment, and compliance with statutory regulations.
- iii, Risk response: Location of emergency exits, access to the building by emergency services, access control, security offices, adequacy of first aid equipment and suitability of staff.
- iv, Administrative offices: Safekeeping of records and adequate protection of office equipment.

2.2.1.1.2. Personal interviews

After physical inspection interviews may be scheduled with the person in-charge of the property and questionnaires or structured questions may be used. Personal interviews enable one to seek clarification on the gray areas and establish the areas that the management feels are more critical than others are. This enable one to evaluate to what extent the management is risk conscious and the measures taken to combat loss-producing situation.

Informal conversations in addition to structured interviews assist to cover pertinent loss exposure information that could not be readily or accurately relayed in written reports.

2.2.1.1.3. Documentary Evidence

This is information collected from organisation charts, flowcharts, accounting data, statutory record, management information and information from contracts and codes of practice.

- I. Organisation charts: They show the basic organisational structure of the property's management or entire company. It identifies the weaknesses of the organisation structure and the whether the process of reporting is a disincentive to reporting accidents or possible accidents. This enables the risk manager to identify ways in which effective communication or information flow is hindered.
- II. Flow chart: This is particularly useful in companies where the system of manufacture or production involves materials flowing through a process. The chart depicts the flow of the operation and can highlight problems that could be caused by unforeseen events.
- III. Accounting data: This identifies risks associated to cost accounts, published accounts and assets inventory. It enables the risk manager to determine the marginal contribution to gross profit of the various products, equipment's or lettable space within a building. Insurance information such as insurable gross profit, wages, stock value may be obtained from accounting data.

- IV. Statutory records: These include statutes such as Factories Act, Occupiers Liability Act, the Public Health Act and the Local Authority By-laws.
- V. Management information: This is the information in management reports regarding maintenance, security, letting, and tenant information among others. This information contained is as a result of inquiries made regarding actual events.
- VI. Information from contracts and agreements: This includes information on terms of contract, indemnity, warranties and guarantees. Contracts contain clauses through which the organisation may incur liability and clauses that protect the company by providing recourse against the other party for nonperformance (Toit & Rooyen, 1998). Clauses need to be examined to identify excessive liability exposures or inadequate protection against for instance the performance of a contractor or supplier.
- VII. Standards and codes of practice: Numerous standards have been set for example in fire fighting. The information in the standards is valuable as a means of identifying a risk where the code of practice is not followed. The United States has guidelines to health and safety in construction. These guidelines were written by the US Army Corps of Engineers and they act as a benchmark to the standards expected and give guidelines when identifying risk.

2.2.1.1.4. Checklists

This involves asking questions regarding each item in the property. The questions will revolve around the risks that the property is exposed to. These risks may be classified as direct, consequential, social, legal, political and financial risks as listed in the first chapter.

Williams & Heins (1989) noted that no single method or procedures of risk identification are free of weakness or can be referred to as foolproof. The strategy of management must be to employ that method or combination of methods that best fits the situation at hand. The method employed depends on the nature of the property, size of the property and the availability of in-house expertise.

2.2.2 RISK EVALUATION

Risk evaluation aims at obtaining equitable measures of the scale of one risk relative to another and establishing the impact that risk has on the property or business enterprise. Once risks have been identified they must be measured to determine their importance and obtain information that will help obtain the best combination of risk management tools. Risk evaluation is often made in a quantitative manner. The size of the loss or its severity is the cost of the loss. This cost is not restricted to repairing or replacing the damaged asset, it includes the loss of revenue or profit that results from interruption of an operation.

When measuring risk information is needed regarding two dimension of each exposure (Williams & Heins, 1989):

- ◆ The loss frequency or the number of losses that will occur.
- ◆ The severity of those losses.

For each dimension it is necessary to establish the value in average during a budget period and the variation of values from one budget period to another.

The severity and frequency of risk is necessary in risk evaluation for the following reasons:

- i, Both loss frequency and loss severity data are needed to evaluate the relative importance of an exposure to potential loss. It is argued that a potential loss with catastrophic possibilities, although infrequent, is far more serious than one expected to produce frequent small losses and no large loss.
- ii, In determining loss severity all loss types that might occur as a result of a given exposure as well as the ultimate financial impact upon the firm must be included. The potential direct property losses are generally appreciated while the indirect and net income losses that may result from the same event are often ignored until the losses occur.
- iii, It must be considered whether a single event might involve two or more buildings, persons or other exposure units. For example fire caused by an explosion may spread to the next building.

- iv, The ultimate financial impact of loss may cause severe liquidity problems within the company and eventually affect a company's going concern.
- v, In estimating the loss severity it is important to recognize the timing of the losses in terms of the time value of money. Discounting future losses at an assumed present value can do this.

The product of loss frequency and loss severity is the value of the loss expected in an average year. Loss frequency and severity data not only rates losses but also determine the ways to handle the losses.

2.2.2.1 Loss Severity and Size

Loss severity or size is determined by the following methods:

1. The maximum possible loss. This is the worst loss that could *possibly* happen in a single event. It measures the maximum cost potential of a risk. It is defined as the maximum cost of a loss that could result from a single event under unfavourable conditions. Unfavourable conditions being that the risk response measures did not operate as planned and that the loss was therefore not controlled (Toit & Rooyen, 1998).
2. The maximum probable loss or the normal loss expectancy. It is the maximum loss that could occur as a result of a single event given that all risk response measures operate as expected. It is the worst loss that is *likely* to happen in a single event.

3. The "as if" analysis. It is an analysis of the past claims in an organisation. These claims are carried out on actual basis and projected basis. Projected basis is adjusted for inflation and for changes in risk factors that are considered. This method is used to evaluate cash flows and cost implications of alternative risk response options. The "as if" basis takes recognition of operational changes and the resultant changes in exposure to risk.
4. Accumulations. This is a term used to describe the extent to which various risks could accumulate into large losses as a result of a single event. Accumulations are normally associated with natural catastrophes.

In estimating loss severity the asset value and the loss associated with business interruption must be considered. The asset value may be its depreciated values, replacement value, value in use or the market value as provided in the valuation practice. Business interruption is the actual loss incurred in terms of loss of revenue, the increased operating costs and the savings in variable costs. These savings arise from operations that are temporarily not being carried out.

2.2.2.2 Loss Frequency

This is the probability that a single unit will suffer one type of loss from a single exposure or that a single unit will suffer one type of loss as a result of many exposures. The probability of the former is higher due to the additional possible causes of loss. In addition a single unit may suffer simultaneously more than one

type of loss from a single exposure and the probability then will be lower than the probability of only one type of loss because more than one type of loss would result from a single occurrence. Where at least one of the units or buildings will suffer the same type of loss from the same exposure the probability would be higher than in the case of a single unit since there are several units affected.

Past statistics are vital in order to establish the possible loss frequency. The potential changes in the organisation or environment that will affect the future loss frequency should also be taken into consideration. The following are considered when establishing potential loss frequency:

- National and international trends. These trends are influenced by political and social changes. These trends form a guideline for new untested exposures.
- Incident reporting. An organisation may establish systems in which incidences are reported whether they result to a loss or not. The losses incurred or the potential for losses to be incurred as a result of such exposures is then evaluated. This information then forms a valuable database for effective decision making.
- The 'Pareto' rule. This is associated with insurance industries where large claims follow the 'Pareto' rule which has two elements: Eighty per cent of the claims cost are associated with twenty per cent of exposures and; as the loss size doubles, the claim frequency will halve. (Toit & Rooyen, 1998)

2.2.2.2.1 Probability Distribution.

Risk evaluation is carried out by use of probability distribution of the outcome of events. Probability distributions depict the probability of occurrence for each possible outcome. The property manager is able to obtain information on the probability that the property will incur loss, the probability that severe loss will occur, the average loss per year and the variation of possible results.

To construct a probability distribution, historical or theoretical data may be used. When using historical data the estimate of the probability of each outcome would be the proportionate number of times that each outcome has occurred in the past. Theoretical distributions are those that have been developed by statisticians and are often used to develop estimates of probability distributions in other fields. These include the normal distribution curve, the binomial distribution curve and the Poisson distribution curve.

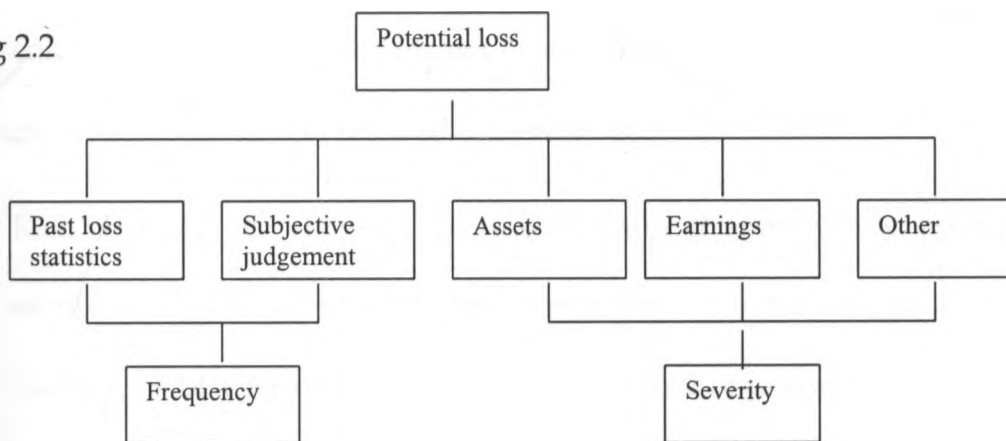
1. Normal distribution curve: It is constructed from the value of the variable in consideration against its standard deviation. It results in a bell shaped curve. Its advantage is that it is simple to determine the probability that the variable will fall within a certain range of values.
2. Binomial distribution: Like the normal distribution it has two parameters, which are the number of units and the probability that a randomly selected unit will be changed.

3. Poissons distribution: It is useful in estimating the probability that a business will suffer a specific number of occurrences during the year. It applies where a large number of units are exposed to risk each facing a small chance of accident. The probability of occurrence should be the same for each exposure for the poissons distribution to be used.

In evaluating the impact of a potential loss on the organisation has to combine the loss severity and the potential frequency. If the probability distribution of the losses is known it is possible to estimate the maximum probable loss.

Risk evaluation can be summarised in the following figure

Fig 2.2



Title: Risk Evaluation

Source: Toit & Rooyen (1998)

2.2.3 RISK RESPONSE

Risk response is aimed at ensuring that the anticipated benefits exceed the value of resources that bring about the benefits. These resources may include capital, labour and material. Risk response helps prevent incidences, plan for their response and mitigates losses when they occur. There are five main techniques of risk response. These are summarised as (Toit and Rooyen (1998):

1. Risk avoidance. This avoiding the risk causing situation. For instance to avoid installing a new machine or extending of lettable space.
2. Risk assumption. This is where the consequences of the loss are borne by the party exposed to the chance of loss. Risks are assumed when the consequences of the loss are not costly enough to justify risk management measures. This is also referred to as retention.
3. Risk elimination. This involves introduction of systems and procedures to eliminate risk. It aims at eradication of the risk completely. For instance installation of a standby power generator in case of power failure.
4. Risk reduction or mitigation. This reduces the likelihood of occurrence of a loss. A mixture of physical and procedural measures that are aimed at preventing or limiting loss may carry this out. These procedures include following regulations and manuals in place and compliance with legal requirements.

5. Risk transfer. This involves transfer of the consequences of risk to a third party. In the case of hiring equipment the lessee transfers the risk of ownership to the lessor. In the case of insurance the insured transfers financial loss to the insurer.

2.3 RISKS IN COMMERCIAL PROPERTIES

Real property consists of land and its appurtenant structures or attachments. Commercial properties are those used for business as shops, hotels or catering establishments. The Landlord and Tenant (shops, hotels and catering establishes) Act, Cap 301, Laws of Kenya defines a shop as premises occupied wholly or mainly for the purposes of a retail or wholesale trade or business or for the purpose of rendering services for money or money's worth. The Act defines a hotel as any premises in which accommodation or accommodation and meals are supplied or are available for supply to five or more adult persons in exchange for money or other valuable consideration. Catering establishments are defined as any premises on which is carries out business of supplying food or drink for consumption on such premises, by persons other than those who reside and are boarded on such premises.

Commercial properties may be provided for use of others by an investor; by a company for use in its business and to enable their operations to function and grow and; by various public bodies, local and national, mainly for their own

operational use and as investment property (Scarret, 1995). The sound management and the identification and exploration of potential losses are essential to the well being of a commercial oriented property and the management must as much as possible associate with the owners objectives. The management therefore seeks to achieve an efficient management service and to secure a balanced portfolio mix as well as ensure containment of risk.

Commercial property exposure is defined according to the nature of the risk. Property losses are caused by physical, social and economic perils. Physical perils are those associated with natural forces as floods, wild fires, windstorm, earthquakes and earth movements. Social perils are those associated with deviations from expected individual conduct such as theft, vandalism, embezzlement, negligence, riots and strikes. While economic perils are those that involve financial mismanagement, management errors or economic recession. The perils mostly associated with property losses are smoke, fire, explosions, hail, collusion, water damage, glass breakage, riots, vandalism, theft, employee dishonesty and failure of a person to meet express obligations (Heins and William, 1989).

At pre-occupation stage, that is the design and construction stage, the Local Authority requires developers to obtain approvals for the building plans, to obtain certificate of good structural practice and complete requirements as stated in the plans comments sheet. To obtain approval for the building plans the

developer applies for Approval of Building Plans to the Nairobi City Council. The plans are approved subject to compliance with the provisions of the Building Code. These requirements apply for new buildings as well as alteration and extension of existing buildings as stipulated in the Building Code: The Local Government (Adoptive By-Laws) (Building) Order 1968. Section 3 of the Building Code provides that:

- (1) A person who erects a building or develops land or changes the use of land, or who owns or occupies a building or land shall comply with the requirements of this By-law.
- (2) For the purposes of these By-laws any of the following operations shall be deemed to be erection of a building:-
 - (a) the re-erection of any building or part of a building when an outer wall of that building or , as the case may be, that part of such building has been pulled down, burnt or damaged;
 - (b) the roofing over of any open space;
 - (c) the alteration or extension of a building;
 - (d) the erection , alteration or extension of a chimney shaft;
 - (e) the changing of the use or uses to which land or a building is put;
 - (f) increasing or reducing the number of dwellings in a building;
 - (g) the carrying out of drainage work;
 - (h) the installation of any fittings to which by-laws 143 to 149 or by-laws 167-179 of these By-laws refer;
 - (i) the formation or laying out of an access to a plot.

In-addition, Section 9 of the By-law stipulates that the approval by the council of any plans for the erection of any building shall be subject to conformity with the By-laws. These requirements checks certain aspects of the building in question, for instance, in application for approval of plans, the developer is required to

have the plans drawn by a registered architect. The aspects considered during approval of plans include: the materials used for the foundation, mortar, damp-proof course and the drainage; the water supply; and the structural details which are approved before any structural work commences.

The approval for building plans therefore checks on areas associated public health, building by-laws and structural details and calculations, canopy requirements, certificate of workmanship, ground soakage, surface water drainage, mechanical ventilation and plumbing and drainage details. Once a building is completed the person erecting the building is required to notice in writing of its completion to enable final inspection and a certificate of completion to be issued.

The Nairobi City Council inspects each property whose plans it has approved to ensure that the works carried out are as provided for in the approved plans. The inspection sheet is designed in a way that it encompasses all aspect required by law and in addition gives room for comments by the various persons whose inputs are required. Such persons include the Chief Fire Officer, the Town Planning Department, Water and Sewerage Department and the Public Health Department.

S 16(5) of the Building Code stipulates that no person shall occupy, use or permit occupation or use of any building before a certificate of completion has been issued by the Council in respect thereof. The Inspection Sheet used the Nairobi

City Council provides for the following areas in the details for notice to inspect: foundations excavated, foundations concrete, damp-proof course, site consolidation and concrete, drains test, lintols, floors, columns, man holes, stairs and beams. In the final inspection the Inspection Sheets provides for checking of the building with approved plans, testing the drains and manholes, testing plumbing installations, surface water drainage, culvert construction, water storage tanks, roof finish, cross ventilation, internal finishing, external finishing, moss clearance and clearance by the Chief Fire Officer.

The risks that are checked during construction and design of the building therefore include fire, flooding, structural defects, defective installations and risks associated to location. In risks associated with location of the building, planning permission associated with user, site coverage and plot ratio at checked during approval for building plans.

The Certificate of Occupation issued indicates the purpose for which the building was erected and authorizes the use of the building. The Certificate of Occupation implies no guarantee to workmanship and material used. This developer therefore is fully liable for risks associated with the building constructed which should have been checked during design and construction of the building.

Knock (1993) noted that there are numerous reasons for foreseeing increased risk because of new building technologies. One reason is the unprecedented possibilities for climate engineering, acoustic comfort, energy conservation, built-

in smartness, even artificial intelligence to save on human intervention and new techniques for transport and communication within the building and within the outside, clearly, all these advances entail risk of system breakdown.

Maginn and Tuttle (1990) observed that real estate returns are shaped by the interaction among several investment characteristics such as location, type of property, lease structure, financial structure, replacement cost, building obsolescence and property enhancement. The expected return in commercial real estate is related to systematic risk while unsystematic risk can be reduced by diversification.

2.3.1 SYSTEMATIC AND UNSYSTEMATIC RISKS IN REAL PROPERTY

Systematic risk in real estate is risk inherent in various economic scenarios. These risks include unanticipated inflation and tax factors.

