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**ASSESS THE PRACTICES OF PROJECT RISK MANAGEMENT:
THE CASE OF SOME SELECTED REAL ESTATE COMPANIES IN
ADDIS ABABA**

BY: NIGIST MENGESHA

**ST.MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES
SCHOOL OF BUSINESS**

June, 2021

**ASSESS THE PRACTICES OF PROJECT RISK MANAGEMENT:
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ADDIS ABABA**

ADVISOR: Dejene Mamo Bekana (PHD)

**THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF
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PROJECT MANAGEMENT.**

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ADDIS ABABA, ETHIOPIA

**ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES
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Declaration

I, Nigist Mengesha, hereby declare that the thesis work entitled “**Assess the Practices of Project Risk Management: The Case of Some Selected Real Estate Companies in Addis Ababa**” submitted by me for the award of the Degree of Masters of Art in Project Management at ST. Mary’s University, is original work and it hasn’t been presented for the award of any other Degree, Diploma, Fellowship or other similar titles of any other university or institution.

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June, 2021

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Acronyms

CBE- Commercial Bank of Ethiopia

GDP -Gross Domestic Product

IBM- International Business Machines Corp.

IRM- Institute of Risk Management

MoUDHC- Ministry of Urban Development, Housing and Construction

PERT- Program Evaluation Review Technique

PMBOK- Project Management Body of Knowledge

PMI- Project Management Institute

PMLC- Project Management Life Cycle

RPN- Risk Priority Number

SPSS- Statistical Package for the Social Sciences

SWOT- Strengths, Weaknesses, Opportunities, and Threats

WBS- Work Breakdown Structure

Abstract

Real estate projects experience more risks and need to manage them as effectively and efficiently as possible. As many of these projects completed with a budget overrun, a schedule delay and a change in the original scope, managing the risks that cause these problems seems the way to tackle them and attain objectives. This study is conducted with an objective of examining risk management practices among selected real estate companies in Addis Ababa to find out if risk management is being practiced as it should be theoretically. A descriptive survey design was used while a questionnaire was used to gather quantitative data. The study sample in terms of the respondents covered randomly selected real estate companies in Addis Ababa and a sample of 45 was administered with the questionnaire and 84% response rate was achieved. The data collected was analyzed with the aid of descriptive statistical techniques such as frequencies, percentages and mean score. The findings show that despite the risky nature of real estate projects, risk management is not being implemented and practiced to the level needed and a huge gap is seen between what should be theoretically applied and what is being practiced in the projects. The findings of the study indicated that the risk management process fall short of a fully integrated enterprise wide risk management framework. It is found that reliance on the traditional method of intuitive judgment is still very much in evidence. There is evidence that developers tend to take a more reactive rather than a proactive approach to managing risks. The study conclude that that risk management tended to be unstructured, irregularly employed, not applied across all departments and levels, not applied in strategic formulation, not supported by comprehensive methods and tools and as a consequence, not designed, inter alia, to identify events potentially affecting the real estate development organization. It is recommended that real estate projects should improve their risk management practice by identifying risks earlier in the project and planning for them in advance, by integrating risk plan with other organizational and project plans and by developing employees' awareness on risk and its management

Key Words: *Project management, Real estate, Risk, Risk management*

CHAPTER ONE

INTRODUCTION

1.1. Back Ground of the Study

We are living in a world with an ever-increasing rate of change and those organizations which respond and adapt to it more effectively, succeed and do well than the others. The future cannot be known with certainty and the presence of uncertainty requires organizations to manage them and transform themselves regularly if they are to survive and have the possibility of growth and prosperity (Robbins & Judge 2013). It's no different in projects. The very nature of projects, which is their novelty and uniqueness, makes them susceptible to risk. Even the most rigorously planned projects contain uncertainties. Unless managed effectively, these risks will affect the achievement of project objectives (Kerzner, 2006).

Every project is subject to risk. Some can be identified and plans can be put in place if they occur; others cannot and must be dealt with as they occur. A risk is some future event that happens with some probability and results in a change, either positive or negative, to the project (Wysocki 2014). More commonly, though, a risk event is associated with its unwelcome negative result. According to Lewis (2011), a risk is anything that may happen that could create an adverse effect to project schedule, cost, quality or scope.

The timing and probability of risk occurrence cannot be known with certainty, but they will occur with some likelihood and cause some damage to the project (Lewin, 2001). This makes risk management an important aspect of effective project management. According to Kerzner (2006), Risk management is a process of identifying risk, assessing the risks either quantitatively or qualitatively, choosing the appropriate method for handling the risks, and then monitoring and documenting the risks. Effective risk management requires that the project manager be proactive and demonstrate a willingness to develop contingency plans, actively monitor the project, and be willing to respond quickly when a serious risk event occurs.

Risk management is essential in all organizations but a more rigor risk management practice is needed in organizations which are project-oriented (Pezier, 2002). One of these kinds is the real estate industry. Real estate development is considered to be one of the riskiest corporate

activities there is. As the creation of real estate products is in many cases speculative and therefore in anticipation of an unknown future demand, risk and uncertainty are key elements of real estate development (Byrne, 1996). Gehner (2008) asserts that “*real estate development is knowingly taking risk*”. Real estate development is subject to a number of risk factors. Successful development, inter alia, depends on bringing the adequate real estate product to the market at the right time at the right price. The development profit depends on achieving all that while balancing costs against value (Morley, 2002).

Project is fixed both in time and space and involves relatively large amounts of capital (Zani, 1993). Furthermore, real estate development is a very complex and cross-disciplinary task as it typically demands a dedicated team including people with different skill sets and expertise and the co-ordination of a wide range of interrelated activities. Local authorities, legal requirements, residents and neighbors are to be satisfied. Design teams and contractors to be managed, time scales, costs and contingencies to be monitored and lenders and other stakeholders - especially prospective tenants and investors - to be satisfied. In addition, real estate developers are often faced with considerable changes in their environment and new challenges driven by the macro-economic, social, urban-planning, political-legal, regulatory, environmental and technological framework conditions (Shimpi, 1999).

The timing and probability of risk occurrence cannot be known with certainty, but they will occur with some likelihood and cause some damage to the project. This makes risk management an important aspect of effective project management. According to Kerzner (2006), Risk management is a process of identifying risk, assessing the risks either quantitatively or qualitatively, choosing the appropriate method for handling the risks, and then monitoring and documenting the risks. Effective risk management requires that the project manager be proactive and demonstrate a willingness to develop contingency plans, actively monitor the project, and be willing to respond quickly when a serious risk event occurs.

In Ethiopia, following the government's policy to encourage private investments, the real estate industry has seen a drastic growth in recent years. This industry plays an important role in terms of its direct contribution to the economy; supplying housing for the society, undertaking construction projects for commercial and other purposes, creating employment opportunities, its

crosscutting effect in enhancing the development of other sectors through its backward and forward linkages as a consumer of raw and intermediate materials and its contribution to urbanization make this industry vital for the nation's economic growth (Haddush 2016).

The real estate industry is continuously evolving. As major towns in the country continue experiencing rural-urban migration which is driving growth in demand for both residential and commercial property, real estate and property developers are striving to satisfy this demand. Since most of the projects undertaken under this industry are construction projects, they are very risky (Ehsanet *al.* 2010, cited by Haddush 2016). Therefore, risk management is crucial, not only to go with the planned cost and time frame, but also to profit out of that, to gain a competitive advantage.

It can be argued that project management would be unthinkable without risk management; whether to predict costs or estimate resource requirements and task duration, it is impossible to be perfect because the future is uncertain and things can go the unexpected way. Failing to invest in risk management would lead to a much costly investment at their occurrence; and as project risk is integral to business planning, project selection, planning and control, it should be given the needed attention during the whole strategic, operational and tactical business planning especially in planning strategy and in implementation planning (Lewis, 2011). However, we can still witness projects that fail to be completed as planned because of lack of formal/structured risk management practices.

Even if the success criterion of projects differs from one to another, it is undeniable that effective risk management plays an important role in achieving project objectives. As it is already clear that risk management is the key to project's success, understanding and managing project risks enables project teams and members to effectively carry out the project to meet the required expectation and to deliver the objective. This study aims at examining the project risk management processes and techniques that are currently practiced by real estate projects in Addis Ababa and will recommend on major improvement areas for a better risk management practice.

1.2 Statement of the problem

In today's world of project management, perhaps the single most important skill that a project manager can possess is risk management. Effective risk management requires that the project manager be proactive and demonstrate a willingness to develop contingency plans, actively monitor the project, and be willing to respond quickly when a serious risk event occurs (Kerzner 2006). In recent years, increasing attention has been paid to the subject of managing risks inherent in most projects. According to Meredith and Mantel (2009) the subject first appeared in Project Management Institute's 1987 edition of *A Guide to the Project Management Body of Knowledge* (PMBOK). Theoretically, the risk management process includes identifying risks and threats, quantifying them and developing contingency plans to deal with them (Lewis 2011).

Being a project oriented organization, real estate companies experience more risks and need to manage them as effectively and efficiently as possible. As an organization entrusted by its customers to deliver the product upon an agreed time, cost and quality standards, real estate companies are expected to control production delays, escalating construction costs and quality defects to build client confidence and satisfy their customers. Unfortunately, most of the real estate companies appear to be on the far side from this expectation. The performance of the industry, in terms of efficiency and effectiveness, is not as such encouraging with substantial number of projects suffering from delays, cost overruns and quality problems. This was mostly attributed to a number of constraints and challenges; shortage of skilled manpower, inefficient project management, lack of technology transfer, absence of conducive environment that enhances competition and lack of efficient input supply chain were among the challenges constraining growth of the industry (MoUDCH 2014 cited by Haddush, 2016).

Most of these challenges and constraints are, however, risks that can either be planned for or managed in advance; and failing to be prepared for those risks could compromise the successful completion of the project and worse lead to crisis management which is not only costlier but also less effective. The overall result would be a cost increase, a schedule slippage, or some other catastrophic change (Wysocki, 2014).

Although risk management in real estate project is of vital importance, research on the topic is very limited. The importance of knowledge in of risk management principles in real estate has been pointed out by Graaskamp in 2007. While extensive literature exists on risk, and general risk management and a limited amount of empirical data on risk for real estate development projects, research specifically addressing risk management approaches in real estate project in Ethiopia is relatively scarce (Haddush, 2016). An extensive survey conducted by (Newell, 2004) concluded that property and portfolio risk was considered as a most under-researched area. The gap between the theory and practice of risk analysis according to Gimpelevich (2011) is particularly wide in real estate development. Furthermore, there is limited research about how professional real estate developers cope with their risky business (Gehner, 2008).

In Ethiopia, considering the significance of risk management, some unpublished thesis papers are conducted. Hana (2016), Worku (2016) and Tsion (2015) studied risk management practices of Ethiopian Commercial Banks and found that an appropriate environment has been established for managing risk, possible risks are identified, prioritized and planned for in advance, there are tools, techniques, guidelines and procedures to manage risks and that there is awareness about risk management among the Banks' staffs. However, risk management studies conducted on projects entail a different story. Frezewd (2016) and Haddush (2016) found that formal risk management is barely implemented and practiced in projects, specifically in construction projects. Absence of comprehensive identification of the various risks and evaluation of their respective impacts on project objectives is causing a delay and cost overrun. Moreover, they recommended advance risk planning and preparations to properly and efficiently respond to when such risks occur.

While the above researches provided an insight into the risk management practices of different organizations and projects in Ethiopia, most of them focused on the negative side of risks with their unwelcome downside impacts on business objectives. In reality, however, a risk, if it occurs, can result in either positive or negative outcomes (Wysocki 2014). Moreover, most of the studies on risk management are conducted on banks and so little is investigated about risk management practices of projects; even among those studies that took place on projects, it is hard to find researches conducted around the real estate industry.

There is, therefore, a need for a better understanding of risks, their identification, understanding and perception, measurement and management practices of projects in general, and real estate projects in particular, to deliver project outputs successfully. Moreover, projects need to identify positive risks and opportunities, in addition to negative risks and threats, to reap the benefits out of them. In line with these, this research aims at studying if there exist a gap between the theoretical risk management process and the current risk management practice of real estate projects in Addis Ababa.

1.3. Research Questions

The study develops a specific research questions to address the purpose and objectives of the study by focusing on the selected real estate projects that the study will cover. The specific research questions that the study tries to answer were:

- ❖ What are the level of awareness and perception to risk and its management among real estate companies in Addis Ababa?
- ❖ What are the organizational Risk Management Structure and accountability of real estate companies in Addis Ababa?
- ❖ What are the practices concerning risk management processes among real estate projects in Addis Ababa?

1.4 Objectives of the Study

1.4.1 General Objective

The general objective of the study was to examine risk management practices among selected real estate companies in Addis Ababa.

1.4.2 Specific Objectives

In investigating risk management practices of real estate projects, the following three specific objectives were established.

- ❖ To examine the level of awareness and perception to risk and its management among real estate companies in Addis Ababa.
- ❖ To assess the organizational Risk Management Structure and accountability among real estate companies in Addis Ababa.

- ❖ To examine the practices concerning risk management processes among real estate projects in Addis Ababa.

1.5 Significance of the Study

The findings and recommendations of this study would be of a great importance to different project stakeholders, project practitioners and project managers and project teams undertaking similar projects. At completion, the study will show how matured and prepared the projects under study are in terms of risk management. The study will also inform real estate project stakeholders how risk management is really being practiced at their projects, about their strengths and weaknesses in practicing the risk management process. It will also give a general insight to the academic & professional society about the different aspects of risk management and how it is being practiced among the real estate industry. Last but not least, this study will serve as a starting point and as a reference for further studies.

1.6 Scope of the Study

The geographic scope of this study was delimited to 45 selected real estate companies in Addis Ababa on the subject of practice of risk management; which may restrict generalization of the findings to all real estate projects all over the country. The conceptual scope of the study aims to describe and explain actual risk management practice in 45 selected real estate companies in Addis Ababa. The study specifically investigates how risk management was being practiced among selected real estate companies in Addis Ababa by collecting data at a point in time and won't analyze trends overtime.

1.7 Organization of the study

The study is organized into five chapters. Chapter one discussed the introduction part. It contains the background to the research study, presents the statement of problem, objectives significance and scope of the study. Chapter two contains theoretical review, empirical review of previous studies and conceptual framework of study. Chapter three outlines the research methodology adopted in this study. Chapter four discusses about the data analysis and interpretation of the outputs. Chapter five outlines the summary of the finding, conclusions, recommendations and further research suggestions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter the researcher review relevant literature on conceptual, theoretical and empirical framework issues which are found to be essential to the research inquiry. Thus the first section discussed conceptual and theoretical framework related to the study variables which are considered in order to lay solid foundation for the research. In the final analysis, a brief summary of some of the related previous work on this study are discussed.

2.2. Theoretical Review

The meaning of terms varies from study to study depending on their purpose and the context in which they are utilized. The precise clarifications of basic concepts make clear how they are utilized in the study. The main concepts of this study are project, risk, risk management and institution.

2.2.1 Project Defined

Many authors have defined projects in several ways. In this paper we are going to discuss the basic definition of project. Projects are often implemented as a means of achieving an organization's strategic plan. Operations and projects differ primarily in that operations are ongoing and repetitive while projects are temporary and unique. A project is a sequence of finite dependent activities whose successful completion results in the delivery of the expected business value that validated doing the project (Wysocki 2014).

According to the PMBOK Guide (2000) a project can be defined in terms of its distinctive characteristics as 'a temporary endeavor undertaken to create a unique product or service.' In this context temporary doesn't necessarily mean short in duration; many projects last for several years; rather temporary means that every project has a definite beginning and a definite end. The end is reached when the project's objectives have been achieved, or when it becomes clear that the project objectives will not or cannot be met, or the need for the project no longer exists and the project is terminated. Unique means that the product or service is different in some distinguishing way from all other products or services. A repetitive job is not a project (Lewis 2011). Though the desired end results may have been achieved elsewhere, they are at least

unique to the organization. Moreover, every project has some elements that are unique (Meredith and Mantel 2009).

Projects are undertaken at all levels of the organization. They may involve a single unit of one organization or may cross organizational boundaries, as in joint ventures and partnering. Because projects are unique undertakings, they involve a degree of uncertainty and an element of risk. Organizations performing projects will usually divide each project into several project phases to improve management control and provide links to the ongoing operations of the performing organization.

2.2.2. Project Management

In the PMBOK Guide (2000), the project management institute (PMI) formally defines project management as "the application of knowledge, skills, tools, and techniques to project activities to meet project requirements". More specifically Wysocki (2014) defined project management as "an organized common-sense approach that utilizes the appropriate client involvement in order to meet sponsor needs and deliver expected incremental business value". Here, business value is the responsibility of the client through their requirements statements. The project manager is responsible for meeting those requirements. Meeting requirements is the cause and incremental business value is the effect.

Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. Project management is accomplished through the appropriate application and integration of the 47 logically grouped project management processes, which are categorized into five Process Groups. These five Process Groups are: Initiating, Planning, Executing, Monitoring and Controlling, and Closing (PMI, 2000). Project management is the art of creating the illusion that any outcome is the result of a series of predetermined, deliberate acts when; in fact, it was dumb luck (Kerzner, 2001).

2.2.3. Definition of risk

The application of any risk management process requires an interpretation of 'risk' which varies by specific application and situational context. A discussion of the various components of the term risk is necessary in order to pinpoint the nature of risk within the real estate development industry.

In general, risk has a mostly negative connotation and describes the possibility of unfavorable future developments (Lewin, 2001). Accordingly, risk is generally perceived as an undesirable situation and therefore should be avoided. However, such interpretation does not always include the insight that the assumption of risk is an integral part of entrepreneurial action, or only notes this fact in passing. Hence, a business activity that promises profits or other positive effects for an enterprise is nearly always exposed to potential negative effects (Wiegelmann, 2012).

A risk definition restricted to the risk of loss therefore falls short of today's understanding of a risk concept (Duncan, 2002). As only losses constitute a serious threat to the continued existence of an enterprise, the risk concept is often restricted to being a “downside risk”. The possibility of a positive discrepancy between the actual value and the expected value (a profit, for example) can therefore be described as an opportunity or upside potential (Lewin, 2001). Accordingly, both positive and negative deviations from a pre-defined objective with “...*uncertainty of outcome, whether positive opportunity or negative threat*” (Royal Institution of Chartered Surveyors, 2003). This is confirmed by Vaughan (1996, p.8): “*Risk is a condition in which there is a possibility of an adverse deviation from a desired outcome that is expected or hoped for.*”

The relevant definitions imply that both positive and negative deviations from the expected outcome are conceivable. While potential negative deviations are often de-scribed as risks in the strictest sense, the possibility of a positive or negative deviation entails a risk in the widest sense, with the positive divergence constituting an opportunity (Hommel & Lehmann, 2002). A positive deviation generally consists in the over-fulfillment of the initial expectations.

