ADDIS ABABA UNIVERSITY

College of Business and Economics

Department of Business Administration and Information Systems

Effect of Antecedents on Project Performance of Real Estate Companies in Ethiopia: The Mediating Role of Risk Management

A Research Project submitted to the School of Commerce in Partial Fulfillment of the Requirements for the Award of Master of Arts Degree in Project Management

By: Wasihun Jimma Ketema

June 2022

Addis Ababa, Ethiopia

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STUDENT'S DECLARATION SHEET

I, the undersigned, declare that this thesis is my work and that all sources of materials that are used for this study have been acknowledged.

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This is to certify that the thesis entitled "Effect of Antecedents on Project Performance of Real Estate Companies in Ethiopia: The Mediating Role of Risk Management" is done by Wasihun Jimma Ketema. This work is original in nature and suitable for submission in partial fulfillment of the requirement for the award of Master of Arts in Project Management and the student has my permission to present it for assessment and further approval.

Advisor: T/Giorgis A. (Ph.D.)

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CERTIFICATION BY BOARD OF EXAMINATION

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ACKNOWLEDGEMENT

I would like to forward the deepest of my appreciation and gratitude to my advisor Dr. Tekle-Giorgis Assefa for his constructive advice throughout the thesis.

Besides, I would like to express my sincere gratitude to the internal and external examiners of my thesis project, Dr. Bahren Asrat and Dr. Mulatu Takele respectively, for their genuine technical advice and constructive feedback.

I also owe a great deal of gratitude to my friend Tigist Teshome, who has been a constant source of support and encouragement during the challenges of graduate school and life during difficult times. I am truly thankful for having you in my life.

This work is also dedicated to my father, and younger sister, who have always loved me unconditionally and whose good examples have taught me to work hard for the things that I aspire to achieve.

Above all, I thank the almighty God for guiding me all the way through the study period.

"IN LOVING MEMORY OF MY MOM IN HEAVEN"

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ABSTRACT

The purpose of this study is to examine the effect of policy and strategy, team management, communication, leadership, and risk management. Data were gathered using a structured questionnaire from firms engaged in real estate development projects in Ethiopia. The author used a census survey 112 employees who work at project sites. However, 5 responses were rendered unusable because the respondents were believed to be reluctant, which gave the response rate 95.53 percent. Correlation, regression, and structural equation modeling were used to analyze the data. Team Management, Communication and Leadership influence Project Performance significantly at 95% confidence interval with a sig. level of 0.048, 0.000, 0.000 respectively. However, it was found out that the effect of Policy and Strategy is non-significant. Additionally, the two variables organizational Policy and Strategy and Team Management significantly affect project performance and are mediated by Risk Management. When the mediator variable removed from the model, the effect of Policy and Strategy and Team Management, direct value dropped from 0.15 to 0.066 and from 0.27 to 0.028. Communication and Leadership, however, do not exhibit a significant influence on Project Performance. Effective risk management, policy and strategy, team management, communication, and leadership lead to improved project performance with respect to cost, time, and quality. Real estate companies need to take more strategic view toward policy improvements, team management, and risk management.

Keywords: real estate project, project risk management, policy and strategy, team management, communication, leadership, project performance, structural equation modeling, Ethiopia.

CHAPTER I

INTRODUCTION

This chapter deals with an in-depth discussion on the impacts of project risk management practices, organizational policies and strategies, team management, communication, and leadership on project performance. The following main topics will be discussed: background of the study, statement of the problem, research questions, research objectives – general and specific, significance of the study, scope of the study, limitations of the study, organization of the study, and definition of key terms.

1.1 Background of the Study

The real estate construction industry is a great and valuable part of the world economy. Africa's urban population rose from 15% of its total population in 1960 to 35% in 2006 and is expected to be above 60% by 2030 (UN-HABITAT, 2011). In parallel to the urban population growth, the need for residential and commercial real estate projects has become an indispensable and a key aspect of infrastructure and industrial development in developing countries such as Ethiopia. Moreover, majority of Ethiopian city dwellers struggle with acute housing issues as they anxiously search for quality and affordable rental homes.

Unmet housing demand is estimated at approximately 1.2 million, with 381,000 new housing units needed annually, and the stock combined to meet new housing demand and current stock upgrades rising to 486,000 annually to 2035. Only 165,000 units are produced nationwide annually (Michael & Bianca, 2021). According to Mickael K. and Bianca K., Ethiopia is a low-income country with 13% of the urban population living below the international poverty line, which makes it difficult for people access to housing.

The process of developing real estate is typically difficult and complicated. The development process is determined by the economic performance at the local, national, and international levels.

In the general context, real estate development is usually dynamic, with rapid changes occurring in the link among construction, technological advances, regulation, marketing, finance, and property management (Mike et al., 2000). Furthermore, project performance

or success is very often dependent on the proper application of project management principles and quality of leadership.

In this study, the author measure project performance of real estate companies in Ethiopia based on the operational elements of cost, time, and quality. Project performance is strongly associated with factors such as organizational policy and strategies, team management, communication management, risk management and leadership characteristics. These variables are recognized as significant variables from the widely accepted standards set by project Management Knowledge (PMI). Accordingly, the author considered these variables as key antecedent factors for project performance and are discussed in the following sections.

Property companies formulate their policy according to the interest and expertise of their directors and their perception of the prevailing market conditions (Reed et al., 2008). In order for market-oriented strategies to meet the growing need for housing; and for the supply of housing to be efficient, effective and just, it is important to understand the dynamic components of urban property markets in Ethiopia (Belete & Yilma, 2020).

Project team in the real estate development/construction industry is that a group of construction professionals and personnel from one or more organizations who combine to fulfill necessary design, detailing and construction functions comprising a construction project (Nallathiga et al., 2012).

Manage communications includes all the work associated with the project communications plan, starting with planning for it; generating it; organizing and sharing it; and, finally, storing and disposing of it (Kloppenborg et al., 2019). Kloppenborg et al., in their book entitled "Contemporary Project Management", further indicate that stakeholders want to know how much work has been successfully delivered (acceptance tests passed) and how much work is remaining.

Project team members use the information to motivate and improve their performance. Sponsors use the information to strategically understand if the project team will complete all work on time and within budget. Other stakeholders may share the sponsors' overall concern but want details of work that concerns their functions.

According to ISO 9001: 2015, the specific requirements of leadership include focus on quality and customers, establish a suitable quality policy, and define roles and responsibilities.

In the ISO 31000 process, risk assessment involves identifying risks, analyzing them, and using the understanding gained from the analysis to evaluate risk by drawing conclusions about their comparative significance in relation to the objectives and performance thresholds of the organization.

Property development is a multidisciplinary, dynamic, and risky enterprise; characterized by its complexity and inherent uncertainty. Besides, it is highly prone to various risks. Project risk management is one of the 10 most important and core pillars of project management body of knowledge. These project management knowledge areas coincide and take place within the process groups, viz. initiation, planning, execution, monitoring and controlling, and closing.

Any project undertaking without a proper and complete risk management plan within its project management lifecycle, is doomed to failure or, otherwise, subject to substantial compromise with respect to cost, time, and quality. Different studies highlight the importance of well-defined project risk management plan in mitigating the impact of any sort of risk.

Real estate construction projects are one of the most susceptible sectors to various concurrent and impactful risks that ever exist on planet earth – in view of project time, multimillion budget expenditure, and mandatory top-notch quality requirement.

In Ethiopia, there are indications that the sector seldom incorporates standard procedures and principles of project management. This necessitates an in-depth study into factors affecting project performance, with a goal of enabling practitioners and policy makers in the industry. Therefore, this paper aims to find out how the variables within the project management setting influence success of real estate projects and attempts to make recommendations to the stakeholders in the industry.

In the next section, the author discusses problem statement, and research objectives along with pertinent research focusing on determinants of project performance and develop hypotheses based on theoretical perspectives and empirical findings in project management literature.

1.2 Statement of the Problem

Factors such as organizational policy and strategies, team management, communication management, risk management and leadership characteristics are crucial in defining the success of a project. Studies show that these crucial elements of a successful project management are not given much thought in Ethiopia.

Real Estate project in Ethiopia has communication plan, but not practiced in all Real Estate, implemented properly and not reviewed regularly, and adjusted if need (Mezgeb, 2021). Mezgeb Manaye (2021) also depicted the prevalence of poor and distorted information, inexperienced interpretation of working drawings, late dissemination of information, and poor means of communication are the major causes of project delay, increase in cost, and project failure in real estate projects in Ethiopia.

Even though crucial to the success of projects, project risk management is also usually disregarded in feasibility studies and project implementations. Continuous risk assessment and analysis is the key to identify, address, and handle risks before they become threats to success. However, current practices in real estate construction projects in Ethiopia seldom incorporate this concept in real estate projects due to various reasons.

Milka Hagos (Milka, 2016) conducted a survey to assess risk management practices in real estate projects in Addis Ababa and found out that companies do not assess risks at all. Furthermore, a study conducted by Befkadu W/Kidan (Befkadu, 2017) showed that Ethiopian real estate projects' risk management practice is not well developed and done in unprofessional way. Risk is simply disregarded in feasibility studies. One of primary reasons is the lack of a feasible and effective risk analysis approach to guide efficient implementation.

A range of methods have been used in the evaluation of the relationship between organizational policy and strategy, team management, communication management, risk management, and project performance. These have ranged from simple ranking based on frequency of responses to Structural Equation Modelling.

Some studies on critical success factors have used simple statistics in classifying factors that are perceived to have significant impacts on project performance (Zulu, 2007). While such an approach can shed light on the problems that influence project performance, it

cannot quantify the level of contribution or take into consideration any indirect links between the influencing elements and project success.

1.3 Research Questions

This study will attempt to answer the following main question.

I. To what extent is project performance impacted by antecedents such as team management, communication management, policy and strategy, and leadership?
II. To what extent is the relationship between project antecedents and project performance mediated by project risk management?

1.4 Objectives of the Study

1.4.1 General Objectives of the Study

The general objective of the research project is to assess the effect of antecedents on project performance, with a mediating role of project risk management in real estate projects in Ethiopia.

1.4.2 Specific Objectives of the Study

The specific objectives are:

- Identifying the effect of antecedents on real estate project performance.
- To assess the mediation role of project risk management between antecedents and project performance.

1.5 Significance of the study

The likelihood of a project's success rises when project managers and other stakeholders are aware of the impact of the antecedents or factors that influence project performance. So, the research's findings will make senior management and project owners more aware of the kinds of activities that can contribute to an improved project performance or success and how they can manage their projects more efficiently to raise the likelihood of project success.