1. Inflation. The extent to which a property is sensitive to inflation depends on the conditions of the lease, alternative assets available and the pricing attributes in terms of rent. Escalation clauses in lease agreements are aimed at taking care of the inflation factor.
2. Tax factors include tax exemptions and incentives given by the government. The Finance Bill (June 2001) introduced value-added tax to commercial property rent where landlords collect rents in excess of Kshs 3.6 million

annually. This is expected to affect the occupancy levels of buildings since the landlord will load the 18% VAT to rent payable.

Unsystematic risks are those associated with the lease structure of the said property, changes in interest rates, default risk and property analysis.

1. Lease structure. Maginn and Tuttle (1990) noted that long-term leases are faced with three types of risks, namely tenant default risk, interest rate or duration risk and inflation risk. Commercial property leases in Kenya are long-term leases of more than five years. The landlord and Tenant Act stipulates that for a property not to be termed as controlled the lease period must exceed five years. This necessitates the inclusion of rent escalation clauses to protect the real rental income from the property.
2. Change in interest rate. In case of long leases change in interest rate may or may not be beneficial. The relation between property prices and changes in interest rates depends on property characteristics such as the underlying leases, market for rental space, relation between inflation and nominal interest rates.
3. Default risk. While the owner or his agent prior to leasing checks the creditworthiness of a tenant, there is usually no attempt to analyse the likelihood of the tenant to default. Usually the tenant is under no obligation to supply additional information as long as the rent payments are not

delinquent. Properties with many leases have little unsystematic risk associated with tenant default.

4. Errors in property analysis. This involves real estate market research on the inventory of commercial space, demand for space and property performance among others. This enables evaluation of vacancy rates and changes in rental income.

Exposure and occurrence of risk results to loss of income and value of the property. Apart from loss of value for the property itself the property losses also include:

1. Cost of debris removal. This expense accompanies property damage and is the first step in restoring or replacing damaged property.
2. Demolition expenses. After damage has occurred in real estate, a portion of the structure may be left standing and would have to be demolished for any repair or replacement works to be undertaken. The cost of demolishing is in excess of the normal debris removal.
3. Undamaged property. In some cases, undamaged property may be rendered useless especially if its operations are dependent on the damaged property. This reduces the value of the undamaged property.
4. Increased cost of construction may result from extra precautionary measures that are put in place after an occurrence.

5. Going concern value. If the property is sold after a loss it may not achieve its going concern value as the price at the time of sale will be influenced by the loss.
6. Net income loss. The net income reduces as a result of decreased revenues and increased expenses. Decrease in revenue includes those associated with business interruption, reduced rental income and decreased collection of service charge where applicable.
7. Liability exposures. Legal liability loss may be incurred when a property owner is sued for having breached a legal duty by harming someone or is obligated under contract to pay for a loss. The property owner therefore may incur contractual liability or liability under the law of tort.

2.3.2 TYPES OF PROPERTY LOSS

Property refers to a bundle of rights that may emanate from the physical assets but independently possess certain economic values. In order to identify and measure the property losses the management of the property should be aware of the different kinds of interests that may exist and how they may be valued. The exposures that result from these interests are the property, and the net income, or liability exposure (Williams & Williams, 1989). The owner, creditors, suppliers or vendors, tenants, representatives of the owner, licensees and holders of easements hold interests in property.

Once the losses of a commercial property are identified the amount of risks must be valued in accordance to the basic measurement of values as recognised by property valuers. According to the principles of valuation the method of valuation is dependent on the purposes of valuation. Valuation methods adopted assume that the owner would like to repair or replace the damaged or destroyed property. The values that may be obtained include the market value, the replacement cost value, the replacement cost new less physical depreciation and obsolescence and, the book value.

Losses in property emanate from non-use or abuse of the property. This arises in case of voids, deterioration resulting from wear and tear and lack of proper care or management of the property. These losses translate to loss of revenue and increase in expenditure. Consequently there is loss of value of the property. The losses that a property is exposed to include the following.

1. Reduction of revenue

a) Loss of rental income: When a building is accidentally damaged or destroyed and the tenant is not responsible for payment of rent during that period of time the building is untenable, the landlord loses the rent, less any expenses, for the time necessary to restore the property. However, there will be no loss if (Toit & Rooyen,1998):

- 1) the damage portion of the property was not rented and would not have been rented to a tenant during the time needed to restore the property;

- 2) the damaged portion of the property is so small that it does not reduce the rental income derived from it and;
- 3) the lease agreement or an applicable statute obligated the tenant to continue paying rent despite the damage.

b) Business interruption: A business interruption loss can be equated to loss of profit as a result of interruption and the expenses that continue after the interruption. This is applicable especially in the case of buildings where the owner operates business in it. In this case the users own the premises, then the premises becomes an integral part of their business operations. Business interruption occurs when assets that are damaged or taken, might cause such a shutdown. The loss caused by such a business interruption would be:

- 1) the net profit the business would have earned if there had been no interruption and;
- 2) the expenses that continue despite the interruption.

The period of interruption will vary according to the assets damaged and the nature of direct and indirect loss.

c) Contingent business interruption. Some properties may have one main tenant who lets up to seventy per cent of the space and if the tenants business operations are interrupted or the tenant is fails to meet their financial obligation this amounts to contingent business interruption. On the other hand, when the loss or other business-halting event occurs away from the

premises and causes it to lose revenue or face increase costs, the resulting loss of net income is the contingent business interruption. It depends upon how much the property depends on a single tenant, and the susceptibility of the tenant to interruption losses. The consequence of contingent business interruption is the reduced profits and continuing expenses.

2 Increase in Expenses

- a) Cost of Service Charge. Where a premises is vacant due to damage or accident the owner bears the cost of service during the period which the premises is vacant. These costs translate to the costs to the landlord. They include security in the building, cleaning of the common areas, water and electricity power used in the common areas, maintenance and repairs of the common areas among others.
- b) Rental value losses. If a business that owns property cannot occupy the structure due to accidental physical damage, the owner loses the rental value of the building for the time it takes to make repairs. The rental value loss can be measured by the cost of equivalent premises elsewhere less non-continuing expenses (Williams & Heins, 1989). If business operations are interrupted until the building is repaired, the rental value exposure is included in the business interruption exposure. In case of operational buildings, if the owner wishes to continue operations in another location, the rental value exposure becomes part of the extra expense.

c) Extra expenses. These include cost of moving to and from temporary quarters, the extra rent for those quarters and other expenses associated with relocation of business. In addition to extra expenses the business will incur costs to expedite repairs thus reducing the period which operations are carried out elsewhere or the period which the business is interrupted. The extra expense ensures that the operations of the business continue despite damage of premises. For example the relocation of Co-operative Bank of Kenya, Co-operative House Branch to Canon House to after the August 8th 1998 bomb attack was aimed at continuing operations despite property damage at substitute facilities until the premises have been repaired.

2.3.3 LIABILITY LOSS EXPOSURES

Liability risk is the unintentional injury of other persons or damage to their property through negligence or carelessness (Toit & Rooyen, 1998). Liability may also result from intentional injuries or damage. Liability risks therefore involve the possibility of loss of present assets or future income as a result of damage assessed or legal liability arising from either intentional or unintentional injury. There are two types of legal liability, these are the civil liability and the criminal liability. In risk response of commercial properties one is bound to come across civil liability more often than criminal liability.

Civil liability is one brought by one party against another for alleged wrong doings. According to Williams & Heins (1989) civil liability may arise from a)

contract or similar agreement, b) from an act of omission of tort, c) from fraud, error, mistake and such equitable actions and d) some actions and remedies that do not fall in the first three categories.

Property owners have legal liability to occupants and visitors of the building depending on their status. Williams & Heins (1989) noted that liabilities to visitors to land are placed the classifications under-listed:

- 1) Liability to trespassers. A trespasser is one who without authority goes into private property without invitation or inducement. The owner of the property or lawful possessor must refrain from doing anything intentionally to injure the uninvited visitor, and in some jurisdictions the owner must use reasonable care for the trespasser's safety, including warning the trespasser about hazardous conditions known to the owner but not apparent to others.
- 2) Liability to licensees. The common law holds that the possessor of land does not owe a licensee any duty to make the premises safe for his or her reception. On the other hand, the licensee is entitled to the same obligations as are owed to a discovered trespasser. While the licensee is required to accept the premises as the possessor uses them, he or she is entitled to know the dangers the possessor knows. Licensees include police, firefighters, door-to-door salespersons, solicitors for charity, and persons entering the building without objection of the owner to shelter from rain.

3) Liability of invitees. An invitee is a visitor to the premises for the benefit of the owner or occupier of the premises as well as her or himself. The common law generally imposes a duty of reasonable care to make the premises safe for anyone accepting an invitation to do business thereon.

A property owner is also subject to vicarious liability. This may arise from (William & Heins, 1989):

- Activities of the agents or employees of the property owner such as the property manager, caretaker or other personnel employed to take care of the building.
- Activities of independent contractors. The employer is held to be strictly liable for injuries or damage suffered by a third party and caused by the independent contractor's activities.
- Liability under contract. The owner of the property assumes under contract liability for losses to others for which they would not be ordinarily liable unless under contract.
- Statutory liability imposed by legislature.

2.4 RISK RESPONSE IN COMMERCIAL PROPERTIES

Dickson (1984) divided risk control into two categories, that is the physical control of risk and the financial control of risk. The physical control involves

risk reduction, which is associated with removing some or all uncertainty. This includes elimination and minimization of risk. Financial control of risk is in form of retention and transfer of risk.

Carey & Turnbull (2000) noted that controlling risk depends on mastering it and weighting its consequences. The view that we can reach the future to bring it under control is one of the most audacious advances in history of humanity. The kinds of risks it considered acceptable, should be examined as well as the likelihood of their materialising and the ability to reduce their impact if they do occur bearing in mind the costs and benefits of particular controls.

According to William and Heins (1989) there are two approaches in risk response. These are:

1. Risk control measures. These measures are carried out primarily to reduce the expected property and liability losses and to make the annual loss expected more predictable. They include avoidance, loss control, separation, combination and transfer.
2. Risk financing. These are measures of financing losses. Funds may be required to repair or restore damaged property and to settle claims. The tools of risk financing include transfer in form of insurance and retention which translates to self-insurance.

2.4.1 RISK CONTROL TOOLS

- i, Avoidance. This is a way of controlling pure risk by avoiding the activity associated with the exposure. This is by not assuming the exposure or abandoning an exposure assumed earlier. It is a useful and common tool in handling risk as by avoiding a risk exposure one is certain that the potential losses or uncertainties that the exposure generates will not be experienced. On the other hand, one loses the benefits that may be derived from the exposure. Avoidance may be impossible as the potential benefits to be gained from taking the risk may outweigh the potential losses and uncertainties involved. In addition, avoiding a risk may create another.
- ii, Loss control measures. These lower the chance that a loss will occur by reducing its severity if it does occur. They include loss prevention and loss reduction measures. Loss prevention measure may be illustrated by the chance of fire loss being reduced by fire resistive construction. Loss reduction involves minimisation program which tries to limit the amount of loss and salvage program which becomes effective after the loss has occurred and aims at restoring economic usefulness of the asset.
- iii, Prevention. It is aimed at reducing the chance of risk occurring and making the loss experience more predictable. This includes separation and combination of risks. By separation the maximum probable loss of an event is

reduced and one is able to predict losses better. Combination too makes loss more predictable and increases the number of exposures under control

iv, Transfer. This may be carried out by: transfer of the property of activity responsible for risk to some other person; the risk and not the property or; activity may be transferred such as through lease agreements where tenants may shift certain obligations to the landlord and vice versa and; canceling obligations that the transferor has assumed for losses to others. In risk control transfer the transferee excuses the transferor from responsibility for property or personnel losses of the transferee. The exposure itself is eliminated. Some risk control transfers limit but do not eliminate the transferor's responsibility.

2.4.2 RISK FINANCING TOOLS

i, Transfer. Through risk financing transfers, the transferor seeks external funds that will pay for losses that do occur. The main mode of transfer in risk financing is insurance, other non-insurance transfer methods are surety bond and performance bond. Insurance is a risk-financing tool for management of pure risks. Non-insurance financing techniques differ from insurance in that the transferees are not legally insurers and usually do not accept enough exposure units for their units to be fairly predictable (Williams and Heins, 1989).

Non-insurance risk financing transfers are accomplished through provisions in contract. These contracts transfer financial responsibility for direct property or net income losses. Non-insurance transfers include transfer of a tenant or landlords financial responsibility for damage to the rented property to a third party, surety bonds where a surety guarantees the principle (obligor) that he will carry out some express obligations to a third party (the obligee). Through the bond the obligee transfers the risk that the obligation will not be met to the surety.

ii, Retention. It is passive or unplanned method of response where the risk manager is not aware that the exposure exists and consequently does not attempt to handle it. Few property managers or owners are able to identify all their risks to property, liability and personnel losses, consequently some unplanned retention is common and almost inevitable. Retention said to be planned when the method of handling the risk is considered. In some cases retention is the only tool that can be used where loss cannot be prevented or avoided and there are not transfer possibilities. Retention would be favourable to insurance if:

- ◆ It bears lower expenses than the insurers expense loading.
- ◆ It has lower expected loss than the insurer's estimate.
- ◆ There are many exposure units so that the risk will be low and the firm will be able to predict its losses with acceptable accuracy.

- ◆ There is a small possible or probable losses.
- ◆ The financial ability to sustain maximum possible or probable loss in the short run.
- ◆ The risk management objectives accept wide variations in annual losses.
- ◆ The expense and loss payments extend over long period of time, resulting in large opportunity costs.
- ◆ There are internal or non-insurer servicing advantages.

Insurance

Insurance is the process of whereby the responsibility for financing losses that occur is transferred to a professional risk carrier or insurer (Toit & Rooyen, 1998).

Insurance is the protection against financial loss provided by an insurer. Dickson (1984) defined insurance as a risk transfer mechanism, whereby the individual or the business enterprise can shift some of the uncertainties of life on the shoulders of others.

The benefits of insurance include:

- a. Indemnification for those who suffer loss. They are restored to their former economic position.
- b. Reduction of uncertainty by eliminating the insured's risk and uncertainty, and reduces total risk in society.

- c. Insurers make more funds available for investments than insureds who save in case of a loss.
- d. The insurance industry facilitates loss control by being involved in various loss control activities.

Costs of insurance.

- a. The expenses borne by the insurance company plus their profits and contingencies by insurance companies are loaded to premiums charges. This makes insurance covers expensive.
- b. Creation of moral hazards where a person may intentionally cause a loss or increase the severity of the loss.
- c. Morale hazard. A morale hazard is a condition that causes persons to be less careful than they would be. The fact that a loss is insured may cause one to take chances that he would ordinarily not have taken.

2.4.2.2 Retention and insurance

Risk control measures are used in conjunction with risk financing methods. Risk financing methods are retention and transfer. In selection of risk financing methods, the following factors should be considered (Williams and Heins, 1989).

1. Expenses. Insurance premiums are paid in two parts: the loss allowance equal to the expected losses and the loss allowance that covers the expenses providing some margin for profit and contingencies. By retaining the

exposure one is able to save the expense and profit loading charged by the insurer. In considering the potential saving one should consider the additional risk analysis services provided by the insurance company.

2. Expected losses and risk. If the expected losses are less than those assumed by the insurers calculating the premiums, one may reason that in the long run they can save the difference between the two loss estimates.
3. Opportunity cost. This involves the timing of payments relative to the alternative losses and expenses. If the business reasons that the premium will be the same or less than the alternative losses and expenses, it might prefer to retain the risk. Retention becomes favourable when the time lag between the premium payment and the alternative loss and expense payments would permit it to earn an attractive rate of return on the declining balance of funds not yet spent for losses or expenses.
4. Quality of services. It is argued that many of the services provided by insurers can be better performed internally or through an agent. The main advantage claimed by retention is that the firm itself is more highly motivated to control losses when it will bear the losses itself.
5. Tax considerations. Insurance premiums are deducted as a business expense while in retention one can only deduct the actual loss.

2.5 SELECTION OF RISK RESPONSE TOOLS

Due to the rapid changes in the risk environment there is need for quick responses to immediate problems. Periodic reviews of the total risk are required to revise the initial objectives of the owner such as the objective of wealth maximisation, and to check compliance with those objectives. There are various approaches to total risk planning. According to Williams and Heins (1989), these are insurance method, the loss matrix method, the worry method, the critical probability method and the break-even probability method.

2.5.1 METHODS OF SELECTING RISK CONTROL TOOLS

2.5.1.1 Insurance method.

Insurance is the main basis for the analysis. After the risks have been identified and the potential losses measured a list is prepared for insurance coverages that would best cover the losses. This method takes the following steps.

- a. Initial listing. Where the manager determines the combination of insurance coverages that would provide the best protection against losses the property is exposed to. The assumption is that the property owner would prefer to buy insurance whenever it is available. The objective is to provide the most complete protection at the lowest cost. This method alerts the manager of the risks that are not insurable. The insurance coverages are divided into three groups: essential coverages such as those required by law; desirable coverages for losses that would seriously

impair operation and; available coverages for losses that would inconvenience the property owner such as plate glass cover.