Another source of ambiguity is found in the distinction between risk and uncertainty. Decision-making takes place in an environment, which has three components: certainty, (partial) uncertainty and risk (Norman, 1993). Certainty may be de-fined as a situation in which all relevant factors can be exactly specified and known by the decision-maker. If probabilities may be estimated then risk exists rather than un-certainty (Miller, 1992). Byrne (1996) define risk as a term appropriate for situations where it is possible to define probability distributions for probable outcomes, whereas uncertainty is a term that better suits situations where such probability distributions cannot be made. Thus, the major difference between risk and uncertainty is related to its quantification. The measure of uncertainty refers only to the probabilities assigned to

outcomes, while the measure of risk requires both probabilities for outcomes and losses quantified for outcomes.

From the point of view of the real estate developer, two essential missing elements of the above definition are risk appetite and time horizon. Risk appetite is the degree of uncertainty an enterprise is willing to accept to reach its goals, meaning the point of balance between risk and reward at which a decision-maker feels comfortable in pursuit of stakeholder value (COSO, 2009). Risk appetite is a key factor in evaluating strategic options. An organization's appetite or tolerance for risk will vary with its strategy as well as evolving conditions in its industry and markets and therefore it is unique to most organizations. Hence, in connection with the decision-making process in real estate development, an unfavorable development consists of the ex post realization that a decision failed to render the intended result. The decision itself depends on the level of information regarding future situation, on the one hand and on specific risk appetite on the other.

Further, there is substantial uncertainty around estimating the likelihood of occurrence. These uncertainties result in a decision-making process, which relies on multiple views or scenarios to which the likelihood of occurrence is estimated and which occur over a predefined time horizon. The time horizon has a significant impact on the perception of risk. In conclusion, According to Hommel & Lehman (2002), a definition of risk as best applied to the real estate development industry should consist of the following components:

- ⇒ It takes into consideration the element of uncertainty in connection with events and their implications;
- ⇒ It stresses that risk considerations must be aligned with the normative objectives of a real estate development organization and be in a direct relationship with the relevant expectations and objectives of the organization within a specified time horizon;
- ⇒ It includes the principle of materiality that is well established in the financial audit area; and
- ⇒ It differentiates between negative (threat) and positive (opportunity) aspects of risk, thereby reflecting the fundamental nature of entrepreneurial action within the real estate development industry.

For this thesis, the following definition shall be used for 'risk', which incorporates the above components and specifically refers to the real estate development industry: Risk is the uncertainty expressed through the significance and likelihood of events and their outcomes that could have a material effect on the goals of a real estate development organization over a stated time horizon

2.2.4. Definition of risk management

Risk management is a rapidly developing discipline and there are many and varied views and descriptions of what risk management involves, how it should be conducted and what it is for. The handling of risk has been an issue from time immemorial. While the role of a risk manager has been described as one of the very first challenges faced by mankind, risk management as a business concept and strategy emerged during the course of the economic developments of the 19th century. Bernstein (1996, p. 3) de-scribes risk appetite and management as the key to economic prosperity as follows: *"The capacity to manage risk, and with it the appetite to take risk and make forward-looking choices, are key elements of the energy that drives the economic system for-ward."*

As with the definition of risk, there are equally various definitions of risk management in use. Hommel & Lehman (2002) state that an 'enterprise-wide' or 'integrated risk management' is the most comprehensive and consistent form of risk management which links the risk management process in all areas of the organization with its strategy and ongoing planning, control and other corporate processes. Dickinson (2001) further defines the enterprise risk management as: *"...a systematic and integrated approach to the management of the total risk that a company faces."* The essence of an integrated risk management according to Dowd (1998) is the *"... management of overall institutional risk across all-risk categories and business units"*.

The aim of risk management is to improve the risk situation of an enterprise to achieve a higher level of corporate security, thereby supporting value and success-oriented corporate governance. For Pezier (2002), risk management is to be regarded as an integral part of good management. It is therefore the task of risk management to continuously provide management with the best possible information, systems and procedures to form a solid foundation for the risk decision-making process regarding uncertainties and / or potential opportunities and risks. This includes, in particular, information that is relevant for executive decisions as well as information regarding

factors which have an impact on risk and, their possible implications and which strategies and options the management can resort to when handling risks. However, the objective of corporate risk management cannot be the minimization of all risks. Rather, given the fact that entrepreneurial action is always associated with the assumption of risks, the goal must be to attain a well-balanced situation between risks and expected returns (risk/reward), taking into consideration the comparative advantages of the enterprise and the risk appetite of the decision-makers.

Thus, the management of risks must be based on the top corporate objectives and results in the management being permanently faced with considerations regarding opportunities and risks. Risk management must enable the organization's management to actively influence the corporate risk as an additional operational parameter in order to reflect the pre-set corporate objectives and the risk policy requirements (Hommel & Lehman 2002).

This thesis is based on a risk management understanding in accordance with Deloach (2000). Risk management is a structured and disciplined approach that aligns strategy, processes, people, technology and knowledge with the purpose of evaluating and managing the uncertainties a real estate development organization faces as it creates value (Deloach, 2000). This definition reflects certain fundamental ideas, namely that risk management is a systematic process; an ongoing challenge; applied in strategy formulation; aligned with the real estate development organization's specific risk appetite; applied across the whole real estate development organization, involving every unit and level; designed in order to identify events potentially affecting the real estate development organization; and intended to preserve value and allow value to be created.

2.3. Benefits of an effective risk management system

An effective risk management system should potentially benefit the organization in a number of ways. These have been divided into internal and external benefits for discussion below. The most obvious of the internal benefits are the ability to gain a much better understanding of the risks that are potentially facing a development organization and its activities and viewing risks as opportunities rather than solely as threats. Risk management therefore shall support a sound decision-making, balancing risks and rewards. Risk management provides valuable information

for strategic planning and decision-making by the organization and facilitates a sound identification and assessment of risks. As a result of this, decision-makers in the development industry are expected to make better decisions with respect to strategic and operational choices. An organization may pursue opportunities with greater confidence knowing that it understands the risks inherent in its development activities. At senior management and board level both accountability for and confidence in managing risks are increased, thereby enhancing corporate governance through oversight structure and systematically aligning risk management activities with business strategies. This flows through in terms of aggregating risks and opportunities for improving results, leading to sustainable capital allocation. Finally formalized risk management procedures and documentation result in the identification of opportunities to share knowledge and best practice. It acts as an appropriate working tool, creating transparency and confidence in the organization's business processes (Gehner, 2008).

The external benefits encompass the areas capital raising, insurance and meeting regulatory requirements. Formalized risk management processes are important when raising capital from banks and other capital partners or in order to demonstrate to the public the credit worthiness in connection with the handling of risk. With regard to buying insurance solutions, the organization benefits from the possibility of risk-adjusted insurance premiums with corresponding surplus sharing if there is evidence of a well-developed risk management culture within the organization. A documented risk management system facilitates the documentation of compliance with statutory requirements in the areas of product liability, occupational safety and data protection. Thus, effective risk management supports increasingly demanding investor's and regulator's requirements (Pezier, 2002).

2.4. Risk management in real estate Project

risk management is very important in real estate projects in that it leads to improved success rate towards achieving project objectives (such as delivering the product closer to the agreed upon time, within the acceptable cost and quality standards), informed project decisions, improved communication between project stakeholders, enhanced customer loyalty and confidence and resource efficiency and effectiveness. According to Wiegelmann (2012) the concept of risk from the perspective of real estate development comprises four fundamental components; it carries an

element of uncertainty, it affects the objectives of the development organization, it potentially has a material effect on the organization and it is viewed not only as a threat but also as an opportunity thereby reflecting the entrepreneurial nature of the industry. In the following subsection, we see the definition of real estate project,

2.4.1. Definition of the real estate project

The views expressed in specialist literature regarding the precise definition of the term ‘real estate development’ (also referred as ‘property development’) are varied and, in part, differ from each other. Most definitions refer to a sense of creativity and focus and coordination in order to realize real estate assets (Neary, 2009).

According to Millington (2000), real estate development project *means “the carrying out of building or other operations in, on, over or under land, or the making of any material change in the use of any buildings or other land.”* This definition reflects the functional characteristics of real estate development and continues to be widely used.

The definition of Neary (2009) has been widely accepted and is favored for the purposes of this thesis: *“Real estate development project is required to combine the aspects of location, project concept/ idea and (use of) capital so as to achieve multiple objectives: the results need to be (micro economically) competitive on a standalone basis, should create and / or secure employment, need to be socially, macro economically and environmentally acceptable and they need to generate a positive return over their life-cycle in the long term.”* Neary distinguishes between real estate development in the strict sense, which comprises the period from project initiation until the decision regarding the further procedure within the conceptual framework, and real estate development in the broader sense, which includes both the planning and construction phase and the usage phase of real estate.

This conceptual understanding makes stronger reference to the production factors of location, project idea and capital, which form the starting point of real estate development and whose effective combination results in a specific investment (Healey, 1992). This definition addresses both the macro-economic and the micro-economic effect level of real estate development. From a macro-economic perspective, it is required that the real estate, as the

outcome of development process, meets public demand, while it must be competitive, profitable and sustainable from a micro-economic perspective. This study focuses on the micro-economic level. Further, the core focus is to be on the development of real estate assets. Although development organizations may engage in the construction of roads, drainage, water facilities, power generation and other infrastructure, these projects should be ancillary to the core activity of developing buildings for occupation.

2.4.2. Risky nature of real estate development

When addressing real estate issues, it is necessary to make reference to a number of specifics that are not, or not as prominently, encountered in connection with other investment / asset classes. The most important specific characteristics of real estate as an investment good are described, inter alia by Millington (2000) which are that it is tied to its location, it is heterogeneous, it is scarce and it has limited substitutability. These factors have far-reaching economic, legal and factual implications.

The geographic location alone frequently determines the most likely use as well as the physical and / or structural possibilities, and the value of real estate is largely determined by external factors such as the condition and the possible uses of adjacent properties as well as the infrastructural facilities provided by the public sector. Land cannot be reproduced; any structures built or developed on a specific piece of land are characterized by a high degree of uniqueness. The heterogeneity of real estate can be derived from its immobility. Low level of heterogeneity results in the creation of material and regional sub-markets, thereby restricting the comparability of real estate. The heterogeneity results in sub-market risks as well as property and valuation risks. Heterogeneity leads to both scarcity and limited substitutability. The possible uses of real estate are largely determined by the combination of geographical location, structural conditions and legal parameters. Thus, real estate is characterized by both scarcity and limited substitutability (Neary, 2009).

Real estate development is a highly complex, dynamic and multi-disciplinary challenge. The duration and complexity of the development process involves a considerable amount of time and, as a consequence, real estate developers lack the relative flexibility to respond and adjust quickly

to any fluctuations in tenant and investment markets (Gehner, 2008). This results in increased economic risk. Furthermore, the construction of real estate and the acquisition of a completed property require a considerable investment (Dubben & Sayce, 1991). Against this background and also in view of the objective of maximizing the return on equity, external funds are often necessary to cover capital needs as not all property developers are also property investors. Finally, real estate is also characterized by its long life cycle and useful life. Depending on the purpose of real estate, its capability of being used by third parties and its usage concept, the economic life of real estate ranges between 20 and 100+ years. During this long period of time properties have to be maintained, refurbished or re-positioned (Millington, 2000).

2.4.3. The real estate development process and related risks

Real estate project developers typically take significant risks at the various stages of the development process (Robson, 2009). This section provides a thorough understanding of the nature and processes of real estate development. Besides, the emphasis of this section is on the presentation of potential risks associated with the various stages of the process.

2.4.3.1. Overview to the generic real estate development process

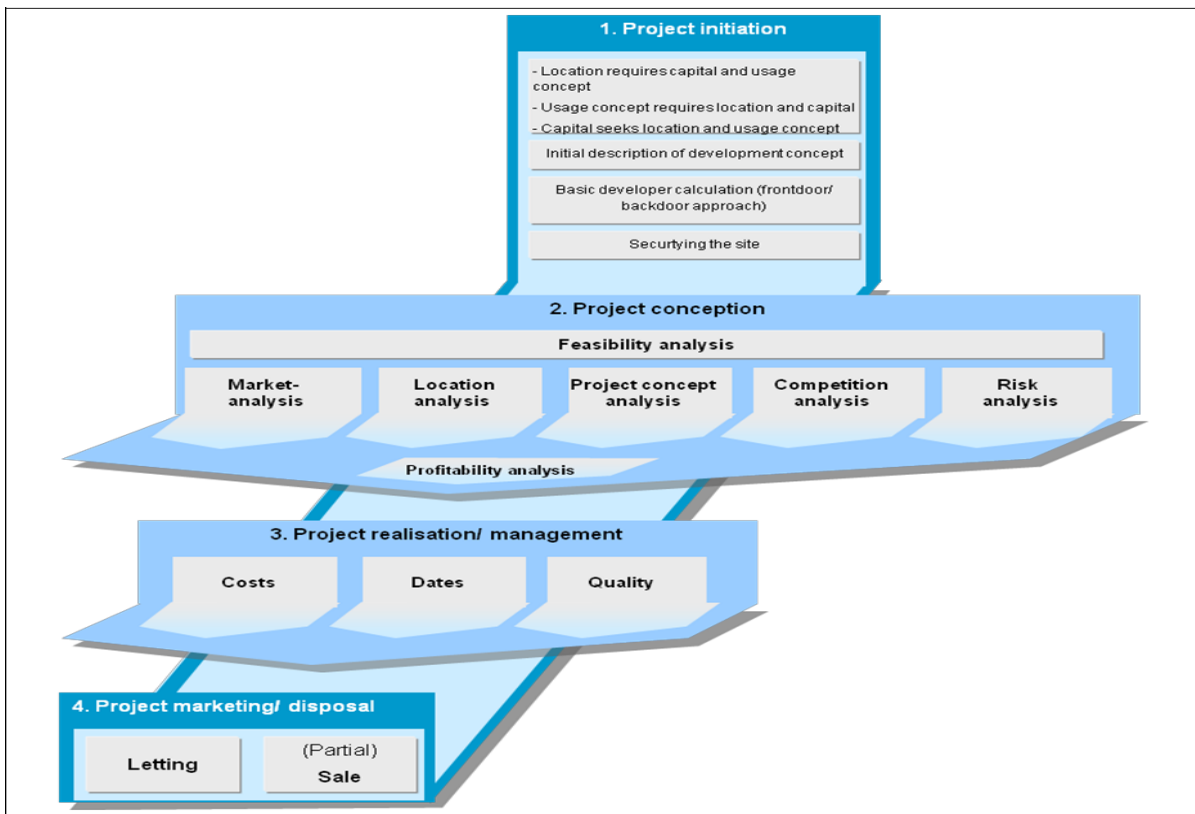
Real estate development is a highly complex, dynamic and multi-disciplinary endeavor, which would be well described in terms of its actual content by means of a process-related perspective. Millington (2000) notes with regard to the fundamental significance of the real estate development process: *“The development process is our most challenging manufacturing process because its sub-systems are complex and because it is the instrument of change which affects all of a community and a society.”*

In the case of real estate development, the process starts with the three factors of location, project idea and capital and ends with the real estate object being ready for occupation. Various authors take different approaches, with differing degrees of detail, in mapping the real estate development process by defining its individual phases (Wiegelmann, 2012). Byrne and Cadman (1984) for example, propose a 3-tier model, distinguishing between ‘Acquisition’, ‘Production’ and ‘Disposal’. Others such as Miles, et al (2000) differentiate between eight phases, which are ‘Initiation’, ‘Evaluation’, ‘Acquisition’, ‘Design and costing’, ‘Permissions’, ‘Commitment’,

‘Implementation’, ‘dispose’. Despite the existence of different process models with varying numbers of phases, however such models generally cover mostly the same tasks performed by a developer.

For purposes of this study, the processes identified are consolidated into four main phases, namely: Project initiation, Project conception, Project realization/management and Project marketing / disposal. A similar phasing is presented by Gehner (2008). A generic flow diagram of the development process is presented in Figure 2-1. The figure illustrates how a project passes through the various stages of its development.

Figure 2 1 Generic real estate development



Source: adopted from (Gehner, 2008)

In summary, it should be noted that the complexity and dynamics of the real estate development process might be reflected in ideal-typical form by means of phase models. Nonetheless, it must be conceded that, in reality, the individual phases do not al-ways take place in the sequence

stated. In fact, real-life projects are generally characterized by overlaps, parallel operations and feedback effects, which cannot be mapped to a sufficient degree using phase models (Isaac et al, 2010). A good example is project marketing whose tools can (or should) be used in an early phase of the real estate development process, as the conclusion of lease agreements at an early project stage will reduce risk and promote the project success of the project to investors (Wiegelmann, 2012).

2.4.3.2. Project initiation

The initiation phase commences the development process. A main expertise of a development organization is to identify the future demand on space market to create and provide an adequate supply and thereby to create value (Gehner, 2008). Creativity and drive are essential for a projects' success. Generating ideas within the framework of project initiation can, in principle, be divided into a level of factual analysis and secondly a level of inspiration and vision (Neary, 2009). Accordingly, for a development may either be:

- An existing plot of land, for which a use / project concept must be found and financing required;
- A project idea for which a suitable location must be procured respectively capital in search;
- The availability of capital seeking investment in a real estate project and thus a property/ micro location and project idea/project concept (Neary, 2009).

Main activities within the project initiation phase are commencing specific market re-search to ascertain demand from potential users / tenants and potential investor pro-files for the proposed development as well as preparing rudimentary development appraisals that will comprise the design, cost and program elements of the development. In case of a unsatisfying outcome of the concept and its initial economics, the project will likely not be pursued any further(Gehner, 2008).

Based on a positive evaluation, the next major step is to typically obtain approval from the developer's senior management board and other significant stakeholders to proceed with the initial concept. If the preliminary review is positive, the next step is to secure the required land in case the site is not already in the developer's possession or under exclusivity. In that case, a strategy for identifying and securing a site of suitable size, budget and location is to be

elaborated. Often it is preferred by developers not to purchase the land at this stage but ensure exclusivity with the owner(s), given that a full feasibility analysis has not yet been completed (Gehner, 2008).

2.4.3.3. Project conception

The conception phase starts with the project feasibility analysis and ends in the implementation decision, or in abandoning the project. This phase can be qualified as one of the most important ones in the development process given its influence to the decision-making of the developer (Wilkinson & Reed, 2008).

Once the rough contours of the project have become visible in the preliminary acquisition review, what matters next is to outline the content of intellectual construct that was created in the initiation phase and to document it as a detailed project concept. This is ultimately intended to answer the question whether and in which manner the project is capable of being realized. According to Nozeman (2002) real estate concepts “*comprise a great number of elements: function(s), location, size, branch(mix), target group(s), positioning, design, technical implementation/level of finishing, legal structure, marketing strategy, exploitation and management model.*” The term ‘feasibility analysis’ has become accepted as a general term for the many types of analyses in advance of project implementation that are covered in this phase.