Real estate project owners will learn from the study about the criteria and key inputs used by their project firm. As study measures project performance in terms of cost, time, and quality in real estate companies in Ethiopia, current and future property developers and investors will be benefited in crafting an efficient and effective project management design

and execution plan. The study will also provide information to real estate project developers and owners on the criteria used by their project firm.

1.6 Scope of the Study

This study is delimited to explore and analyze effect of antecedents on project performance of real estate companies in Ethiopia. The real estate companies are located and operate in the city of Addis Ababa city.

The study units are all staff members involved in the full administration of real estate projects, including the project planning, implementation, and marketing. The following table shows the selected real estate companies.

No.	Name	No.	Name
1	Adama Real Estate	16	Gift Real Estate
2	Al-Sam Properties	17	GT Consulting Architects and Engineers
3	Andualem Amde Construction	18	Habesha C.M Development S.Co.
4	Assosa Construction	19	Huda Real Estate
5	Ayat Real Estate	20	Tsehay Real Estate
6	Ayelu Consulting Engineer's PLC	21	Metro Real Estate
7	Betopia Properties	22	Metropolitan Real Estate Ethiopia
8	Boldmark Marketers PLC	23	Noah Real Estate Plc.
9	CCD	24	Nova Real Estate
10	Capstone Engineering	25	Oasis Real Estate Developers Plc.
11	Diaspora Sq, App Real Estate	26	Pluto Real Estate
12	Eagle Hills	27	Sacuur Real Estate
13	Enyi Real Estate	28	Sunshine Real Estate
14	Flintstone Homes	29	Yotek Real Estate
15	Get-As Real Estate		

Table 1: Selected Real Estate Companies

The exogenous/independent variables used under this study are organizational policy and strategy, team management, communication management, and leadership. Project performance is treated as an endogenous/dependent variable.

Additionally, risk management is considered as mediating variable between the exogeneous/independent variables and dependent variable. The independent variable, project performance was measured in terms of cost, time, and quality.

A mixed approach of qualitative and quantitative methods has been used, and data was gathered in the form of questionnaires from the selected real estate companies.

In terms of timeline, the study was of a cross-sectional type where the data was collected and analyzed within a particular point in time viz. within the month of May-2022.

1.7 Organization of the Study

This paper is organized in five chapters. The first chapter is an introductory section to the research project and its approaches. The second chapter discusses relevant theories to the study on the effect of antecedents on project performance of real estate projects, analysis tools and techniques including qualitative and quantitative approaches.

Research methodology from the studied fields is included in the third chapter. The fourth chapter consists of an analysis and interpretation of the case study based on previously presented theory. The last and fifth chapter will include conclusions, recommendations, references used and appendixes.

1.8 Limitations of the study

A few limitations on the study's scope and content prevent the researcher from efficiently attaining its goals. One of the critical limitations was a difficulty to reach to more respondents and encompass various secondary data.

The main obstacle preventing the researcher from reaching more respondents than they already did was a lack of time. The university allotted a time frame of eight weeks for the duration of the whole study period, which also included time for concept note and research proposal drafting and approval. Secondly, obtaining adequate and will-based responses was a hurdle that the researcher overcame over the course of the research effort.

Moreover, respondents should have been given sufficient time during data collection to allow for successful triangulation and incorporation of all perspectives important to the study. Furthermore, access to several crucial papers, such as those needed for company strategies and policies, communication management, team management, and risk management was difficult.

1.9 Operational Definitions of Key Terms

The major concepts to be employed in this study are enlisted below as defined in various sources and in the Practice Standard for Project Management by PMI (Project Management Institute., 2009).

Antecedent: A thing that existed before or logically precedes another (Oxford Dictionary definition)

Communication management: Includes the processes required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring, and ultimate disposition of project information (Project Management Institute, 2021).

Real Estate: Is the land along with any permanent improvements attached to the land, whether natural or man-made including water, trees, minerals, buildings, homes, fences, and bridges. (James, 2019)

Real Estate developers: are the people and companies who coordinate all these activities, converting ideas from paper to Real property (Frej P, 2003).

Risk: An uncertain event or condition that, if it occurs, has a positive or negative effect on a project's objectives.

Risk Management: Project Risk Management includes the processes concerned with conducting risk management planning, identification, analysis, responses, and monitoring and control on a project. The purpose of Project Risk Management is to increase the probability and impact of positive events and decrease the probability and impact of events adverse to project objectives.

CHAPTER II

LITERATURE REVIEW

This chapter will investigate previous studies on impact of antecedents on project performance of real estate projects. An in-depth empirical and theoretical review of relevant literature on real estate development and project management will be conducted. It is comprised of definition of the antecedent variables considered for the study and their effects on project performance of real estate development and project management practices. The theoretical review section is discussed in length in the first section, and the empirical literature is covered in the second section. These include previous studies and gaps in literature related to the relationship of organizational policy and strategies, team management, communication management, leadership characteristics and risk management in real estate projects. Previous studies are reviewed in the second major section.

2.1 Theoretical Review

2.1.1 Organizational Policy and Strategy

A policy is a broad guideline for decision making that links the formulation of strategy with its implementation (R M Alsaedi & Ribdi N, 2017). Companies use policies to make sure that employees throughout the firm make decisions and take actions that support the corporation's mission, objectives and strategies.

R M Alsaedi and Ribdi N (2017) state strategy to occur at the business unit or product level, and it emphasizes improvement of the competitive position of a corporation's products or services in the specific industry or market. business strategy may fit within the two overall categories of competitive or cooperative strategies.

Business policy describes the principal objective or course of action determined by the management of any industrial, commercial, or any other organization (Ugoani, 2020). It is the foundation of management practices. Policy determines what is to be done by any company.

2.1.2 Team Management

Team management is the key function of any organization. Team Management plays a vital role in the improvement of productivity, profitability, and service quality of any

organization (Mehek & Baker, 2020). Team management is the ability of an individual or an organization to administer and coordinate a group of individuals to perform a particular task. Mehek and Baker (2020) define team management as the vehicle for every employee to become a professional business manager with his or her personal goals connected with the business goals of the organization. By effective team management, people will unlock their inner potential and reinforce their expertise.

According to Mehek & Baker (2020), team management comprises the following 5 stages of development: Forming, Storming, Norming, Performing, Adjourning. Forming is a preliminary stage in the process of team development. In this stage, the people come together and know each other, share their experiences and backgrounds. In this, some team members are excited about working and some are a little bit nervous because of this new work environment and colleagues.

Storming on the other hand is the second and also one of the most important stages in the team development process. As its name suggests, it is one of the most dangerous stages for the organization. In this, there is a disagreement between team members about the goals, vision, and approaches of team members. It is caused due to some personal or intellectual differences between the team members which leads to the conflicts among them. Such a situation is not good for any team. This will affect the productivity of the team. This disagreement and conflicts must be resolved by the team leader or manager before they are moving towards the next stage. It should be resolved positively with an impartial approach to each team members.

Norming is the next stage after storming. In this team consciously or unconsciously formed a relationship in the team to achieve common goals. Team members start to trust and respect each other, and the team will gradually go towards the Norming stage. They resolved the conflicts and differences and appreciate the skills and knowledge of other team members. If anyone gets stuck at any problem, they will tend to ask help and guidance. There is the responsibility of team leaders to direct team members to focus on the positive side of team members and should forget the differences between each other.

Performing is a stage where all the team members are stable and everyone in the teamwork for a common goal of the organization. The team may be self-directed with the team leader assisting and guiding the team. When the team reaches to the performing stage, when hard

work leads, without friction, to the achievement of the team's goal. The structures and processes that you have set up for the team supporting the growth of an organization.

Adjourning is the final stage of team development. In this stage, the major goals of the organization are accomplished. The team may be disbanded or continued according to the requirements of the organization. In this stage, the final process and documentation work are done. But some team members found this stage difficult because of a strong bond or about the uncertainty of the future. These stages are a part of the spectrum, and the team will swap between stages overtime. The team leader or manager should identify on which stage the team is, and use specific tools and techniques to maximize the efficiency of the team

2.1.3 Communication Management

Communication is one of the most important levers of management that a company can implement for the formation of teams and achieving valuable performance (Bucăţa & Rizescu, 2017). Effective communication leads to good human relationship, promotes work performance and organizational goal attainment (Obun, 2018). Every organization requires the effective utilization and management of effective communication and its related tools for the passing of important information and for improving workers' relationship with others (Obun, 2018). Improving managerial communication practices may bolster employee engagement and productivity (Shannon, 2018).

2.1.4 Leadership

Leadership increasingly must manage to steer relations with stakeholders that are not just those to whom a formal obligation is owed, such as providers of capital, regulatory agencies and public and private organizations with whom the project is partnered (Whyte et al., 2022a). Leadership is a vital factor of effective management but its function and direct influence on project success or failure in term of internal and external factor has not been addressed in literature even leadership performance founded moderately ambivalent (Ahmed et al., 2013).

Project leadership involves acting in the face of diverse activities, actors, and events by not only making sense of communications coming from project teams and stakeholders but also buffering, sorting and disseminating this sense (Whyte et al., 2022a).

2.1.5 Risk Management

Risk is a term that can be defined in a variety of different ways. A comprehensive risk that incorporates the two aspects (threat and opportunity) is the project risk (Collins Nnamani, 2017). In today's volatile and unsecured economy, an efficient and practical risk management is a vital component of any successful project management strategy. John S. and Alison W. (John & Alison, 2009) defined Risk and Uncertainty as risk as it is when the probability of an outcome is known. Risk itself is a measure of the variability of an outcome and uncertainty is when the probability of an outcome is not known. According to the latest project management standard from PMI, PMBOK Guide — Seventh Edition, risk is one of the twelve Project Management Principles.

Project Management Principles (Project Management Institute, 2021):

- Stewardship
- Team
- Stakeholders
- Value
- Systems Thinking
- Leadership
- Tailoring
- Quality
- Complexity
- **Risk**
- Adaptability and Resiliency
- Change

This research has adopted the more general and broad definition of risk as presented by Project Management Institute (2021). The standard further defines risk as an uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives. Negative risks are called threats, and positive risks are called opportunities.

Once a set of risk responses has been developed, it should be reviewed to see whether the planned responses have added any secondary risks. The review should also assess the residual risk that will remain once the response actions have been carried out. Response planning should be repeated until residual risk is compatible with the organization's risk appetite (Project Management Institute, 2021).

In the sixth edition of the Guide to the Project management Body of Knowledge (PMBOK ® Guide – Sixth Edition, 2017), the process of Project Risk Management is indicated to include conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a project as clearly elaborated below.

