



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

**THE PRACTICE OF PROJECT MANAGEMENT IN REAL ESTATE  
CONSTRUCTION COMPANIES IN ADDIS ABABA, ETHIOPIA**

**BY  
SEBLE GEBRESILASEI**

**MAY, 2019  
ADDIS ABABA, ETHIOPIA**

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**BY**

**SEBLE GEBRESILASEI**

**A THESIS SUBMITTED TO ST.MARY'S UNIVERSITY, SCHOOL  
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**ST. MARY'S UNIVERSITY COLLEGE  
SCHOOL OF GRADUATE STUDIES  
FACULTY OF BUSINESS**

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## DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Asst. Professor Tiruneh Legesse. All sources of material used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

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Signature

**May 2019**

## **ENDORSEMENT**

This thesis has been submitted to St. Mary's University College, School of Graduate Studies for examination with my approval as a university advisor.

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**May 2019**

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## ABSTRACT

*The application of Project Management (PM) tools and techniques in construction is gradually becoming an important issue in developing economies, especially in a country like Ethiopia where projects of different size and structures are undertaken. The paper examined the application of the project management practice in Real Estate construction companies in Ethiopia, Addis Ababa. There are different problems that are faced by Real Estate projects such as delay, nonperformance of projects, not meeting required specifications, and dissatisfaction of customers, etc. This study aims to assess the extent to which project management is applied in Ethiopian Real Estate projects and their consistency in phases of project life cycle. Major data for the assessment are obtained from 17 Real Estate companies through questionnaire. Data are also gathered from 11 construction consultants. Mean, standard deviation analysis tools are used. SPSS Statistics is used to simplify long statistical computations. The findings reveal that Project integration, scope, cost, HR, procurement, and stakeholder are well managed in the Industry. In addition to this, Project initiation process groups, project execution process groups and project closing process group are practiced well. On the contrary, project time, quality communication and risk management knowledge areas and planning and monitoring and controlling process groups are poorly practiced. It is also found that the practice of all project management knowledge areas has no consistency throughout phases of project life cycle of Ethiopian Real Estate projects. Recommendations are forwarded for Real Estate companies to maintain their good project management practices that are mentioned above, to improve the other knowledge area and process group practices, to consider causes of not practicing well while making project decisions, to continuously conduct customer satisfaction survey to take preventive actions in advance. Finally, areas for further study are indicated.*

**Key Words:** Project, project management, project management knowledge areas, project management process groups, Real Estate Industry.

## **Acronyms**

HR	Human Resource
PM	Project Management
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute

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## CHAPTER ONE

### INTRODUCTION

This chapter presents the background information of the study, statement of the problem, research questions, and research objectives, significance of the study, scope of the study, limitation of the study and organization of the study.

#### 1.1. Background of the Study

In developing countries, the implementation of Project Management (PM) tools and techniques is still in its early phases of development. The growth and acceptance of project management is continuing to increase as resources become scarce. In order to deliver successful projects in a changing business environment, organizations need to put efforts on best practices and focus on fit-for-purpose outputs based on the requirements. To implement projects successfully and to meet the functional aim of the projects within their service time, an efficient project management practice needs to be adopted from the planning stage to end. Insufficient information and ineffective management of project not only caused project cost overrun, completion delays but also termination before completion and negatively impact the project team's reputation (Maru, 2017).

Applying PM practice has become essential issue in many developed countries due to its successful application in various projects and its proven effectiveness and flexibility in attaining project goals and objectives. Due to its nature with high risk and consuming many resources, construction industry requires better application and utilization of efficient and effective project management practice. Studying the use of PM practice that widely applied in this industry serves as eye openers to the contractors and another decision maker to better plan their effort toward the efficient application of PM practice. If properly utilized, PM practice would result in concrete benefits in all aspects of project implementation (Haron, 2017)

The long-term survival of any organization is to a certain extent dependent on management's ability to develop and implement corporate strategies in coherence with its ever-changing

environments. The escalating resource constraints faced by organizations require the implementation of project management methods that will maximize the proportion of successful projects (Befikadu, 2017).

Construction industry is among the main pillars to one country development. It creates massive job opportunity to the community and contributes in the reduction of poverty and enhances investments. In developing countries like Ethiopia many projects fail due to lack of proper project management practices.

Nowadays, Ethiopia is challenged with housing shortage due to the continually increasing population growth and immigration from different corners of the country. To solve the housing problems especially in urban areas particularly in Addis Ababa, government allocated huge amount of budget and constructing houses by different modalities and giving to those who don't have house communities by subsidized payment. Besides, to solve the housing problem of the community it is also changing the living standard and creates job opportunity to the community and supports financial and technical strength to those sectors in construction.