The goal of a feasibility study is to articulate a finding about the economic sustainability (feasibility) of the project under review. “*A real estate project is ‘feasible’ when the real estate analyst determines that there is a reasonable likelihood of satisfying explicit objectives when a selected course of action is tested for fit of a context of specific constraints and limited resources*” (Barkley, 2004). Prior to committing funds to a development project, a developer as well as his stake-holders and financing partners need a confirmation that market fundamentals will support the values assumed in the project appraisal (Barkham, 1997).

In terms of content, the feasibility analysis is based on detailed market and location analyses, building code reviews, design studies, use analyses, risk assessments, competitive analyses as well as profitability calculations. The challenge at this early and uncertain phase of the project

is finding a balance between costs (potentially sunk costs), project uncertainty and the necessary quality and detailed specification of the usage concept (Wiegelmann, 2012).

2.4.3.4. Project realization/management

The confirmation of the project's potential for success by the feasibility analysis triggers the initiation of negotiation and decision in the realization phase. At this point, at the very latest, the other parties to the project enter into the development process. These include the property owners, architects and engineers, building authorities and other representatives of the public interest, construction contractors, financial institutions, user groups, special service providers to the real estate industry (project managers, consultants, brokers, etc.) and - unless this is a development for own use - investors. While the decision to realize the project was only provisional until that time, it can ultimately be made only with the final issuance of the building permit and subject to the presumption that the other negotiations have reached the stage where they meet a certain level of requirements as stipulated by the developer, for instance with respect to financing commitments, leasing status and construction service contracts awarded (Wiegelmann, 2012).

The acquisition is made in the project realization phase by means of a binding right of purchase or the actual acquisition of the property to be developed. Finalizing the purchase can present unexpected difficulties and changes compared to the feasibility study base case as time has passed and stakeholder expectations are evolving. The price offered and agreed should be within the forecast parameters. Legal documents should be subject to appropriate due diligence and mitigation of execution risks. General risks that can occur during this phase include title issues which may not be satisfactorily resolved, inability to reach agreement on purchase/sale terms or inability to achieve a favorable quality of purchase agreement, purchase/sale terms which are less favorable than market comparable, as well as after purchase/sale additional issues that should have been discovered during entitlement and due diligence process (Barkham, 2002).

Another goal of preparing a more detailed usage concept is the definition of an optimal user mix on the basis of the feasibility study, which typically already includes a preliminary usage concept. In the sequence of the development process, this phase of the work is either performed

after the acquisition of the property and in the course of the project planning process or - in a case of adequate or guaranteed certainty relative to planning - already during the feasibility study. Questions of building functionality, flexibility of use, building efficiency and architectural design are discussed as part of the usage concept. Thus a further core task in connection with this phase is the preparation of a planning, implementation and contracting concept (Barkham, 2002).

Obtaining adequate financing on competitive terms is a complex activity that requires for specialist knowledge. The availability and cost of third party financing has a considerable effect on the success of a development and the profit margin of the developer. Depending on the intended holding period of the development project, the developer may pay off a short term financing from the sale of the completed property in order to realize his profit from the development process. Alternatively, the developer may wish to hold the completed asset as investment property (or owner occupied property) and as a result seek to place long term financing. The (notarized) execution of the negotiated final purchase contract or all contracts required for the acquisition of the property is the basis for the closing of the legal transaction. Inadequate due diligence procedures create potential post-sales risks such as a failure to properly identify environmental issues, or failure to obtain and confirm clean title of the property. Once a transaction is closed, only limited activities along the specific reps & warranty catalogues may be taken to deal with negative aspects, which have not been identified and adequately addressed in the context of a due diligence (Wiegelmann, 2012).

In this stage it is important to undertake three main project realization/management activities which includes: project design, purchasing and construction

⇒ **Project design**

The objectives of the project design should be to balance the requirements of the in-tended user (functionality) with construction costs and sustainable operating and facility management costs, the expertise of construction firms, planning requirements, engineering considerations and aesthetic preferences in order to produce a project-specific optimum design for the site. Detailed plans for land, structural and capital improvements have to be prepared and necessary permits and licenses obtained. A significant risk is that the project design does not meet market needs

and results in lower than anticipated rents or sales proceeds. Also, the initial project design may not address all regulatory issues. Costs to comply with regulatory requirements may reduce projected margin or return (Wiegelmann, 2012).

⇒ **Procurement**

One of the main procurement tasks of the real estate developer is to obtain a building permit within the schedule and on the basis of the previously developed usage type. The usual risk during this stage is that bids from vendors/contractors require more time and or money than originally anticipated in the feasibility study, and that satisfactory contractors cannot be identified. Vendor negotiations may result in substantial revisions to project design (ibid).

⇒ **Construction**

The construction phase starts with the granting of the building permit and the aim is the completion of the project within the planned framework of schedules, costs and quality. Once all necessary permits have been obtained, the developer gives the orders to start work. The real estate developer retains a coordination and internal reporting function. The building owner's functions that cannot be delegated are performed within the context of corporate management. All construction, planning and consulting contracts are entered into, and project controlling/project accounting tasks are performed in this context. There are further obligations to act as representative vis-à-vis all project participants and especially vis-à-vis the public during the entire development period, as well as the task of reporting to the principal/investor or the providers of outside capital (Barkham, 2002).

2.3.4.5. Project marketing / disposal

In real estate industry practice, distribution policy is often characterized by specific forms of in-house and third party sales. Specialized forms, such as the sale of shares in open-ended or closed real estate funds will not be more closely considered at this point. As the completion of the construction project approaches, activities shift increasingly in favor of project marketing, while some individual marketing tasks have already proceeded in parallel with the entire development process. The tasks associated with marketing can be assigned to third parties, i.e. brokerage

organizations. Since the long-term success of the property is very strongly dependent on an effective selling strategy in general and on finding an appropriate mix of tenants in particular, many developers retain marketing in house (Wiegelmann, 2012).

The development process ends with the completion, handover for use and or disposal of the project. In the event that the project is not intended for sale, it is transferred into the developer's own holdings. From the perspective of the property life cycle, this initiates the property and asset management phase, which extends until the redevelopment of the property. The timing of the property sale is dependent on the exit strategy of the project sponsors. Accordingly, it is not possible to assign a generally applicable place within the overall development process to this stage in the value-added chain. Risks related to exit can be caused by a failure to exit at the right time. Capital tied up in excess or underutilized real estate undermines returns and prevents it being recycled into higher yielding projects. Also, if the selected exit strategy does not correctly reflect market conditions, it will not maximize return. There are also execution risks in the form of inadequate due diligence procedures (post-sales risk) and mismanagement of the closing process. Both can cause uncertainty, delays and financial loss. An insufficient executive approval process shows the failure of internal risk management (Wiegelmann, 2012).

Over all, the concept of risk from the perspective of real estate development comprises four fundamental components; it carries an element of uncertainty, it affects the objectives of the development organization, it potentially has a material effect on the organization and it is viewed not only as a threat but also as an opportunity thereby reflecting the entrepreneurial nature of the industry. The identification of risks involves identifying those incidents occurring internally and externally that could affect the strategy and achievability of the objectives of the development organization. The multi-dimensional study of risks provides the criteria by which to analyze risks in the real estate development sector.

In general, the characteristics of real estate development can be divided into those that are unique, those that are generic and those that are specific. Real estate development is unique in that it is inherently risky; it is tied to its location, is heterogeneous, scarce and has limited substitutability. The generic characteristics of real estate development are that it is complex, dynamic and is a multi-disciplinary challenge. The duration and complexity involves time to

complete a project and a lack of flexibility to react to changes in demand. Furthermore acquisition and contracting requires considerable investment, which usually is also provided by external sources. The long life cycle means that refurbishment and repositioning are required at specific points in the lifespan of the asset. The specific characteristics encompass the existence of sub markets, the dependency of and interrelation with upstream and downstream markets, in transparency and government influence.

2.5. Risk management process in real estate project

A risk management process is comprised of all organizational rules and procedures for the identification, analysis, assessment and control of all potential risks as well as the control and supervision of the profitability and efficiency of any measures taken. Risk management practices vary greatly and the process itself has meant different things to different people. As a result, risk management operations run the risk of being fragmented and lack central visibility and overview (Wiegelmann, 2012).

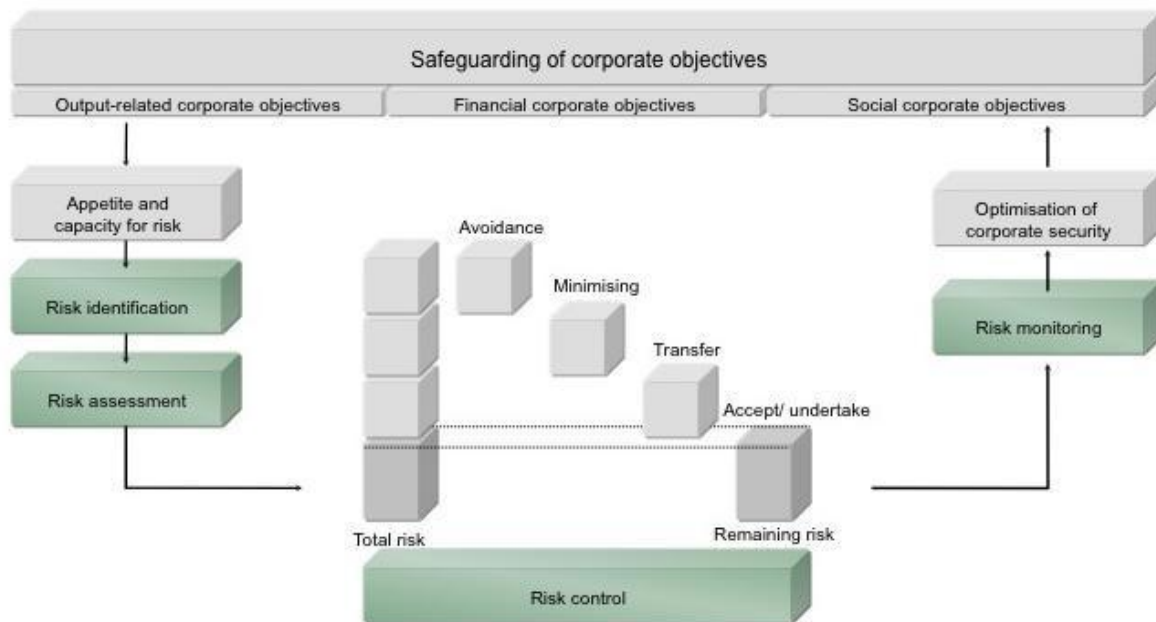
In its practical implementation, a risk management system requires a clearly defined risk policy, a uniform risk terminology, a uniform risk management process, standardized tools and an appropriate risk management organization. To this end, various risk management bodies have provided risk management frameworks to provide the structured generic guidance to help enterprise to enhance their risk management efforts and to better deal with risks in achieving their objectives. These standards enable organizations to compare their own risk management procedures against best practice and what is regarded as acceptable by other organizations (ibid).

It is beyond the scope of this thesis to conduct an in-depth study and comparison of the various aspects of these standards. However, for the purpose of this thesis, the standards provide a sound basis for reviewing the various stages of a systematic risk management process, which has been identified as one of the fundamental elements of risk management. In general, each risk management framework constitutes a permanent, dynamic and systematic process in the sense of a control loop, with the risk management process essentially consisting of four phases, namely identification, assessment, control and documentation (or monitoring). Although each individual

framework has these four core areas in common, the terminologies, components and complexities of the control loop vary.

The risk identification process is to identify possible risks which may affect, either negatively or positively, the objectives of the business and the activity under analysis. Risk assessment is defined as the overall process of risk analysis and risk evaluation and will help in determining which risks have a greater consequence and impact than others as well as the probability of the event occurring. This is followed by the risk control phase, which evaluates whether the level of risk found during the assessment process requires management attention. Risk monitoring is the periodic tracking of risks and reviews the effectiveness of the treatment plan (Wiegelmann, 2012). This approach has been widely used by many academic researchers such as Haller (1986) and will be further examined below from the perspective of the real estate development industry.

Figure 2 2: Risk management process in the real estate development industry



Source: Adopted from(Haller,1986)

The safeguarding of corporate objectives; output-related, financial as well as social encompasses all areas of the risk management process. All development risk management begins with the assessment of the corporate appetite and capacity for risk followed by the four core risk

management activities, namely risk identification, risk as-assessment, risk control and risk monitoring. These are discussed below.

2.5.1. Strategic objectives and risk appetite

The fundamentals of risk management must be formulated in the form of a risk policy, which is considered part of the general business policy (Knight & Pretty, 2001). The risk policy focuses on safeguarding the corporate objectives, particularly regarding the continuation of a company as a going concern. While the practical implementation can take on very different forms, it is possible to summarize some characteristics of an organization's risk policy:

- ⇒ It constitutes a 'system of policy decisions' for the purpose of guiding operating activities with respect to the problem of risk;
- ⇒ As a specific segment of general corporate policy, risk policy articulates the organization's fundamental approach to risk, security and control;
- ⇒ Risk policy sets the principal direction intended to serve as the established objective for any risk management program from a strategic perspective.

The risk strategy is therefore a key component of the overall corporate strategy and indicates the risk/reward ratio the organization is prepared to accept. Gehner (2008) points out that the acceptable level of project related risks in relation to the organizational objective of continuity (risk appetite) is that the total risk of all projects must not jeopardize the survival of the organization.

2.5.2. Risk identification

The primary objective of this phase is the comprehensive identification of any disruptive factors and their effects within the overall context of corporate practice (Hanley, 2001). The categorization of risk can be used to give an insight into the various types of risks and can also be used for structuring the identification of risk and placing the identified risks on to the critical path of the real estate development process (Gehner,2008). According to Roth &Espersen (2002) such risk categorization achieves two important goals, namely (a) the identification of the existing risks within an organization and (b) the combination of risk information within one consistent reference framework, which permits the mutual understanding and monitoring of the risks identified.

Risk categorization may differentiate, amongst others, between strategic and operational risks, output-related and financial risks, internal and external risks, individual and aggregated risks (COSO, 2004). For the purpose of this thesis, a general risk categorization as referred to by Deloach (2000) is favored, which differentiates risks into the following three main categories:

- i) Environmental: uncertainties affecting viability of the business model (when external forces affect the organization's performance, or make its choices regarding its strategy, operations, client relationships, organizational structure or financing obsolete or ineffective)
- ii) Process risks: uncertainties affecting the execution of the business model (arising when internal processes do not achieve the objectives they were implemented for)
- iii) Information for decision-making risks: uncertainties over the relevance and reliability of information that support value creation decisions (arising when information used to support business decisions is incomplete, not actual, inaccurate and not liable or also irrelevant for a decision to be made).

This categorization benefits from giving due weight to both internal and external factors and also from being integrative through its cross functionality. It also benefits from being highly adaptable to change which, in times of economic uncertainty when risk management is most important, is essential.

The effectiveness of risk identification has a marked impact on downstream management processes. It is important to ensure that each risk is carefully defined and explained to facilitate further analysis and this is critical to successful risk management. Only those risks that have been identified can be analyzed and controlled. Errors in risk identification only become apparent when an undetected risk becomes acute and therefore potentially threatens the very existence of the enterprise. The challenge is to achieve a degree of risk identification that is as comprehensive and up-to-date as possible. The risk identification process is usually both time-consuming and complex, particularly in the case of initial identification (Hobuss, 1999).

To a certain degree, the identification of risk in real estate development is expected to be performed intuitively and therefore based on subjective experience. The level of knowledge, the qualifications and the experience of the personnel involved in risk identification play a significant role within the identification process. In order to obtain a wide variety of subjective

risk identification perspectives, a diversified and robust employment program should be in place. The risk management program should incorporate the subjective experiences of the specialist personnel and have an enterprise wide input in the risk management system. This however, must be a controlled process. According to Carey & Turnbull (2001), risk identification must be performed systematically and by using appropriate methods in order to increase effectiveness. In this context, a close connection to the specific industry as well as the specific situation of the individual organization at a given key date, which forms the starting point for risk identification purposes, is decisive (Carey & Turnbull, 2001).

2.5.3. Risk assessment

Risk assessment is the process of evaluating identified risks and the interrelation between risks. During the risk assessment, the individual risk situation of any given organization (risk portfolio) is mapped, forming the basis for subsequent risk control. In order to derive an overview of the appropriate actions required in respect of the risks identified, these risks are therefore, in a second step, analyzed and evaluated. The aim is to obtain insights into the expected value of risk and the degree to which risks may jeopardize the achievement of corporate objectives. In addition, the higher the expected likelihood of occurrence, the less the potential future event is a risk and the more it is an operational issue. The meaningfulness of the assessment models used depends significantly on the amount of data available and the specific data quality. Due to the significance of the data, many organizations establish a special data management capability, which is generally considered a critical success factor in risk management (Gehner,2008)

The methods used for risk assessment depend on the wealth and quality of available information. Assessment methods can be broken down into quantitative methods and qualitative methods. The quantitative approaches are based on mathematical methods and only apply if sufficient risk-specific data are available. In the ideal scenario and where sufficient data is available, both significance and likelihood can be derived on a quantitative, and therefore objective, basis. Quantitative assessment techniques can be broken down into benchmarking, probabilistic and non-probabilistic methods (COSO, 2004). The most rudimentary form of risk analysis takes the form of simple adjustments of development variables along the lines of a worst-case scenario (Harvey, 2000). For example, construction costs can be calculated at higher than current estimates and rental values can be calculated at lower than current figures. However, such

rudimentary risk-adjustment is deterministic and highly subjective, leading to rather questionable estimates.

A more systematic approach to risk analysis is sensitivity or scenario analysis. Sensitivity analysis examines the effects on profitability of changes (such as high, low and medium values) of any of the key variables (Gehner,2008). It identifies the key variables and how changes in individual variables might impact on the final value. Scenario testing is a methodical improvement on sensitivity analysis. Its aim is to examine how a combination of changes in the development variables in an appraisal affects the outcome (Rodney & Venmore, 1996). While sensitivity/scenario analyses are useful as rudimentary risk analysis techniques that allow developers to arrive at a decision, they fail to identify the chances of the possible variations becoming fact. Probabilistic risk evaluation techniques, which came in the early 1960s, are a systematic advance on sensitivity/scenario analysis. According to Byrne & Cadman (1984), probabilistic techniques are a way of measuring uncertainty. They assist the appraiser in progressing from identifying a range of outcomes for control variables to assigning probabilities to each of these variables.

2.5.4. Risk control

Once risks have been identified and evaluated, it must be determined which risks require further action. Risk control is intended to actively influence the risks identified and assessed in order to manage all significant loss exposures through the targeted use of risk management measures. Those business processes, process components or audit areas for review having the highest risks should be prioritized. According to Mcnameeand Selim (1998), the audit areas must meet the following three requirements: (1) they must contribute to the achievement of the enterprise's objectives (effectiveness); (2) they must be material with regard to their influence on the business processes (efficiency) and (3) the probability and the implications of a loss must be greater than the expenses incurred for control and management (profitability).