Efficient and successful projects are the results of well-studied and practicable methods that are commonly available on the market. Selection of the correct method is the key action in risk management. The most common methods include Brain storming, Delphi method, SWOT analysis, Ichikawa method, Sensitivity method, Modelling and computer simulations, Risk matrix (Szymański, 2017).

There are several mathematical methods focusing on estimating the scale of risk probability. They allow primarily formalizing incomplete knowledge and analyzing the risks associated with inability to anticipate the future.

The critical success indicators of construction management system(s) include completing the project with cost and time, within the planned budget and duration, and within the required quality, safety, and environmental limits (Cabrera, 2018). It is a well-known fact that managing risks has two primary objectives: to avoid the downside of risks; and to exploit opportunities. Hence, it is imperative to have well-established methods and tools in project risk management.

2.2 Empirical Review

It is indicated, throughout the theoretical review, that effective and efficient project risk management practice is crucial for achieving success in across project lifecycle. In this section, previous studies on critical aspects of risk management practice by different researchers will be reviewed.

2.2.1 Policies and Strategies in Real Estate Development

Real estate demand has increased and evolved dramatically in recent years, and many investors believe that real estate investment will continue to be a major source of competitive advantage in the future (Ali & Anwar, 2021a). In Addis Ababa, real estate is regarded as one of the most important and rapidly developing assets. Strategic management works as a roadmap a guide for an organization in order to be able to achieve its goals (Ali & Anwar, 2021b).

Competition has risen amongst real estate corporations and getting into new businesses is competitive. As a result, strategic management techniques take into account the management that is required in today's competitive industry (Ary & Kofand, 2018). Strategic management demonstrates the necessary method and technique for directing and leading an organization, including organizational vision, mission (Faraj et al., 2021). Final,

essential aspect or tool should be determined in strategic management planning is providing a written policy to identify risks related with the business (Ali & Anwar, 2021a).

2.2.2 Team Management in Real Estate Development

Team management is one of the crucial factors to determine project success. Team management refers to organizing and structuring the group of a team that coordinates to perform a desired activity (Soni, 2020). According to Newton (2015), nothing is more important to a project's success than the people who make it up. All the other preparations would be lost easily without good people who have the skills, expertise, and determination to get the job done.

Teams are formed to bring together a set of balancing skills and capacities so that the project will have all the available competencies required to complete the task. The scope of work often necessitates a range of complementary skills, which one person cannot have, whereas a team of experts could have all the required skills. Teams are able to apply their different complementary skills with collaboration and brainstorming sessions to create a number of possible solutions and alternatives (Adair, 2004).

Increasingly, companies are also recognizing that the identification of project team success factors is crucial to achieving asset competitiveness (Scott-Young & Samson, 2008). The art of project management is focused on collaboration. Project managers must act as both team and leaders. Only if the project team performs perfectly can time, cost, and quality management and control tools must be efficient (Mohammed and Abi, 2015).

According to Mohammed and Abi (2015), people make projects succeed or fail since they make the plans, the decisions, and also monitor and control the progress. The people, and how they interact within the project environment, are one of the major factors in the success of projects.

Project management practice is team-based. Project managers have to operate both as members and as leaders. The tools used for time, cost and quality management and control can only be effective if the project team operates properly.

2.2.3 Communication Management in Real Estate Development

PMI (2013) reported that 55% of project managers consider effective communication as instrumental to the success of a project. Thus, the management and coordination of information exchange among participants is vital in project success (Melzner et al., 2015).

According to Mezgeb M (2021), poor communication management results in ineffective and inefficient project Performance of real estate companies.

Meron A. (2018) studied the role that project communication management plays in enhancing project performance in building construction projects. Here is a robust indebtedness regarding the role that project communication management plays in Ethiopia's construction industry (Meron, 2018). The study showed the prevalence of poor leadership, unclear communication objectives, unclear channels of communication, ineffective reporting system, and ineffective communication between the parties on the project, lack of well-trained personnel, and lack of professionals by the clients.

A study by Project Management Institute (2013), concluded that more than half of the money at risk in projects is due to poor or substandard communication. The study further highlighted ineffective communication was cited as the primary cause for one-third of the project failures reported as hurting the success of over half of the respondents' projects. The study has also ascertained that successful construction projects are attributed to effective or successful communication among the stakeholders of the project.

2.2.4 Leadership in Real Estate Development

Leadership is an effective tool to be used by the project manager which moderately influence project outcome, otherwise, lack of leadership skills are directly associated with project failure (Ahmed et al., 2013).

Project leadership involves acting in the face of diverse activities, actors and events by not only making sense of communications coming from project teams and stakeholders but also buffering, sorting and disseminating this sense. The goal is creating meaning and direction for significant others, establishing informed relationships with key actors while being oriented to innovative task solutions (Whyte et al., 2022b).

It is the project manager's duty to practice appropriate leadership against functional managers in acquiring teams and resources through negotiating, participatory, consultative, and negotiable leadership styles to overcome the trade-off of who decides when and how (Esayas, 2021).

The project manager is responsible for coordinating and integrating relevant resources from various departments. Both a highly integrated information and control system and are required of the project manager in order to successfully achieve this (Kerzner, 2003)

2.2.5 Risk Management in Real Estate Development

Real estate development is a multiphase process: it starts with land development, is followed by residential and/or commercial development and ends with the marketing phase - and the sale or leasing of the completed site (Canesi & D'Alpaos, 2014).

According to Canesi R. and D'Alpaos (2014), each stage involves various risks which are differently allocated between landowners, land developers, and homebuilders. Chen and Khumpaisal (Chen & Khumpaisal, 2009) proposed a summary table where the main risks, identified and analyzed in the literature, were classified, and broken down by categories which include environmental risks, social risks, economic risks, and technological risks.

Criteria	Sub-criteria
Environmental risks	- Adverse environment impacts
	- Climate change
Social risks	- Workforce availability
	- Cultural compatibility
	- Community acceptability
	- Public hygiene
Economic risks	- Interest rate
	- Property type
	- Market liquidity
	- Confidence to the market
	- Demand and supply
	- Purchaseability
	- Brand visibility
	- Capital exposure
	- Lifecycle value
	- Area accessibility
	- Currency conversion
	- Buyers
	- Tenant
	- Investment return
Technological risks	- Site conditions
	- Designers and constructors

	- Multiple functionality - Constructability - Duration - Amendments - Facilities management - Accessibility and evacuation - Durability

Table 2: Risks assessment criteria for commercial real estate development (Partial View)

Source: Chen Z. and Khumpaisal S. (2009)

2.2.6 Real Estate Development in Developing Countries

The Construction industry, while significantly contributing to the overall socio-economic development of developing countries, it is a major area of capital expenditure and prone to various risks. The uncertainty of the risk can generate an enormous impact on the project if they are not adequately identified and planned before they occur (Cabrera, 2018).

In construction perspective, risks are generally considered as incidences that influence the principal objectives of a particular project (time, cost, quality) (Project Management Institute, 2017).

The current status of risk management approach of the construction industry of developing countries of the world, generally attempts to avoid or shift these risks, which results in the risk in the risk management practices of a large number of the industries being reactive and informal to deal with (Bahamid & Doh, 2017).

According to Milka H. (2016), the top five risks in the Ethiopian real estate industry with regard to impact on project schedule are: not meeting milestone deadline, construction price escalation, exchange rate fluctuation, inflation, and change in client's interest.

Furthermore, a study conducted by Befkadu W. (2017) indicated that lack of an appropriate risk management function, in the Ethiopian real estate industry, was among the causes of problems related with planning, scheduling, monitoring and control. The study revealed an average rating value of 75.722% performance of project risk management in the industry, less than the average practice (79.565%) project management. Accordingly, the study concluded that this project management knowledge practice is poorly practiced.

2.3 Conceptual Framework

The main aim of this research is to examine the effect and relationships between the selected antecedents and project performance. Hence, to perform such analysis, it is needed to identify a suitable theoretical model that can be used to represent project management processes as a causal model viz. The European Foundation for Quality Management (EFQM) Excellence Model. It is a self-assessment framework for measuring the strengths and areas for improvement of an organization across all its activities (Zulu, 2007).

The term 'excellence' is used because the Excellence Model focuses on what an organization does, or could do, to provide an excellent service or product to its customers, service users or stakeholders (NEF Consulting, 2022). In this study, an antecedent-project performance model based on the European Foundation for Quality Management (EFQM) business excellence model is developed to represent the interrelationships between project management antecedent variables and project performance, with a mediating role of project risk management.

The EFQM Model starts with the following premise: Customer Results, People Results and Society results are achieved through Leadership driving Policy and Strategy, People, Partnerships and Resources leading ultimately to excellence in Key Performance Results.

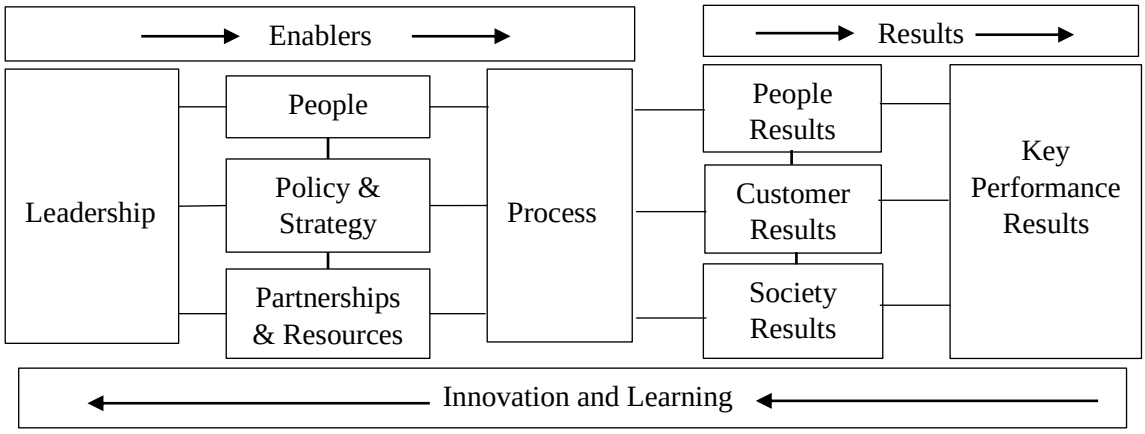

Figure 1: The EFQM Excellence Model

The conceptual framework resulting is also aligned with the study research questions. As can be seen from the framework, the study will investigate the impact and relationship of these variables on project performance in the context of Ethiopian real estate projects.

Project management antecedents: policy and strategy, team management, communication, and leadership are the independent variables. Project performance is the dependent

variable. Risk management, in turn, mediates the effect and relationship between the antecedents and project performance.