- b. Revised listing. Once the initial stage is completed, certain losses may be removed from the essential coverages category such as: losses that can be transferred to someone else other than the insurer; losses that can be prevented or reduced so that they are no longer severe and; losses that occur frequently and fairly predictable thus can be self-insured. For the desirable coverage non-insurance methods can be used, as the consequences of not insuring are not so severe, though insurance is desirable. The available contract category is of the lowest priority and insurance may be purchased for the purpose of other services given by insurance companies.

The revised listing should depict how each tool should be used to handle the risks the property faces as follows:

- A. Avoidance (not possible)
- B. Loss prevention and reductions
 - 1) Safety inspections of premises.
 - 2) Annual physical inspection of key employees.
- C. Retention.
 - 1) Losses up to \$1,000 of any type.

2) Liability losses in excess of limits available from insurers.

D. Non-insurance transfers

1) Hold-harmless agreement in lease of premises.

E. Insurance (with \$1,000 deductible where available)

1) First priority (essential)

a) Workers compensation insurance.

b) Liability insurance.

c) Property insurance.

2) Second priority (desirable)

a) Automobile physical damage insurance.

b) Disability insurance for key personnel.

3) Third priority (available)

a) Glass insurance.

b) Leasehold insurance.

Source: Williams and Heins (1989)

2.5.1.2 The Loss Matrix

This is a structured approach to identify outcomes. It entails construction of a loss matrix or table that identifies the losses and expenses associated with each possible decision and outcome. The matrix shows the possible decisions and the

loss the property will suffer under each decision. It also shows the probability that a loss will occur with out risk control and with risk control. If the business retains the potential accidental losses, it would incur no expenses and would suffer no loss if the loss did not occur.

In this method the risk manager's objectives are divided into two categories: those objectives that assume that the risk manager does not estimate probability distribution in of accidental losses and; those objectives that assume the risk manager does estimate the distribution.

- 1) Probabilities not estimated. This category considers the following objectives:
 - a) Maximise the minimum potential loss during the period. This is the minimax approach to risk where the worst possible loss is protected against regardless of the outcome. This objective is conservative in most instances and it usually leads to purchase of insurance premiums.
 - b) Minimise the minimum potential loss. In this case the risk manager wants the lowest possible loss no matter the outcome. This leads to selection of a decision producing the minimum loss for that outcome. Insurance is hardly used in this method.
- 2) Probabilities estimated. This involves use of probability distribution.
 - a) Minimise the loss associated with the most probable outcome. In situations regarding one exposure, retention without loss control may be favoured since the probability of no losses is more than half. In case of an

occurrence the consequences may be drastic. If accidental loss occurs the most probable outcome is usually less than the maximum probable loss.

- b) Minimise the expected tangible loss. In the long run this leads to the smallest average tangible loss. This objective entails computation of the expected tangible loss associated with each possible decision. This is the sum of the product of each possible tangible loss and the probability that the loss will occur.
- c) Minimise the expected total loss. This objective corrects the deficiency of 'b' above. For each decision the expected total loss i.e. tangible and intangible loss, is the expected tangible loss and the dollar cost the risk manager assigns to the worry and anxiety he or she will experience due to the uncertainty under that decision. The worry value is subjective and depends of the probability distribution of the loss. The worry value should reflect the importance of potential losses and the risk attitudes of the business. For example:

Table 2.1: Expected total loss with introduction of worry values

Risk response	Cost (\$)	Worry value (\$)	Total cost \$
Retain	5,760	4,000	9,760
Retain and introduce loss control measure	5,340	3,500	8,840
Purchase \$50,000 insurance	7,920	2,000	9,920
Purchase insurance cover of \$ 500,000	8,400	0	8,400
Purchase insurance cover of \$500,000 and \$5,000 deductible	7,980	300	8,280

Adapted from Williams and Heins (1989)

If the risk manager lacks confidence in certain tools or regards the risk to be of high probability the worry values become larger.

2.5.1.3 Worry method

It is a method used when the risk manager can estimate the probability distribution. Worry values are established for loss control and risk financing tools. Non-insurance transfers should reduce the worry value unless protection is incomplete or concerns exist over the ability of the transferee to honour his obligations.

2.5.1.4 The critical probability method

The risk manager estimates the probability distribution of the losses that can be insured, then specifies the risk he is willing to take. For instance in selecting between insuring and retaining, if the probability that the losses will exceed the premium savings is more than the critical probability, it is better to insure.

2.5.1.5 Break-even Probability Method

This method relates to both the critical probability and the worry method. In this method the risk manager calculates the break-even probability using the insurers premium schedule and considers how frequently a loss should take place so as to break-even. If the loss occurs more frequently than anticipated then the coverage

is a bargain. If it occurs less frequently than anticipated the risk-averse manager will want to purchase a less costly coverage.

2.5.2 CONCLUSION

The most widely used method in selecting risk response tools is the insurance method. This method has long been related to risk management and has been considered as the primary method of risk control. It enables one to incorporate other risk response tools where insurance is already being used as a primary consideration. The loss matrix on the other hand introduces the effects of various decisions to the impact of risk and the magnitude of loss.

The loss matrix contains approaches in which probabilities are considered such as those that minimise the loss, those that minimise expected tangible loss and those that minimise expected total loss. The approaches that do not consider probabilities are those that maximise the minimum potential loss and those that minimise the minimum potential loss.

The worry method introduces the aspect of the individual property owner's worry and anxiety over the risks in question. This method represents the perspective of the property owner towards risk and her/his confidence in the various risk response tools considered. The critical probability and breakeven probability methods enable one to select between two risk response methods or whether to take up a particular risk response method. As such these two

methods are best applied where one is limited on the choice of risk response tools available.

The approach that minimises the expected total loss under the loss matrix method is the most preferred as it considers all risks and gives regard to the worry value associated with the risk response tool being used.

2.6 COST OF RISK RESPONSE TOOLS

The cost of risk response may be an operating expense or a capital expense depending on the risk response tool used. Premium savings, a saving in claim costs and maintenance are cash savings or outlays which are assumed to have effect on the taxable income (Williams and Heins, 1989). The costs associated to a property and its revenues are best projected by use of cash flows. The cash flows must be forecast for the period of time during which the investment is held.

The sources of cash flows in real-estate investment are the annual cash flow from rental collections or from sale of the property and costs of operating and /or selling space or property. A cash flow may be an outlay or a saving. For instance the cost of risk response may be an operating expense in case of risk finance or a capital expenditure in the case of risk control but it affects the cash position of the owner of the property.

Discounting these cash flows to the present is a major criteria for decision making. It is based on the concept that the value of real estate investment is

equal to the present worth of the future cash flows. According to William and Heins (1989), the effect of risk adjustment when estimating present value of annual flows can be derived from the sum of the present values of for instance the premium savings and savings on claim costs less the present value of maintenance costs in respect to the tool selected.

This can be represented as hereunder:

$$A = \sum (PvS - PvM) \quad \text{where } A \text{ is present value of annual flows}$$

PvS is the present value of savings

PvM is the present value of maintenance costs

For an investment on a loss control tool to add value to the property, it must have a positive present value of annual flows. Whether the investment on a loss control tool such as a sprinkler system has increases value of the investment depends on the present value of the annual flows of the sprinkler and the rate of return used to discount the cash flows.

2.6.1 RISK MANAGEMENT AND THE VALUE OF THE PROPERTY

The value of a property (using the income approach) is the sum of annual discounted cash-flows over a period of time. The discounted cash flow is often used to account for risk and uncertainty. Accounting for risks leading to financial loss is carried out by use of the discounted cash flow method. This method accounts to risks that result to loss of value of the property. Due to the

relation of risk and return discounting has been carried out using the prevailing rate of return.

Jaffe and Sirmans (1995) listed the techniques used in discounted cash flows to include: conservatism, risk adjusted discount rates, certainty-equivalent approach, measures of variability, the decision trees and sensitivity analysis, probabilistic modeling and simulation and the modern capital market measures.

1. **Conservatism.** This is assessing of risk so as to choose low estimates of cash benefits and high estimates of cash outflows (costs) and evaluate the net benefits using a relatively high discount rate. The disadvantage of this method is that if the estimates used are more conservative than what is believed to occur and the aim is to maximise wealth, then some projects that would be acceptable in normal circumstances will be avoided.
2. **Risk-adjusted discount rates.** In investment decision making the general theory is that risk and expected return are directly related to each other. As such the nominal interest rate increases as risk is incorporated in the discount rate. It is however difficult to assess the discount rate levels for each type of investment decision and increase in rates upon perceived increase in risk levels.
3. **Certainty-equivalent approach.** This is an alternative to risk-adjusted discount rates. This approach argues that it is easier to account for the risk associated with the likelihood of the cash flows than it is to account for the

time value of money using risk-free discount rates. This approach provides a conceptual basis for accounting for risk that is consistent with traditional methods and it is easier to use as the time value for money and risks are treated separately. It is easier to derive investment results when risk is not constant over time (Jaffe and Sirmans, 1995).

4. Measure of variability. Traditionally the measure of risk and uncertainty has been the variability of cash flows from the expected values. Variability has been measured by use of variance and standard deviation. These methods use deviations of outcomes from expected values to measure degree of variability around the mean.
5. Decision tree and sensitivity analysis. The decision tree requires the analyst to estimate the likelihood of each expected outcome at every expected decision point in the future. It is helpful in judging the input of various investment decisions. Sensitivity analysis is the estimation of investment values by systematic alteration of inputs. It depicts the sensitivity of value of return to changes in certain input values. (Jaffe and Sirmans, 1995).
6. Probabilistic modeling and simulation. It is an extension of the decision tree and sensitivity analysis. It involves the use of subjective probability distribution around various input variables. The analyst may estimate the distribution of outcomes around gross income, expenses and, debt servicing among others.

7. Modern capital market measures. This method involves integrating risk and return into the modern capital market approach. This is by measuring the risk of a property as a function of variability with other investments i.e. co-variability. Risk of real-estate investment is therefore viewed as a function of the relationship between the expected returns of one investment and the expected returns of other investments.

2.6.2 COSTS OF RISK RESPONSE MEASURES

Each risk response tool has its costs. The costs are initial costs and recurrent costs that are incurred in maintaining the response tool. The costs associated to some of the risk response tools are as follows.

1. Williams and Heins (1989) categorised costs of installing and maintaining loss control measures as:
 - a. Capital expenditure and depreciation on construction features such as fire walls, and equipment such as sprinklers and hose extinguishers.
 - b. Expenses in respect to human resources such as guards, safety supervisors, fire fighters, consultants, engineers and contractors among others.
 - c. The program expenses such as cost of manuals and other training aids, employees time in training periods, inspections and preventive maintenance.

2. In risk financing the cost of retaining is the cost of the occurrence and cost of the loss. The cost of loss according to Toit and Rooyen (1998) is the cost of potential loss made up of lost production costs and repair costs among others and the cost of reducing the cost of reducing the loss frequency or the consequences.
3. The costs of insurance and a method of risk transfer is the cost of the premium. Toit and Rooyen (1998) noted that from the insurers point of view the level of premium charged to the insured should be sufficient to balance the following:
 - i, The cost of claim payments.
 - ii, Loss adjusted expenses.
 - iii, Acquisition costs of new business.
 - iv, Reinsurance expenses.
 - v, Administrative expenses.
 - vi, Profit.
 - vii, Reserve for outstanding claims (this includes funds, which are for those incurred but not reported).

2.7 CONCLUSION

Carey & Turnbull (2000) stated that it should be examined the kinds of risk considered acceptable, the likelihood of their materialising and the ability to reduce their impact if they do not occur. One should bear in mind the costs and benefits of particular tools of risk control. A well thought out process of identifying and evaluating risk is the foundation of an effective control system. The types of risks faced should be considered, be they strategic, operational or financial. Responding to risk depends on mastering it and weighting its consequences.

With the increasing importance of sound risk management risk analysis methods, models and software have been designed to enable objective decisions regarding risks to be made. However, obtaining the right answer depends on specialist expertise. Judgements must be made, in some cases based upon hard data, and in some cases based on sound conventional guidelines, and in other cases based on creative innovation and well schooled intuition rooted in a wide range of relevant experience (Cooper, 1987). Risk management helps provide an integration between economics, finance, environmental issues, contractual issues and legal issues that is necessary in selection of the appropriate risk response tools.

The selection of risk response tools is dependent on the risks that the property is exposed to and the priority given to those risks and the amount the property

owner is willing to invest into risk response. Considering the frequency and the impact of a risk and the property owner may opt to retain it or avoid it altogether. The property owner should not only look at the tangible loss that may result to an occurrence but the total expected loss of an occurrence. This way the best method to use in selecting risk response tools is that which aims at minimizing the total expected loss as depicted in the loss matrix method.

The overall objectives of a property owner when selecting the best combination of risk response tools are:

- To minimise the total cost of risk response tools used;
- To eliminate or reduce the likelihood of an occurrence;
- To minimise the impact or loss resulting from the occurrence when it occurs;
- To add value to the property through use of loss control measures and;
- To reduce worry and anxiety related to the risks the property is exposed to and the risk response tools selected.

In achieving these objectives the property owner has to consider both risk control methods and risk financing methods that may be used to minimise loss and add value to the property.

CHAPTER 3

THE PRACTICE OF RISK RESPONSE IN COMMERCIAL PROPERTIES IN KENYA

3.1 INTRODUCTION

This chapter seeks to establish the risk response tools currently used in commercial properties within Nairobi. In order to establish these tools, the risks that commercial properties are exposed to after occupation of the building will be identified first. The variables considered in this study are risk, risk response tools and factors influencing selection of risk response tools. In establishing the best combination of risk response tools this chapter will consider why certain risk response tools are selected against others and the costs associated with certain risk response tools.

Commercial properties are also exposed to various risks that can be checked at the design stage and construction stage. These risks are responded to by following the regulations set out by the Local Government adoptive by-laws such as the Building Code and various statutes such as the Physical Planning Act of 1996 and the Environmental Monitoring and Control Act of 1999. The Local Authority gives approval for occupation of the building based on its compliance with the requirements of the statutes and by-laws.

This study limits itself to risks that commercial properties are exposed to once the properties are complete and occupied. The objectives of this study are: to

identify risks commercial properties are exposed to; to establish ways of responding to the risks identified in commercial property; to determine the criteria used to select the risk response tools and; to recommend the most effective methods of risk response in commercial properties.

This study seeks to establish the optimal methods of responding to risks commercial properties are exposed to after occupation. In so doing, the study will determine the factors that influence the selection of tools used in responding to the risks that commercial properties are exposed to. Cost is considered to be a major factor in selecting the risk response tools. This study hypothesizes that the choice of risk response tools is directly influenced by its cost.

This chapter seeks to meet the first three objectives on the practical situation using the information obtained from the field survey. These objectives are: to identify risks commercial properties are exposed to; to establish ways of responding to the risks identified in commercial property and; to determine the factors influencing selection of risk response tools.

This information was collected by use of interviews and questionnaires administered to Property Managers of thirty commercial properties within Nairobi that were randomly selected. Further information was collected by discussions held with persons carrying risk management and randomly selected users of commercial properties. Information on the local authority requirements

regarding risks that are checked at the design stage and construction stage was collected from Nairobi City Council.

The literature reviewed in chapter 2 above provides a conceptual framework on risks, risk management, the risk management process, risk response tools, selection of risk response tools and costs of various risk response tools. The aim of this chapter is to gather information on the practice of risk response in commercial properties giving consideration to the conceptual framework formed in chapter 2.

3.2 RESEARCH METHODOLOGY

3.2.1 RESEARCH DESIGN

This study is a survey that investigates the practice of risk response in management of commercial properties in Nairobi. The survey collected data on the risks response tools used to respond to the various risks that commercial properties are exposed to. This includes both primary and secondary data from thirty randomly selected commercial properties within Nairobi.

Through this survey data was collected on the risks that commercial properties are exposed to, the tools used to respond to those risks, recent occurrences, the frequency and severity of the risks that occurred in the recent past. The occurrences recorded were those between 1997 and 2000, both years being inclusive. This survey sought to relate the risks identified with the various risks

response tools established in the conceptual framework in chapter two of this study.

The outputs of the survey include:

1. The risks that commercial properties are exposed to after occupation.
2. The risk response tools that property managers in commercial properties use to control or respond to those risks.
3. The factors considered when selecting the risk response tools used.
4. The most effective methods of responding to risks.

3.2.2 POPULATION AND SAMPLE

The population of this study is commercial properties within Nairobi. These are properties that are used as shops, offices and catering establishments as stipulated in the Landlord and Tenant Act (shops, hotels and catering establishments) Cap 301, Laws of Kenya.

The target properties are those managed by qualified property managers who have attained a Bachelor of Arts (Land Economics) from the University of Nairobi or its equivalent. This population was targeted because the property managers were thought to have better understanding of risks and the implication of occurrences and risk response on the property's profitability and their influence cash-flows.

The sample consists of 30 properties randomly selected from the target population. Due to the time constraint only thirty properties were studied and are a representative of the target population as a sample of less than thirty may not represent the characteristics of the population in question.

This study assumes that every commercial property occupied has been issued with a Certificate of Occupation from the Nairobi City Council. The population of this study is commercial properties within Nairobi that are occupied and managed by professional property managers. The population of this study being occupied properties that have gone through various approvals the at Nairobi City Council. The requirements were found to include prevention of risks such as fire, floods, and structural defects among others as detailed hereunder.

3.2.3 INSTRUMENTATION

Data for the purposed of this study was collected by use of questionnaires and interviews with property managers and discussions with persons in the field of risk management. The questionnaires were tested to ensure that they were valid and clear to the respondent. The questionnaires were also tested to ensure that the questions asked met the objectives of this study.