Fundamentally there are four risk control strategies (Nozeman, 2008). Firstly, risks can be avoided by refraining from transacting high-risk business. Secondly, risk reduction can also be achieved by a timely reduction of the expected value of loss. Thirdly, transferring them to third parties may outsource risks. Finally, the acceptance of the residual risk that remains after taking risk control measures is also an option. There are a number of cause-related and effect-related

strategies to handle the identified risks. Both active and passive risk management represent a further possibility for systemization. Active risk management directly affects the risk determinants by influencing the likelihood and or significance of a given risk. In contrast to active measures, the tools of passive risk management do not alter the actual risk. Instead, passive risk management aims at enabling the organization to cope with a risk when it materializes

2.5.4.1. Risk avoidance

Where the risk assessment determines that particular risk position significantly exceed the limits of the risk strategy, risk control must be intensified. The most radical form of risk management is risk avoidance, which prevents any risks from materializing by reducing their likelihood to nil. Given an existing risk, risk avoidance implies the intentional exclusion of potential opportunities. Therefore, risk avoidance will generally apply only where a risk represents a significant exposure potential when using alternative management measures and if it exceeds the risk appetite of an organization (Laster, 1999a).

2.5.4.2. Risk reduction

The prevention or limitation of loss by decreasing the likelihood of a disturbance occurring and its significance is called risk reduction. For risks that do not appear suddenly, but rather emerge over a period of time, risk-reducing measures (so-called reactive measures) may be taken even after the risk has materialized. Another form of risk reduction is risk diversification whereby a single risk is disaggregated into several individual risks, which should, where possible, not be positively correlated (Laster, 1999).

2.5.4.3. Risk transfer

In the case of risk transfer, an organization transfers the business implications of risks to external risk bearers. In principle, this strategy does not eliminate the cause of risk but merely passes the implications of risks on to third parties. On the one hand, the risk can be spread across multiple partners, with not only the risk but also the profit being shared among the partners; alternatively it is possible to transfer risk to third parties entirely: The shifting of risk is the safest type of risk management; however, it is associated with relatively high costs and limited applicability. Certain risks, for example, may be transferred to suppliers or customers by way of contractual arrangements (Laster, 1999).

2.5.4.4. Risk retention

Risk retention entails the voluntary and involuntary assumption of possible risk implications. In this case, when safeguarding against risks, the relevant risks and their possible impact on the investment decision are deliberately accepted, with the risk appetite of the individual investor being the principal criterion for this decision (Laster, 1999a).

2.5.5. Risk monitoring

The goal of risk monitoring is to examine to what extent operating processes adhere to the planned standards. In the monitoring phase, the primary focus is on evaluating the risk management process across all units and functions. Risk monitoring is multi-tiered and is primarily intended to determine whether: the established goals have been met; risk management complies with risk policy; the organization is efficiently designed and a corresponding risk culture is in place, and whether and responsibilities have been clearly defined (COSO, 2009).

Risk monitoring consists of two core elements: control and reporting. During the control stage, risk management data are gathered and analyzed through key indicator analysis and benchmark comparisons, among others, and reported both internally to the responsible functions and externally to its stakeholders. Controls are generally related to operational or strategic aspects. While operational controls monitor the achievement of predefined targets, thereby performing a corrective function, strategic controls perform an anticipatory function in support of planning. The major risk control tools are systematic key indicator comparisons in the form of period, cross-section and target-to-actual comparisons. This tests the risk position of the organization at a specific point in time. In this connection, value-at-risk is increasingly used as a control. These tools represent a major contribution to the mapping of the risk position (Deloach, 2000).

Risk monitoring is the final stage within the risk management process, but it does not represent the end of the risk management cycle. Up until now, the project risks have been identified, assessed, analyzed, and some kind of risk handling strategy has been adopted for them. It is vital to continuously assess the effectiveness and efficiency of risk management in order to be able to identify areas for possible improvement. The risk management process must in no way be interpreted as a one-off event, but is necessarily subject to an ongoing adjustment and improvement process. Also risks are time-based and as such their impact and probability will vary with time (Deloach, 2000).

The ongoing monitoring and control of the entire risk management process generally results in a noticeable increase in process quality. Effective risk monitoring should have the following characteristics:

- the monitoring process is built into the daily working activities of the organization as much as possible;
- when performed properly, risk monitoring will provide objective assessments of the effectiveness of the internal control system;
- it will use knowledgeable evaluators who fully understand the evaluation process and the organization's objectives and are able to evaluate how they relate to each other;
- management and the board should be open to feedback on the effectiveness of the internal control system; and
- Evaluations should be adjusted in its scope and frequency depending on the importance of the underlying controls and on the results of other monitoring procedures. (Wiegelmann, 2012).

2.6. Overview of the Real Estate Industry in Ethiopia

Ethiopia, having registered high economic growth since 2005 at an average of 10.8% per annum, stands out as one of the fastest growing economies in the world. Growth could be as much as 6.1% in 2020/21 and 2021/22, according to the African Development Bank. Currently, Ethiopia is going through the transformation into an open economy and hence stressing the importance of industrialization in a country. The real estate sector has been one of the fastest growing segments of the national economy. Real estate in Ethiopia is one of the most profitable, high in demand sectors. The sector majorly resides in Addis Ababa, one of the top fastest growing cities in Africa, which makes the city the right destination for real estate companies in Ethiopia to invest in to build luxury homes. Real estate sector has been one of the fastest growing sectors of the Ethiopian economy and its contributing a large sum to the nations GDP.

The sector has gone through several phases from its emergence in 1990's to where it has gotten now. The rapidly changing real estate industry in Addis Ababa is one of the more visible aspects of the extended period of growth recently experienced in Ethiopia. In the years 1975- 1991, the Socialist government of Ethiopia (Derg) had been directly involved in the supply of real estates and set cooperatives housing delivery system. The government used to provide land, building materials, and housing finance on a subsidized manner. And, it issued real estate proclamation number 47/1974, by which the government nationalized all urban lands and extra houses, hence the role of the private sector in real estate development was limited. After the overthrow of the

socialist regime in 1991, the current government has introduced a more of market oriented approach that rehabilitates the private sector's role in real estate development. This liberalization of the real estate sector, in addition to a growing economy, favorable demographics and increasing political stability, clearly contributed to the establishment and expansion of several real estate developers in the country (Zerayehu and Kagne 2015).

In Ethiopia, the urban population has grown at an average 3.8% per annum since 2005 and is expected to triple from 15.2 million in 2012 to 42.3 million by 2037 (African economic outlook 2016). This could pose a significant development challenge if not addressed. Since 2004/05, the government has focused more on developing housing, upgrading slums and providing infrastructure for this growing population. However, without the help from private organizations, the government cannot address all this growing population in providing houses. Though unaffordable for low income society, Residential real estate provides housing for middle and higher income families. Currently, there is a need for real estate developers to involve actively in contributing their share in addressing the high demands for residential houses and commercial buildings.

Currently, there are around 630 real estate investments across the country with a total investment capital of 3.5 billion birr. According to data from Ethiopian Investment Commission, since 2015, close to 117 companies took an investment license to invest on 56 different real estate projects. From 117, 99 percent of them are owned by Ethiopians or in joint venture with foreign investors. Some were still fully owned by foreigners. The primary destination of the real estate industry in Ethiopia, of course, is Addis Ababa. Out of the existing 56 real estate projects to date, 43 are located in Addis Ababa. The full for real estate in Addis Ababa has been and will always be the enormous housing demand which seems to be ever growing (Addis Fortune, 2019)

Residential homes and neighborhoods built by real estate developers are now becoming increasingly common ever since the first large-scale development was initiated by the pioneer in this sector, namely Ayat Real Estate. At present, the dominant real estate developers for residential villa homes include: Ayat Real Estate, Sunshine Real Estate, Hassenias Real Estate, Habitat New Flower Homes, Ropack International, Ambassador Real Estate, Tracon Real Estate, Gift Real Estate, Enyi Real Estate, Country Club Developers, Akakas Real Estate, Boran Real

Estate, Flintstones Homes, and ZenebeFrew Real Estate. Many more are also operational, though with more limited activities. For apartment developments, some of the most active developers include Ayat, Sunshine, Tsehay, Jomboro, Cimex, Access Real Estate, and Flintstones Homes. The developments of these private developers range from very luxurious, high-end communities that sell multi-million Birr homes (e.g. Country Club Developers and Akakas Real Estate) to sellers of more moderately priced homes (Access capital research, 2010).

A real estate market can provide a lot of social and economic yields or benefits to a country if it is operated efficiently and effectively. But in order to achieve this efficiency and effectiveness, such companies should first identify possible challenges and opportunities and plan accordingly. One of the challenges faced by every real estate organization is the risks of producing and selling the buildings. The real estate industry, usually populated by a project-oriented organization, undertakes projects that are unique, complex and temporary with a limited resource and a specified quality standard. Each real estate project is unique in that something is always different each time the activities of a project are repeated and temporary in that every real estate projects have a specified beginning and completion date. All this factors could make the real estate industry risky in which unless managed effectively, could result in either in a failure or a project completion with extended time, budget over run or poor quality. With the obvious need for risk management in real estate projects, this study aims at assessing the risk management practices of real estate companies that reside in Addis Ababa city.

2.7. Empirical literature review

Because of the fact that the real estate industry is at its infancy stage in the country and the recent introduction of risk management concept in businesses, there is only a limited amount of research undertaken on the subject of real estate risk management in developing countries, in general and in Ethiopia, in particular. But there are still studies that are conducted on risk management practices of other sectors like the construction sector, the financial sector like banks and its closely affiliated sector insurance. These studies are reviewed below.

The study by Wang, et al (2004) entitled “Risk management framework for construction project in developing countries” have identified 11 major risks in construction industry, in the study. The

study was done in international construction projects in Singapore and the identified major risks were: Approval and Permit, Change in Law, Justice Reinforcement, Local Partner's Creditworthiness, Political Instability, Cost Overrun, Corruption, Inflation and Interest Rates, Government Policies, Government Influence on Disputes and Termination of Joint Venture. The research recommended to treat (mitigate) the risks at higher hierarchy level.

According to a study conducted by (Nur et al. , 2012) on Significant Risk Factors in Real Estate Projects: Contractor's Perception, the significant risk-contributing factors in construction projects found are shortage of material, late deliveries of material, shortage of equipment, poor quality of workmanship, and cash flow difficulties. Another study conducted by (Shahid et al., 2013) on risk management in construction projects identified top ten construction risks namely : a) payment delays; b) project funding problems; c) accidents/safety during construction; d) defective design; e) inaccurate execution plan/schedule; f) poor performance of sub-contractors; g) exchange rate fluctuation and inflation; h) improper scope of work definition in a contract; i) poor quality of materials and equipment; and j) shortage/delay of material supply

The study conducted by (Ally, 2013) on risk management in construction project revealed that there are three categories of risks with extreme and high risk level namely financial risks, construction risks, and physical risks. Types of risk having extreme level of risks in financial category of risks are availability of funds, cash flow problems due to slow payment & dispute, business disruption. Types of risk having extreme level of risks in construction category of risks are ground conditions, inadequate site investigation, inadequate information in documents, unforeseen problems, errors or omissions and additions in bills of quantities, price escalation on materials and Equipment. While types of risks having high level of risk in physical risk category are force majeure (acts of God), i.e. inclement weather, fire, landslip, and etc., pestilence or deadly disease, disease, and unexpected events or unforeseen circumstances and death

The study by (Gehner, 2014) presents the results of an explorative survey of the top representatives of the Dutch real estate development sector on the usage of risk management. The survey is based on in-depth interviews to gain insight of the real estate development process, the risks involved, and the risk analysis and control methods used. With regard to risk analysis, it was found that real estate developers do not make use of probabilistic techniques; scenario

analyses are thought of as most applicable because of the complexity of real estate development; several methods to assess the total risk exposure are used; and intuition and experience are necessary for decision-making. The characteristics of the real estate development process and the best practices concerning risk management will be used to develop an improved risk management method for real estate development.

The studies on risk management in Ethiopia context include Endaweke (2015), Tsion (2015) and Worku (2016) where all the three of them studied risk management practices of commercial banks in Ethiopia and identified the major risks faced by those banks. Tsion (2015) and Worku (2016) found that banks operating in Ethiopia are indeed risk-focused. Tsion (2015) suggested that banks should give emphasis on staff training in the area of risk management and they must make risk visible, measurable and manageable and ensure a meaningful risk culture throughout all processes and activities. Endaweke (2015) concluded that banks with good risk management policies have a lower risk and relatively higher return on asset.

Haddush (2016) conducted an empirical survey in an effort to examine the experience of the construction industry of Ethiopia with respect to the management of risk and the implementation of integrated risk management. The findings show that formal risk management is not well practiced in the industry with only 28.6% of them implementing formal risk management with risk management policy approved by the board of directors signifying absence of a structured approach to deal with the risks that greatly affect the performance and competitiveness of the enterprises. The researcher suggested a sustainable implementation of integrated risk management practice and the need for the owners of construction enterprises, their board and the top management to be able to discharge their leadership role in implementing integrated risk management in their enterprises for the success and growth of the construction industry.

Frezewd (2016) studied the practice of project risk management in Batu and Dukem Town water supply projects and found that a standard risk management process is absent within the projects in that there is no policy or guideline that is designed on how to manage risks in the projects and no well-defined strategy that guides on how to respond to risks within the project. Moreover, the research findings show that in spite of the presence of risk identification and analysis, through planning does not exist. Generally, the outcome of the research showed that risk management practice is implemented to some extent but there is a gap between the theory of project risk

management which should be applied and the actual practice that is performed by the two water supply projects.

Hana (2016) examined the extent of operational risk management practices of CBE. The study was made through the combination of theory and empirical work. The outcome of the study indicated that although some of its components are not always adhered to and need improvement, there is still a well-established framework to manage operational risks. The researcher suggested that the bank needs to allocate adequate resources, create awareness and build the capacity of concerned staff, strengthen the risk culture, employ appropriate mechanisms for measurement and reporting of operational risk in order to improve its risk management practices.

This study by (Kalkidan, 2017) conducted with an objective of examining risk management practices among selected real estate projects in Ethiopia to find out if risk management is being practiced as it should be theoretically. The findings show that, despite the risky nature of real estate projects, risk management is not being implemented and practiced to the level needed and a huge gap is seen between what should be theoretically applied and what is being practiced in the projects. It is also found that project risk management plan is not integrated to the parent organizations' corporate strategic plan and little is being done to develop team members' awareness to risk and its management. It is recommended that real estate projects should improve their risk management practice by identifying risks earlier in the project and planning for them in advance, by integrating risk plan with other organizational and project plans and by developing employees' awareness on risk and its management.

A study by (Andenet, 2018), on project risk management of bank of Abyssinia ISAP project, found that project stakeholders did not have adequate risk management knowledge and experience, and lesson learned from previous projects did not incorporated in the risk identification process as there was no documented risk register. Furthermore, the organization policy and procedure was inadequate to guide the project team to go through a disciplined risk management process, i.e., the institute didn't have well established formal project risk management practice. As a result, the project teams were unable to link business analysis of threats and opportunities and analysis of project risk strongly.

A study by (Bisrat, 2018) on assessment of Risk Management Practices of Ethiopian Public Health Institute found that risk planning is not included in the project plan. There was inadequate risk management training for project members, and there was major knowledge gap towards what project risk management is and how it is implemented. And the author also discovered that all risk management stakeholders were not involved in the actual practice. Hence he recommended provision of risk management training for project team members and also risk management practice in these projects to be participatory and inclusive.

A study by (Getnet, 2019) on assessment of Project Risk Management Practices: The case of Commercial Bank of Ethiopia information technology infrastructure library (ITIL) Project discovered that risk management plan was not included in the project management plan. Therefore, there was no any formal policy that guides the project team to overcome uncertainties in the project. There was also no defined risk roles and responsibility. Hence, project team had no enough experience in project risk management so that they are not capable to come up with uncertainties. As a result, risks were mainly handed by project manager and the consultant since there was no responsible department for risk handling. Moreover, all inherent project risks were not identified and risk register was not developed. Besides, identified risks were not numerically analyzed on the overall objectives of the project and project documents were not updated after risks were analyzed. The study identified that risk response planning to enhance opportunities and to reduce threats to project objectives were poor. In addition, risks were not audited and reviewed periodically, and risk management was not evaluated throughout project lifecycle.

In summary, all the above studies show the need for a coordinated and an integrated risk management framework. Even in organizations which are risk focused, there is still a gap that needs to be filled between the theory of project risk management which should be applied and the actual practice that is performed such as the level of awareness and perception to risk and its management, organizational Risk Management Structure and accountability, the practices concerning risk management processes. This study aims at assessing the risk management practices of real estate companies in Addis Ababa in the hopes that the findings and recommendations could close such gap and contribute to the very limited literature in the area.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

In this chapter, the researcher describes the procedures to ensure a methodical and well-informed investigation, focusing on sampling procedure, data collection and analysis methods. Data collection instruments and procedures are discussed as well as the target population and sampling procedures. Research methodology is described as method of illuminating scientific procedures in a way suitable for the purpose. It is the general standard which direct the description of the methods applied in conducting the research study, how to and what analysis to be done to the data so collected (Akinyele, 2016). These are realized in address research methods used for the study, the data collection and how the field work for the study was conducted.

3.2. Research philosophy and approach

The choice of method or technique is depends upon the willingness to accept the proposition associated to every set of techniques and tools. The scholars who prefer qualitative techniques of observation, description and questioning are called naturalist. Conversely, the researchers who prefer quantitative techniques and tools which focus on counting and measuring are called positivist. The naturalist and the positivists differ in their suppositions about what can be known, what is important to study, what research designs and tools are suitable, and what benchmarks should be adopted in order to assess the research quality. All these assumptions taking together are known as research philosophies or paradigms (Easter by-Smith et al., 2012).

This study was conducted based on the assumptions of positivism philosophy which states that the properties of external world should be analyzed through objective methods. The positivism philosophy assumes that reality is directly measurable, fixed and understandable and there is just one external reality, one truth (Saunders et al., 2009). This assumption was used in this research because researchers who can tolerate uncertainty are more possible to favor quantitative techniques which are supported by positivism philosophy with its acceptance of various viewpoints of constantly changing reality and truth.

Regarding the research approach, this research was based on the assumptions of deductive approach which is highly advocated by positivist philosophers. In this research, the study begins

from the existing theories, models and literature concerning project risk management. The observation was conducted to test the assumptions on the basis of existing knowledge.

3.3. Research Design

Newing (2011) defined research design as the arrangement of conditions for collection and analysis of data in a way that intend to combine importance to the research purpose with economy in procedure. Kothari (2004) further emphasizes that research design assist the smooth performance that carrying out the various research operations, thus enabling the exercise as efficient as possible, comprehending utmost outcome with minimum resources. Thus a research design is the arrangement or the blue-print of research that direct the procedure of research from the formulation of the research questions and hypothesis to reporting the findings that seeks to meet the purpose of the study (Kombo & Tromp, 2009).