Figure 2 below shows the conceptual model of the study.

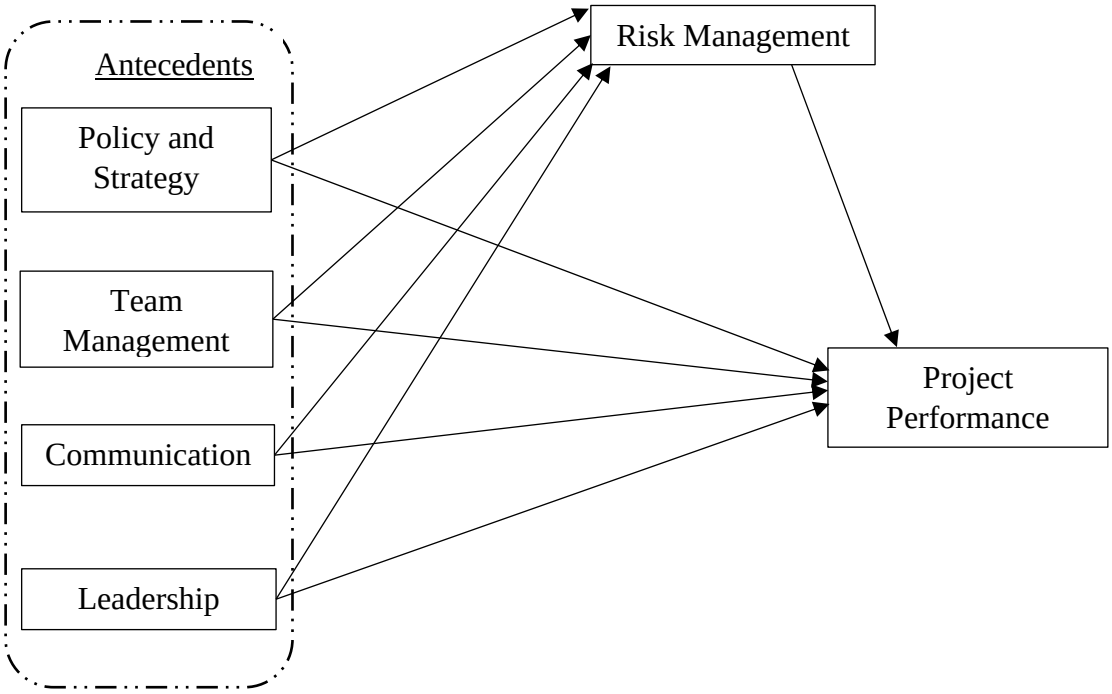

Figure 2: Conceptual framework: Antecedents of Project Performance

Source: Own and derived from EFQM Model.

Additionally, the conceptual model can be mathematically represented as:

$$Y_1 = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

$$Y_2 = a + b_5X_1 + b_6X_2 + b_7X_3 + b_8X_4 + e$$

Where:

Y_1 is Risk Management	X_2 is Team Management
Y_2 is Project Performance	X_3 is Communication
X_1 is Policy and Strategy	X_4 is Leadership

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

This chapter will delineate the activities of the research, how the research will be conducted and what steps will be taken to realize the objectives of the study. Findings of the survey will be summarized and reported in the next chapter.

3.1 Research Design

Research design helps to address basic questions in the research process: how to collect data, how to measure data, and how to interpret data (Patton, 1994).

A research design, also called research blueprint, refers to the procedures and plans that a researcher employs to gather, analyze, interpret, and report research data (John W., 2009). It guides all the activities from problem statement through data collection and analysis and reporting of research findings.

Research projects are carried out for a variety of reasons. These can be divided into three categories: exploratory, descriptive, and explanatory. For this study, an explanatory research design was used to assess the relationship between antecedents, a mediator variable and project performance in real estate development projects.

3.2 Research Approach

This study employs mixed methods as its research approach. The mixed methods research approach combines aspects of qualitative and quantitative approaches.

Creswell (2009) explains the mixed approach as: It involves philosophical assumptions, the use of qualitative and quantitative approaches, and the mixing of both approaches in a study. The approach assists in capturing the research problem as comprehensively as possible. It also adds depth and breadth to our understanding of the research problem and ensures the triangulation of research findings.

3.3 Description of Study Variables

One of the basic steps conducting scientific studies is designing or identifying research variables (Mishra & Min, 2010). The independent variables for this study are project policy and strategy, team management, communication management, leadership, and risk

management as a mediating variable. The dependent variable of this research is project performance, which is characterized in terms of cost, time, and quality.

3.4 Source of Data and Data Collection Methodology

The study used both primary and secondary data sources to gather information about this area of research. Primary data is obtained from project managers and team members who are selected from the real estate companies using a structured questionnaire with respect to study variables.

Robson (2002) indicated that a questionnaire is preferred because respondents were able to complete it without help, anonymously, and it will be cheaper and quicker than other methods while reaching out to larger sample. Secondary data was assembled by referring to different books, research, and articles.

3.5 Target Population

The target population of this study are professionals and employees in the real estate industry, which includes project managers, engineers, architects, planners, sales/marketing personnel, consultants, and general managers. These employees are active staff members who are currently engaged in real estate projects in the city of Addis Ababa, Ethiopia. A total of 112 professionals working within 29 firms (listed in Table 1) were invited to participate in both paper-based and online surveys in two phases.

A census survey was employed as the target population size is limited. The real estate companies are selected deliberately by the researcher using non-probability purposive sampling for they are convenient for the researcher in both geographic location and availability of data. Purposive or judgmental sampling enables the researcher to use his/her judgment to select cases that will best answer the research questions (Saunders et al., 2009).

3.6 Data Analysis and Presentation

Data collected from respondents through the questionnaire was analyzed using inferential statistics with the help of IBM SPSS Statistics and AMOS software.

The types of inferential statistics utilized were correlation analysis, regression analysis and structural equation modeling techniques to indicate the strength of relationship between the independent and dependent variables.

The data collection was done using questionnaires which was pre-tested for reliability on 20 individuals prior to the actual and full-scale survey across professionals and employees within real estate construction industry.

3.7 Validity and Reliability

To check and measure the validity of the research findings and to increase the accuracy of this research project, data triangulation is implemented. Expert opinions of the research supervisor and review of related literature were the key inputs to help to establish validity.

Reliability refers to the degree to which measurement produces consistent outcomes. According to Saunders et al. (2009), reliability refers to the extent to which data collection techniques or analysis procedures will yield consistent findings.

The reliability of the collected data has been tested using Cronbach‘s Alpha. A higher coefficient alpha values show greater scale reliability. George and Mallery (2003) suggest a Cronbach’s alpha value higher than 0.7 is considered to be reliable. The reliability gets stronger as it goes higher than 0.7 and poorer as it gets lower than 0.7. However, (Pallant, 2002) noted that if the items are less than ten on a scale, it’s difficult to get a high alpha. Therefore, the researcher assumed a minimum threshold of 0.7 Cronbach’s Alpha value to both pretest and main reliability tests.

Initially, a pilot test was conducted on 20 survey responses and was reliability was confirmed to be above the threshold alpha value of 0.7 or 70% with a value of 0.819 or 81.9%. Piloting data-gathering tools will help to determine if the study protocol is feasible by identifying its weaknesses (Hassan, 2006).

Hassan, Schattner, and Mazza (2006), argued that pilot testing will help to determine if the data-gathering tools are asking the intended questions, and if they are the most suitable tools to collect the required data.

The below table shows the output of the reliability analysis obtained during the pilot test, i.e., a pilot test on 20 responses and 24 items tested.

Case Processing Summary			
		N	%
Cases	Valid	20	100.0
	Excluded[a]	0	0.0
	Total	20	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
0.819	24

Table 3: Pilot reliability test

Subsequently, computation of Cronbach's Alpha for the full data set to confirm the reliability of the study variables. Hence, an alpha value of 0.865 or 86.5% was obtained which is well above the minimum threshold of 0.7. In this reliability analysis phase, items with low score of reliability were removed to improve the overall Cronbach's Alpha score, which reduced the number of items tested from 24 to 21. The below table shows the output of the reliability analysis obtained for the full data set.

Case Processing Summary			
		N	%
Cases	Valid	107	100.0
	Excluded[a]	0	0.0
	Total	107	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
0.865	21

Table 4: Reliability test on full data set

3.8 Ethical Considerations

The researcher should protect the participants against any suffering, pain, incapacitation, or offence (Warren, 2011). In this study, all respondents were well informed that strict data protection and confidentiality was part of the research project. All information received from respondents was based on a full consent to cooperate and participate in the survey. Moreover, mutual consensus was reached between the researcher and respondents for the research not to disclose the respondents' identities and that participant data will be kept confidential.

CHAPTER IV

ANALYSIS, DISCUSSION, AND INTERPRETATION

This chapter deals with the results of analysis conducted using the statistical technique discussed in Chapter III. Following the conceptualization of the research model presented in Chapter III, a data analysis, discussion, and interpretation of the survey responses was conducted to verify and validate the model.

4.1 Response Rate of Respondents

Questionnaires Distributed	Questionnaires Returned	Percentage
112	107	95.53

Table 5: Response rate of respondents
Source: Own survey, 2022

As shown in table 5 above, 112 questionnaires were distributed to respondents and 107 were appropriately filled and retuned with the rate of 95.53%.

For most business and management research, researchers are content to estimate the population's characteristics at 95 per cent certainty to within plus or minus 3 to 5 per cent of its true values. This means that if 45 per cent of your sample are in a certain category then you will be 95 per cent certain that your estimate for the total population within the same category will be 45 per cent plus or minus the margin of error – somewhere between 42 and 48 per cent for a 3 per cent margin of error (Saunders et al., 2009).

For most academic studies involving top management or organizations' representatives, a response rate of approximately 35 per cent is reasonable (Baruch, 1999). In this study, subsequent analysis was carried out based on the sample size, i.e., 107 (95.53%).

4.2 Demographic Information of the Respondents

Table 6 below shows the demographic information of the respondents in more detail.