The questions raised in the questionnaire were developed from issues raised through the conceptual framework concerning the selection of risk response tools and the usefulness of risk response tools selected in responding to risk. Though

not all information was accessible with the given time period, the questions raised gave the relevant information that was necessary in meeting the study objectives.

Discussions were held with property managers prior to administering questionnaires so as to assess the willingness of the property managers to give information and the interest they have on the study area. The researcher, in person administered the questionnaires to those who had shown interest and willingness to participate in the study by filling out the questionnaires. Interviews were held to collect information that was readily available and the respondents were left to fill out the questionnaires for the detailed information required.

Secondary data on the risk aspects considered prior to occupation of the building were obtained from Nairobi City Council. This formed a basis on which to establish the risk areas considered during building design and construction that are of consequence in risk management and more so in risk identification and response in commercial properties. Secondary data was also obtained through discussion and interviews with various persons in the field of property management and risk management.

3.2.4 DATA COLLECTION

Data was collected by use of questionnaires, discussions and studying records. A structured questionnaire was administered to property managers of the sampled commercial properties. Each questionnaire filled represented one commercial property. Each questionnaire was accompanied by a cover letter to the respondent informing them of the study area, purpose of the study and requesting them to provide the researcher with the information needed in the questionnaire. The letter also assured the respondent that the information given will be used for research purposes only and will be held as confidential.

Further information was gathered by interviews and discussions on areas that may not be common to all properties but are pertinent to the study, such as, risks in owner occupied buildings where the building is constructed to conform to user needs. The interview also aimed at providing information on the objectives of the property owner and the strategies adopted to achieve these objectives.

The aspects considered in data collection there were of importance to the study include:

- ◆ risks that the commercial properties are exposed to;
- ◆ the risk response tools used by the property management;
- ◆ The factors considered when selection of risk response tools;

- ◆ The risk that have occurred in the recent past as a result of occurrences of a risky situation and whether the risk response tool selected assisted in reducing the loss incurred.
- ◆ Whether the costs of risk response tools have an effect on the cash flows of the property and thereafter the profitability of the property.
- ◆ Whether the cost of risk response tools are borne by the landlords, tenant or a third party;
- ◆ The overall objective of the property owner and its effect on cause and effects risks in commercial properties.

The researcher collected the questionnaires after confirmation that the respondent had filled what was applicable to the building in question. This was to ensure that no areas had been left out unanswered unless if they did not apply to the building in question or information on those areas was confidential and would not be disclosed. This confirmation was found necessary as it satisfies the researcher that all information relevant to the study had been collected to the best knowledge of the respondent.

Clarification was sought from the respondent on areas that were not clear. However, not all respondents were familiar with the discipline of risk response and this was a major shortcoming to the study as more time was taken in receiving having the questionnaires filled.

3.2.5 DATA ANALYSIS

Data collected for the purposes of this study was analysed with the aim of addressing the objectives of the study and to test the hypothesis of the study. Descriptive statistics were used to establish the variables in question. The variables in this case being:

- ◆ The risk the property is exposed to;
- ◆ Risk response tools and;
- ◆ The factors influencing selection of risk response tools.

The risks with the highest frequency occurrence were identified as those that properties are often exposed to. The analysis considers the risks that are responded to, as they are the loss-causing factors that property managers perceive as risks that properties are exposed to and require to be responded to. The analysis further considers other loss causing factors that property managers do not consider to be worth responding to either due to the fact that the value at risk or the estimated loss resulting from an occurrence is very little and are therefore not considered as risk to the property.

Upon identification of risks the analysis then takes into consideration the tools that property managers use to respond to risks. The tools that are used most often are determined through frequency distribution. By weighting each tool in terms of how often it is used to respond to the risks that property is exposed to,

the researcher is able to establish the tools that are of more importance to the property manager.

In determining the criteria used to select these risk response tools the researcher used frequency distribution to establish the most popular criteria. Upon identification of the criterion that is most often used the study hypothesis was tested to establish whether cost is the basis of selecting risk response tools.

The analysis used the problem tree and the objectives tree to portray the importance of risk response to the risks that commercial properties are exposed to after occupation. The problem tree identifies the causes and effects of risks identified while the objectives tree analysis the objectives of the property owner and how they can be achieved.

Data collected from interviews and secondary data was analysed qualitatively as it is not quantifiable. The information collected was used to complement the qualitative analysis of this study. The secondary data collected from the perusal of records and documents provides additional information that may not be available from primary data due to the time frame within which this research had to be carried out.

The data from the field survey is presented in four parts: demographic information; risks that commercial properties are exposed to; risks response tools used in commercial properties and; the factors influencing selection of risk response tools.

3.3 FINDINGS FROM FIELD SURVEY

All the properties studied had multi tenancies ranging from 4 to 74 tenants in each building (see annexure iii which is the data capture sheet). Twenty-five percent of the properties had owner occupation. Ten percent of the properties out of the total sample had in-house property management the rest of the properties had out-sourced management to property management firms with a qualified property manager being in-charge. All the properties had more than four stories. Apart from one, which is a hotel, all others are predominately use offices and retail shops on the ground and mezzanine floors.

In all the samples studied, the property managers are managing agents for the landlord and not for the tenant. The instructions to manage therefore were received from the Landlord who is the investor. The property managers perform their duties to the best interests of the Landlord, which include obtaining maximum revenue at the least expense. Where the management of the property is in-house the property manager acts in the best interest of the employer, which is to ensure that the asset brings in optimum income at the lowest expense.

The age of the properties sampled ranges from 2 years to 50 years. The buildings are all functional and in use for commercial purposes. On average duration for leases is above five years in all buildings, therefore all the properties sampled are expected not to have controlled tenancies.

3.3.1 RISKS IDENTIFIED

Commercial properties within Nairobi are exposed to the following risks:

1. Floods. This was found to occur especially in basements as a result of poor drainage of surface water or seepage of water from the ground into the building. The losses associated with flooding include destruction of goods and property stored in the basement and the expenses incurred to pump out the water as well as make good the area. Loss of income arises especially in parking area where the licensees refuse to pay for the period of time they have not parked their vehicles in the basement. In cases of rented space the lease agreements stipulates whether the tenant should or should not pay rent. In 30% of the properties flooding had recently occurred out bust water storage tanks or faulty water plumbing systems and accessories. This was associated to poor workmanship, sub-standard material and deterioration over time caused by wear and tear. The properties prone to flooding resulting from wear and tear were those mainly constructed over twenty years ago.
2. The risk of fire was found to have the highest number of occurrences and upon an occurrence it incurs high losses. The occurrence of fire has been attributed to electrical fault, negligence, arson, fire spread from neighboring buildings, activities of tenants and combustible materials stored in the building. The materials used to finish the building in terms of upholstery,

partitions and absence of fire fighting and detection systems were found to be the cause of increased severity and spread of fire.

In two of the properties which had a recent incident of fire, the cause of fire was attributed to waste paper being disposed off carelessly. Within this year three occurrences of fire have been recorded in the local press to have occurred in commercial properties and the cause of fire has been electrical faults.

Training in use of fire fighting equipment was carried out mainly to those who carried out duties related to management of the building. Only in the buildings that are owner occupied were the users trained on use of fire fighting equipment and evacuation.

3. Theft was found to be common in properties with more than 20 tenants occupying an average of less than 2000 square feet each. These properties are characterized by high human traffic along the common areas which makes it difficult to monitor those coming in and going out.

Theft also involves maliciously taking away of building installations and accessories, such as cistern covers, toilet seats covers, taps, door locks and electrical fittings, furniture and machinery from the premises. Theft of cash in the management office or cash in transit to or from the management was found to be the most common

4. Vandalism was found to occur hand-in-hand with theft. The properties that had high occurrence of theft also had high occurrences of vandalism. Vandalism mainly occurred for items such as fixtures, fittings, equipment or installations that provide services within the building. This was said to be the main cause of malfunctioning or the damaged of part or the whole item. It further resulted to parts of the building not being used or some amenities not being functional thus inconveniencing the users of the building.

5. Voids. These have mainly occurred in properties within the CBD. The respondents attributed this to the attractive and modern commercial properties coming up in Upper Hill and towards Westlands. In addition, new multi-stories properties are being developed within the CBD thus increasing the amount of space available for letting.

70% of the respondents attributed voids to the depressed economy where tenants now opt for less space to reduce their operating expenses or ultimately end up closing the their businesses.

The effects of the voids have been financial risks such as reduced rental income and increase in expenses by the landlord since service charge payable by the outgoing tenant is now paid by the Landlord as the other tenants cannot pay service charge for floor space they do not occupy.

6. Obsolescence was considered as a risk factor only in terms of functional obsolescence. This was attributed to change in technology especially in

security installations and fire fighting equipment. The respondents did not consider physical and economic obsolescence as a risk factor as they were thought to be insignificant.

7. Rent defaults were found to be one of the financial risks that property managers perceive to be of consequence. 90% of the properties had rent default as a loss-causing factor but did not consider it as a risk factor. Rent default was depicted to be a risk factor in properties whose tenants were indigenous companies or government bodies. The main effect attributed to rent default is lack of liquidity by the landlord.
8. Structural safety. The property manager did not consider structural safety a major risk factor. It was perceived that the developer took the necessary measures to ensure that the property was structurally sound. Property managers were more concerned with the installations and services in the property than with the structural components. Losses resulting from unsound structures are not common in commercial properties but when they occur they incur high losses such as the Sunbeam incident. Structural unsoundness often lead to a building being closed and demolished as required by law.
9. Public liability is a perceived to be a risk factor by property managers and was attributed to the increase awareness of the public of their rights. The risky situations are mainly attributed to negligence of the property management staff or the contractor working on the building. This has

resulted to the management introducing signs indicating a risky situation such as 'slippery floor', 'parking at owners risk' or 'cleaning in progress' to warn the user of the situation. Though public liability did not receive high rating in-terms of how risky it is, it was indicated as having occurred in 60% of the properties in the recent past.

10. Disputes were sighted as a risk factor in one of the properties in the sample.

The disputes were considered a risk by the property manager due to the financial consequences that are borne out of court injunctions, time taken to resolve the dispute and the cost of hiring legal experts. The respondents were of the opinion that the law favours the tenant and at the end the landlord stands to loss in case of a dispute. The disputes were mainly said to arise from rent reviews and lack of clarity in the lease document. These disputes when settled through tribunals or litigation have been both costly and time consuming.

11. Civil disorder. The respondents within the city centre were found to be most prone to risks resulting from civil disorder. In the recent past commercial properties in Nairobi have been exposed to the risk of civil disorder and unrest that has resulted to damage and loss of property. This has been more evident within the Central Business District at opposed to areas such as Upper Hill and Westlands. One respondent expressed that in 1997 and 1998 they had incurred losses amounting to Kshs 0.5 million on plate glass alone.

12. Taxation is anticipated to increase risks associated with voids and rent defaults. The respondents were of the opinion that the introduction of Value Added Tax to rents paid in commercial properties for landlords collecting rents worth more than Kshs 300,000/- per month will lead to voids and rent defaults due to the increase of gross rent payable by tenants in those premises. The properties that are subject to VAT will experience voids due to tenants opting for premises where rent is not applicable. Landlords are also expected to experience cash-flow problems due to the fact that they may have to pay VAT to the tax authority before they have collected rents.
13. Increase in operating expenses. This was found to be a common in all properties. Property managers are now faced with increased operational expenses due to the increase in inflation and price of goods and services. The effects of the salary increments of their staff during the last Labour day and as recommended by the Collective Bargaining Agreement result has to higher operating expenses.
14. Acts of terrorism was not perceived to be a risk factor. All the property managers were of the opinion that acts of terrorism were not a risk that they anticipate would occur as Nairobi is considered fairly safe from acts of terrorism. The most recent the terrorist bomb attack at the US Embassy in August 1998 the other was a bomb attack at the Norfolk Hotel in the 1970s. Acts of terrorism hardly occur in Commercial Properties in Kenya.

Though all the above mentioned risk factors were have occurred or are anticipated to occur, property manager rated various risks to be more risky than others. The risks that were perceived to be most risky to those perceived to be least risky were rated and presented in form of a chart. The respondents were provided with the rating and were required to fill out the risks they considered to be most risky up to those that they did not consider to be risky at all.

The perception of the property managers of the above listed risks in terms of how risky they are is expressed in the following table.

Table 3.1 Data on risk in commercial properties

Source: Field survey

Q. No	fire	floods	faulty devices	public liability	vandalism	theft	civil disorder	Terrorist attack	obsolescence	tax	voids	rent default	s
1	5	2	0	0	0	5	0	0	0	0	0	0	0
2	3	2	1	0	0	2	0	0	0	0	0	0	0
3	5	1	1	0	0	5	0	0	0	0	0	0	0
4	5	1	0	0	0	0	0	0	0	0	0	0	0
5	5	0	0	0	0	2	0	0	0	0	0	0	1
6	4	1	0	0	0	1	0	0	0	0	0	0	0
7	4	0	1	0	1	2	0	0	0	0	0	0	0
8	2	1	0	1	0	3	0	0	0	0	0	0	2
9	2	1	0	0	0	2	0	0	0	0	0	0	1
10	5	0	0	0	0	4	3	0	0	0	0	0	0
11	5	1	0	4	5	5	0	0	0	0	0	1	0
12	3	0	0	0	0	2	0	0	0	0	0	0	0
13	3	0	0	0	0	3	1	0	0	0	0	0	2
14	5	0	0	2	0	4	0	0	0	0	0	0	0
15	2	1	0	0	2	5	0	0	0	0	0	0	0
16	5	0	0	0	0	5	0	0	0	0	0	0	0
17	3	0	0	4	0	5	0	0	0	0	0	0	3
18	5	1	1	0	2	4	0	0	0	0	0	0	0
19	4	0	0	0	0	2	2	0	0	0	0	0	0
20	3	0	1	0	4	3	2	0	0	0	0	1	1
21	5	2	0	0	0	5	0	0	0	0	0	0	0
22	5	0	1	1	0	4	1	0	0	0	0	0	1
23	3	0	0	0	0	5	0	0	0	0	0	1	0
24	5	2	0	0	0	4	1	0	0	0	0	0	2
25	5	0	0	0	2	4	0	0	0	0	0	0	0
26	3	0	1	1	0	5	0	0	0	0	0	1	0
27	4	0	0	0	1	4	0	0	0	0	0	0	1
28	4	0	0	2	0	5	0	0	0	0	0	0	0
29	5	2	1	0	1	4	1	0	0	0	0	0	1

Q. No	fire	floods	faulty devices	public liability	vandalism	theft	civil disorder	Terrorist attack	obsolescence	tax	voids	rent default	s
30	3	1	0	0	1	1	0	0	0	0	0	0	s
Average	4	0.6333	0.2667	0.5	0.6333	3.5	0.3667	0	0	0	0.1333	0.5	s

Table 3.2 Rating table for risks in commercial properties.

Rating	Description
5	High risk
4	Above average risk
3	Average risk
2	Below average risk
1	Low risk
0	Not considered risky at all

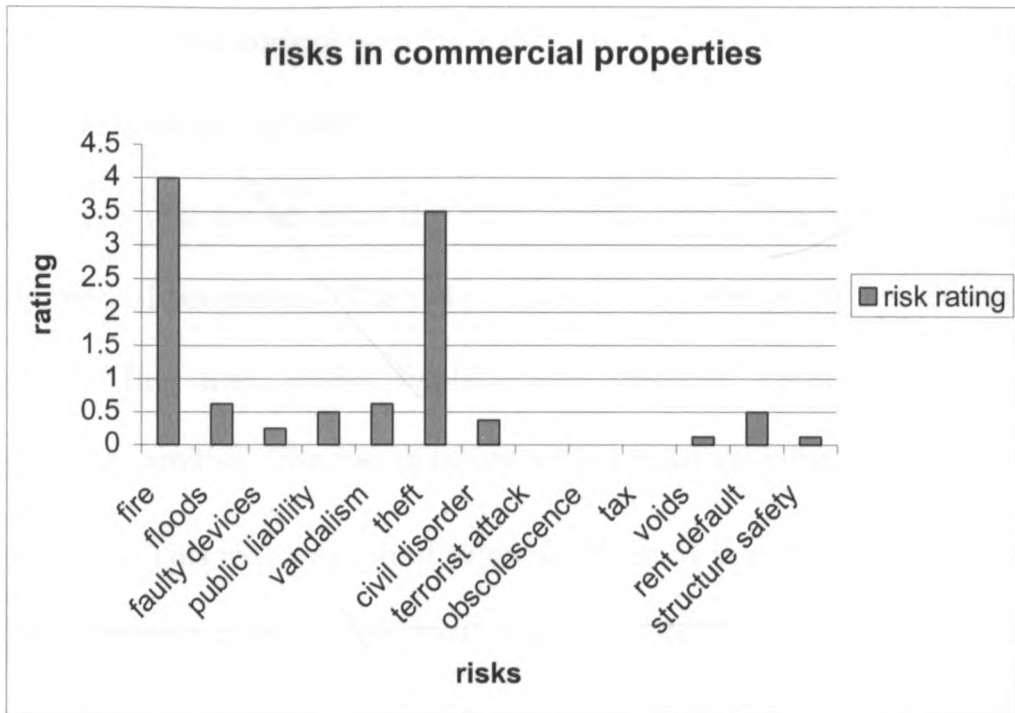


Chart 3.1 Rating of Risks in Commercial Properties

Source: Field Study (August, 2001)

From the chart above fire is considered to be a major risk followed by theft, floods, vandalism, rent default, public liability, civil disorder and faulty devices or installations. Others are considered least risky or are not considered at all.