The choice of research design depends on objectives that the researchers want to achieve (Newing, 2011). The primary aim of this study was to examine risk management practices among selected real estate companies in Addis Ababa. To achieve this objective, descriptive survey research design was used. Lavrakas (2008) describes a descriptive survey research design as a systematic research method for collecting data from a representative sample of individuals using instruments composed of closed-ended and/or open-ended questions, observations, and interviews. It is one of the most widely used non-experimental research designs across disciplines to collect large amounts of survey data from a representative sample of individuals sampled from the targeted population. The reason for using descriptive study in this research was because it is widely used to demonstrate associations between variables and especially in studies involving collection of data using survey methods. It is therefore justified in view of the above definitions, descriptions and strengths that descriptive survey was the most suited and appropriate design for this study.

3.4. Population and Sampling procedure

Target population of survey is the entire set of units for which the survey data are used to make inferences (Smyth, 2004). It is the population that a researcher wants to generalize the results of the study. Accordingly, those real estate developers who are registered in Addis Ababa Investment Authority constitute the target population. The target population was 342 companies

that are recorded in Addis Ababa Investment Authority. However, among the 342 companies recorded by Addis Ababa Investment, only 117 companies are registered by the current 'Addis Ababa city Land Administration and Construction License Authority'. Accordingly, 117 is the accessible population size which includes active Real Estate companies in Addis Ababa that run Real Estate projects by receiving land from the concerned body.

To determine sample size of the study, the researcher used a method developed by Nassiuma (2000). Therefore, the following formula issued to determine the sample size.

$$n = \frac{NC^2}{C^2 + (N-1)e^2} = \frac{117(0.25)^2}{0.25^2 + (117)(0.03)^2} = 45$$

Where n = Sample size, N = accessible population size, C = Coefficient of variation and e = Standard margin of error. Nassiuma (2000) recommends a margin error ranging between 2%-5% and coefficient of variation ranging between 20%-30%. For this study N = 117 respondents, C = 25% and e = 0.03 which gives a sample of 44. Twenty five percent coefficient of variation was used to ensure that the sample is wide enough to justify the results being generalized for whole real estate companies in Addis Ababa. A higher coefficient of variation was not used to avoid very large samples due to limitation of time and research funds. The choice of c=0.3 was informed by the fact that coefficient of variation indicates how scattered about the mean a given set of data is. The study was utilized simple random sampling technique to select 45 sample companies.

3.5 Data Collection Instrument

For this study both primary and secondary sources of data were used. Kothari (2004) describes primary data as those which are collected a fresh and for the first time and thus happen to be original in character. Dawson (2009) states that secondary research data involves the data collected using information from studies that other researchers have made of a subject. Both sets of data are used in this study.

The study utilized questionnaire as major instrument for collecting primary data. Schwab (2005) defined questionnaire as measuring instruments that ask individuals to answer a set of questions or respond to a set of statement. A questionnaire is research instrument that is used in data collection when dealing with a large sample (Kombo, et al.2002). A questionnaire was preferred

because of its convenience and ease of administration. Kothari (2004) stated that questionnaires have various advantages, like; it is free from the bias of the interviewer; it is low cost even when the universe is large and is widely spread geographically; respondents have adequate time to give well thought out answers; respondents who are not easily approachable can also be reached conveniently; large samples can be made use of and thus the results can be made more dependable and reliable. In view of the advantages and the need to gather more information, questionnaires were administered to CEO or concerning risk managers to solicit their views concerning their practice of risk management.

The study primarily use closed-ended questionnaire for primary data collection. This was due to the fact that closed-ended questions are often good for surveys, because one can get higher response rates. Beside, answers to closed-ended questions can easily be coded and analyzed makes them particularly useful when trying to prove the statistical significance of a survey's results. Close-ended questions are also advantageous in that response choices can clarify the context of the question for the respondent as well as improve consistency of responses.

The questionnaire was carefully designed and each item is cautiously created so as to collect the target information, address research objectives and tied into the overall research problem. The questionnaire was structured into 3 sections. The first section of the questionnaire was about risk perception and awareness which is mainly target to address the first research objective. The second section of the questionnaire contains questions concerning organizational structure about risk management which aimed to address the second research objectives. The last section of the questionnaire was concerned with the risk management process which is mainly target to address the third research objective. Overall there are forty three (43) questions (most in Likert scale format), and each set of questions are concisely design in such a way that they would be easily comprehended and responded to.

3.6 Pilot Test

For primary data, a pilot test was carry out before the main data collection, in order to fix the validity and reliability of the questionnaire, vagueness and clarity of items. Babble (2002), indicated that pilot testing is a trial run of procedure and instruments that someone plans to use in

undertaking a research. The purpose was to get feedback on the clarity, simplicity and adequacy of the questions in collecting the target information.

The pilot test therefore will be performed using 5 (five) purposively selected practitioners of real estate and due care was given to exclude these piloted respondents from the main study. The response of the pilot administration of the questionnaire was served to improve the content values of the questions used in the main administration. In addition, result of pilot questionnaires was used to make validity and reliability test.

3.6.1. Instrument Validity

Validity refers to the accuracy of the measurement process; that is, the extent to which the scores from a measure represent the variable they are intended (Gakure and Ngumi, 2013). It is the extent to which the scores from a measure signify the variable they are intended to. Weber (1990) indicated that in order to draw valid inference from a test, it is important that the classification procedure be reliable and consistent. As errors are likely to occur, whether intentionally or not, therefore every measurement result should include measurement error to ensure the validity of such measurement.

In recognition of this fact, therefore, validity test of the questionnaires was done on its content. Content validity assesses the degree to which a test appears to measure a concept analysis of the items in order to confirm a sufficient coverage of the scope of the study by the measuring instrument (Oyerinde, 2011). In order to ascertain the relevance of each question to factors being measured and to ensure that the content of the instrument provide answers to the objectives of the study, content validity of the pilot questionnaire was tested. This was done by experts in the field and if an inadequacy of the instrument is found, necessary corrections were taken to ensure content validity.

3.6.2 Instrument reliability

In addition, reliability test will be carrying out in order to ensure the consistency of the instruments used in main administration. The reliability is consistency of the measurement; that is, to what extent a measuring device will produce the same results when applied multiple times to the same person under similar conditions (Gakure and Ngumi, 2013). The most straightforward method of testing reliability is to replicate; either by asking the same questions to

the same respondents at different times and evaluating the degree of correlation, or by asking the same question in different ways at different points in the questionnaire (Johnson & John, 2002). In this study Reliability will be tested by using questionnaire in the pilot study.

The study was employed Cronbachs' alpha to assess reliability of the questionnaire. Cronbachs' co-efficient alpha is the most common way of measuring internal consistency. Cronbachs' coefficient (alpha) may range between 0 to 1, with 0 indicating an instrument full of errors and 1 indicating total absence of error. The closer Cronbach's alpha coefficient is to 1, the higher the internal consistency reliability (Oyerinde, 2011). A reliability coefficient (alpha) of 0.70 is considered acceptable, reliable and recommended for new questionnaire. The descriptive analysis of primary data showed that a high reliability was attained by questionnaire instrument with acceptable range of reliability coefficients.

Table 3 1:- Cronbach's Alpha for total questionnaire

Cronbach's Alpha	N of Items
0.897	45

Source: own survey (2021) N= 38

3.7 Data Processing and Analyzing

In this study, the primary data was collected from 38 selected real state in Adiss Abeba distributed questionnaire. Once the questionnaires were gathered, the next step was to edit, clean, encode and look for errors in the data. This is the question of data processing. Data processing is a series of actions or steps performed on data to verify, organize, transform, integrate, and extract data in an appropriate output form for subsequent use. In recognition of this fact, therefore, the data processing of collected questionnaires was rigorously done. This helped in compressing and arranging the data into small sets for easy examination and analysis.

Next, the collected and processed primary data from the questionnaire were analyzed by mainly descriptive statistics. Descriptive statistics such as mean scores, percentages, frequency distribution and standard deviations were computed to describe the characteristics of the variables of interest in the study.

3.8 Ethical Consideration

The researcher did his best to address ethical consideration of confidentiality, privacy, and informed consent. All the study participants were informed about the purpose of the study and verbal consent of all study subjects was obtained before data collection. Participants were also be informed that they have full right to discontinue or refuse to participate in the study. To ensure confidentiality, the name of respondent was not be written on the questionnaire.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONs

Introduction

This chapter deals with organization, analysis and presentation of data collected from respondents using questionnaires. The data collected was analyzed and interpreted in line with the objective of the study which was; to assess risk management practices among real estate companies in case of Addis Ababa. It gives the empirical findings and results following the application of these variables using the techniques indicated in the third chapter.

4.1 Response Rate

The researcher was distributed 45 questionnaires to sample companies. The table 4.1 shows the response rate of questionnaire.

Table 4 1: Response Rate

Response rate	Sample size	Percentage (%)
Returned questionnaires	38	84.4
Un-returned questionnaires	7	13.6
Total	45	100

Source: field survey, 2021

Out of 45 questionnaires, thirty eight questionnaires (38) were completed and returned. This represents a response rate of 84.4% and none response rate of 13.6%. According to Mugenda (2003), a response rate of 50% is considered good and response rate greater than 70% is considered to be very good. The 84% response rate is thus considered a very good representative of respondents to provide enough information for analysis and to derive conclusions.

4.2. Risk Perception and awareness

The first specific objective of the study is to examine the level of awareness and perception to risk and its management among real estate companies in Addis Ababa. Risk in the context of real estate development has been defined as “a concept used to express the significance and likelihood of events and / or their outcomes that could have a material effect on the goals of a real estate development organization” (Hommel & Lehman, 2002)

Differing points of view exist within corporate risk management, ranging from emphasis on the potential negative impacts to focusing on improved results through risk-oriented corporate governance. Ideally, both risks and rewards should be taken into consideration in equal measures. An evaluation of how participating organizations regard risk as a concept in their business objectives and a common understanding of the concept of risk is assessed & the result is presented in Table 4.2.

Table 4 2 Risk Perception and awareness

Statements	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)	Mean	SD
	1	2	3	4	5		
Risk is looked upon as an opportunity as well as a threat in achievement of the company’s objectives.	5.3	7.9	0	65.8	21.1	3.89	1.0
There is a common understanding/terminology of risk management across the company.	26.3	13.2	0	57.9	2.6	2.97	1.3
Risk management is treated as a continuous process in the project.	0	2.6	0	76.3	21.1	4.16	0.54
All project personnel have an understanding of the major risks & risk management plan of the project.	5.3	23.7	5.3	44.7	21.1	3.53	1.22
Team members within the project receive trainings and seminars to develop enough knowledge on major risks that might affect project objectives	13.2	44.7	13.2	18.4	10.5	2.68	1.23
The company facilitates different meetings and events to raise employees awareness towards risk	15.8	44.7	13.2	18.4	7.9	2.58	1.2
Average						3.3	1.08

Source: field Survey, 2021

As the survey shows, 86.9 percent of the developers polled follow a reward-oriented interpretation of the concept of risk. In this regard, the relevant organizations largely follow the principles advocated in theory. 13.1 per cent of all respondents do not perceive a link between risks and rewards, with one organization completely rejecting the reward aspect of risk. Accordingly, the expectation that developers closely associate risk with an upside potential

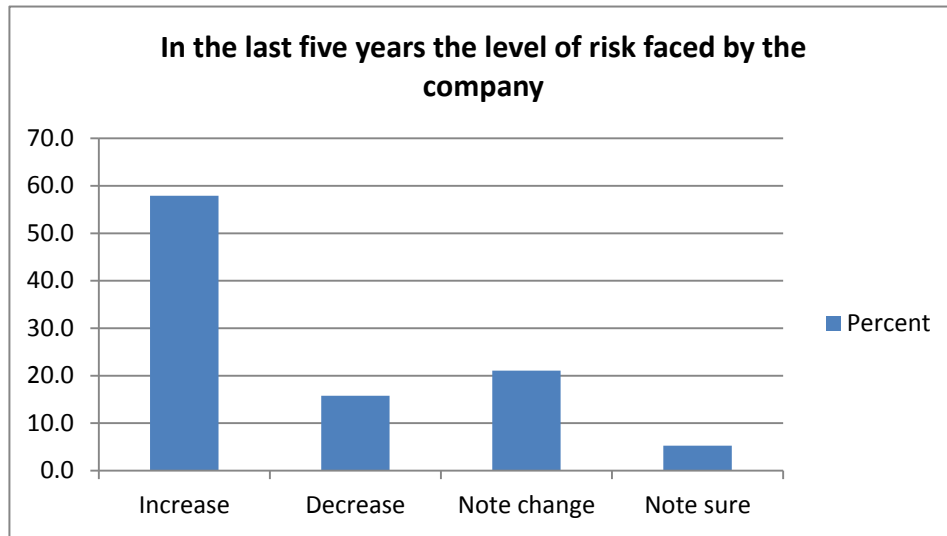
seems plausible. The results suggest that developer's understanding of risk management is definitely not about completely eliminating risk, or not taking risks at all. Rather, developers generate value and business confidence by their ability to balance and accept opportunities and risks.

When respondents were asked whether there is a common understanding/terminology of risk management across the company, 61 percent of respondent were indicated their agreement with the statement. However, the fact that 39.5 percent of the survey participants did not indicate a common definition of risk across their organization suggests that the practice of risk management has yet to be integrated into many organizations. On whether risk management is treated as a continuous process in the project, almost all respondent (97.4%) of respondents agree, while only 2.6% were disagreeing. This is an indication that the developers treat risk management as continues process that involves various interrelated activities.

Question was asked on all project personnel have an understanding of the major risks & risk management plan of the project. The finding showed that 65.8% were agreed, while 29% were disagreed. This finding is an indication of the fact that there awareness gap among project team members regarding understanding of the major risks.

On whether team members within the project receive trainings and seminars to develop enough knowledge on major risks that might affect project objectives, more than half (57.8%) of respondent were disagreed, while only 13% of respondents were reported their agreement with statement. Similarly, when respondents were asked whether the company facilitates different meetings and events to raise employees' awareness towards risk, around 60 percent of respondents were disagreed, while only 10 percent were agreeing with the statement. This is an indication that most of the real estate developers in Addis Ababa are not provide training and awareness creation program about the risk management. This may also an indication that developers give lesser attention to risk management practices. Figure 4.1 shows how the sample population's perception of increasing risk in their marketplace has grown over the last five years.

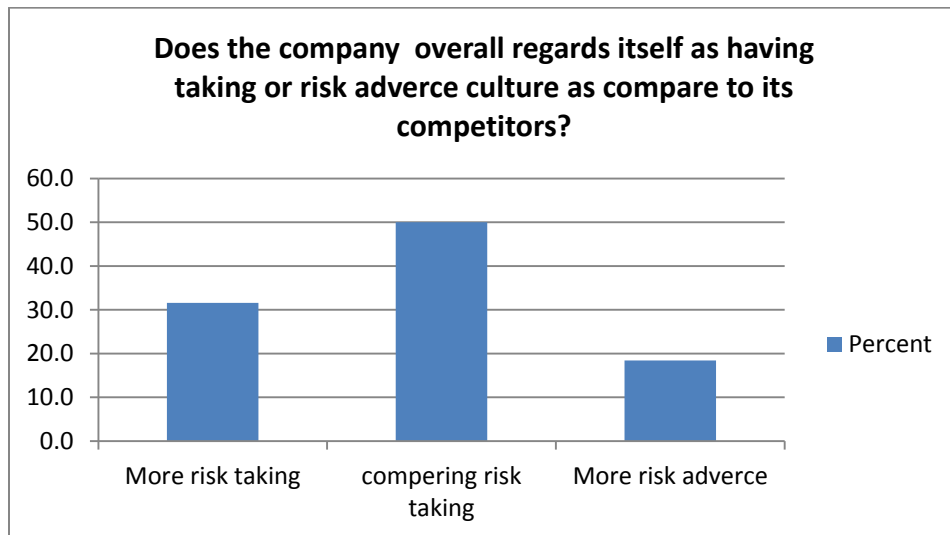
Figure 4 1 Development of risk situation



Source: field Survey, 2021

The survey results confirm the original impression that, from the developer’s perspective, the risk situation of the corporate environment has clearly intensified. 58 per cent of all respondent organizations stated that the level of risk they face has increased over recent years. This is of particular importance as it suggests that either there is an increase in the perception of risk levels or a lower tolerance of risk. It is also likely that both explanations may be applicable at the same time.

Figure 4 2 Risk culture compared to its relevant competitors



Source: field Survey, 2021

The question relating to the risk appetite of the respondents' own organizations, when compared to their competitors, was intended to ascertain the survey participants' self-image and the Figure 4.2 shows the survey result. Developers tend to regard their activities as comparable as or even more cautious than those of their competitors. 50 percent of respondents claim a comparable risk attitude to their relevant competitors, while 31.6 percent position themselves as being more risk adverse. Only 18.4 percent stated that they have cultivated a higher risk tolerance than their competitors.

4.3. Organizational risk management structure and accountability

The risk and control culture is one of the vital determinants of effective risk management. It reflects the shared fundamental framework of standards and values of organization management as well as the employees. Standards and values are part of any corporate culture. This culture promotes the development of the organization and its competitive success by influencing the behavior of the organization's employees. An active risk and control culture as part of a risk-oriented organization culture ensures the necessary risk awareness on the part of the staff and reinforces the general acceptance of the risk management system. Questions were asked relates to the organization and the degree to which structure and culture support risk management and the result is presented in Table 4.3.

Table 4 3: Organizational Risk Management Structure and accountability

Statements	Yes (%)	Yes, but need improvement (%)	No (%)	Don't know (%)
The company structure's supports effective risk management	26.3	44.7	23.7	5.3
There are appropriate tools in place to support risk management (e.g. standard templates, modeling tools, valuation tools)	23.7	34.2	36.8	5.3
Has the company formulated an overall, enterprise-wide strategy for managing risks yet?	21.1	44.7	28.9	5.3
There are clear and written statements on risk management	15.8	36.8	42.1	5.3
Average				

Source: field Survey, 2021

The responses show that only a small minority of respondents believe to have structures and cultures in place that do support effective risk management. However, somewhat less than half of the answers indicate improvements are needed. 23.7 per cent of the responding development organizations report that the organization structure do not supports effective risk management and 5.3 percent of the survey participants were not able to respond to this question.

The effective and efficient execution of an organization-wide risk management process requires the use of an adequate risks management tools and solution. 38 organizations responded to the question whether appropriate tools are being used in support of risk management and survey result is presented in table 4.2. More than 70 percent see need for improvement or have no appropriate tools, which is a very large portion. Thus only 23.7 percent of the responding organizations confirmed that appropriate tools support risk management. With 34.2 percent of respondents, certain tools have been established, but do not adequately satisfy the requirements of the organizations in question. Moreover, about 36.8 percent of the organizations map the risk management process entirely without appropriate risk management tools and solutions. Another 5.3 percent were not able to respond to this question because they did not know the answer.