No.	Item	Categories	Frequency	Percent
1	Age	21-30	53	49.53
		31-40	34	31.78
		41-50	13	12.15
		50 and above	7	6.54
2	Gender	Female	44	41.12
		Male	63	58.88
3	Year of Experience in Real Estate Projects	Below 5 years	35	32.71
		5-10 years	45	42.06
		Above 10 years	27	25.23
4	Educational Background	Diploma	1	0.93
		First Degree	66	61.68
		Master's Degree	40	37.38
5	Role of Respondents in the Organization/ Company	Project Manager	22	20.56
		Managerial (Other than PM)	23	21.50
		Technical/ Engineering/ Architecture	24	22.43
		Planning	11	10.28
		Sales/ Marketing	21	19.63
		Contractor/ Sub-contractor	2	1.87
		External Consultant	4	3.74

Table 6: Respondents Profile

Source: Own study, 2022

4.3 Effect of Antecedents on Real Estate Project Performance

4.3.1 Item Coding

No.	Constructs	Variables	Coding
1	**Policy and Strategy**		**PS**
1.1		Project Management methodology influences my organization's/project's risk management processes.	PS1

1.2		Clear definition of success criteria enhances my organization's/project's risk management processes.	PS2
1.3		Policy and strategy of the organization/company influences the leadership of the organization/company	PS3
2	**Team Management**		**TM**
2.1		Capability of team is critical to undertake risk management processes in my organization/project.	TM1
2.2		There should be a project team assigned with specific roles and responsibilities to undertake risk management processes.	TM2
2.3		Team skills and sound knowledge on risk management processes enhances my organization's/project's risk management processes.	TM3
3	**Communication**		**C**
3.1		Timelines of communication influences my organization's/project's risk management processes.	C1
3.2		Communication procedures influences my organization's/project's risk management processes.	C2
3.3		Accuracy of information influences my organization's/project's risk management processes.	C3
3.4		Methods of communication influences my organization's/project's risk management processes.	C4
		Adequacy of information influences my organization's/project's risk management processes.	C5

4	**Leadership**		**L**
4.1		Competence of the project manager influences my organization's/project's risk management processes.	L1
4.2		Experience of the project manager influences my organization's/project's risk management processes.	L2
4.3		Leadership style influences my organization's/project's risk management processes.	L3
5	**Risk Management**		**RM**
5.1		Complete Understanding of Risk Management	RM1
5.2		Establishing Standardized Risk Management Process in the Company	RM2
5.3		Proper Management of Risk in all Projects	RM3
5.4		Allocation of Resources to Improve the Risk Management Process, Tools, Techniques, Personnel Skills, etc.	RM4
6	**Project Performance**		**PP**
6.1		Risk management processes enhance my organization's/project's ability regarding the achievement of **cost** objective	PP1
6.2		Risk management processes enhance my organization's/project's ability regarding the achievement of **time** objective	PP2
6.3		Risk management processes enhance my organization's/project's ability regarding the achievement of **quality** objective	PP3

Table 7: Item coding of constructs and variables

The use of item coding/parceling is recommended in literature as a way of reducing the number of indicator variables (Schumacher et. al, 2004). Item coding involves forming

composite items from several items, thereby reducing the number of items while still accounting for all. The item coding as presented in Table 7 are used in subsequent analysis in place of the individual indicator variables.

4.3.2 Overall Mean Score of the Effect of Risk Management and Project Performance

Descriptive Statistics					
	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
PS1	107	1	5	4.13	0.859
PS2	107	1	5	3.15	0.969
PS3	107	1	5	2.56	0.973
TM1	107	1	5	4.29	0.901
TM2	107	2	5	4.38	0.682
TM3	107	1	5	4.23	0.772
C1	107	1	5	3.81	0.791
C2	107	1	5	3.90	0.835
C3	107	1	5	4.07	0.908
C4	107	2	5	3.94	0.712
C5	107	2	5	3.99	0.707
L1	107	1	5	4.26	0.769
L2	107	1	5	4.27	0.721
L3	107	2	5	4.16	0.767
RM1	107	1	5	4.21	0.898
RM2	107	1	5	4.00	0.765
RM3	107	2	5	3.96	0.699
RM4	107	2	5	4.06	0.684
PP1	107	1	5	4.18	0.909
PP2	107	1	5	4.21	0.824
PP3	107	1	5	4.15	0.950
Valid N (listwise)	107				

Table 8: Mean and standard deviation for Effect of Risk Management on Project Performance

As can be seen from table 8 above, all the factors of risk management have a considerable contribution to project performance and are being practiced within the companies under the study. A standard deviation of more than one would mean there was no consensus among the respondents, the higher the standard deviation, the higher the level of dispersion among the respondent's response (CHARLES, 2014). Similarly, the standard deviation for all the variables listed was less than 1 which indicates that there was a consensus among the respondents.

4.3.3 Correlation Analysis

i. Correlation between independent and dependent variables

Correlations						
		Project Performance	Policy and Strategy	Team Management	Communication	Leadership
Project Performance	Pearson Correlation	1				
	Sig. (2-tailed)					
Policy and Strategy	Pearson Correlation	0.143	1			
	Sig. (2-tailed)	0.141				
Team Management	Pearson Correlation	.371**	-0.028	1		
	Sig. (2-tailed)	0.000	0.775			
Communication	Pearson Correlation	.267**	.195*	.498**	1	
	Sig. (2-tailed)	0.006	0.044	0.000		
Leadership	Pearson Correlation	.317**	-0.054	.581**	.490**	1
	Sig. (2-tailed)	0.001	0.582	0.000	0.000	
	N	107	107	107	107	
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Table 9: Correlations of independent and dependent variables

A correlation is a measure of how strongly two variables relate to each other (Getie A, 2018). Correlation coefficients are frequently used to describe data because they are relatively easy to use and provide a great deal of information in just a single value (Mooi & Sarstedt, 2011).

To assess the strength of the relationship, the Pearson's product-moment correlation coefficient (PMCC) was used. Karl Pearson's coefficient of correlation (or simple correlation) is the most widely used method of measuring the degree of relationship between two variables (Kothari, 2004).

A complete positive correlation has a value of +1. In other words, the two variables are directly related, and if the values of one variable rises, so will the value of the other variable. This means that the two variables are precisely related and that, as values of one variable increase, the values of the other variable will increase. On the other hand, a value of -1 denotes a perfect negative correlation. A correlation coefficient of 0 indicates that there is no correlation (Mooi & Sarstedt, 2011).

The Pearson correlation result and its significance level are displayed in the above table 9. It is shown that team management has a significant positive Pearson correlation of 0.371 at 0.01 confidence interval. In addition, both communication and leadership exhibit a significant positive Pearson correlation of 0.267 and 0.317 respectively at 0.01 confidence interval. However, the correlation of policy and strategy is not significant, with a value of positive Pearson correlation of 0.143 at a 0.01 confidence interval.

ii. Correlation between dependent and mediator variables

Correlations			
		Project Performance	Risk Management
Project Performance	Pearson Correlation	1	.380**
	Sig. (2-tailed)		0.000
	N	107	107
Risk Management	Pearson Correlation	.380**	1
	Sig. (2-tailed)	0.000	
	N	107	107
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 10: Correlation between dependent and mediator variables

The table above shows the correlation of dependent variables with the mediator variables. As it is shown in the table 10 the correlation of project performance with risk management is significant at Person correlation value of 0.380 at 0.01 confidence interval.

iii. Correlation between dependent, independent and mediator variables

Correlations							
		Project Performance	Policy and Strategy	Team Management	Communication	Leadership	Risk Management
Project Performance	Pearson Correlation	1					
	Sig. (2-tailed)						
Policy and Strategy	Pearson Correlation	0.143	1				
	Sig. (2-tailed)	0.141					
Team Management	Pearson Correlation	.371**	-0.028	1			
	Sig. (2-tailed)	0.000	0.775				
Communication	Pearson Correlation	.267**	.195*	.498**	1		
	Sig. (2-tailed)	0.006	0.044	0.000			
Leadership	Pearson Correlation	.317**	-0.054	.581**	.490**	1	
	Sig. (2-tailed)	0.001	0.582	0.000	0.000		
Risk Management	Pearson Correlation	.380**	0.004	.558**	.619**	.624**	1
	Sig. (2-tailed)	0.000	0.964	0.000	0.000	0.000	
N		107	107	107	107	107	107
**. Correlation is significant at the 0.01 level (2-tailed).							
*. Correlation is significant at the 0.05 level (2-tailed).							

Table 11: Correlation between dependent, independent and mediator variables

4.3.4 Regression Analysis

In its simplest form, regression analysis allows market researchers to analyze relationships between one independent and one dependent variable (Getie A, 2018). Dependent variables are usually the outcome we care about, while the independent variables are the instruments, we have to achieve those outcomes with. It can also help make predictions (Mooi and Sarstedt, 2011).

In order to perform a regression analysis between independent variables and dependent variable, the following tables are extracted from IBM SPSS Statistics.

i. Antecedent Forces on Risk Management

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.734[a]	0.539	0.521	0.388
a. Predictors: (Constant), Leadership, Policy and Strategy, Communication, Team Management				

Table 12: Model Summary

The mathematical representation of the model for this regression was:

$$Y_1 = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e.$$

From the model summary result in table 12, the independent variables explain the dependent variable with a percentage of 53.9%. In cross-sectional designs, values of around 0.30 are common while for exploratory research, using cross-sectional data; values of 0.10 are typical (Mooi & Sarstedt, 2011).

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.024	4	4.506	29.866	.000[b]
	Residual	15.389	102	0.151		
	Total	33.414	106			
a. Dependent Variable: Risk Management						
b. Predictors: (Constant), Leadership, Policy and Strategy, Communication, Team Management						

Table 13: ANOVA

Coefficients[a]						
Model	Unstandardized Coefficients			Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.903	0.374		2.412	0.018
	Policy and Strategy	-0.044	0.068	-0.046	-0.657	0.513
	Team Management	0.158	0.079	0.174	2.004	0.048
	Communication	0.334	0.075	0.376	4.484	0.000
	Leadership	0.308	0.079	0.336	3.874	0.000
a. Dependent Variable: Risk Management						

Table 14: Regression Model

In table 14 above the constant, beta, and significance level of each variable is addressed. In this table it is indicated that, the three variables viz. Policy and Strategy, Team Management, Communication, and Leadership influence Project Performance significantly at 95% confidence interval with a sig. level of 0.018, 0.048, 0.000, and 0.000 respectively. But the influence of policy and strategy was not significant.

As the constant and B values are known the model will be:

$$Y_1 = 0.903 - 0.044X_1 + 0.158X_2 + 0.334X_3 + 0.308X_4 + 0.05$$

ii. Antecedent Forces on Project Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.423[a]	0.179	0.147	0.69138
a. Predictors: (Constant), Leadership, Policy and Strategy, Communication, Team Management				

Table 15: Model Summary

The mathematical representation of the model for this regression was:

$$Y_2 = a + b_5X_1 + b_6X_2 + b_7X_3 + b_8X_4 + e$$

From the model summary result in table 15, the independent variables explain the dependent variable with a percentage of 17.9%.

In cross-sectional designs, values of around 0.30 are common while for exploratory research, using cross-sectional data; values of 0.10 are typical (Mooi & Sarstedt, 2011).