3.3.2 RISK RESPONSE TOOLS

The risks identified are to be responded to using mainly insurance and risk prevention together. From the survey it was found that the tools used in risk response were both risk financing and risk control tools. In risk financing both insurance and retention were used while in risk control transfer, avoidance,

prevention and loss control were all used. All the above mentioned tools were found to be used for the various risks that the properties are exposed to.

- a. Insurance was found to be the most popular tool used in risk response in commercial properties. The risks that are responded to by use of insurance include: fire, theft, public liability, civil disorder, earthquakes and other natural calamities. The cost of insurance premiums is borne by the tenant.
- b. Retention. This tool was found to be hardly used in respond risks. The only risks retained were voids, theft and vandalism that is not covered in insurance, obsolescence and risks associated with the safety of the structure and yet not covered in by insurance. Property managers ensure that as little as possible was wholly retained by the landlord. Other risks that are retained are those that the landlord considers minor and not worth responding to. Though the landlord was said to retain the risks cost eventually is borne by the tenant.
- c. Avoidance. It is the least used tool in responding to risk. Most of the risks that the property is exposed to were said to be unavoidable as most of them were associated to the economic environment while others were associated with the buildings age, structure and the type of users it attracts. The risks that were avoided are those that are associated to functional obsolescence where the landlord would buy new installations to keep up with the trends.

- d. Prevention was found to be the next most used tool after insurance. The respondents associated the use of prevention to risks that are considered to occur often such as fire, theft and public liability. The risk prevention measures commonly used were the use of non-combustible material for fire prevention; use of security systems to prevent theft. Prevention was found to include preventive maintenance of building as well as machines and equipment that provide services to the building.
- e. Transfer. Property owners transfer risks by use of hired equipment and machinery and by signing up maintenance and service contracts for equipment and machinery. This was found to be common in modern properties that have various installations that use modern technology and require expert knowledge in servicing and maintaining them. This way the risk of ownership remained with the lessor. Through maintenance contracts and agreements the risk of poor workmanship and in-genuine parts are transferred to the contractor.

A recent trend was found to have emerged where property owners transferred risks to the tenant by creation of a reserve fund that is funded by tenants through service charge. This reserve fund is used to cater for unforeseen expenditure on repair and maintenance. This was found to be evident in lease agreements drafted in the last five years. Risk associated with theft and vandalism of fixtures and fittings provided by the landlord

and that are within the tenant's lettable space, were transferred to the tenant.

These risks are transferred to the tenant through lease agreements. The lease agreement is now increasingly being used as a means of transferring risks from the landlord to the tenant.

- f. Loss control was found to be carried out for risks considered risky enough to warrant introduction of ways to control the loss resulting from the risk. For instance, in the case of fire loss control is carried out through installation of fire fighting equipment, training staff members and/or tenants on use of the equipment and maintaining the equipment. Respondents whose properties are owner occupied have rule and regulations are put in place to minimise accidents that may result to losses, whether direct or consequential.

The table below represents a summary of the field data collected on the frequency with which certain the risk response tools are used.

Table 3.3: Data on risk response tools used.

Source: Field survey

Q no	insurance	retention	Avoidance	prevention	transfer	loss control
1	3	2	1	3	2	0
2	3	1	1	3	2	2
3	3	1	1	3	2	2
4	3	1	0	3	2	2
5	3	3	1	3	2	2
6	3	0	0	2	0	2
7	2	0	2	2	2	1
8	3	1	2	3	3	1
9	2	0	0	2	2	2
10	3	0	1	2	2	1
11	2	1	1	1	1	2
12	3	2	1	3	3	0
13	3	0	3	3	0	2

Q no	insurance	retention	Avoidance	prevention	transfer	loss control
14	3	1	1	3	1	1
15	3	1	2	3	3	2
16	3	2	1	3	2	0
17	3	1	1	3	2	2
18	3	1	1	3	2	2
19	3	1	0	3	2	2
20	3	3	1	3	2	2
21	3	0	0	2	0	2
22	2	0	2	2	2	1
23	3	1	2	3	3	1
24	2	0	0	2	2	2
25	3	0	1	2	2	1
26	2	1	1	1	1	2
27	3	2	1	3	3	0
28	3	0	3	3	0	2
29	3	1	1	3	1	1
30	3	1	2	3	3	2
average	2.8	0.9333	1.1333	2.6	1.8	1.4667

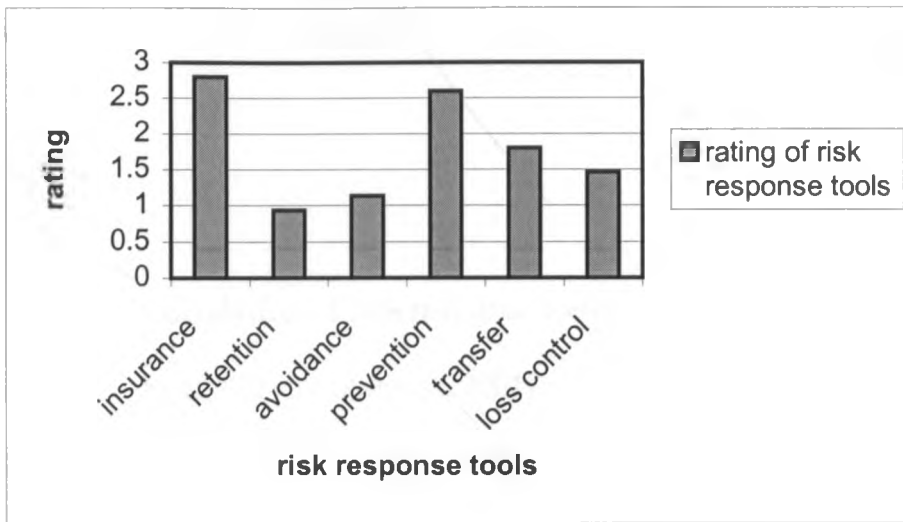
Table 3.4 Rating table for risk response tools

Rate	Description
3	very frequently used
2	Frequently used
1	Least frequently used
0	not used at all

The frequency of use of risk response tools is depicted graphically by the chart below. Where each bar represents the average frequency of use for the particular risk response tool in question.

Chart 3.2 Rating of Risk Response Tools

Source: Field Study (August, 2001)



From the above chart it is evident that insurance and prevention are most commonly used followed by transfer, loss control, avoidance and retention respectively.

Various risk response tools are used hand in hand with others. This is because the tools cannot be used independently to effectively respond to the risks the property is exposed to. Correlation analysis is used to depict the relationship of the various risk response tools used.

The relationship between the risk response tools listed above is depicted by the following correlation table.

Table 3.5 Correlation Table

	Retention	Avoidance	Prevention	Transfer	Loss control
Insurance	0.351391	0.082761	0.76376262	0.073324	-0.13927
Retention		-0.08401	0.46007877	0.412244	-0.27551
Avoidance			0.24380785	0.03641	-0.10758
Prevention				0.336011	-0.18235
Transfer					-0.36763
Loss control					

Title: Correlation of risk response tools

Source: Field Survey (August, 2001)

Insurance and prevention seem to be highly correlated followed by prevention against retention and transfer against retention. This depicts that insurance and prevention are usually used together. This is may be attributed to the type of risks that property managers respond to. Risks such as fire, theft and floods require that insurance and prevention be used. There is low negative correlation between loss control and other risk response tool showing that there is little relationship between the two tools.

The risk response tools that the respondents preferred to use are the traditional tools that they have confidence in. The combination of tools used to respond to the risks the properties are exposed to were selected in terms of cost and the property owners past experience with the tools. Insurance was found to be the most popular and this was attributed to fact that property owners preferred to take comprehensive insurance covers as only periodic payments were required and the premiums to be paid are quite predictable.

3.3.3 CRITERIA FOR SELECTION OF RISK RESPONSE TOOLS

The choice of risk response tools selected to respond to risks in commercial properties was attributed to certain influences / factors such as:

1. Cost. The cost of risk response tools and the ability to apportion that cost is the primary consideration in selection of risk response tools. This was found to be the main influence in selection of response tools. The costs that the respondents put into consideration are those associated with cost of the risk response tool such as premiums in the case of insurance, cost of administering the tool and staff costs associated with the risk response tool. This was taken into consideration against the objective the landlord had when selecting the risk response tool. Property managers selected the tools that the property owner considered as being most cost effective. As such prior to expenditure on risk response all of the property managers have to consult with the property owner on the way to go.
2. Statutory requirements were found to be used by all property managers in selecting risk response tools. The tools first picked to respond to risks are those required by law such as lift maintenance and installation of fire escapes and extinguishers as risk prevention methods. Insurance covers that are required by law were found to be next in priority.

Risk response is a requirement by law and some response tools used are provided for in statutes and by-laws. These include maintenance of lifts as provided by the Factories Act and use of non-combustible material as provided in the building code.

3. Estimated loss was not a consideration by all property managers. Though all property managers were aware of the importance of the estimated loss in risk response, estimated loss was not the most important factor when selecting risk response tools. Only 40% of the respondents had a risk survey conducted that established the approximate estimated loss that the property would suffer in case of an occurrence. Where estimated losses was considered insurance and prevention were found to be the selected tools especially for risks associated with fire, floods and special perils such as impact and earthquakes.
4. The value of property and income at risk was found to be considered of little consequence when selecting the risk response tool selected. The property managers though being aware of the importance that the value at risk has in establishing the replacement value did not put much consideration to it when selecting the risk response tools to be used. The value at risk was not taken as the primary consideration. Value at risk was only used when considering the use of insurance as a risk response method.

5. Frequency of occurrence of the risks in question was found to be considered by 60% of the respondents in selection of risk response tools. The risks that they considered to be of high frequency are often insured and prevented at the same time. What is considered as frequent was found to vary from one respondent to another depending on the risk.
6. Apportionment of cost. It was established that the risk response tools preferred by property owners are those whose costs can be borne by the Tenant. Those tools that require capital expenditure were found to be often avoided unless if required by law. The respondents expressed that the Landlords preferred to spend as little as possible on tools that do not portray immediate savings or additional income because they did not want to invest more into the building without receiving additional return.

It was found that most the landlords issue express instructions to the property manager to use certain risk response tools. These may be tools that the landlord has used previously or has more confidence with. The landlord in this case tries to reduce his worry and anxiety over the methods or tools that are being introduced by deciding those that he is comfortable with. The landlord's preferred tools are therefore adopted by property managers after discussion with the landlord in which ones to consider and which ones are not appropriate. Property managers at this point advise the landlord on the tools that they consider as effective.

The factors that influence that selection of risk response tools can be attributed mainly to the requirements of the law and the instructions from the property owner.

The factors that mainly influence selection of risk response tools are

- ◆ Cost of the tool
- ◆ Cost apportionment to the tenant or a third party.
- ◆ Statutory requirement
- ◆ The estimated loss
- ◆ The frequency of the loss

Table 3.6 Factors considered when selecting the risk response tools

Source: field survey

q. no	factor 1	factor 2	factor 3	factor 4	factor 5	factor 6
1	statutory requirement	Cost	loss estimated	Frequency	impact	convenience & Apportionment of cost
2	statutory requirement	Cost	loss estimated	Frequency	impact	convenience & Apportionment of cost
3	statutory requirement	Cost	loss estimated	Frequency	impact	convenience
4	statutory requirement	Cost	loss estimated	Frequency	Apportionment of cost	
5	statutory requirement	loss estimated	frequency	Apportionment of cost		
6	cost	Nature of risk	loss estimated	Apportionment of cost		
7	frequency	Statutory requirement	cost	Landlord's instructions		
8	cost	Frequency	statutory requirement	Apportionment of cost		

q. no	factor 1	factor 2	factor 3	factor 4	factor 5	factor 6
9	statutory requirement	Cost	loss estimate	Frequency	Apportionment of cost	
10	Apportionment of cost	Cost	loss estimate	Frequency	Statutory requirement	
11	statutory requirement	Cost	loss estimate	Frequency		
12	Value at risk	Cost	frequency	Apportionment of cost		
13	cost	Frequency	statutory requirement	Apportionment of cost		
14	Statutory requirement	Cost	Frequency	Apportionment of cost		
15	Cost	loss estimated	Apportionment of cost			
16	Cost	loss estimated	Statutory requirement	Apportionment of cost		
17	Statutory requirement	Cost	Loss estimated	Frequency		
18	Statutory requirement	Cost	Loss estimated	Apportionment of cost		
19	Statutory requirement	Apportionment of cost	Loss estimated	Frequency	Impact	convenience
20	Statutory requirement	Cost	Loss estimated	Frequency	Apportionment of cost	
21	Statutory requirement	loss estimated	Frequency	Apportionment of cost		
22	Cost	Apportionment of cost	loss estimated	Nature of the risk		
23	Frequency	Statutory requirement	Cost	Apportionment of cost		
24	cost	Frequency	statutory requirement	Apportionment of cost		
25	statutory requirement	Cost	loss estimate	Apportionment of cost	impact	convenience
26	statutory requirement	Cost	loss estimate	Frequency	Apportionment of cost	
27	statutory requirement	Apportionment of cost	loss estimate	Frequency		
28	value at risk	Cost	Frequency	Impact	convenience	Apportionment of cost
29	Frequency	Statutory requirement	Cost	Apportionment of cost		
30	Statutory requirement	Cost	Apportionment of cost			

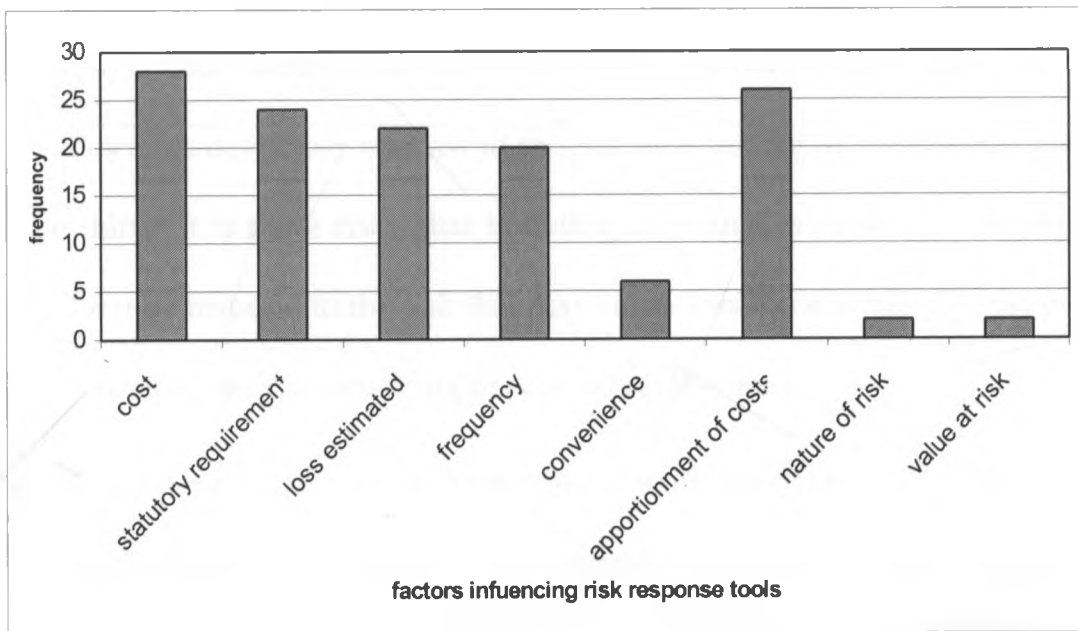
This data is summarized in the table below and graphically presented in chart 3.3

Table 3.7 Summary of findings on the risk response tools used.

cost	Statutory requirement	loss estimated	Frequency	Impact	Convenience	Apportionment of costs	nature of risk	value at risk
28	24	22	20	6	6	26	2	2

Chart 3.3 Frequency of Factors Influencing Choice of Risk Response Tools

Source: Field Study (August, 2001)



From the chart it is evident that cost and apportionment of cost are the main influencing factors in selection of risk response tools. Though statutory requirement is a must for all properties not all property managers considered it to be a major influencing factor.

3.4 CONCLUSION

This chapter seeks to answer the objectives of the study by identifying the risks the commercial properties are exposed to, the tools that are used to respond to these risks and the factors affecting selection of risk response tools used.

Risks are responded to from design stage and up to the end of the building's life. At design and construction stage the tools used are mainly preventive and avoidance. A developer may avoid the risk of investing in commercial property if he thinks it is more risky than investing in securities or stocks. At the same time he may respond to the risk that may cause loss of income from his property or loss of the property by financing or controlling the risks.

The developer or investor who in the case of a multi tenancy is a landlord aims at maximising profit and wealth. In achieving this objective the investor must ensure that expenditure is minimised and incomes maximised, having in mind his responsibility towards the tenants, users of the building and the community around him. From this broad objective the property manager who is the managing agent of the investor must strategise on ways to meet the investor's objectives by breaking them down as depicted by the objective tree.

The objective tree is an end-means diagram that depicts the end desired and the means to achieving the ends. The data used to construct the objective tree is captured in the data capture sheet (annexure iv).