In order to obtain an overview of the status quo of risk management based on empirical data, developers were asked to provide information on the existence of an organization-wide risk management strategy and the results are presented in table 2.3 above. The results of this study can be broken down into two distinct categories: organizations with a defined risk management strategy (21.1 percent), and those with-out risk management or overarching strategies or where risk management and overarching strategies are only established in parts of the organization (73.6 percent). No less than 44.7 percent of all developers polled stated that they had not yet finalized the formulation of a risk management strategy or have identified a need for optimizations with regard to material strategic issues.

A value of this order allows two interpretations: a number of organizations may have strategies in place that entail some risk policy implications but do not fulfill the requirements of an organization-wide risk management or that, as a first implementation step, initially concentrate on meeting the minimum statutory requirements. As compliance with regulatory requirements was not a key driver of creating a risk management system in most cases but rather the provision

of support for management in their decision-making process, this would tend to support the first interpretation.

The result further illustrated that 28.9 percent of all respondents reported having no enterprise-wide risk management, with 5.3 percent were not able to respond to this question because they did not know the answer. It would appear self-evident that the lack of a formulated and frequently communicated risk management strategy does not support consistent risk awareness in relevant organizations, nor is it likely to induce the staff members to be uniformly conscious of risk in their actions.

The survey participants were asked to provide details on the existence of written statements regarding risk management the survey result is presented in table 4.3 above. This question was based on the preliminary impression that the majority of developers do not base their risk management on written guidelines.

As illustrated by table 4.3, this assumption can now be considered as having been essentially verified by 42.1 percent of respondents. The survey results show that clearly defined, written risk policies are not widely used in practice. 52.6 per cent of all respondents stated that they use written risk management statements. In the case of approx. 36.8 percent, risk-policy objectives seem to be firmly entrenched at management level, but are not sufficiently or conclusively set down in writing and show potential for improvement. The fact that 5.3 percent did not have the knowledge to answer this question would indicate that an organization-wide risk management approach has not yet been established within these organizations.

4.3.1. Primary responsibility

In order to provide an insight into the organizational structure and relevance of risk management in practice, the survey participants were asked to state that is primarily responsible for the risk management within their respective organizations. The result, which is based on the responses from 38 organizations, is summarized in Figure 4.2 (multiple responses were possible).

Figure 4 3: Primary risk management responsibility



*Multiple responses were possible

Source: field Survey, 2021

The survey result show that primary responsibility for risk management clearly lies with organization management. 55.2 percent parties polled stated that risk management is primarily the responsibility of the Chief Executive Officer/General Manager. Often, this responsibility is assigned to the finance and accounting function, bringing risk management under the jurisdiction of the Chief Financial Officer (39.4 percent) or the Financial Controller/Officer (23.6 percent). The preference of attaching the risk management supervisory function to the financial division can, at least in part, be justified by the fact that the financial function is responsible for summarizing the presentation of the overall business situation of a real estate development organization. In 18.4 percent of cases, business unit executives are responsible for risk management.

Within 31.5 percent of organizations, the organizational structure in terms of the allocation of responsibilities and competencies is defined either only in part or not at all. These organizations may be characterized by a certain lack of consensus as to who is responsible for systematic risk assessment, risk control and a timely reporting process as appropriate for the individual levels. The results support the thesis, that as a rule, there is no one size fits all answer to the allocation of internal responsibility for risk management. Rather, the specific allocation will depend on the individual situation of each organization.

4.4. Risk management process

4.4.1. Setting corporate objectives

As was ascertained in the theoretical part of this study, the definition of corporate objectives is a vital prerequisite for the effective management of risks. It was noted, for instance, that risk is, inter alia, defined as the possibility of deviating from a given target. All organizations set themselves specific strategic and operative goals, with a distinction to be drawn between output-related, financial and social goals. The significance of effective risk management for the achievement of corporate objectives was assessed and the result is presented in table 4.4 below.

Table 4 4: Risk in achievement of objectives

Statements	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)	Mean	SD
	1	2	3	4	5		
risk management is important for the achievement of corporate objectives	0	7.9	2.6	55.3	34.2	4.16	0.82
The company knows how much risk it may take in the achievement of its objective.	0	13.2	2.6	50	34.2	4.05	0.95
The company supports taking risks to achieve objectives.	0	15.8	5.3	47.4	31.6	3.95	1.01
The company includes risk management as integral components in all relevant strategy, control and monitoring process.	0	13.2	5.3	50	31.6	4.0	.95
Project risk management plan is linked into other plans (Strategic plan, operational plans, project plan etc)	0	28.9	7.9	36.8	26.3	3.66	1.14
Average						3.9	0.97

Source: field Survey, 2021

Respondents were asked whether risk management is important for the achievement of corporate objectives. The result illustrated that 89.5 percent of respondents agree or strongly agree that effective risk management is important for the achievement of corporate objectives. This result demonstrates that effective risk management is indispensable for sustained corporate success in

real estate development. Similarly, when respondents were asked whether the company knows how much risk it may take in the achievement of its objective, 84.2 percent agreed or strongly agreed that their organizations have a correct understanding of the scope of risks they are required to assume in order to achieve corporate goals. However, 13.2 percent of the respondents stated that they are not aware of the risks to be assumed. In all probability, this is an indication of the relevant organizations will not be able to determine their appropriate and individual level of risk appetite.

When respondents were asked whether the company supports taking risks to achieve objectives, almost all respondents affirmed their belief in the significance of risk management and awareness of the risk appetite of their organizations, yet 21.1 percent of all respondents stated their disagreement which mean that their organizations fail to encourage the conscious assumption of risk in order to achieve corporate goals.

A key principle of risk management is that it should be fully integrated into an organization's business planning processes. The question as to whether organizations include risk management as an integral component in all the relevant strategy, control and monitoring processes is therefore of interest in order to be able to analyze risk management practice among leading Addis Ababa real estate development organizations. As presented in table 4.4 above, a majority of organizations agreed (50 percent) or strongly agreed (31.6 percent) including risk management as an integral component in all relevant processes, while 18.9 per cent disagreed, reflecting a fragmented approach towards the management of risks. Similarly, when respondents were asked whether their company project risk management plan is linked or integrated into other plans (Strategic plan, operational plans, project plan etc.); 65.3 percent of respondents agree or strongly agree, while 28.9 percent were not disagree with the statement.

4.4.2. Risk identification

During the risk identification phase, all operational risks should be identified in a systematic and timely manner, assessing their potential impact on a real estate project and the overall risk position of the organization. This is a prerequisite for any evaluation of the risks identified and the subsequent focus areas of the risk management strategy. Systematic and comprehensive identification of risks is therefore of vital importance.

Table 4 5: Risk identification

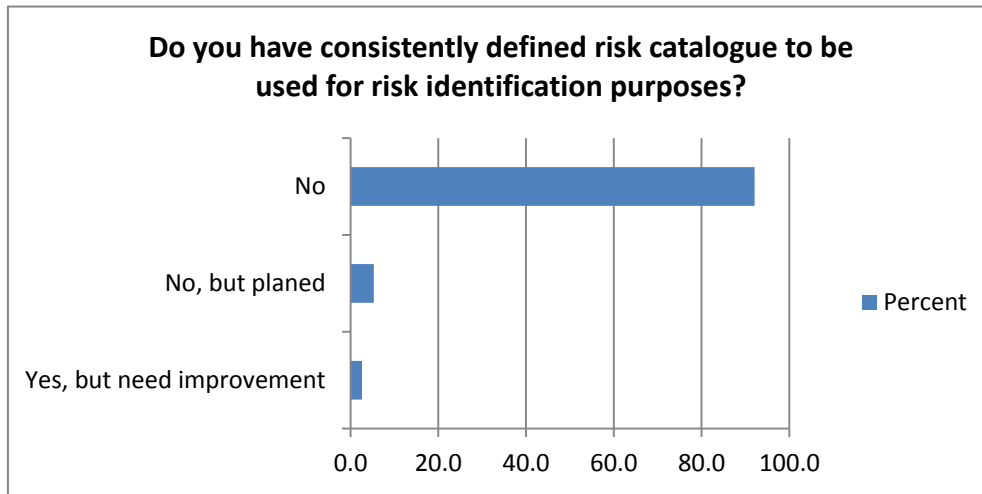
Statements	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree(%)	Strongly agree (%)	Mean	SD
	1	2	3	4	5		
The company finds it easy to identify its main risks.	0	18.4	5.3	52.6	23.7	3.82	1.01
The company knows how much risk it may take in the achievement of its objective.	0	28.9	7.9	42.1	21.1	3.55	1.02
Sources of risks, areas of impacts, and their corresponding causes and potential effects are identified in the project	0	18.4	5.3	50	26.3	3.84	1.01
Average						3.72	1.01

Source: field Survey, 2021

The survey on the ability of organizations to identify its main risks showed that 76.3 percent of all survey participants almost unanimously stated that they do not consider the identification of risks to be difficult. When respondents were asked whether the company knows how much risk it may take in the achievement of its objective, more than 60 percent were agreed, while 28.9 percent of respondents were reported that they were disagree. Questions were also asked whether sources of risks, areas of impacts, and their corresponding causes and potential effects are identified in the project. Just like other two questions, most of the respondents (76.3%) were reported that sources of risks, areas of impacts, and their corresponding causes and potential effects are identified in the project level in their company.

The method by which the organizations identify their risks appears to be unsystematic as no respondents stated that they use a comprehensive risk catalogue for risk identification purposes. In contrast, 92.1 percent stated that they do not maintain any risk catalogues. A further only one respondent possess and use risk catalogues of sorts but recognize that there are deficiencies. What surprising more is that only two companies reported that do not uses a risk catalogue for risk identification recognize this as a short-coming and plan to remedy this situation. This reveals that there is a lot of room for improvement in this respect.

Figure 4 4 Risk Catalogue



Source: field Survey, 2021

Question was also asked to know level of confidence amongst real estate developers concerning their risk identification. Figure 4.4 illustrates the percentage of the responses with regard to the developers' confidence in their own risk identification. Only 7.9 percent are absolutely convinced of the of their risk management system in identifying all potential risks, 71.1 percent of responding developers believe, to a greater or lesser extent, that their own risk management process identifies all potential risks that could jeopardize their existence. Only 21 per cent stated that their confidence in their own risk management capabilities of identifying risk is either limited or non-existent.

Figure 4 5 Overall confidence in risk identification



Source: field Survey, 2021

4.4.3. Risk assessment

Risk assessment is the process of evaluating identified risks and the interrelation between risks. The consistent application of risk assessment methods constitutes a critical success factor for risk management, which provides the framework for ascertaining the significance of risks and their probability in order to derive appropriate risk management and monitoring measures. The survey results reveal a substantial deficit in such a consistent risk assessment concept.

Table 4 6: Aspect of risk Assessment

Statements	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree(%)	Strongly agree (%)	Mean	SD
	1	2	3	4	5		
There is a continuous risk assessment methodology applied through the company, including estimating the significance of risk and assessing the like hood of their occurrence.	7.9	44.7	7.9	31.6	7.9	3.82	1.01
The company finds it easier to assess the like hood of risk occurring.	0	21.1	5.3	60.5	13.2	3.55	1.02
The company find it easier to assess the potential impacts of risk materializing	5.3	21.1	2.6	65.8	5.3	3.84	1.01
Average						3.72	1.01

Source: field Survey, 2021

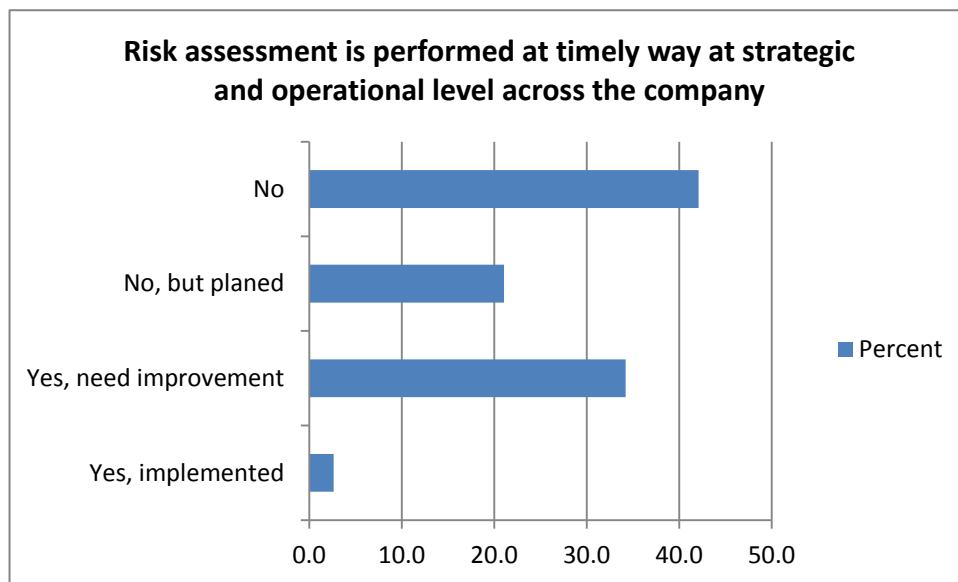
Question was asked whether there is a continuous risk assessment methodology applied through the company, including estimating the significance of risk and assessing the like hood of their occurrence. The result indicated that 44.7 percent of respondents indicated their disagreement which means that they do not apply an integrated comprehensive risk assessment approach. Around 40 percent were stated their agreement that they apply an integrated comprehensive risk assessment approach. The finding indicated that there are lots things that need to be done concerning in order to apply integrated comprehensive risk assessment approach among the real estate developers’ of Addis Ababa.

When evaluating and analyzing risk, any given real estate developer will be required to determine two factors: firstly, the probability of risk and secondly, the extent of the possible damage in case the relevant risk materializes. Questions are asked related to these two issues. The survey results reveal a trend that the survey participants have fewer difficulties in making an informed assessment of the possible implications of an event than in estimating its probability. No less than 73.7 percent stated that finds it easier to assess the like hood of risk occurring, while 70.8 per cent stated that they find it easier to assess the potential impacts of risk materializing

4.4.3.1. Risk assessment on strategic and operational level

The results to the question, whether developers implement risk assessments across the organization in a timely way at strategic and operational level, are illustrated in Figure 4.5.

Figure 4 6 Risk assessment on strategic and operational level



Source: field Survey, 2021

Organization-wide risk management should, as a rule, take into consideration all strategic and operational levels within the organization. The majority 42.1 percent stated that they do not take strategic or operational aspects into consideration, while with 21.1 percent intending to rectify this situation. A total of 34.2 percent of all respondents, initiate regular risk assessments at both the strategic and operational level, but recognize that there is significant room for improvement. Only one respondent (2.6 percent) of all survey participants agree with this approach which is an

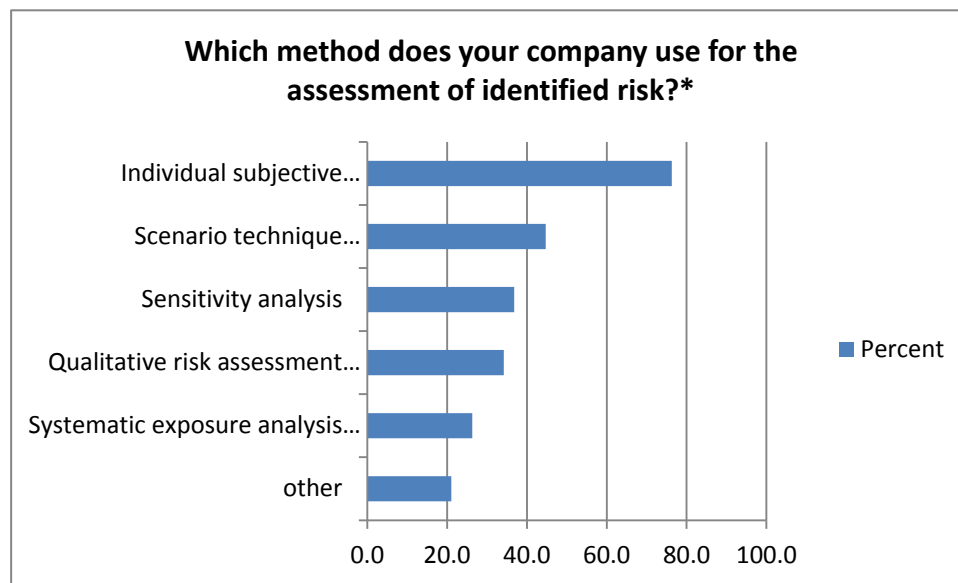
indication of significant gap regarding implementation of risk at regular level at strategic and operational level.

4.4.3.2. Methods sets of risk assessment

The theoretical realm of literature provides a host of methods and techniques for the general assessment of risk. Figure 4.6 illustrates the frequency distribution of the methods used by the survey participants for the assessment of risk (multiple responses were possible). Overall, subjective assessment methods appear by far the most popular.

Even today, with the availability of sophisticated analysis methods, the determination of the risk associated with individual developments depends primarily on the subjective and intuitive view of the relevant developer. For example, when assessing risks, 76.3 percent prefer an assessment based on subjective views of individual representatives. In this case, great stock is being placed on the personal experience of the person carrying out the assessment as well as that person's common sense.

Figure 4 7: Risk assessment methods



*Multiple responses were possible Source

field Survey, 2021

With 44.7 percent each, scenario (best/worst) techniques, while 34.8 per cent stated that they use sensitivity analysis as popular risk assessment methods. 34.2 percent consider a qualitative risk assessment based on predetermined list of key indicators as being suitable to assess identified risks. It is also noted that with 26.3 percent used systematic exposure analysis (severity, financial

impact and likelihood of occurrence) as being suitable to assess identified risks. The reasons for the preferred application of these assessment approaches and processes are likely to be based on their ease of use and staff qualifications

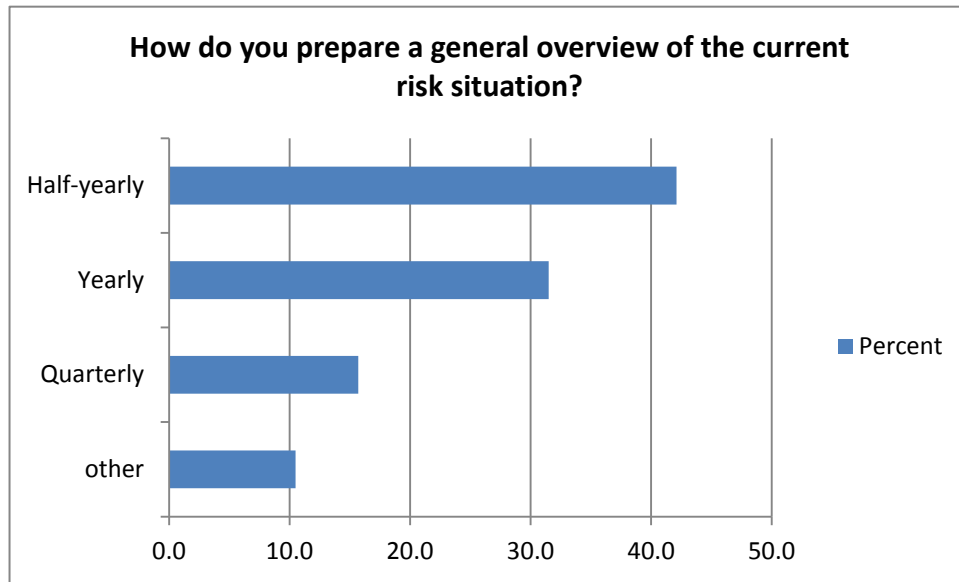
In theory, the application of suitable analytical techniques, the assimilation of realistic information and a comprehensive understanding of risk enable developers to assess risks both accurately and conclusively. In addition to the generally large amount of risks as well as financial and time-related restrictions, further critical factors include the incompleteness of data in many real estate markets in particular. For this reason, a wide range of models for the quantification of risks arising within the real estate sector may be of considerable benefit from a theoretical perspective. Yet their practical use and the feasibility of calculations of risk measures, such as standard deviation, variance or value-at-risk, decision tree, simulation appear limited.