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.639	4	2.660	5.564	.000[b]
	Residual	48.757	102	0.478		
	Total	59.396	106			
a. Dependent Variable: Project Performance						
b. Predictors: (Constant), Leadership, Policy and Strategy, Communication, Team Management						

Table 16: ANOVA

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.195	0.666		1.793	0.076
	Policy and Strategy	0.199	0.120	0.154	1.656	0.101
	Team Management	0.330	0.140	0.274	2.359	0.020
	Communication	0.029	0.133	0.025	0.219	0.827
	Leadership	0.189	0.141	0.154	1.333	0.186
a. Dependent Variable: Project Performance						

Table 17: Regression Model

The table above displays the constant, beta, and significance level of each variable on project performance. As it is shown, team management influences project performance significantly at 95% confidence interval with a sig. level of 0.020.

The other three variables which are Policy and Strategy, Communication, and Leadership do not influence project performance significantly: without the mediation role of risk management. As the constant and B values are known the model will be:

$$Y_1 = 1.195 + 0.199X1 – 0.330X2 + 0.029X3 + 0.189X4 + 0.05$$

4.3.5 Structural Equation Modeling for Mediation

One of the important features of the path analysis model or the SEM, unlike the general statistical model, is that mediating variables can be introduced (Kang & Ahn, 2021). It is necessary to report the direct, indirect, and total effects of the mediating variables.

Kang & Agn (2021) further noted that the Sobel test and bootstrapping are mainly used as statistical tests for mediating effects. Since many software packages offer this feature and IBM AMOS already has the function, the bootstrapping method is chosen in this study.

To identify the existence of mediation, a path diagram is drawn as a model for depicting a causal chain by using IBM AMOS. The values associated with each path are standardized regression coefficients. These values represent the amount of change in Y given a standard deviation unit change in X (Getie A, 2018).

i. Relationship between Risk Management and Project Performance

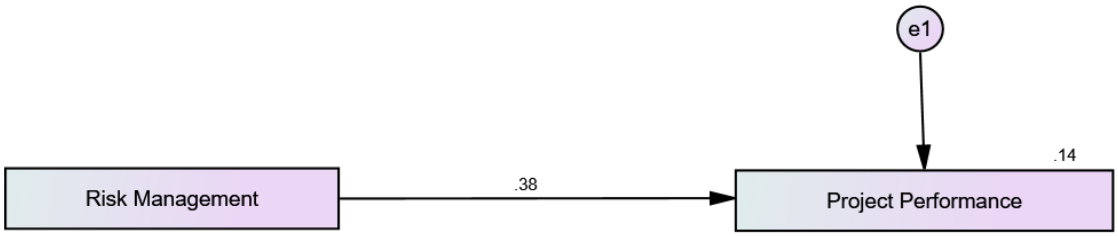

Figure 3: Relationship between risk management & project performance

			Estimate	S.E.	C.R.	P	Label
PP	<---	RM	.506	.120	4.226	***	

Table 18: Regression weights for mediator

As shown in table 18 and table 19, the effect of risk management on project performance is significant.

			Indirect	**Direct**	**Result**
PP	<--	RM	...	0.002	Significant

Table 19: Direct and indirect effect of mediator variable

ii. Relationship between Antecedent Variables and Project Performance

The below figure shows the effect of the antecedent variables on project performance.

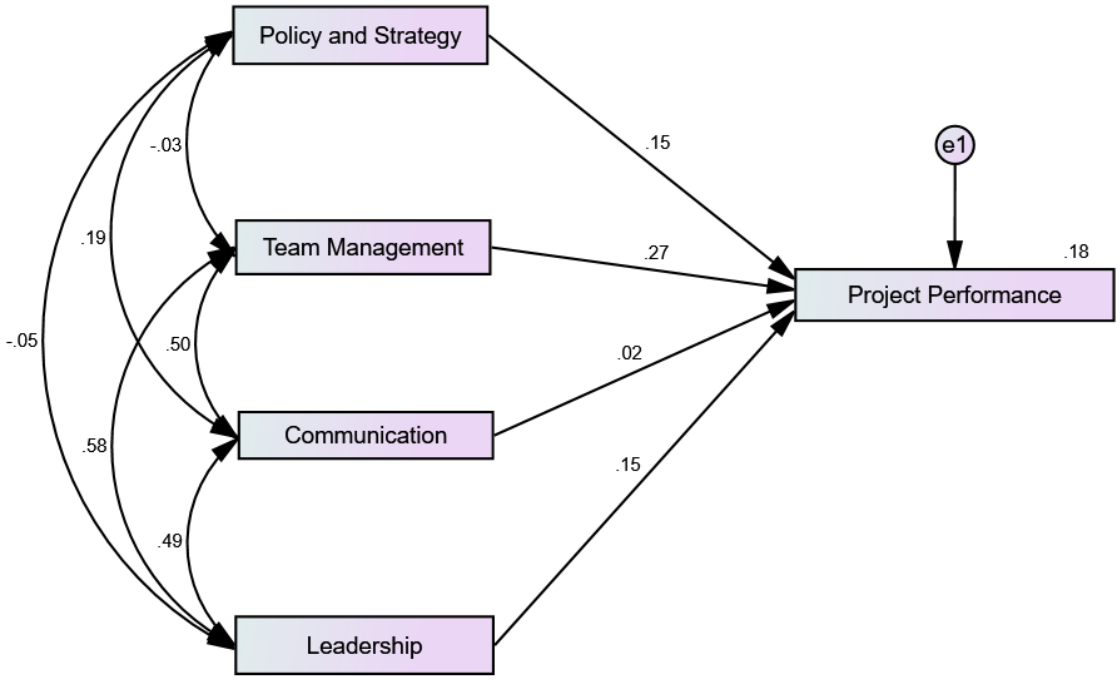

Figure 4: Antecedent variables on project performance

	Estimate	S.E.	C.R.	P	Label
PP <--- PS	.199	.118	1.688	.091	
PP <--- TM	.330	.137	2.405	.016	
PP <--- C	.029	.130	.223	.823	
PP <--- L	.189	.139	1.359	.174	

Table 20: Regression Weights without Mediator

As shown in the above table 20, the effects of all the variables are moderately significant without the intervention of the mediator variable. However, the variable communication is non-significant in the absence of the mediator variable.

Figure 6 below shows the effect of the antecedent and mediator variables on project performance.

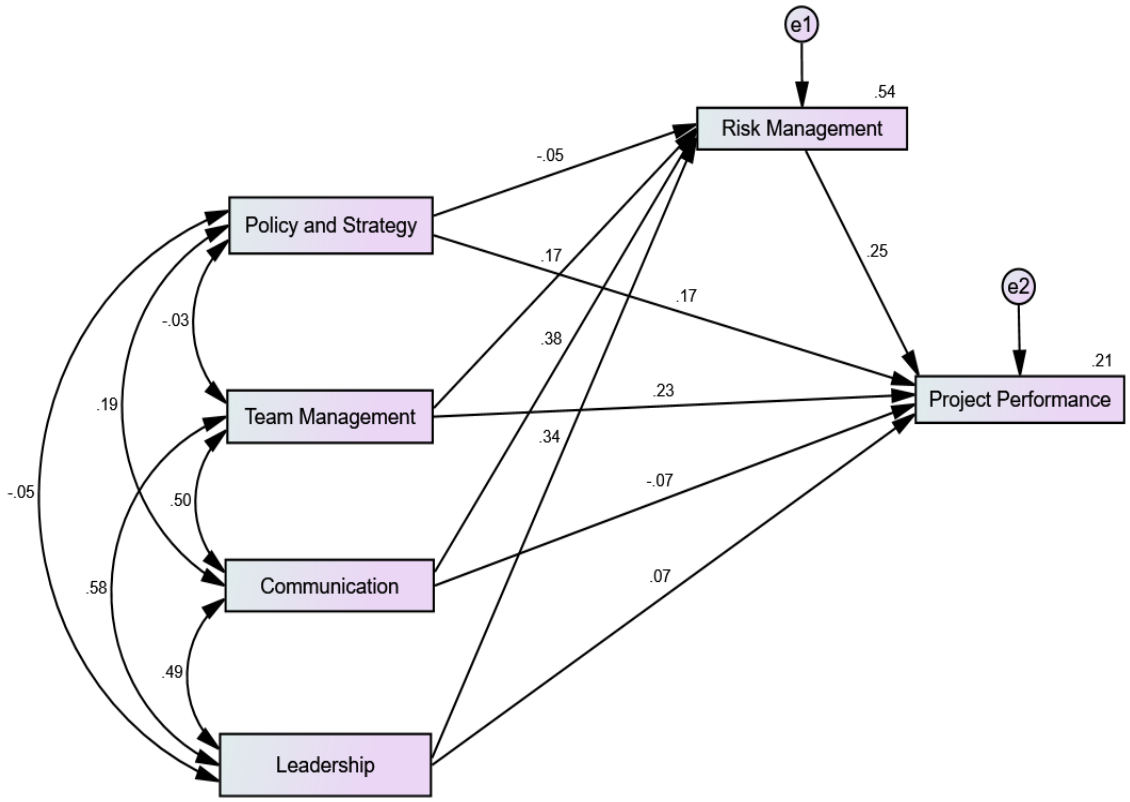

Figure 5: Effect of antecedents on project performance mediated by risk management

	Estimate	S.E.	C.R.	P	Label
RM <--- PS	-.044	.066	-.670	.503	
RM <--- TM	.158	.077	2.043	.041	
RM <--- L	.308	.078	3.950	***	
RM <--- C	.334	.073	4.571	***	
PP <--- C	-.082	.140	-.586	.558	
PP <--- TM	.278	.137	2.020	.043	
PP <--- PS	.214	.116	1.842	.066	
PP <--- L	.086	.146	.590	.555	
PP <--- RM	.332	.170	1.957	.050	

Table 21: Regression Weights with Mediator

A significant reduction on the path indicates that the role of a given mediator exists. Perfect mediation holds if the independent variable has no effect when the mediator is controlled (Reuben and David, 1986). Therefore, from the above figure 5 and table 22, since the direct effect of the variable policy and strategy dropped from 0.15 to 0.066 the effect of the mediator variable is significant.

Additionally, the effect of the mediator for team management dropped from 0.27 to 0.028, which shows significance of the mediator between the two variables. However, the values for communication increased from 0.02 to 0.598 which shows the role of the mediator is non-significant. Likewise, the role of the mediator variable for leadership is non-significantly since the value increased from 0.15 to 0.65.