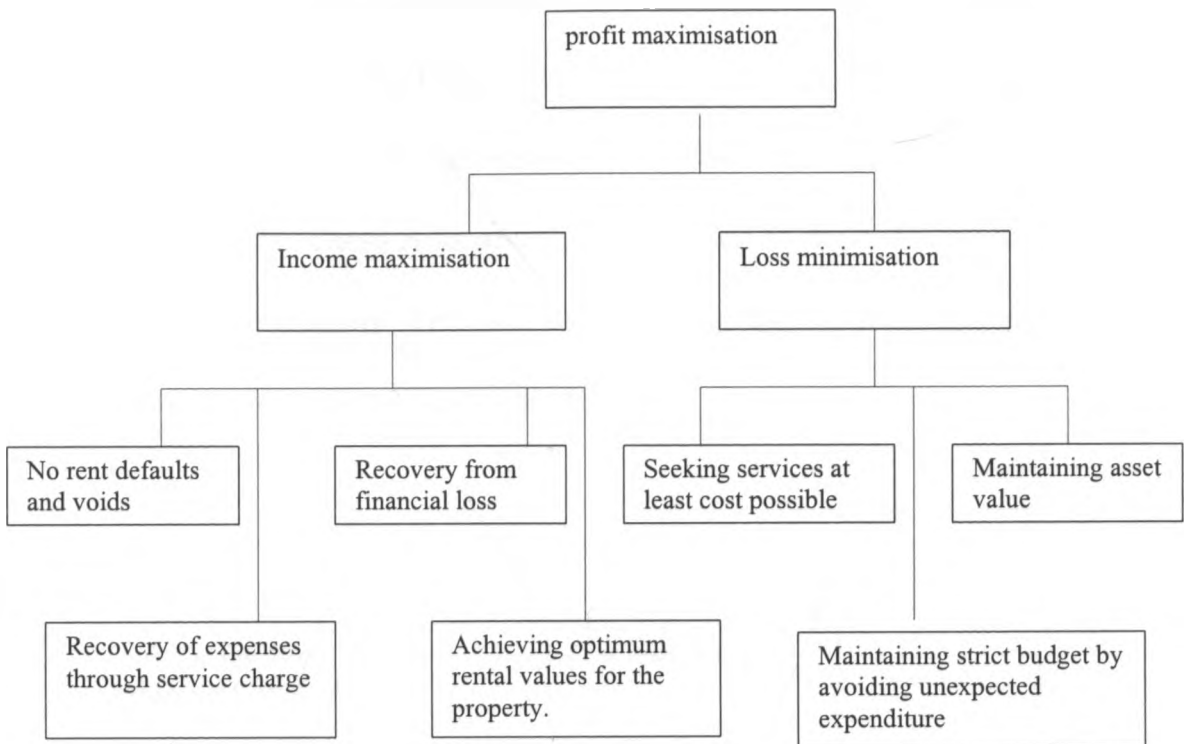


Figure 3.1 Objective Tree

Source: Field study (August, 2001)

To achieve the above objectives the barriers of problems that the property manager expects to encounter must be identified and structures so that they can be solved. The main problem in this case is loss reduction. Losses arise from risks that the property is exposed to, be they financial or pure risk. These can be depicted in form of a problem tree as hereunder.

The problem tree shows the causes of the problem and the effects of that problem. The problem for the purpose of this study is risks in commercial property. This losses range from financial, property loss and loss as a result of

legal liability. As shown in chart 3.1 above the risks that are perceived to be most risky are fire, theft, rent default, vandalism, floods, public liability and civil disorder among others. These risks result to financial and property losses. The risks are caused by presence of hazards and lack of adherence to law by oneself or a third party. These risks are then responded to meet the investor's objective of profit maximisation. The data used to construct the problem tree is captured in the data capture sheet (annexure iv)

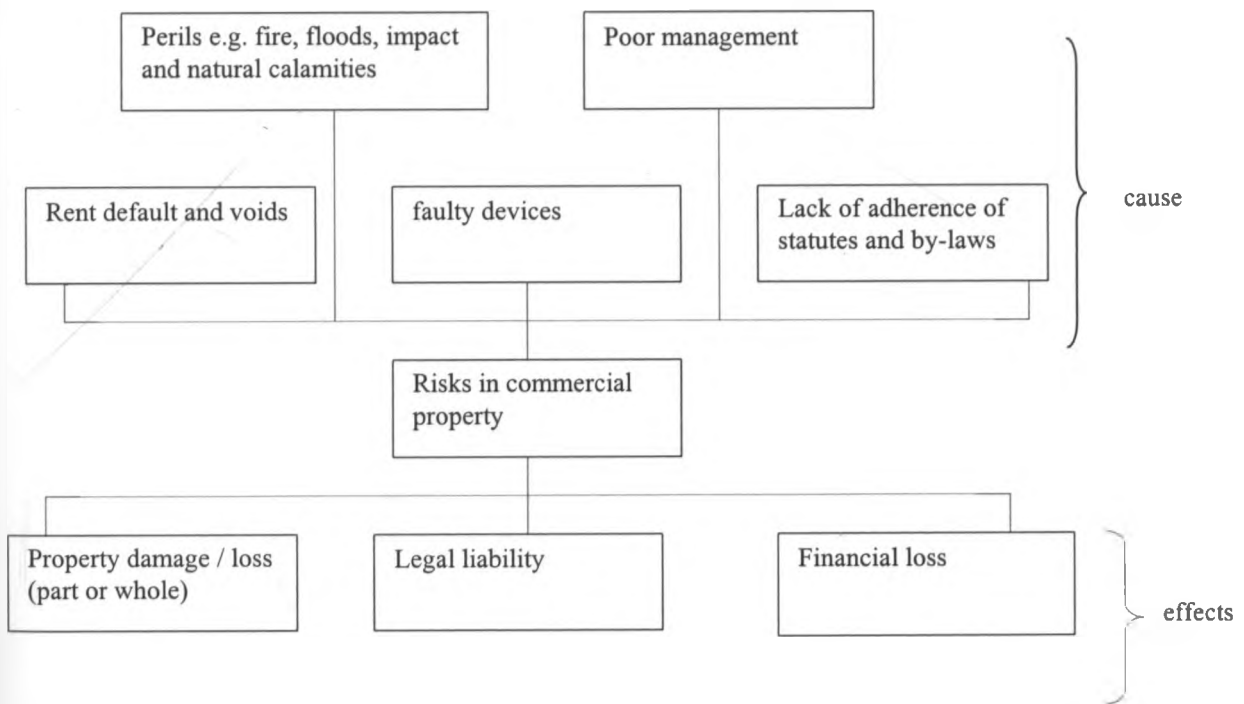


Fig 3.2 Problem tree on the causes and effects of risks in commercial properties.

Source: Field Study (August, 2001).

To reduce the effects of risks in commercial properties, one must foresee the likelihood of their occurrence and plan to eliminate or mitigate them and if they occur one must plan on how finance or control the losses that result from it. The investor or the property manager must look for the best combination of tools that keeps that minimises the costs of risks.

CHAPTER FOUR

CONCLUSIONS AND RECOMMENDATIONS

4.1 SUMMARY OF THE STUDY

This study is an investigation of risk response in commercial properties. This entails identifying the risks that commercial properties are exposed to and the ways in which these risks can be responded to. Risk has been studied as the deviation from the desired outcome. In the case of commercial properties the desired outcome is for the property to earn maximum revenue and minimum cost and at the same time the property retains or appreciate in value.

The tools of risk response selected influence the desired outcome since the tools themselves have cost implication which, if the tools are not used the loss resulting upon occurrence of a risk becomes enormous. The investor then needs to look at the most cost effective way in which to control these risks so that the losses that result from the risks are minimised and the costs of the risk response tools are also kept low. To achieve this the investor has to determine to risks that the property is exposed to and the tools that can be used to respond to these risks. In order to recommend the best method of responding to the risks identified, the criteria used to select the tools currently in use have to be considered. This way, the factors that the investor considers when selecting the tools to use are established.

The study hypothesizes that the choice of risk response tools is directly influenced by the cost. Costs are an important factor in the profitability of the property and the expenses that attract high costs are often undesirable while those that have low costs are often selected as an alternative. Other factors that are considered in selection of risk response tools are statutory requirements, estimated loss, nature of the risk the frequency of the risk and the value at risk among others.

The study aimed at achieving the following objectives:

- To identify the risks that commercial properties are exposed to.
- To establish ways of responding to the risks identified.
- To determine the factors that influence selection of risk response tools used.
- To recommend the most effective methods of risk response.

To achieve the above objectives literature was reviewed on risk, risk management, risk management in commercial properties, risk response, selection of risk response tools and costs of various risk response tools. The conceptual frameworks obtained from literature reviews give the ideal way of dealing with risk and selection of response tools taking their cost into consideration.

The practice in management of properties within Nairobi was investigated through a field survey of thirty randomly sampled commercial properties. This population was composed of commercial properties managed by professional

property managers who are thought to be knowledgeable in the field of property management. All properties in the population had multi-tenancies and had space let out for gain. The objective of the property owners therefore is wealth maximisation.

Questionnaires were administered to the property managers and data analysed to establish the risks that property managers perceive the property to be exposed to, the risk response tools used and the factors that they consider in selection of those risk response tools. Further, discussions were held with insurance managers and persons in insurance and risk management departments of organisations which own commercial properties. This was to establish the risks that are common to commercial properties and the ways that they consider appropriate for those risks to be responded to. Reasons to why they consider certain tools more effective than others in responding to the risks identified were sought.

This study established that the risks that commercial properties were mainly exposed to were fire, floods, public liability, vandalism, theft, civil disorder and rent default. The study also established that the factors that influenced selection of risk response tools were cost and cost apportionment, statutory requirements, estimated loss, frequency of the risk and the value at risk. The study further established that more than one risk response tool was used to respond to risks in commercial properties.

The combination of tools used was to ensure that risks were eliminated or minimised prior to their occurrence and once they occurred the loss was reduced. The residual risks were then retained or insured. Prevention of risks from occurring was the most frequent used control method and the residue risks were most frequently financed by use of insurance.

4.2 CONCLUSIONS TO THE STUDY

This summarises the findings that achieve the first three study objectives by establishing the risk, the risk response tools and the factors influencing to selection of these tools.

4.2.1 RISKS THAT AFFECT COMMERCIAL PROPERTIES

Commercial properties within Nairobi are exposed to risks that result to financial loss, legal liability and property loss. The risks can be divided into two categories: those that are specific to individual properties; and those common to all properties. Other risks that commercial properties are exposed to are those inherent in all investments be they in shares and stocks, securities or treasury bills. Such risks include business risk, inflation risks, taxation and political risk among others.

The risks that are common to all commercial properties are:

- ◆ Physical risks caused by perils such as fire, floods, natural calamities, civil disorder and perils caused by human negligence.
- ◆ Financial risks associated to economic recession, taxation, fluctuation in interest rates, increase in cost of operating expenses, voids, rent default and changes in the property market among others.
- ◆ Legal risks such as public liability resulting from the duty of care that the property owner owes to the uses of the property. Other legal risks are those arising from change of statutes and by-laws associated with the building industry such as the introduction of value added tax to rents charged in commercial properties as noted earlier in chapter 2 of this study.

The risks that are specific to individual commercial properties include:

- ◆ Risks associated to the lease structure of the property. The lease structure provides for: transfer of risks to the tenant; what the tenant uses the space for; escalation of rents; and the obligations of the tenant and the landlord. While lease structure takes care of the risks that are specific to that property care should be taken to ensure it does not expose the property to the same risks.
- ◆ The tenant mix and nature of business of the tenant. Risks that result from the type of tenants selected include rent default risk, risks caused by the nature of business the tenant is carrying out and the clientele they attract such as security, fire, property damage due to misuse or over use.

- ◆ Risks associated with the location of the property. Location is the aspect that makes every individual property unique and therefore each location is characterized by its own specific risks. The property may be located where it is prone to risk of impact by for instance vehicles or aircrafts. The use to which the buildings neighbouring the property in question are put to may cause nuisance to the property resulting to reduction of rentals and voids in the property.
- ◆ Risk associated with the building structure and installations therein. There are no two like buildings, even when buildings have similar designs and construction materials the characteristics of the soil on which they are constructed and the infrastructure surrounding the individual properties makes them different. The risks therefore associated with the structure and installation to properties is unique to each individual property.

The risks that are specific to individual properties may be treated as unsystematic risks while those that are common to all properties may be treated as systematic risks. The unsystematic risks are reduced through diversification into various types of investments as described in the portfolio theory of diversification.

4.2.2 RISK RESPONSE TOOLS

Risks that are prioritised as high risks are given more attention by use of more comprehensive response methods than those that are low risk. The tools used to

respond to risks are broadly categorised as risk financing that is insurance and retention, and risk control that is avoidance, transfer, prevention and loss control. The tools may be combined depending on the risks that are being responded to. For instance, risk-financing tools may be used when together with risk control tools already in place. The risk response tools are as follows:

◆ Insurance.

This is the most used tool and it is used where financial losses are expected and the frequency in which they occur is high or cannot be predicted. The risks that commercial properties commonly insure for are fire and perils, consequential loss, public liability and plate glass.

◆ Retention.

This is used for risks that property owner consider to be low risk in terms of low probabilities of occurrences and the size of loss upon an occurrence is low. These include risks related to obsolescence and depreciation of the building and installations and vandalism. Some property owners do transfer the cost of retaining these risks to the tenants through service charge.

◆ Transfer.

This is normally carried out through in building contracts, maintenance contracts and lease agreements. This is where the landlord transfers the risks that the property often exposed to, to a third party. These risks are mainly

those that occur as a result of the third parties activities or negligence. The property owner will therefore prefer that the costs be borne by the party that caused the risky situation. Such risks include poor workmanship, repairs resulting from abuse of a facility and costs of insurance for works being undertaken among others.

◆ Prevention.

It is common for risks that are highly prioritised and for risks, which are required by statutory requirement or by-laws to be prevented. Prevention of risks is considered primary in responding to risks that result to high losses. Prevention is used to reduce high costs of insurance and retention for risks such as fire and security risks.

◆ Avoidance.

This respond method is only for risks that result to high losses upon occurrence in relation to the expected return that may be achieved. For example an installation of a security system may cost more in terms of its initial cost and maintenance and at the end the value it adds to the property is not much. That is, the value at risk does not warrant the expenditure. For the installation to add value to the property it must have a positive net present value.

◆ Loss control.

This is used to reduce severity and frequency of risk. Examples of loss control include installation of security systems, fire detection and fire fighting equipment, administration of lease agreements and maintenance of the building and its installations among others.

The risk response tools selected are influenced by the objective of the property owner. The main objective of property owners as discussed earlier is wealth maximisation, which entails profit maximisation and increased value for their property. The losses that the properties incur and the costs that are associated to risk response have effects on the cash flows of the property. The cash flows from a property determine its value and profitability.

4.2.3 FACTORS TO BE CONSIDERED WHEN SELECTING RISK RESPONSE TOOLS

Property managers select risk response tools based on certain factors. These factors include cost, legal requirements, estimated loss, value at risk and the nature of the risk. The factors influence the selection of risk response tools as follows:

- ◆ Cost.

The cost of risk response tools are: those associated with capital expenditure and maintenance in risk prevention; cost of retaining the risk in retention; cost of administration in risk transfer; the cost of premiums in insurance and;

the cost of administration of loss control tools. These costs are borne by the landlord who later transfers them to the tenant through service charge.

The apportionment of cost to the tenant or a third party is aimed at reducing costs related to risk response. The practice of apportioning costs to the tenant has resulted to high service charges payable by the tenant and reduced costs related to risk response for the landlord. The landlord end up bearing only the risks inherent in investments such as the risk on unforeseen expenditure due to currency fluctuation, credit risk and inflation as well as loss of income through increased costs.

- ◆ Legal requirements.

For every commercial property the statutory requirement is the primary basis of risk response as non-compliance is a criminal offence. The By-laws used by the Local Authority are also legal requirements that should be followed by the property owner. Other legal requirements are those that relate to the law of tort and law of contract. The Landlord owes a duty of care to the users of the building and is contractually bound by the lease agreement between himself and the tenant.

- ◆ Loss estimated.

The loss that the property will incur upon the occurrence of a risk includes: direct loss of replacing and repair of the missing or damaged parts of the building; indirect loss such as the need to rehabilitate other areas of the

property that were not directly affected by the occurrence and; the loss of net income through loss of rental income and increase of expenses and; consequential loss forms part of the loss the property incurs. The estimated loss determines the size of the risk.

◆ Frequency.

The probability of the loss occurring once determined enables the decision-maker to establish which risk response tools to use. The frequency also determines the probability that one occurrence will cause one type of loss or will result to multiple occurrences. The frequency of the risk and the loss occurrence determines the response tool in that risks of low probability are better retained and those that are of high risks are insured and / or prevented.

◆ Nature of risk.

In selection of risk response tools, the risks that are being responded to are first identified. After identification the risks are classified according to their causes. Those caused by natural calamities may be insured or retained, financial risks are responded to by insurance, transfer and loss control tools such as lease agreements that contain escalation clauses, while legal risks are best responded to by prevention, avoidance and insurance.

◆ Value at risk.

This is the value of the property that is likely to be damaged or destroyed upon an occurrence and the consequential loss that results from that damage or destruction. The value at risk includes the property itself and the loss of revenue resulting from risks, be they legal, financial or physical risks.

4.2.4 EFFECTIVE RISK RESPONSE TOOLS FOR COMMERCIAL PROPERTIES

The combination of risk response tools that can be used to respond to risks should encompass all risks that the property is exposed to. The risks to be avoided once established should be avoided and those that require to be prevented or to be insured by law should be prevented or insured as required.