4.4.3.3. Time dimension of risk assessment

Given the constant change in framework conditions, risk management should be a continuous process throughout the time span of real estate development rather than a one-off assessment. Risk information should be collected on a regular basis in order to be able to recognize changes to existing risks as well as the emergence of new risks.

The routine assessment of the risk situation of any given organization and its potential impact on the business are vital components of risk management. In order to gain in-sights into the frequency of risk analysis, the survey participants were given the choice between five different frequencies (Yearly, half-yearly, quarterly, monthly and other). The survey result is presented in figure 4.7.

Figure 4 8: Time dimension of risk assessment



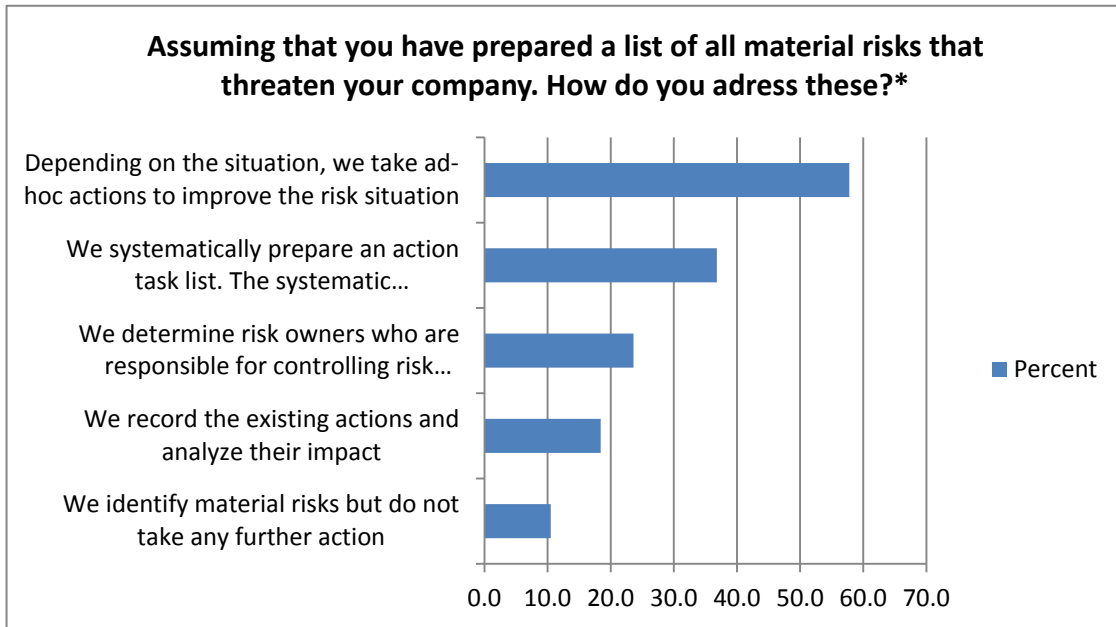
Source: Field Survey, 2021

The results of the survey revealed that half-yearly assessment is most popular, but no single frequency was chosen by a majority of respondents. As figure 4.7 illustrated, yearly” was cited by 31.5 percent of the survey respondents and “quarterly by 15.7 percent), but rather on medium intervals (42.1 percent) in the form of half-yearly analysis.

4.4.4. Risk control

Risk control is one of the core activities, consisting of a tool set consisting of various measures. It is intended to improve the risk position as part of risk optimization. The aim is to initiate suitable measures, using the data collected and interpreted, in order to achieve corporate objectives while taking into consideration the specific risk appetite of the organization. This may result in the prevention, reduction or transfer of risk. The question of how developers address material risks that may threaten their organization has been answered by 38 organizations (multiple responses were possible). The results are summarized in Figure 4.8 below.

Figure 4 9: Measures to optimize the risk situation



Source: Field Survey, 2021

With 57.8 percent, the situation-specific derivation of ad-hoc measures constitutes the preferred practice for the optimization of the risk situation. The systematic development of an action task list is carried out by 36.8 percent of the responding organizations, with the risk-policy measures being subject to periodic monitoring. 23.6 percent organizations stated that a pre-defined risk owner controls the relevant measures. However, only 18 percent document the measures used in order to analyze their effect. 10.5 percent does not take or complete any measures for the optimization of the risk situation.

These results would permit the conclusion that developers essentially respond to their risk situation in a reactive manner. Ultimately, the preference for ad-hoc measures implies that a deviation from the target has occurred or that the relevant risks have in some part materialized. Active risk management, by contrast, is proactive, directing management attention to uncertainties and risks before the events have happened, when there are still opportunities to do something to avoid, mitigate, or manage them or to stop a project if they cannot be managed. It should be feasible to achieve an increase in efficiency if developers designed their risk management as a proactive process that is integrated into their business processes and both anticipate and handle any risks associated with these business processes. Such risk-oriented

organization management would ultimately facilitate the leveraging of any opportunities that may arise.

4.4.5. Risk monitoring

In this section the questions seek to establish how organizations address or manage their risks and how management activities and risks are monitored and reported.

4.4.5.1. Reporting

Figure 4.5 provides an overview of key issues regarding the practical application of risk-related reporting in the real estate development industry.

Table 4 7: Reporting policies and processes

Statements	Yes (%)	Yes, but need improvement (%)	No (%)	Don't know (%)
The company has clearly defined policy and process for reporting of risks/risk management	7.9	34.2	52.6	5.3
A functional reporting concept has been designed and successfully implemented.	7.9	28.9	60.5	2.6
Reporting and communication process between staff and top management support the effective management or risk	44.7	28.9	26.3	0
The company senior management is responsible to all communications about risks, including bad news.	34.2	44.7	21.1	0
Average				

Source: field Survey, 2021

Of the responding real estate developers, only 7.9 percent report a clearly defined policy and process for risk reporting. 34.2 percent report that the beginnings of a reporting system are in place, but state nevertheless that there is significant potential for improvements with respect to risk reporting. As many as 52.6 percent state that they have no risk management reporting in place; 5.3 percent cannot conclusively answer the question.

Respondents were asked whether a functional reporting concept has been designed and successfully implemented in their company. Accordingly, functional reporting concept has been designed by no more than 7.9 percent of responding real estate developers. 28.9 percent report that there is significant potential for improvement with respect to functional risk reporting. As many as 60.5 percent state that they have no functional risk management reporting in place; 2.6 percent cannot conclusively answer the question.

Question was also asked to assess whether reporting and communication process between staff and top management support the effective management or risk. 44.7 percent state that reporting and communication processes between staff and top management support the effective management of risks. 28.9 percent identify a potential for optimization with respect to communications between staff and top management as regards risk management; only 26.3 percent state that communication barriers are an obstacle to effective risk management

Respondents were also asked whether the company senior management is responsible to all communications about risks, including bad news. Well over 34.2 percent indicate that the senior management is receptive to all communications about risks, including bad news. 44.7 percent identify a potential for optimization with respect to the company senior management is responsible to all communications about risks, including bad news. As many as 21.1 percent of respondents stated that their company senior management is not responsible to all communications about risks.

4.4.5.2. Risk monitoring

In order to gain insights into the risk monitoring of leading developers, a series of questions were formulated whose results are summarized in table 4.6 below.

Monitoring and reviewing risks can be described as being established in most of the industry. This is confirmed by 50 percent of responding developers, another 39.5 percent report that they have developed activities in this area, but that there is still significant potential for optimization. Only 2.9 percent do not undertake any monitoring and review of risks in the achievement of the objectives. This underlines the significance of risk management.

Table 4 8: Aspect of risk monitoring

Statements	Yes (%)	Yes, but need improvement (%)	No (%)	Don't know (%)
The company monitor and reviews the risk in the achievements of the objectives	50	39.5	7.9	2.6
Changes to the company's risks are assessed and reported on an ongoing basis as to their impact on objectives	23.7	39.5	31.6	5.3
The responsibilities for risk management and continuous monitoring of risk categories have been defined	28.9	42.1	26.3	2.6
The company routinely review the effectiveness of controls in place to manage risk	23.6	42.1	28.9	5.3
Average				

Source: field Survey, 2021

About 23.7 percent of respondents monitor the risk environment. In this process, changes to risks faced by the organization are continuously identified, assessed and reported. 39.5 per cent of responding developers endeavor to maintain adequate control over changes to the risk situation which could impact their corporate goals, but report significant need for optimization in this context. As many as 31.6 percent of responding organizations do not deal with changes in their risk environment, nor with their assessment and reporting. 5.3 per cent are unable to respond to this question. It is assumed that the organizations concerned have not implemented suitable concepts, instruments and measures.

A clear assignment of responsibilities in connection with continuous monitoring of risk categories is affirmed by 28.9 percent of the responding organizations. 42.1 percent have established certain responsibilities, but ultimate accountability has not been fixed in these organizations. 26.3 percent of the developers report not having established any responsibilities; 2.6 percent are unable to provide a definitive answer to this question.

The survey results indicate that there is considerable potential to improve risk management procedures amongst the population. 28.9 percent of respondents do not evaluate the effectiveness of risk management activities; 5.3 percent were not able to respond to this question; only 23.6 percent routinely review the effectiveness of the controls in place to manage risks. While 42.1 percent conduct efficiency tests, they have identified that there is significant potential for optimizing the established practice. Without effective risk monitoring, changes in the organization's individual risk positions cannot be identified and communicated on a timely basis. Thus it is not possible for the elements that have already been successfully implemented in an organization, such as:

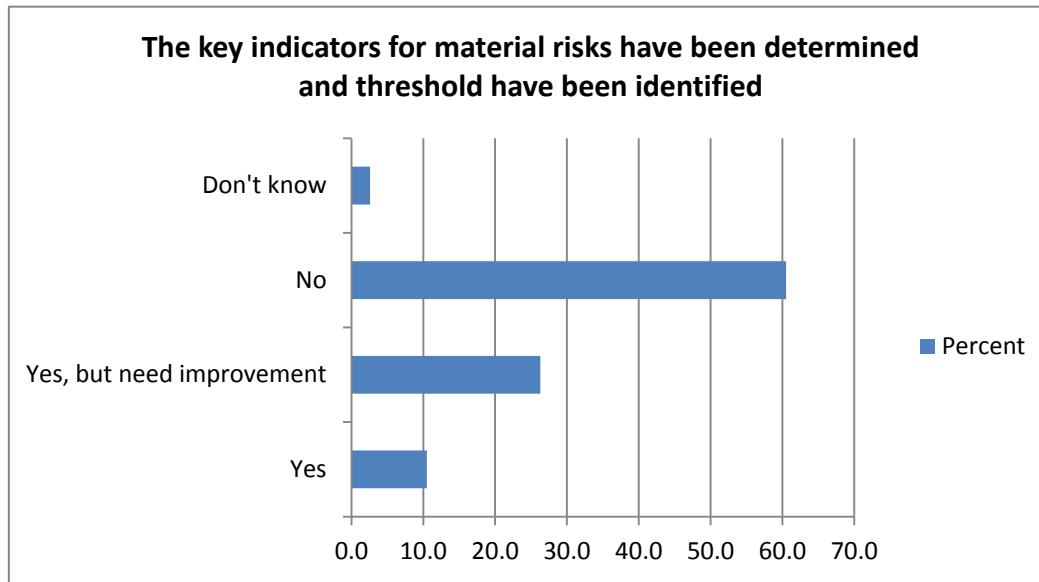
- establishment of an organization-wide risk-management organization,
- periodic and complete risk identification,
- definition of appropriate, effective and efficient risk control measures
- assignment of responsibility for their implementation
- integrated internal risk reporting systems to be fully effective

4.4.5.3. Key indicators and threshold values

The establishment of a suitable monitoring system is intended to ensure that substantial risks and changes to these risks are recorded and communicated in such a manner that management has adequate time for initiating effective control measures. To this end, the mere monitoring of changes to identified risk positions is a necessary but not fully sufficient element. Instead in the course of risk monitoring it is necessary to define appropriate early warning indicators that allow new risks or changes to existing risk positions to be recognized before the risk analysis is performed in detail. The setting of threshold values permits the continuous monitoring of quantifiable risks and the associated predefined indicators. Where the relevant threshold values are exceeded, a risk warning will be triggered. The setting of individual threshold values will depend on corporate strategy and risk policy or risk appetite.

The following survey results (figure 4.8) were ascertained to determine whether real estate developers have derived key indicators and threshold values for the monitoring of material risks). The key indicators for material risks have been determined and threshold values have been identified.

Figure 4 10: Key indicators and threshold values



Source: field Survey, 2021

Only 10.5 per cent of the survey population assess and analyze material risks on the basis of operating ratios, taking into account specific threshold values. 86.8 percent of all respondents use indicators either partially, or not at all, as a benchmark for the assessment and evaluation of risk. 2.6 percent is unaware of any indicators, which have been established as a basis of organization management.

The results of the survey show that many organizations have failed so far to implement systems and processes to ensure the early identification of risks. For such a system to be effective, the key prerequisite is a corresponding data matrix with respect to key indicators and early warning indicators. This may constitute a significant hurdle to implementing such early warning systems.

4.5. Discussion of major finding

The empirical part of this thesis, a survey among leading real estate development companies in Addis Ababa, reviewed specific aspects of the actual risk management approach of such companies. Based on this general objective the study has found major finding which are discussed hereafter.

The first specific objective of the study is to examine the level of awareness and perception to risk and its management among real estate companies in Addis Ababa. This determination is

mainly based on two areas. The first one is the awareness and understanding of the concept of risk and risk appetite and the second one on the effectiveness of the risk management process in dealing with identified risks.

In this regard, the results of the empirical work showed that in spite of increasing perception of risk in real estate development, it is surprising that only 58 percent of all respondent companies stated that the level of risk they face has increased over the preceding years (Figure 4.1). A similar result (50 percent) has indicated that they have a comparable risk attitude to their relevant competitors (Figure 4.1). In terms of understanding the concept, 86.9 percent of developers polled follow a re-ward-oriented interpretation of the concept of risk (Table 4.2) and almost unanimously, 89.5 percent of respondents agree or strongly agree that effective risk management is important for the achievement of corporate objectives and 84.2 percent agreed or strongly agreed that companies have a correct understanding of the scope of risks they are required to assume in order to achieve corporate goals (Table 4.4). Despite so many companies having this clear interpretation of the concept of risk, 39.5 percent of companies polled did not have a common definition on risk throughout their organizations and 29 percent of the respondents stated that they are not aware of the risks to be assumed (Table 4.2).

The empirical data above suggest that the majority of developers have a clear awareness and understanding of the concept of risk and risk appetite and that it is necessary to balance and accept opportunities and risks. Developers tend to regard their activities as comparable to/ or even more cautious than those of their competitors. There is however a significant minority that do not have a common organization wide definition of risk and a further though smaller minority that are not aware of the risk appetite of the organization.

According to another study the same finding, in construction industry Lack of internal knowledge, skill and expertise in the organization to implement risk management and lack of understanding and appreciation of values/benefits of risk management. Risk and risk management awareness and risk management expertise have also been emphasized by contractors. Not only the top management and decision makers but all staff of construction enterprises must take risk management as their core responsibility for the success of risk management practice. This requires the development of the awareness of all staff on the risks and the objectives of risk management in the enterprise. Haddush (2012)

Finally, responses on questions related to risk awareness and perception reveal that, projects are missing out on opportunities by focusing on and identifying only negative risks and planning only for threats and disasters. Moreover, it is found that there is a poor practice of arranging events and training programs that are used in developing team members' knowledge and understanding of the risk management concept and environment. (Kalkidan Manyazewal ,2017)

The second specific objective of the study is to assess the organizational risk management structure and accountability among real estate development companies in Addis Ababa. To determine this, five main categories of investigation areas were taken into consideration; the primary responsibility of the risk management function, whether the company structure's supports effective risk management, whether the organization has an enterprise wide strategy for risk management, whether there are appropriate tools in place to support risk management and whether there are clear and written statements on risk management

The analysis of the results of the survey reveals that only a small minority (26.3 percent) of respondents believe to have structures and cultures in place that do support effective risk management almost unanimously, only 23.7 percent of the responding organizations confirmed that appropriate tools support risk management (Table 4.3). Regarding the existence of an organization-wide risk management strategy, only 21.1 percent of organizations have a defined risk management strategy. More so, the survey results show that clearly defined, written risk policies are not widely used in practices which have been essentially verified by 42.1 percent of respondents. The study of the primary responsibility for the risk management function indicate a less priority of risk management within these organizations which is confirmed by the fact that only 12.4 per cent of the responding development organizations had a dedicated Risk Officer acting as a centralized coordinating point to facilitate risk management within the organization. The survey result show that primary responsibility for risk management clearly lies with organization management.

The empirical data above suggest that the majority of developers lack clear and formalized risk management structure and accountability. Developers' approach towards the management of risks tends to be characterized by a lack of formalization and co-ordination and largely rely on individual judgment and experience. Risk management is often fragmented and few development organizations have formal processes to align risk management with corporate strategy.

The same finding to another study based on his survey result project risk management practices of the real estate projects, it is found that there is a poor practice in terms of developing a policy or a guideline that proposes how to handle uncertainties that the projects may encounter. This reveals that the projects lack a standard that is to be followed in the course of risk management. (Kalkidan Manyazewal, 2017)

The third specific objective of study is to examine the practices concerning risk management processes among real estate projects in Addis Ababa. To determine this, each of the five main steps of risk management processes were taken into consideration; setting objective, risk identification, risk assessment, risk control and risk monitoring.