If the result of direct effect suddenly increases, once including a mediator variable and when all path coefficients are significant, calculate the result of indirect effect. If value of direct effect is higher than indirect effect, the non-mediation effect is not occurring (Afthanorhan W.M. et. al, 2014).

			Indirect	**Direct**	**Result**
RM	<--	L	...	0.018	Significant
PP	<--	L	0.057	0.65	Non-significant
RM	<--	PS	...	0.462	Significant
PP	<--	PS	0.32	0.066	Significant
RM	<--	TM	...	0.177	Significant
PP	<--	TM	0.004	0.028	Significant
RM	<--	C	...	0.002	Significant
PP	<--	C	0.084	0.598	Non-significant
PP	<--	RM	...	0.105	Significant

Table 22: Direct and indirect effect of antecedent and mediator variables on project performance

If indirect effect is lower than direct effect even the mediator variables devouring significant path, the mediator variable should be excluding first to gain the result of direct effect (Getie A, 2018).

Subsequently, include the mediator variable in a model to gain the outcome. Once the direct effect is drop presented, one can be concluded that the mediation effect is occurs (Afthanorhan W.M. et. al, 2014).

4.4 Likert Scale Analysis

No.	*Items*	*Rating Scales*					*Mean*	*Std. Deviation*
		1	*2*	*3*	*4*	*5*		
1	Project Management methodology influences my organization's/project's risk management processes.						4.13	0.859
2	Clear definition of success criteria enhances my organization's/project's risk management processes.						3.15	0.969
3	Policy and strategy of the organization/company influences the leadership of the organization/company						2.56	0.973
4	Capability of team is critical to undertake risk management processes in my organization/project.						4.29	0.901
5	There should be a project team assigned with specific roles and responsibilities to undertake risk management processes.						4.38	0.682
6	Team skills and sound knowledge on risk management processes enhances my organization's/project's risk management processes.						4.23	0.772
7	Timelines of communication influences my organization's/project's risk management processes						3.81	0.791
8	Communication procedures influences my organization's/project's risk management processes.						3.90	0.835
9	Accuracy of information influences my organization's/project's risk management processes.						4.07	0.908
10	Methods of communication influences my organization's/project's risk management processes.						3.94	0.712
11	Adequacy of information influences my organization's/project's risk management processes.						3.99	0.707
12	Competence of the project manager influences my organization's/project's risk management processes.						4.26	0.769

13	Experience of the project manager influences my organization's/project's risk management processes.						4.27	0.721
14	Leadership style influences my organization's/project's risk management processes.						4.16	0.767
15	Complete Understanding of Risk Management						4.21	0.898
16	Establishing Standardized Risk Management Process in the Company						4.00	0.765
17	Proper Management of Risk in all Projects						3.96	0.699
18	Allocation of Resources to Improve the Risk Management Process, Tools, Techniques, Personnel Skills, etc.						4.06	0.684
19	Risk management processes enhance my organization's/project's ability regarding the achievement of cost objective.						4.18	0.909
20	Risk management processes enhance my organization's/project's ability regarding the achievement of time objective.						4.21	0.824
21	Risk management processes enhance my organization's/project's ability regarding the achievement of quality objective.						4.15	0.950
	Overall (aggregate) mean						***83.93***	

Key: 1 = strongly disagree; 2 = disagree, 3 = neutral; 4 = agree and 5 = strongly agree

Table 23: Likert scale analysis

Source: Survey Result (2022)

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

In this chapter a detailed summary of the research project is presented, along with conclusion of the results obtained and recommendations for future researchers. First, summary of the findings was reported. Second, conclusion of the results was reported. Third, and eventually, future recommendations were suggested by the researcher.

5.1 Summary of Major Findings

The research model's evaluation revealed that the variables employed in the study were dependable, and the measurement model was valid. An analysis of the significance of the correlations of the variables suggests that not all factors have statistically significant effects on project performance. Direct and indirect relationships between organizational policy and strategy, team management, communication and leadership were all analyzed in the model.

The findings imply that these relationships, except for policy and strategy, are statistically significant. Moreover, apart from for policy and strategy, it is evident that risk management has a mediating role between the antecedent variables and project performance.

According to the findings, the variable policy and strategy has no statistically meaningful impact on project performance. Although this outcome was unexpected in project management research, academics in the broader management sector have discovered comparable results. Using a similar approach to examine the relationship between total quality management practices and operational performance, Samson and Terzioski (1999) discovered that strategic quality planning (policy and strategy), information management, and process management were not strongly or positively related to performance.

It was also proposed to find out the effect of team management, communication and leadership on project performance, and the results show that the relationships between all the three variables and project performance are statistically significant with mediation role of risk management.

5.2 Conclusion

The proposed relationships were evaluated using correlation, regression, and SEM, which revealed a valid model that depicted both direct and indirect relationships. However, a statistical analysis of the correlations revealed that not all the relationships were statistically significant. Based on the findings, it can be argued that the antecedent and mediator factors that affect project performance can be viewed as a complex web of causal linkages that affect project performance both directly and indirectly.

Team Management has a significant Pearson correlation of 0.371 at 0.01 confidence interval. Likewise, the correlation of communication, leadership and risk management with project performance have a significant Pearson correlation of 0.267, 0.317, and 0.380 respectively at 0.01 confidence interval. However, the correlation of Policy and Strategy with Project Performance has a non-significant positive Pearson correlation of 0.143 at 0.01 confidence interval.

The three variables which are Team Management, Communication and Leadership influence Project Performance significantly at 95% confidence interval with a significance level of 0.048, 0.000, 0.000. But the influence of the variable Policy and Strategy is non-significant at with sig. level of 0.513.

As the direct effect dropped 0.15 to 0.066, the variable Policy and Strategy significantly affects Project Performance, and the effect is mediated by Risk Management. Likewise, Team Management significantly affects Project Performance and is mediated by Risk Management since when the mediator variable removed from the model its direct value dropped from 0.27 to 0.028. However, the effect of the mediator variable between Communication and Project Performance and between Leadership and Project Performance is non-significant as the values increased from 0.02 to 0.598 and from 0.15 to 0.65 respectively.

5.3 Recommendation for Future Research

Many studies on factors affecting project performance led to comparable conclusions. However, a survey of the literature indicates that many studies on factors affecting project performance focus on the direct links between factors and project performance. This study stated that such an approach is oversimplified, and it offered a model that considers both direct and indirect links. A project management performance model consisting of

antecedent and mediator variables was created to examine this relationship. It is recommended that, in addition to the direct impact of project management variables, the indirect effects of project management variables be included when assessing the factors affecting project performance.

Furthermore, the researcher recommends that more research be done with a larger sample size and over an extended study period. Future academic researchers in the country, particularly in the field of project management, should explore and incorporate a variety of inferential statistics techniques such as structural equation modeling and path analysis into their studies rather than relying solely on the widely used and simple correlation analysis techniques.

5.4 Implication for Managers

The study sought to evaluate the effect organizational policy and strategy, team management, communication, leadership, risk management on project performance, from the perspective of cost, time, and quality. The results from this study show that organizational Policy and Strategy and Team Management have a significant effect on Project Performance. This study explicitly considered the effect of the antecedents and the mediating role of Risk Management on Project Performance. Although the results do not point to a significant impact of Communication and Leadership when mediated by Risk Management, their performance has a significant impact on Project Performance. The results from this study point to the importance strong organizational policy and strategy, team management, communication, and leadership. Moreover, establishing an efficient and effective risk management enhances the impact of organizational policy and strategy as well as the impact of team management.

REFERENCES

Ahmed, R., Masood, M. T., & Mohamad, N. A. (2013). Leadership is Vital for Project Managers to Achieve Project Efficacy. *Research Journal of Recent Sciences, Vol. 2(6), 99-102*. www.isca.in

Ali, B. J., & Anwar, G. (2021a). Porter's Generic Competitive Strategies and its influence on the Competitive Advantage. *International Journal of Advanced Engineering, Management and Science, 7*(6), 42–51. https://doi.org/10.22161/ijaems.76.5

Ali, B. J., & Anwar, G. (2021b). Real Estates Strategies: Analysis of Strategic Management Practices in Real Estate Companies. *International Journal of Rural Development, 5*(3), 2456–8678. https://doi.org/10.22161/ijreh.5.3

Ary, A. H., & Kofand, A. (2018). Analyzing the Relationship between Intellectual Capital and Organizational Performance: A Study of Selected Private Banks in Kurdistan. *International Journal of Social Sciences & Educational Studies, 4*(4). https://doi.org/10.23918/ijsses.v4i4p39

Bahamid, R. A., & Doh, S. I. (2017). A review of risk management process in construction projects of developing countries. *IOP Conference Series: Materials Science and Engineering*, *271*(1). https://doi.org/10.1088/1757-899X/271/1/012042

Baruch, Y. (1999). *Response rates in academic studies – a comparative analysis', Human Relations: Vol. Vol. 52, No. 4* (pp. 421-38.).

Befkadu, W. (2017). *The Practice of Project Management in Ethiopian Real Estate Industry and Its Contribution to Project Success: The Case of Selected Company in Addis Ababa*. Addis Ababa University.

Belete, M., & Yilma, M. (2020). Market Rent Determinants of Residential Apartments in Addis Ababa, Ethiopia. *JOURNAL OF AFRICAN REAL ESTATE RESEARCH*, *5*(1), 77–97. https://doi.org/10.15641/jarer.v5i1.848

Bucăţa, G., & Rizescu, A. M. (2017). The Role of Communication in Enhancing Work Effectiveness of an Organization. *Land Forces Academy Review, 22*(1), 49–57. https://doi.org/10.1515/raft-2017-0008

Cabrera, M. S. (2018). *Strategic Planning and Mitigation of Risks in the Construction of Real Estate in Peru*. Metropolia UAS and HTW .

Canesi, R., & D'Alpaos, C. (2014). *Risks Assessment in Real Estate Investments in Times of Global Crisis*. https://www.researchgate.net/publication/286462060

CHARLES, W. (2014). *SERVICE QUALITY AND CUSTOMER SATISFACTION IN HOTELS IN NAIROBI*.

Chen, Z., & Khumpaisal, S. (2009). An analytic network process for risks assessment in commercial real estate development. *Journal of Property Investment and Finance*, *27*(3), 238–258. https://doi.org/10.1108/14635780910951957

Esayas, K. (2021). *THE ASSESSMENT OF PROJECT TEAM MANAGEMENT PRACTICES: A CASE OF DEVELOPMENT AND TRANSFORMATION FOR ETHIOPIA, TECHNICAL PROGAM*.