The researcher opines that when selecting risks to be insured those that are essential (required by law) should be insured first. This is followed by those that are desirable such as those causing high financial loss such as risks caused by perils and, finally those that are available but not necessarily compulsory such as plate glass insurance. Once the value at risk is established and the premiums payable calculated the property owner may then make a decision on how much to insure for and how much to retain and how much to transfer to a third party (non-insurance transfer).

Where prevention and loss control are used the cost of the tool and its ability to control risks by either eliminating them or mitigating them should be considered. It may not be possible to eliminate all risks but they must be mitigated as much

as possible to prevent loss of high magnitude from occurring. Use of prevention and loss control reduced the use of retention and insurance.

The use of prevention and loss control is critical in ensuring that the risks do not occur. Though risks may be transferred, retained and insured the occurrence of a risk leads to loss not only of property loss but also financially in terms of consequential loss and business interruption. Occurrence of risks should be avoided at all costs as once a disaster occurs, the property is not reinstated to the exact original condition it was in before the occurrence.

The loss matrix provides a method of selecting a combination of risk response tools that may be used. The loss matrix takes probability in to consideration the to achieve the minimum expected total loss which is the cost effect of the risk response tools used. Worry values are introduced to place monetary value on the investor's confidence in the tool(s) selected and the importance the property owner places on the risk as well as his attitude towards risk. Worry values take care of uncertainty.

Though this method provides an objective way to select risk response tools, the variables used are subjective. These variables are the estimated loss, the probability of occurrence and the worry value, all of which are dependant on the property in question, the owners confidence in the tools being used and the perception the risks being considered. This method depicts the effect that the risk response tool selected has on the total expenditure on risk response.

Despite being subjective it takes into consideration the factors that influence the selection of response tools. The tools that may be used are not restricted to those used in the table above.

The researcher opines that the property manager should use risk response tools in this order:

1. Risk control. Avoidance of the risk should first be considered followed by prevention. Prevention as required by law should be carried out followed by prevention of desirable risks. Where transfer through contracts and agreements is possible it should be considered as the next option followed by loss control. Loss control is carried out to mitigate the losses that may be caused by risks that have not been eliminated up to this point.
2. Risk financing. Insurance should be considered by beginning with insurance covers that are required by law followed by those that are desirable due to the advantages inherent in them. Retention should be used as a last resort. The choice between insurance and retention can be settled using the critical probability method or the breakeven probability method.

Taking risk control measures first enables one to spend less on risk financing as the probability of occurrence is reduced by risk control. The loss matrix comes in handy in deciding how much to use in risk control and in risk financing.

4.3 TEST OF THE HYPOTHESIS

Hypothesis: The choice of risk response tools is directly influenced by its cost.

This was proved to be true.

The objective of the property manager when selecting risk response tools is to reduce losses that the property incurs at minimum cost. The tools selected therefore must incur minimum cost and at the same time ensure minimum loss.

Figure 3.3 depicts that cost is the factor most used to select risk response tools. The apportionment of these costs is also a widely considered factor in that it transfers the costs that the property owner incurs to tenants and other third parties. The proportions for apportionment between the landlord and the tenants are paid through service charge where the costs of risk and its response tools is treated as operating expenses of the property and translates service charge payable by the tenant.

When selecting response tools the ability to transfer the loss to a third party or insurance is often considered as an important factor. The ability to transfer the cost of the response tool used to the tenant is largely considered by landlords when selecting the tools to be used.

4.4 RECOMMENDATIONS OF THE STUDY

The recommendations of this study are divided into three categories:

- a) recommendation on the practice of risk response in commercial properties;
- b) recommendations on the contribution that institutions of higher education and professional bodies can give towards risk response in commercial properties and;
- c) areas of further study in the field of risk response.

4.4.1 RECOMMENDATIONS ON THE PRACTICE OF RISK RESPONSE IN COMMERCIAL PROPERTIES IN KENYA

Once a property is ready for occupation and the property manager is instructed to manage the building, he/she needs to arrange for a risk survey to be carried out. This will enable the property manager to be aware of the risks that the property is exposed to and plan for ways in which the risks can be responded to. Periodic risk surveys are necessary to identify various risks and suggest ways of responding to them.

Currently, risk surveys are carried out mainly to identify the areas in which the building is vulnerable to the risk of fire and special perils under which floods, impact, earthquakes and other natural catastrophes are classified. Risk surveys that are aimed at identifying the risks that commercial properties are exposed to

should encompass aspects of financial, physical and legal risks. This will enable the property manager to advise the owner on the various risks that should be responded to, as well as reduce unforeseen expenditure in the near future.

The property manager should ensure at all times that business continuity can be guaranteed to the tenants of the property in case of an occurrence. Response tools that are used to restore the property into its initial position such as insurance should be engaged at all times to ensure continuity of rental incomes and to take care of contingency losses arising from the loss.

The property managers should take the initiative to introduce to the landlord new response tools that they consider effective. They should further sensitize the landlord on the need to invest in risk response. By providing information to the landlord of the advantages and disadvantages of various response tools the property managers give the landlord confidence when making decisions on which tools to use.

Property managers should use more objective methods of selecting risk response tools. Through objectivity the property manager will be able to portray to the landlord the best mix of response tools that can be used. The expected total loss method in table 4.2 was found to be the most appropriate method of selecting the combination of risk response methods to be used. This method considered the use to various risk response tools to achieve the end to least loss at least cost.

Despite its subjectivity it assists the decision-maker to make a decision based on facts.

Butterworth (2000) noted that insurance is not however, the first line of defense to the presence of risk. Before insurance is purchased, the property owner or manager should be satisfied that all reasonable measures are taken to reduce the likelihood of an event occurring and limiting the severity of loss when it does occur.

To achieve his objectives an investor must select the risk response tools that will obtain minimum total loss. In selecting these response tools the investor must consider:

- Cost of the risk response tool.
- The nature of the risk.
- The value at risk.
- Legal requirements.
- The frequency of the risk.
- The estimated loss.

The Institute of Surveyors of Kenya (ISK) should establish standards that property managers should adhere to when selecting risk response tools. These standards may include the type of insurance covers that must be taken and the risk prevention measures to be taken. These standards should also address cost

apportionment to the tenant. Cost apportionment must reflect equitability and fairness towards the tenant.

Though the property manager's client is the landlord, the property manager owes a duty to the tenant to ensure that he is not overcharged. The ISK therefore must have standards in-place that protect the tenant from exploitation by the landlord or his agents.

4.4.2 RECOMMENDATIONS ON CONTRIBUTIONS BY THE EDUCATIONAL INSTITUTIONS AND PROFESSIONAL BODIES.

Educational institutions such as the University of Nairobi that train Property Managers should provide courses that are geared towards enlightening the students on risks that commercial properties are exposed to and how these risks can be treated. The subject of risk management should be taught in the undergraduate class to enable them have an idea of risk management once they graduate.

The graduates of BA (land economics) end up being involved in property management in one way or another. These graduates need to have the skill that will enable them to confidently handle risks that the buildings that they manage face. Elementary knowledge of risk management then comes in handy.

The professional bodies such as the Institute of Surveyors of Kenya (ISK) has in the past invited persons in the insurance industry to inform its members on insurance covers that they may take in relation to the valuation practice. The

property management practice has not been addressed. The ISK needs to invite the insurance industry to inform its members on insurance covers that relate to properties that they manage. In-addition, other risk response methods should be taught as continuous professional development (CPD) so that they are used hand in hand with insurance. Risk management needs to be developed as a core subject in CPDs and the professional exams should include examination in risk management and conversance with various risk response tools.

Objectivity should be instilled in property managers when selecting the risk response tools. This will enable the property managers seek information that will be used to sensitize property owners on the risk response tools and methods of selecting risk response tools. The property manager has a duty toward his client to ensure that he is adequately informed of ways in which he can preserve the value of his property.

4.4.3 AREAS OF FURTHER STUDY

1. Further study should be undertaken on ways of establishing the value at risk and the loss estimated of a property upon an occurrence in-terms of direct, indirect and consequential losses.
2. Further study should be carried out on the statutory requirements of risk response in real estate such as legislation related to insurance, and risk prevention measures.

3. Further study needs to be carried out on the adequacy of risk management during design and construction stage and its effect of responding to risks once the building is occupied.

4.5 CONCLUSION

The primary aim of risk response is to add value to the property and to preserve the value of the property. This goes along with the property owner's objective of wealth maximisation where the property owner puts up a building for financial gain be it for owner occupation or rental. In preserving the value of the property, both preservation of the physical structure and the sustainability of constant and positive cash-flows is considered. This falls in place with revenue maximisation and expenditure minimisation.

The risk response tools used have to ensure that the loss resulting from risks and cost of risk response tools are maintained at minimum. The tools selected should also ensure that the risks are eliminated and those that cannot be eliminated are mitigated. The residual risks may then be financed through retention and / or insurance.

Before risks are identified the objectives of the property owner should be known. This will guide those responsible for risk management in identification of risks and ultimately in selecting risk response tools that are inline with the objectives of the property owner.

Though the objective of wealth maximisation should be considered the landlord owes a duty of care to his tenants and this should not be overlooked. Equity in distribution of costs between the landlord and the tenant is therefore necessary. Since cost is the main factor that influences selection of risk response tools, the landlord should be ready to bear some of those costs. The tenant must not bear the total cost the landlord incurs in preserving the building, equity should therefore be portrayed in apportionment of costs associated with risk response.

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QUESTIONNAIRE TO PROPERTY MANAGERS

Commercial properties are exposed to various risks that have an effect on the profitability and value of the property. These risks include fire, natural disasters, acts of terrorism, unsound structures, vandalism, theft, rent defaults, voids, legal liability, statutory liability, inflation, taxation, change of tastes and preferences and risks associated with location of the property among others.

When a property is exposed to risk there is likelihood that the risk will occur and this occurrence may lead to loss of property, loss of value of the property and loss of rental income. Responding to these risks by controlling them reduces the likelihood of these losses occurring.

This questionnaire attempts to establish the most cost-effective way of responding to risks by taking into consideration the risks commercial properties are currently exposed to as well as the methods used to control them.

The information given in this questionnaire will remain confidential and will be used only for research purposes.

Kindly fill in the blanks and tick where appropriate.

1) The Property

- a) Name of the property. _____
- b) Date of construction. _____
- c) Location. _____
- d) User. _____
- e) Is it multi tenancy of owner occupied _____
- f) Number of floors. _____

2) Total number of tenants? _____

3) What is the average space let per tenant in the building?

Average space (sq.ft)	Number of tenants
0-5,000	
5,000-10,000	
10,000-15,000	
15,000-20,000	
Above 20,000	

4) What is the approximate average duration of leases? _____

5) Do you provide for surrender of the lease? Yes/no _____

6) What type of tenants are there in the building? E.g NGOs, multinationals, indigenous companies, foreign missions, government bodies.

7) What are the main causes of loss of income and increase in expenses of the property you manage (e.g. rent default, voids, expenditure in repair, theft etc)?

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____
- g) _____
- h) _____
- i) _____

8) What risks has the property been exposed to (e.g. fire, vandalism, legal liability, tax depreciation etc).

Risk	Number of occurrences during the life of the building
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	

9) Has a risk assessment of the property ever been carried out? Yes /No

If yes

- ◆ If yes, how often are risk assessments carried out. _____
- ◆ What risks did the assessment consider:
 - a) _____
 - b) _____
 - c) _____

- d) _____
- e) _____
- f) _____
- g) _____
- h) _____

- ◆ Was the property found to be adequately protected from the risks such as risks of fire, floods, security, impact, natural catastrophes among others that were considered. Yes / No _____
- ◆ What recommendations did the risk assessors give.

10) Kindly categorise the risks listed in 9 above using the following rating

Rating	Risks
Very risky	1
	2
	3
Above average risk	1
	2
	3
Average risk	1
	2
	3
Below average risk	1
	2
	3
Least risky	1
	2
	3

11) Among the risk control methods listed which ones are used to control risks listed above.

Risk control method	Rating (tick where appropriate)
Insurance: Insuring against risks	Most frequently used Frequently used Least frequently used.
Retention: Recovering losses from income earned by the property	Most frequently used Frequently used Least frequently used.
Avoidance: Avoiding the risk causing situation	Most frequently used Frequently used Least frequently used.
Prevention: Preventing the risk from occurring in the first place.	Most frequently used Frequently used Least frequently used.
Risk transfer: Transferring risk e.g. via a clause in contracts / agreements	Most frequently used Frequently used Least frequently used.
Loss control: Reducing loss caused by the risk. e.g. By physical or procedural measures, training, or rules.	Most frequently used Frequently used Least frequently used.

12) For insured risks, what insurance covers have been taken.

13) Do you have a standard procedure of reporting an incident/ accident? Yes / no.

- ◆ If no, do you think introduction of procedures would assist in reduction of risk causing situations? Please elaborate your answer.

- ◆ If yes, do these procedures help in controlling expenditure on accidents? Yes/ No

- ◆ Is the tenant charged for accidents within their premises? Yes / No

14) Has legislation affected your operations or risk control methods selected e.g. the Building Code, Public Health Act.? Yes/no _____

15) Which legislation has affected your operations and risk control methods? +

- a) _____
- b) _____
- c) _____
- d) _____

16) In what way is has legislation affected your operations and risk control methods?

- a) _____
- b) _____
- c) _____
- d) _____

17) Do you carry our any training for your staff on accident prevention measures? Yes/ no.

What type of training do you carry out? (e.g. fire drills, orientation on installations for new tenants.)

Who conducts the training?

Who pays for the training? Owner ____ or tenant ____.

18) Which methods have you used to control the risk listed above

Risk control method	Risks	Reason for using the risk control method. E.g. cost, company policy etc.
Insurance: Insuring against risks	<div style="display: flex; justify-content: space-between;"> 1 4 </div> <div style="display: flex; justify-content: space-between;"> 2 5 </div> <div style="display: flex; justify-content: space-between;"> 3 6 </div>	

Risk control method	Risks	Reason for using the risk control method. E.g. cost, company policy etc.						
Retention: Recovering losses from income earned by the property	<table border="0"> <tr><td>1</td><td>4</td></tr> <tr><td>2</td><td>5</td></tr> <tr><td>3</td><td>6</td></tr> </table>	1	4	2	5	3	6	
1	4							
2	5							
3	6							
Avoidance: Avoiding the risk causing situation	<table border="0"> <tr><td>1</td><td>4</td></tr> <tr><td>2</td><td>5</td></tr> <tr><td>3</td><td>6</td></tr> </table>	1	4	2	5	3	6	
1	4							
2	5							
3	6							
Prevention: Preventing the risk from occurring in the first place.	<table border="0"> <tr><td>1</td><td>4</td></tr> <tr><td>2</td><td>5</td></tr> <tr><td>3</td><td>6</td></tr> </table>	1	4	2	5	3	6	
1	4							
2	5							
3	6							
Risk transfer: Transferring risk e.g. via a clause in contracts / agreements	<table border="0"> <tr><td>1</td><td>4</td></tr> <tr><td>2</td><td>5</td></tr> <tr><td>3</td><td>6</td></tr> </table>	1	4	2	5	3	6	
1	4							
2	5							
3	6							
Loss control: Reducing loss caused by the risk. e.g. By physical or procedural measures, training, or rules.	<table border="0"> <tr><td>1</td><td>4</td></tr> <tr><td>2</td><td>5</td></tr> <tr><td>3</td><td>6</td></tr> </table>	1	4	2	5	3	6	
1	4							
2	5							
3	6							

19) List the other risk control methods that you use other than those listed above.

- a) _____
- b) _____
- c) _____
- d) _____

20) What factors do you consider when selecting the risk control methods to be used?
e.g. statutory requirements, cost of the risk control method (premiums in the case of insurance), estimated loss from the risk, frequency of the risk occurring.

- _____
- _____
- _____
- _____

- _____
- _____

21) In your opinion are there other factors other than those mentioned in 18 above that you consider to be important in selecting risk control methods.

- _____
- _____
- _____
- _____
- _____

22) List the risk control methods used from the most expensive to the cheapest and the proportionate cost out of the total cost.

- _____ percentage out of the total cost _____%
- _____ percentage out of the total cost _____%
- _____ percentage out of the total cost _____%
- _____ percentage out of the total cost _____%
- _____ percentage out of the total cost _____%
- _____ percentage out of the total cost _____%

23) As the managing agents of the property what insurance covers has the property owner required you to take in order to manage the property?

24) Who pays for the costs incurred in risk control in respect to the property?

Risk control method	Risks covered	Was the cost of risk control incurred by landlord or tenant?	Mode of payment e.g service charge, capital expenditure, operating expenses of the landlord
Insurance	1 2 3		
Retention	1 2 3		

Risk control method	Risks covered	Was the cost of risk control incurred by landlord or tenant?	Mode of payment e.g service charge, capital expenditure, operating expenses of the landlord
Avoidance	1 2 3		
Prevention	1 2 3		
Risk transfer	1 2 3		
Loss control	1 2 3		

25) Do you have an in-house risk management team? Yes / No.

26) Where consultants are used what criteria used in selection of the consultants? e.g. selective tendering, open tendering or appointment.

a) Does the owner have preferred consultants?

b) How does the owner influence the choice of consultants?

27) a) In your opinion have risk control methods that you use assisted in controlling unforeseen expenditure that results from exposure to risk? Yes / No ___

b) If yes, how?