The definition of corporate objectives is a vital prerequisite for the effective management of risks. This was determined by five main statements concerning setting objectives. The result illustrated that 89.5 percent of respondents agree or strongly agree that effective risk management is important for the achievement of corporate objectives and almost unanimously, 78.9 percent affirmed their belief in the significance of risk management and awareness of the risk appetite of their organizations. The result thus illustrated that the significance of effective risk management for the achievement of corporate objectives are confirmed by most of the developer.

Systematic and comprehensive identification of risks is second phase of effective risk management process. The survey on the ability of organizations to identify its main risks showed that 76.3 percent of all survey participants almost unanimously stated that they do not consider the identification of risks to be difficult. Similarly, 71.1 percent were agreed the company knows how much risk it may take in the achievement of its objective and 76.3%) were reported that sources of risks, areas of impacts, and their corresponding causes and potential effects are identified in the project level in their company (Table 4.4). More so, the result further illustrated that 71.1 percent of responding developers believe to a greater or lesser extent, that their own risk management process identifies all potential risks that could jeopardize their existence. While the empirical data above suggest most of the companies found it easily identified their potential risk, the method by which the organizations identify their risks appears to be unsystematic as only one respondent stated that they use a comprehensive risk catalogue for risk identification

purposes. In contrast, 92.1 percent stated that they do not maintain any risk catalogues (Figure 4.4).

Regarding the risk assessment, the survey results reveal a substantial deficit in such a consistent risk assessment concept. In this regard, the results of the empirical work showed that 44.7 percent of respondents indicated that they do not apply an integrated comprehensive risk assessment approach. Whether developers implement risk assessments across the organization in a timely way at strategic and operational level, the survey results reveal only one respondent (2.6 percent) of all survey participants agree with this approach which is an indication of significant gap regarding implementation of risk at regular level at strategic and operational level. Regarding the assessment method, the determination of the risk associated with individual developments depends primarily on the subjective and intuitive view of the relevant developer. In general, the most dominant approaches in risk assessment methods are based on qualitative techniques and individual subjective judgment whereas the least used methods are reliant on quantitative tools which require IT-support (Figure 4.6) Regarding the time dimension of the assessment, the results of the survey revealed that half-yearly assessment is most popular, but no single frequency was chosen by a majority of respondents (figure, 4.7).

Risk control is the fourth phase of risk management process, consisting of a tool set consisting of various measures. The empirical data collected on risk control illustrated that the preferred practice of risk control by ad-hoc measures (Figure 4.8) also implies a reactive rather than a proactive approach to risk control. There is also evidence that there is a preference for responding organizations to carry out and regularly monitor action task lists only when risks, which may threaten the organization, have been identified. With 57.8 percent, the situation-specific derivation of ad-hoc measures constitutes the preferred practice for the optimization of the risk situation. Ultimately, the preference for ad-hoc measures implies that a deviation from the target has occurred or that the relevant risks have in some part materialized. Active risk management, by contrast, is proactive, directing management attention to uncertainties and risks before the events have happened, when there are still opportunities to do something to avoid, mitigate, or manage them or to stop a project if they cannot be managed. It should be feasible to achieve an increase in efficiency if developers designed their risk management as a proactive process that is integrated into their business processes and both anticipate and handle any risks associated with these business processes.

Finally, the study assesses risk monitoring practice as the final stage of risk management. The empirical data collected on risk reporting policies and processes indicate that developers lack a formal and clearly defined policy and process. However, they state that communication processes between staff and senior management are effective and this suggests that risks impacting the organization are communicated throughout the organization, which can then be managed effectively. The empirical data collected on risk monitoring indicate that only 20 per cent of all respondents perform regular monitoring of their overall risk management process. Under one third of respondent organizations have a clear assignment of responsibilities and continuous monitoring and response to changes in the risk environment and evaluate the effectiveness of risk management activities (Table 4.6). Finally, the results of the survey show that many organizations have failed so far to implement systems and processes to analyze material risks (Figure 4.8).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

In this chapter, the summary of findings, conclusions and recommendations of the study were discussed. The purpose of the study was to examine risk management practices among selected real estate companies in Addis Ababa. The presentation in the section followed was prepared around specific objectives and research questions.

5.1 Summary of Findings

It is the primary goal of this study to obtain information and to provide an overview of the risk management practice among leading real estate development companies at Addis Ababa thereby contributing to the limited previous academic research so far conducted on this topic and also to provide executives, on the basis of this empirical data and their evaluation, a benchmark against which to compare their own risk management practices. The empirical study is based on a written survey. Before the actual final data collection, a pilot study was conducted where the content validity and reliability of the questionnaires were tested. The study sample had 45 questionnaires distributed and 38 were duly completed and returned for analysis. These represented a response rate of 84% which according to Oloyo (2001) is very good response rate. The results provided a reliable and accurate profile in regards to the risk management practice in the industry.

The result confirmed that the majority of developers have a clear awareness and understanding of the concept of risk and risk appetite and that it is necessary to balance and accept opportunities and risks. The results confirm that developers generally regard risk management as a means to generate value and business confidence by their ability to balance and accept opportunities and risks. Developers tend to regard their activities as comparable to/ or even more cautious than those of their competitors. There is however a significant minority that do not have a common organization wide definition of risk and a further though smaller minority that are not aware of the risk appetite of the organization.

Empirical data collected suggests that risk management is often dependent on individual skills, experience and risk appetite of key project participants. Without an enterprise-wide and inclusive

risk management strategy this knowledge bank of information may not be collected within the organization and further, the information risks being lost when key project participants leave the organization. With responses indicating such an emphasis on personal judgment as a key risk minimization strategy, it is astonishing to note that the formal strategy does not encompass this. Only a small percentage of the respondents use a comprehensive risk catalogue for risk identification purposes and there is inefficient use of an integrated comprehensive risk assessment approach. When assessing risks, the preference is for method sets over any single method. Nevertheless, the single most significant method employed is assessment based on personal experience and subjective views of the risk assessor at 76.3 percent. These findings are significant as they suggest that reliance on the traditional method of intuitive judgment is still very much in evidence. There is evidence that developers tend to take a more reactive rather than a proactive approach to managing risks. The preference for ad-hoc measures for the optimization of the risk situation at 57.8 per cent suggests that developers essentially respond to their risk situation in a reactive rather than a proactive manner.

There are indications that at least a substantial part of the development industry lacks a formal and structured approach throughout the risk management process. The quota for use of a comprehensive risk catalogue for risk identification purposes was 2.6 per cent, an integrated comprehensive risk assessment approach was 47.4 per cent, a systematic action task list to carry out risk control was 42.8 per cent, a clearly defined policy and process for risk reporting was 34.2 percent, unambiguous written risk management statements on organization policy was 15.8 percent. These figures show that the risk management process fall short of a fully integrated enterprise wide risk management framework.

5.2. Conclusion

Based on the findings of the study, it can be concluded that risk management is lacking understanding and implementation in the real estate development companies among Addis Ababa. The level of risk management understanding, implementation and sophistication still remains fairly immature for most responding organizations to the empirical survey. For most part the developers tend to lack a well formulated and well defined risk management strategy throughout the company. It is believed that a number of companies may have strategies in place

that entail some risk policy implications but do not fulfill the requirements of a company-wide risk management framework. In conclusion, there was evidence that risk management tended to be unstructured, irregularly employed, not applied across all departments and levels, not applied in strategic formulation, not supported by comprehensive methods and tools and as a consequence, not designed, inter alia, to identify events potentially affecting the real estate development organization.

5.4 Recommendation

The implications of this study are significant as they suggest that the system of risk management in practice is far in Addis Ababa. The researcher's perception is that companies who fail to implement a risk management system beyond the relevant regulatory requirements or financial reporting purpose, will find themselves increasingly penalized by the markets and financing partners and particularly so during times of economic turbulence. The implementation of new and the enhancement of existing risk management concepts within the real estate development industry will result in a sustainable optimization in the handling of business risks and enhance developers' ability to profitably complete riskier or tighter margined projects. It is ultimately up to the management to determine a company's risk appetite and to identify measure and control the risk exposure of the organization. Furthermore, the real estate development industry is a multibillion Birr industry and the complexities of the systems and stakeholders involved should not be underestimated. In the event that a high profile real estate developer fails, it would not only affect the immediate parties within the company but also a wide range of other stakeholders.

Various shortcomings in the risk management methods and systems, which are currently employed in the sector, have been identified in detail in the previous chapters and recommendations have been made to improve these. It is one thing to address these shortcomings but another to deal with the underlying issues, which are fundamental to the industry. Despite some efforts to improve risk management in the real estate development industry over the years a number of fundamental problems persist.

⇒ First and foremost is the low awareness, understanding and co-operation across the industry to address the problems of ineffective risk management systems that currently exist. In order to close the gap seen between theoretical risk management process and the one that is being practiced in real estate projects, it is suggested that real estate companies

and projects better to see risk management as one of the important activities that is implemented to achieve project objectives. Real estate companies and projects need to develop a standard risk management system as it is a prerequisite in developing a good risk management culture and practice.

- ⇒ A more proactive culture must prevail not only at project and company/corporate levels but also at industry level. Here the need to invest the time and resources necessary to develop effective strategies, systems, methodologies and processes specific to the industry. Significant amounts of money are spent every year in the real estate development industry and yet the analysis of IT support and risk management training as confirmed by the researcher's working knowledge of the industry together with the results of the industry survey suggest that the amount invested in research, education and development of effective risk management systems is, disproportionately small as compared to the amounts spent on other aspects of corporate activities. Thus, real estate companies and projects should invest in creating and developing risk management awareness among their employees. This can be achieved by providing training programs and facilitating experience sharing events that are solely focused on risk management systems
- ⇒ Top level managers of the companies better to more concerned about the current impacts the risk management system is creating on the projects and take measures to employ scientific and proper risk management system. It is recommended for top managers to involve in the recruitment of risk professionals and show their great interest in establishing proper risk management system in the enterprise and follow up on the successful establishment of the risk management department and evaluate improvements,
- ⇒ In order to tackle the other problematic area of risk management process in real estate projects, that is risk response, project risks are advised to be identified early in the project lifecycle and risk responses strategies better to be planned for each and every identified risk to enhance opportunities and reduce threats to the project's objectives.
- ⇒ It is also suggested that real estate projects and their respective owner organizations introduce and implement integrated risk management, as distinct from project risk management which in fact is an essential component of integrated risk management, in

their organizations and projects in order to be able to emerge as productive and competitive enterprises and achieve their organizational objectives successfully.

5.5 Limitation and Area Further Research

This study represents a considerable advance in our understanding of the risk management practice within the real estate development company in Addis Ababa. The primary empirical data has been used to identify areas of strengths and weaknesses in status of implementation of risk management and it has also highlighted a number of areas, which may be considered for further study:

- ⇒ The research was conducted with a focus of solely on real estate projects. Thus, it only shows a snapshot of the risks and risk management practice of the real estate industry. As the scope of the study is limited to sample real estate company in Addis Ababa, it is difficult to generalize this to every real estate industry in the country; therefore there is a need for a more comprehensive and detailed study in the area for a better understanding of risk management practice in the real estate industry
- ⇒ Further work may be carried out to establish if there is causality between risk management and enhanced performance. It could look to answer questions of whether better risk management indicates a more successful business and whether good performance indicates good risk management. Companies are likely to adopt better practice more readily on their own accord if they see its value.

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Appendix 1: Survey Questionnaire

The purpose of this questionnaire is to collect data for post graduate study at School of Graduate Studies of Saint Mary's University for the study entitled "Assessment of Project Risk Management Practices: The Case of Some Selected Real Estate Companies in Addis Ababa" for partial fulfillment of the requirements for the Master of Art (MA) Degree in Project Management. This questionnaire is required to assist in determining the objectives of the study. Your privacy will be kept anonymously and, therefore, no one knows who provided the information. Any information provided will be used for academic purpose only and will be treated in strict confidence. Therefore, you are kindly requested to provide your responses to different questions below. As a participant in the survey, your company will have the option of receiving a summary of result as long as you desire and specify your contact detail below. I thank you in advance for taking the time to complete the questionnaire.

1. Questionnaire completed by:	<input type="text"/>
2. Company Name:	<input type="text"/>
3. Respondent's Position:	<input type="text"/>
4. Level of Education:	<input type="text"/>
5. Years of experience:	<input type="text"/>
6. Email (optional):	<input type="text"/>

General Instruction: -

Most questions can be answered by marking the appropriate preset answers with a cross ("√"). The addition on of brief comments may be helpful when wanting to provide more details. In order to make a consistent and representative evaluation, the researcher is very grateful to the respondent for answering all questions. If you, however, cannot or would not to like to answer all questions, please still return the partially answered questionnaire. Regardless of what stage your company is in regards to the development of a risk management process, your responses are extremely valuable to the research. If you have any question about the questionnaire, please feel free to call at 0938 04 08 86.

Part I: Risk Perception and awareness

1. How do you rate the extent of risk perception and awareness of the company's? Please indicate "√" in the box beneath your rating.

S/N	Items	Strongly disagree	Disagree	Neutral	agree	Strongly agree
		1	2	3	4	5
1.1	Risk is looked upon as an opportunity as well as a threat in the achievement of the company's objectives.					
1.2	There is a common understanding/terminology of risk management across the company.					
1.3	Risk management is treated as a continuous process in the project					
1.4.	All project personnel have an understanding of the major risks and the risk management plan of the project.					
1.5	Team members within the project receive trainings and seminars to develop enough knowledge on major risks that might affect project objectives					
1.6.	The company facilitates different meetings and events to raise employees awareness towards risk					

2. In the last five years the level of risk faced by the company

<input type="checkbox"/> Increase	<input type="checkbox"/> Decrease	<input type="checkbox"/> not change	<input type="checkbox"/> Not sure
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3. Does the company overall regard itself as having a risk taking or risk averse culture compared to its relevant competitors?

<input type="checkbox"/> More risk taking	<input type="checkbox"/> Comparing risk taking	<input type="checkbox"/> More risk adverse
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Part II: Organizational risk management structure and accountability

4. Please evaluate the following aspects/features of your risk management structure and accountability

S/N	Items	Yes	Yes, but need improvement	No	Don't know
		1	2	3	4
4.1	The company structure's supports effective risk management				
4.2	There are appropriate tools in place to support risk management (e.g. standard templates, modeling tools, valuation tools)				
4.3	Has the company formulated an overall, enterprise-wide strategy for managing risks yet?				
4.4	There are clear and written statements on risk management				

5. Who has primarily risk management responsibility? Multiple response are possible

<input type="checkbox"/> Chief Executive Officer (CEO)	<input type="checkbox"/> Executive Committee
<input type="checkbox"/> Chief Financial Officer (CEO)	<input type="checkbox"/> Audit Committee
<input type="checkbox"/> Chief Risk officer (CRO)	<input type="checkbox"/> Financial Controller
<input type="checkbox"/> Treasure	<input type="checkbox"/> Risk management Committee
<input type="checkbox"/> Chief Administration/Operation Officer	<input type="checkbox"/> No direct responsibility defined
<input type="checkbox"/> Business Unit executives	Other(Pease specify): _____
<input type="checkbox"/> Cross-functional or divisional team	_____

Part III: Risk management process

i. Setting corporate objectives

6. Please evaluate the following aspect/features of risk in achieving organizational objectives

S/N	Items	Strongly disagree	Disagree	Neutral	agree	Strongly agree
		1	2	3	4	5
6.1	risk management is important for the achievement of corporate objectives					
6.2	The company knows how much risk it may take in the achievement of its objective.					
6.3	The company supports taking risks to achieve objectives					
6.4	The company includes risk management as integral components in all relevant strategy, control and monitoring process.					
6.5	Project risk management plan is linked or integrated into other plans (Strategic plan, operational plans, project plan etc)					

ii. Risk identification

7. Please evaluate the following aspect/features of risk identification of the company's?

S/N	Items	Strongly disagree	Disagree	Neutral	agree	Strongly agree
		1	2	3	4	5
7.1	The company finds it easy to identify its main risks.					
7.2	The company knows how much risk it may take in the achievement of its objective.					
7.2	Sources of risks, areas of impacts, and their corresponding causes and potential effects are identified in the project					

8. Do you have consistently defined risk catalogue to be used for risk identification purposes?

Yes, implemented
 Yes, but needs improvement
 No, but planned
 No

9. Overall how confident is your company in identifying overall all potential significant risks?

Absolutely confidence
 Confidence
 More or less confidence
 No confidence

iii. **Risk assessment**

10. Please evaluate the following aspect/features of risk assessment of the company's?

S/N	Items	Strongly disagree	Disagree	Neutral	agree	Strongly agree
		1	2	3	4	5
10.1	There is a continuous risk assessment methodology applied through the company, including estimating the significance of risk and assessing the like hood of their occurrence.					
10.2	The company finds it difficult to assess the like hood of risk occurring.					
10.3	The company find it difficult to assess the potential impacts of risk materializing					

11. Risk assessment is performed at timely way at strategic and operational level across the company.

Yes, implemented
 Yes, but needs improvement
 No, but planed
 No

12. Which method does your company use for the assessment of identified risks? Multiple response are possible

Individual subjective assessment (by individual officers)
 Assessment by external experts
 Group facilitated assessment
 Qualitative risk assessment based on predetermined list of key indicators
 Systematic exposure analysis (severity, financial impact and likelihood of occurrence)
 Risk premiums or discounts on return/multiplication
 Simulation using probabilities (e.g. Monte Carlo simulation)
 Risk scoring techniques
 Decision tree procedures
 Scenario technique (best/worst-case)
 Sensitivity analysis
 Other please specify: _____

13. How do you prepare a general overview of the current risk situation?

Yearly
 Half-yearly
 Quarterly
 Monthly

iv. Risk control

14. Assuming that you have prepared a list of all material risks that may threaten your company.

How do you address these? Multiple responses are possible

<input type="checkbox"/>	Depending on the situation, we take ad-hoc actions to improve the risk situation.
<input type="checkbox"/>	We determine risk owners who are responsible for controlling risk management actions.
<input type="checkbox"/>	We record the existing actions and analyze their impact
<input type="checkbox"/>	We identify material risks but do not take any further action
<input type="checkbox"/>	We systematically prepare an action task list. The systematic implementation of these actions in monitored on a regular basis
Other please specify: _____	

v. Risk monitoring

15. Please evaluate the following aspects/features of your risk reporting and monitoring

S/N	Items	Yes	Yes, but need improvement	No	Don't know
		1	2	3	4
15.1	The company has clearly defined policy and process for reporting of risks/risk management				
15.2	A functional reporting concept has been designed and successfully implemented				
15.3	Reporting and communication process between staff and top management support the effective management or risk				
15.4	The company senior management is responsible to all communications about risks, including bad news.				
15.5	The company monitor and reviews the risk in the achievements of the objectives				
15.6	Changes to the company's risks are assessed and reported on an ongoing basis as to their impact on objectives				
15.7	The company routinely review the effectiveness of controls in place to manage risk				
15.8	The responsibilities for risk management and continuous monitoring of risk categories have been defined				
15.9	The key indicators for controlling material risks have been determined and threshold values have been defined				