Faraj, K. M., Faeq, D. K., Abdulla, D. F., Ali, B. J., & Sadq, Z. M. (2021). Total Quality Management And Hotel Employee Creative Performance: The Mediation Role Of Job Embeddedment. *Journal of Contemporary Issues in Business and Government*, *27*(1), 2021. https://cibg.org.au/3838https://ssrn.com/abstract=3840817https://cibg.org.au/

Getie A, I. (2018). The Mediating Role of Marketing Strategy in the Effect of Antecedents on Export Performance of Leather and Textile Exporting Companies in Ethiopia. *Type: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Online*, *18*.

Hassan, Z. A. , S. P. , & M. D. (2006). Doing a pilot study: why is it essential? *Malaysian Family Physician: The Official Journal of the Academy of Family Physicians of Malaysia*, *1(2-3), 70.*

John W., C. (2009). Research Design. *SAGE Publications, Inc*.

Kang, H., & Ahn, J. W. (2021). Model Setting and Interpretation of Results in Research Using Structural Equation Modeling: A Checklist with Guiding Questions for Reporting. In *Asian Nursing Research* (Vol. 15, Issue 3, pp. 157–162). Korean Society of Nursing Science. https://doi.org/10.1016/j.anr.2021.06.001

Kloppenborg, T. J., Anantatmula, V., & Wells, K. N. (2019). *Contemporary Project Management*.

Mehek, A., & Baker, S. (2020). TEAM MANAGEMENT: EFFECTIVE TOOL Phdians View project Barcoding Siberian plants for endosymbionts View project TEAM MANAGEMENT: EFFECTIVE TOOL. In *@International Research Journal of Modernization in Engineering*. www.irjmets.com

Meron, A. (2018). *The Role of Project Communication Management in improving project performance of building construction projects: A case study of Modcon Engineering PLC*.

Mezgeb, M. G. (2021). *Assessment of Project Communication Management on Construction Projects: A case of Private Real Estate in Ethiopia*.

Michael, K., & Bianca, K. (2021). Africa Housing Finance Yearbook 2021. In *Land* (Vol. 10, Issue 4). MDPI AG. https://doi.org/10.3390/land10040404

Mike, E. M., Gyale, B., & Marc A.W. (2000). Real Estate Development: Principles and Process. . . *Washington DC: ULI, 3rd ed*.

Milka, H. (2016). *Analysis of Risks in Residential Real Estate Development Projects of Addis Ababa*. St. Mary's University.

Mishra, D., & Min, J. (2010). Analyzing the Relationship between Dependent and Independent Variables in Marketing: A Comparison of Multiple Regression with Path Analysis. *SSRN Electronic Journal*, *6*. https://doi.org/10.2139/ssrn.2259524

Nallathiga, R., Ashwin Kumar, M., Vivek Kumar, D., & Kumar, G. A. (2012). Determinants of the Success of Real Estate Projects: A Study of Selected Firms in Hyderabad. In *NICMAR-Journal of Construction Management* (Vol. 2, Issue 3).

NEF Consulting. (2022). *The The European Foundation for Quality Management (EFQM) Excellence Model*. https://www.nefconsulting.com

Obun, F. (2018). *EFFECTIVE COMMUNICATION MANAGEMENT AND THE PERFORMANCE OF TERTIARY INSTITUTIONS IN CROSS RIVER STATE, NIGERIA*. https://doi.org/10.24941/ijcr.31688.07.2018

Pallant, J. (2002). *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using IBM SPSS (7th ed.)*.

Patton, M. Q. (1994). Developmental Evaluation. *Evaluation Practice*, *15*(3), 311–319. https://doi.org/10.1177/109821409401500312

Project Management Institute. (2009). *Practice standard for project risk management*. Project Management Institute.

Project Management Institute. (2017). *A Guide to the Project Management Body of Knowledge (PMBOK Guide)*.

Project Management Institute. (2021). *The Standard for Project Management and a Guide to the Project Management Body of Knowledge (PMBOK guide)*. (Seventh Edition). Project Management Institute, Inc.

R M Alsaedi, & Ribdi N. (2017). Business Policy and Strategy. *International Journal of Sciences: Basic and Applied Research*. http://gssrr.org/index.php?journal=JournalOfBasicAndApplied

Reed, R., Wilkinson, S., & Reed, R. (2008). Property Development. In *Property Development*. Routledge. https://doi.org/10.4324/9780203933428

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students*. www.pearsoned.co.uk

Scott-Young, C., & Samson, D. (2008). Project success and project team management: Evidence from capital projects in the process industries. *Journal of Operations Management*, *26*(6), 749–766. https://doi.org/10.1016/j.jom.2007.10.006

Shannon, C. W. (2018). *ScholarWorks Effective Management Communication Strategies*. https://scholarworks.waldenu.edu/dissertations

Soni, V. D. (2020). *Importance and Strategic Planning of Team Management*. https://www.researchgate.net/publication/342571600

Ugoani, J. (2020). Business Policy and Strategy Implementation and Its Effect on Organizational Effectiveness. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3727229

UN-HABITAT. (2011). *Housing the Poor in African Cities*. United Nations Human Settlements Programme.

Whyte, J., Naderpajouh, N., Clegg, S., Matous, P., Pollack, J., & Crawford, L. (2022a). Project leadership: A research agenda for a changing world. *Project Leadership and Society*, *3*, 100044. https://doi.org/10.1016/j.plas.2022.100044

Whyte, J., Naderpajouh, N., Clegg, S., Matous, P., Pollack, J., & Crawford, L. (2022b). Project leadership: A research agenda for a changing world. *Project Leadership and Society*, *3*, 100044. https://doi.org/10.1016/j.plas.2022.100044

Zulu, S. (2007). *Association of Researchers in Construction Management*.

ANNEX

1. Questionnaire

PART I - BASIC PERSONAL DATA

1 Age

- ☐ 20 and below
- ☐ 21-30
- ☐ 31-40
- ☐ 41-50
- ☐ 50 and above

2 Gender

- ☐ Male
- ☐ Female

3 Educational Background

- ☐ Diploma
- ☐ First Degree
- ☐ Master's Degree
- ☐ Ph.D.

4 Field of Study (You can choose two options, if you have two areas of qualifications)

- ☐ Engineering (Civil, Electrical, Hydraulic, Mechanical, and etc.)
- ☐ Management (Construction Technology and Management, Project Management, Risk Management, and etc.)
- ☐ Business related (MBA, Economics, Accounting and Finance, and etc.)
- ☐ Other (Please specify)
  - •

5 Experience in the Construction Industry

- ☐ Below 5 years
- ☐ 5-10 years
- ☐ Above 10 years

6 Your role in the Organization/Company

- ☐ Project Manager
- ☐ Managerial (Other than PM)
- ☐ Technical/ Engineering/ Architecture
- ☐ Planning
- ☐ Sales/ Marketing
- ☐ Contractor/ Sub-contractor
- ☐ External Consultant
- ☐ Other (Please specify)
  - •

_____

7 Organization/company. (Please select the name of the real estate developer/ company/ consultant/ contractor or sub-contractor listed below alphabetically **or** please write down in the 'Other' section, **if not in the list**)

	Name		Name
☐	Adama Real Estate	☐	Gift Real Estate
☐	Al-Sam Properties	☐	GT Consulting Architects and Engineers
☐	Andualem amde construction	☐	Habesha Construction Materials Development S.Co.
☐	Assosa construction	☐	Huda Real Estate
☐	Ayat Real Estate	☐	Tsehay Real Estate
☐	Ayelu Consulting Engineer's PLC	☐	Metro Real Estate
☐	Betopia Properties	☐	Metropolitan Real Estate Ethiopia
☐	Boldmark Marketers PLC	☐	Noah Real Estate Plc.
☐	CCD	☐	Nova Real Estate
☐	Capstone Engineering	☐	Oasis Real Estate Developers Plc.
☐	Diaspora sq, App Real Estate	☐	Pluto Real Estate
☐	Eagle Hills	☐	Sacuur Real Esate
☐	Enyi Real Estate	☐	Sunshine Real Estate
☐	Flintstone Homes	☐	Yotek Real Estate
☐	Get-As Real Estate		

- Other (Please specify)
  •

PART II - Please indicate your response regarding Risk Management practices of Real Estate Construction Projects in Ethiopia

Please indicate your level of agreement on the items listed below

The scale is underscored as follows:

- Strongly Disagree/ SD = 1
- Disagree/ D = 2
- Neutral/ N = 3
- Agree/ A = 4
- Strongly Agree/ SA = 5

No.	*Items*	*Rating*				
		1	*2*	*3*	*4*	*5*
1	**POLICY AND STRATEGY**					
1.1	Project Management methodology influences my organization's/project's risk management processes.					
1.2	Clear definition of success criteria enhances my organization's/project's risk management processes.					
1.3	Policy and strategy of the organization/company influences the leadership of the organization/company					
2	**TEAM MANAGEMENT**					
2.1	Capability of team is critical to undertake risk management processes in my organization/project.					
2.2	There should be a project team assigned with specific roles and responsibilities to undertake risk management processes.					
2.3	Team skills and sound knowledge on risk management processes enhances my organization's/project's risk management processes.					
3	**COMMUNICATION**					
3.1	Timelines of communication influences my organization's/project's risk management processes.					
3.2	Communication procedures influences my organization's/project's risk management processes.					
3.3	Accuracy of information influences my organization's/project's risk management processes.					
3.4	Methods of communication influences my organization's/project's risk management processes.					
3.5	Adequacy of information influences my organization's/project's risk management processes.					
4	**LEADERSHIP**					
4.1	Competence of the project manager influences my organization's/project's risk management processes.					
4.2	Experience of the project manager influences my organization's/project's risk management processes.					

4.3	Leadership style influences my organization's/project's risk management processes.					
5	**RISK MANAGEMENT**					
5.1	Complete Understanding of Risk Management: Project Management methodology influences my organization's/project's risk management processes.					
5.2	Establishing Standardized Risk Management Process in the Company: Project manager's involvement in briefing enhances my organization's/project's risk management processes.					
5.3	Proper Management of Risk in all Projects: Clear definition of success criteria enhances my organization's/project's risk management processes.					
5.4	Allocation of Resources to Improve the Risk Management Process, Tools, Techniques, Personnel Skills, etc.: Policy and strategy of the organization/company influences the leadership of the organization/company					
6	**PROJECT PERFORMANCE**					
6.1	Risk management processes enhance my organization's/project's ability regarding the achievement of **cost** objective					
6.2	Risk management processes enhance my organization's/project's ability regarding the achievement of **time** objective					
6.3	Risk management processes enhance my organization's/project's ability regarding the achievement of **quality** objective					
7	**INDIVIDUAL OPINION**					

Thank You!