SCHEDULE OF QUESTIONS TO PROPERTY MANAGERS

1. What does the property owner hope to achieve from the property i.e the objectives of the property owner.
2. What strategy does the management of the property use to achieve these objectives?
3. What causes losses and / or risks in the property?
4. What are the effects of losses and risks in the property?

ANNEXURE III
DATA CAPTURE SHEET I

	Year of construction	No of tenants	No of floors	Presence of a surrender clause	Tenant type	Causes of loss	Risks	Risk assessment?	Risk ass. Recomm.	Insurance covers taken	Is there a procedure for reporting accidents	Is the tenant charged in case of accidents
1.	before 1980	10	6	yes	NGOs, multinational, indigenous	Voids, rent default, repair cost	floods	Yes, Annually. Considered ♦ fire ♦ theft	Fire escapes, security doors	Fire, plate glass, theft	Yes, & they help control costs	Yes
2.	before 1980	4	10	yes	Own, prof. firms	Repair cost	Fire, theft	Yes, annually ♦ fire ♦ lifts ♦ theft	Securing doors, preventive measures	Fire, plate glass, theft, indemnity	"	"
3.	1999	10	19	no	Own, multinationals	"	Third party injury	Yes, annually ♦ fire ♦ structural safety ♦ theft	Preventive measures	Fire, floods, plate glass	"	"
4.	1954	35	8	Yes	Indigenous	"	Fire, vandalism, liability, dep	Yes, every 3 years. ♦ fire	N/a	comprehensive	"	No
5.		60	8	Yes	"	Rent default, voids, repair, theft	fire	Yes, every 3 yrs. ♦ Fire ♦ Vandalism ♦ Theft	More fire extinguishers	Comprehensive	"	No
6.	1953	28	4	Yes	"	"	"	No	--	fire	No	Yes
7.	before 1963	33	7	No	"	Voids, repairs, elec	Legal liab, dep, VAT, decline in economy	N/a	--	"	yes	Yes, if tenant is negligent
8.	1993	18	6	Yes	"	Repairs and voids	Vandalism & tax	"	"	Comprehensive	no	Yes it depends
9.	1963	46	9	Yes	Own, NGs, multi nationals and indig, Cos	Rent default	--	yes	Fire extinguishers and hydrant	Fire, burglary	Yes	Yes
10		30	7	No	indigenous	Rent default, voids, repairs, flooding, legal cases	Electric fire, bomb, vandalism, floods, liab.	Yes: annually ♦ fire ♦ theft ♦ riots	Security guards, fire fighting equip & training Tenants	Fire, loss of rent, theft /vandalism public liab	Yes	Yes depending on the accident

	Year of construction	No of tenants	No of floors	Presence of a surrender clause	Tenant type	Causes of loss	Risks	Risk assessment?	Risk ass. Recomm.	Insurance covers taken	Is there a procedure for reporting accidents	Is the tenant charged in case of accidents
11	1983	50	16	n/a	Own, NGOs & indig.	Rent default, theft, court cases, controlled tenancies, dissection, uneffected rent reviews	Vandalism, theft, legal liab, rent default, flooding	Yes: every 5 - 10 yrs ♦ fire	Rehab fire fighting equip, train staff on fire fighting, security enhancement	fire	yes	Yes
12	1970				Own, Indig, Multi nationals	Rent default repair & mtnce,	Fire, rent default	once	--	Fire & perils, consequential loss, plate galss, public liab.	yes	No
13	1980	74	6	No	indigenous	Rent default, voids	--	--	--	--	yes	"
14	1969	38	20		Indig, Multi nationals, foreign missions	Repair cost, decline in economy	Fire, depreciation, theft	Yes: quaterly ♦ fire ♦ building impact	Fire sys to be tested quaterly, repair on bldg	Fire & perils, consequential loss,	yes	Yes
15	1970	13	5	No	Indig cos	Rent default, voids	vandalism	Once since 1996 ♦ fire ♦ theft	--	Fire, theft	yes	Yes depending on cause
16	1960	31	11	No	Gvt bodies, indig cos	Voids, rent default, elec. bills, mtnce	--	--	--	Fire, public liab, floods, riots, malicious damage, earthquake	yes	Yes
17	1984	16	5	Yes	Own, indigenous	Rent default, voids, repairs, flooding, legal cases	Electric fire, bomb, vandalism, floods, liab.	Yes: annually ♦ fire ♦ theft ♦ riots	Security guards, fire fighting equip & training Tenants	Fire, loss of rent, theft /vandalism public liab	Yes	Yes depending on the accident
18	1990	22	6	Yes	Indig, Multi nationals, foreign missions	Repair cost, decline in economy	Fire, depreciation, theft	Yes: quaterly ♦ fire ♦ building impact	Fire sys to be tested quaterly, repair on bldg	Fire & perils, consequential loss,	yes	Yes
19	1976	24	9	No	Indig cos	Rent default, voids	vandalism	Once since 1998 ♦ fire ♦ theft	--	Fire, theft	yes	Yes depending on cause
20	1979	10	13	No	indigenous	Rent default, voids, repairs, flooding, legal cases	Electric fire, bomb, vandalism, floods, liab.	Yes: annually ♦ fire ♦ theft ♦ riots	Security guards, fire fighting equip & training Tenants	Fire, loss of rent, theft /vandalism public liab	Yes	Yes depending on the accident
21	1959	12	6	No	Gvt bodies,	Voids, rent default,	--	--	--	Fire, public	yes	Yes

	Year of construction	No of tenants	No of floors	Presence of a surrender clause	Tenant type	Causes of loss	Risks	Risk assessment?	Risk ass. Recomm.	Insurance covers taken	Is there a procedure for reporting accidents	Is the tenant charged in case of accidents
					indig cos					liab, floods, riots, malicious damage, earthquake		
22		8	7	Yes	Own, indigenous	Rent default, voids, repairs, flooding, legal cases	Electric fire, bomb, vandalism, floods, liab.	Yes: annually ◆ fire ◆ theft ◆ riots	Security guards, fire fighting equip & training Tenants	Fire, loss of rent, theft /vandalism public liab	Yes	Yes depending on the accident
23	1987	19	8	N/a	indigenous	Rent default, voids, repairs, flooding, legal cases	Fire, vandalism, floods, liab.	once	Security guards, fire fighting equip & training Tenants	Fire, loss of rent, theft /vandalism public liab	Yes	Yes depending on the accident
24	1980	21	11	Yes	Indigenous	"	Fire, vandalism, liability, dep	Yes, every 3 years. ◆ fire	N/a	comprehensive	"	No
25	1967	9	9	No	"	Voids, repairs	Legal liab, dep, VAT, decline in economy	N/a	"	"	yes	Yes, if tenant is negligent
26	1992	18	5	No	Indig, Multi nationals, foreign missions	Repair cost, decline in economy	Fire, depreciation, theft	Yes: quaterly ◆ fire ◆ building impact	Fire sys to be tested quaterly, repair on bldg	Fire & perils, consequential loss,	yes	Yes
27	1970	5	7	No	Own and indigenous cos.	Repair cost	Fire, theft	Yes, annually ◆ fire ◆ lifts ◆ theft	Securing doors, preventive measures	Fire, plate glass, theft, indemnity	"	"
28	1988	17	11	Yes	NGOs, multinational, indigenous	Voids, rent default, repair cost	floods	Yes, Annually. Considered ◆ fire ◆ theft	Fire escapes, security doors	Fire, plate glass, theft	Yes, & they help control costs	Yes
29		29	7	Yes	indigenous	Rent default, voids	--	--	--	--	yes	"
30	1977	17	5	Yes	indigenous	Rent default, voids, repairs, flooding	Fire, vandalism, floods.	once	Security guards, fire fighting equip & training Tenants	Fire, loss of rent, theft /vandalism public liab	Yes	Yes depending on the accident

Form no	Legislature used	Effect of legisl.	Training?	Cost of training	Selection of response tools	Cover taken by p mgr	Response tools	
							Tool	Paid by
1.	Landlord & Tenant, Public Health, Factories	Cost to meet rqmts	Fire drills, use of fire fighting equipment	Service charge	Statures, cost, loss, frequency, impact, convenience	Indemnity	Insurance Retention Avoidance prevention	Landlord " " s. charge
2.	"	"	"	"	"	"	"	"
3.	"	"	"	"	"	"	Insurance Retention Prevention Transfer Loss control	Tenant Landlord " 3 rd party s. charge
4.	Yes not specified	--	no	No	Loss, statutes, frequency	Comprehensive	Insurance Avoidance	Not specified
5.	Building code	--	yes	Landlord	Statute, loss, frequency	"	--	--
6.	"	Cost to meet rqmt	yes	"	Cost, nature of risk, estimated loss	Fire*	Insurance	s.charge
7.	yes	--	No	No	Frequency, statutes, cost, ll instructions	Fidelity of employees	Insurance Retention Avoidance Prevention Transfer Loss control	Landlord " T & Ll Tenant " "
8.	no	--	yes	Owner	Estimated loss, frequency, cost	Fidelity ins	Insurance Avoidance Prevention Transfer	Landlord Tenant Landlord landlord
9.	Building code, PHA	Fire fighting equipment	yes	"	Cost, statutes, frequency	Fire, burglary, cash	Insurance	Landlord
10.	Building code	Provides for e.g fire protection	"	"	Statutes, costs, estimated loss, frequency	Indemnity cover	Insurance Prevention Loss control	Tenant T & Ll Ll - op. exp

Form no	Legislature used	Effect of legisl.	Training?	Cost of training	Selection of response tools	Cover taken by p mgr	Response tools	
							Tool	Paid by
11.	no	No	no	--	Cost, statutes, frequency, estimated loss	--	--	--
12.	yes	Fire protection	no	--	Value at risk, frequency	Professional indemnity	Insurance	Landlord
13.	--	--	--	--	--	--	--	--
14.	no	--	yes	Owner	Statutes, cost	-	-	
15.	--		no	--	Cost, estimated loss	Fire, theft	Insurance Prevention Loss control	Landlord " tenant
16.	Factories act, occupiers liab, PHA	Sets min stds, compulsory Ins cover (public liab)	**	Owner	Cost, estimated loss, statutes, apportionment of cost	Prof indemnity	Insurance Retention avoidance prevention transfer loss control	Tenant -- landlord ll & T tenant s.charge
17.	Building code	Provides for e.g fire protection	**	**	Statutes, costs, estimated loss, frequency	Indemnity cover	Insurance Prevention Loss control	Tenant T & ll Ll - op. exp
18.	Building code	--	yes	Landlord	Statute, loss, frequency			
19.	Building code, PHA	Fire fighting equipment	yes	**	Cost, statutes, frequency	Fire, burglary, cash	Insurance	Landlord
20.	yes	--	No	No	Frequency, statutes, cost, ll instructions	Fidelity of employees	Insurance Retention Avoidance Prevention Transfer Loss control	Landlord " T & Ll Tenant " "
21.	no	--	yes	Owner	Estimated loss, frequency, cost	Fidelity ins	Insurance Avoidance Prevention Transfer	Landlord Tenant Landlord landlord
22.	Building code	Provides for e.g fire protection	**	**	Statutes, costs, estimated loss, frequency	Indemnity cover	Insurance Prevention Loss control	Tenant T & ll Ll - op. exp
23.	Yes not specified	--	no	No	Loss, statutes, frequency	Comprehensive	Insurance Avoidance	Not specified
24.	Factories act,	Sets minimum	"	Owner	Cost, estimated loss,	Prof	Insurance	Tenant

Form no	Legislature used	Effect of legisl.	Training?	Cost of training	Selection of response tools	Cover taken by p mgr	Response tools	
							Tool	Paid by
	occupiers liab, PHA	standards, compulsory Ins cover (public liab)			statutes, apportionment of cost	indemnity	Retention avoidance prevention transfer loss control	-- landlord ll & T tenant s.charge
25.	"	Cost to meet rqmt	yes	"	Cost, nature of risk, estimated loss	--	Insurance	s.charge
26.	Landlord & Tenant, Public Health, Factories	Cost to meet rqmts	Fire drills, use of fire fighting equipment	Service charge	Statutes, cost, loss, frequency, impact, convenience	Indemnity	Insurance Retention Avoidance prevention	Landlord " " s. charge
27.	no	No	no	--	Cost, statutes, frequency, estimated loss	--	--	--
28.	yes	Fire protection	no	--	Value at risk, frequency	Professional indemnity	Insurance	Landlord
29.	no	--	yes	Owner	Estimated loss, frequency, cost	Fidelity ins	Insurance Avoidance Prevention Transfer	Landlord Tenant Landlord landlord
30.	Building code, PHA	Fire fighting equipment	yes	"	Cost, statutes, frequency	Fire, burglary, cash	Insurance	Landlord

ANNEXURE IV
DATA CAPTURE SHEET II

	Objective of property	Strategies	Causes of loss / risks	Effect of Risks
1.	Profit maximization	100% occupancy and timely rent collection	Void, rent default, repair cost	Low income returns and high costs of service charge
2.	Profit and to house business operations	Optimal space allocation for own use and marketing of remaining space	Repair cost, Third party injury, Fire, theft	High operating costs, loss through third party claims
3.	Profit and to house business operations of the owner	Optimal space allocation for own use and marketing of remaining space	Repair cost, Third party injury, Fire, theft	High operating costs, loss through third party claims
4.	Maintaining value of the property and generating income	Ensure high occupancy and maintain property in good condition	Fire, vandalism, liability, depreciation	Loss of income, high operating costs
5.	Income generation	Recovery of service charge, maintaining tenants	Rent default, voids, repair, theft, fire	Loss of income, destruction of property.
6.	Income generation	Marketing vacant space and timely rent collection	Rent default, voids	Loss of income, destruction of property.
7.	Profit maximisation	Marketing vacant space and maintain property in good condition	Void, repairs, VAT, decline in economy	Legal liab, physical depreciation of the property
8.	Increase in wealth	Recovery of service charge and timely rent collection	Vandalism & tax Repairs and voids	Rent default therefore low income
9.	Profit maximisation	100% occupancy and timely rent collection	Rent default	Loss of income
10.	Increase in value of property and ensuring profitability	Ensure high occupancy, recovery of service charge and maintain property in good condition	Rent default, voids, repairs, flooding, legal cases, Electric fire, bomb, vandalism, floods	Legal liability, public liability and high operating costs.
11.	Generate income and ensure profitability and to house business operations of the owner	Recovery of service charge and increase rents	Rent default, theft, rent default, flooding, vandalism, theft, dissention	legal liab, court cases, controlled tenancies, , uneffected rent reviews and loss of income
12.	Generate income	Recovery of service charge	Rent default repair & mtnce, fire	Loss of income
13.	Create wealth through profit maximization	Ensure high occupancy and maintain property in good condition and timely rent collection	Rent default, voids	Rent default therefore low income
14.	Income generation	Increase rent, recover service charge	Repair cost, decline in economy, fire,	Increased operating costs, rent defaults

	Objective of property	Strategies	Causes of loss / risks	Effect of Risks
			depreciation, theft	and voids
15.	Increase wealth through profits	Maintaining the budget and recovering costs from service charge	Rent default, voids, vandalism	Loss of income, high costs of maintenance and loss of rent.
16.	Generate income and to house business operations of the owner	Ensure high occupancy and maintain property in good condition	Voids, rent default, elec. bills, mtnc	High costs of maintenance and loss of rent.
17.	Generate income	Selective marketing of vacant space	Rent default, voids, repairs, flooding, legal cases	Public liability and loss of income
18.	Income generation	Maintain property in good condition and timely rent collection	voids, repairs, flooding	Property loss
19.	Create wealth through profit maximization	Maintaining tenants, timely rent collection and recovery of costs from service charge	Rent default repair & maintenance, fire	Loss of income
20.	Profit and to house business operations of the owner	100% occupancy and maintaining the property in good condition	Rent default, voids, repairs, flooding, legal cases, vandalism, floods	Legal liability, public liability and high operating costs.
21.	Generate income	Marketing vacant space, maintaining tenants and timely rent collection	voids, repairs, fire	Property loss
22.	Profit maximisation	Maintaining tenants and timely rent collection	Rent default, voids, repairs, flooding, legal cases	Loss of property, public liability and low rent collection,
23.	Generate income and to house business operations of the owner	Increase rent, recover service charge	Repair cost, third party injury, fire, theft	High operating costs, loss through third party claims
24.	Profit maximisation	Selective marketing of vacant space recovery of costs through service charge	Voids, repairs, VAT, decline in economy	Legal liab, physical depreciation of the property
25.	Profit maximisation	Maintenance of a strict budget and timely rent collection	Rent default, repair and maintenance	High costs of maintenance and loss of rent.
26.	Generate income and to house business operations of the owner	Recovery of costs from service charge and marketing of vacant space	Vandalism & tax , repairs and voids	Rent default therefore low income
27.	Generate income	Maintain property in good condition, maintain budgets and timely rent collection	Repair cost, decline in economy, fire, depreciation, theft	Increased operating costs, rent defaults and voids
28.	Create wealth through profit maximization	Selective marketing of vacant space recovery of costs through service charge	Rent default repair & maintenance, fire	Loss of income
29.	Increase wealth	Marketing vacant space and maintaining tenants	Voids and cost of repairs	Property loss, low rent collection
30.	Profit maximisation	Maintaining tenants, maintaining a strict budget and timely rent collection	Voids, repairs, decline in economy	Public liability, loss of income physical depreciation of the property