Condominium was practiced in Addis Ababa from 2005. In 2012, the Addis Ababa Integrated Housing Development Program (AAIHDP) started working to alleviate the aggravated housing shortage (UN-HABITAT, 2011). And the other option was through the participation of private Real Estate developers. Private investors became increasingly involved in housing development in Ethiopia. Different regulations set by government backed the involvement of these private investors. For instance, a policy in 2005, which states about housing development in urbanization that affordable and quality house development results rapid urban development, replacing old and unattractive houses, and improve saving culture. The number of companies involved in Ethiopian Real Estate sector is 697 companies are recorded in Ethiopian Investment Agency and 382 of them are registered by Addis Ababa Investment Authority (Ministry of Urban Development, Housing, and Construction, 2012).

Real Estate and other different construction companies are involved in constructing and selling of houses to contribute their part in housing development besides to aiming to satisfy their goal of wealth maximization and profit maximization on the way of growing even though its speed is

not within the required progress. There are different reasons that can be raised for this problem. Scarce resources mainly money, management inefficiencies, insufficient infrastructure facilities are among the reasons. For projects provided with sufficient budget and comprehensive infrastructures, project management inefficiencies took the lion part for the result of poor project performance and project failure. This study focuses on assessing the practice of project management of Real Estate projects companies that exist in Addis Ababa, Ethiopia.

## **1.2. Statement of the Problem**

In developing countries construction practice, it is very rare that construction projects are completed on the time specified or agreed upon. Survey conducted on Mega projects in Ethiopia revealed that the cause for failure and under performance in the projects is lack of knowledge of project management by project teams (MDE, 2017).

Ethiopia as a developing country faced with project management challenges both technical and non-technical. First and foremost, there is a scarcity of empirical studies on the success or otherwise of project management in Ethiopia, thus leaving no documentation on the best practices in that field. Secondly, whilst projects in general have their challenges regarding implementation and consequently success, development projects in particular are faced by a unique set of problems and challenges (Survey on mega projects by NPC, 2016).

Considering the high need for living residential houses in Addis Ababa, many private developers have entered into the living houses construction work and several house demands are covered by the involvement of these Real Estate developers. Due to the nature of the business, companies that are engaged in Real Estate industry are expected to apply project management on a regular basis. Due to lack of knowledge of project management practices many problems are encountered like some Real Estate companies collected advance payment but couldn't deliver what they promised to their customers and finally resulted in resale and transfer of the land to third person. Others problems also include delay of projects because of slow construction progress, lack of good relationship with customers, not meeting required specifications, and dissatisfaction of customers. This has resulted in pushing the government to enforce the Real

Estate companies to construct the houses with fast pace, transfer incomplete houses to customers, and return unused land to the government.

According to the study conducted by Ministry of Urban Development, Housing, and Construction (2012, PP13-14) the following are basic Problems related with Real Estate development projects in addition to the project management problems that are mentioned above:

- Utilization of Real Estate lands to other personal and illegal (such as selling of land without development) activities by some Real Estate developers.
- Most of Real Estate developers do not started their operation within eighteen months after they received land for development.
- Among Real Estate developers that started construction, only few of them progressed well as per the required level in terms of satisfying house demand at the right time.
- Significant number of Real Estate developers transfer less quality houses, as compared with approved plans, to house demanders.
- Some Real Estate developers offer expensive houses to house demanders as compared to the quality and amount of investment on the houses.
- The quality and amount of investment on the houses.

The major problems encountered by the Real Estate are not completing the construction of houses in the stipulated time; cost and quality are the cause of lack of proper project management. Therefore, this study is aimed at assessing the status and identifying the causes for not applying project management practice by Real Estate Companies in Addis Ababa, Ethiopia.

### **1.3.Research Questions**

The Study attempts to answer the following basic research questions.

- 1) What is the current project management practice in Real Estate Construction Companies in Addis Ababa?
- 2) Which project management practice needs to improve?
- 3) To what extent the project management knowledge areas are practiced according to the plan?



- 4) To what extent project management knowledge areas consistently practiced throughout project life cycle?

## **1.4.Objectives of the Study**

### **1.4.1. General Objective**

The main objective of the study is to assess the practices of project management in Real Estate Construction Companies in Addis Ababa, Ethiopia.

### **1.4.2.Specific Objectives**

The Study tries to assess the following specific objectives.

- To assess the practice of project management in Real Estate Companies in Addis Ababa.
- To determine the gap in which the project management practices need to be improved.
- To assess the extent of project management knowledge areas are practiced according to the plan.
- To assess consistency of project management knowledge areas throughout phases of project life cycle.

## **1.5. Significance of the Study**

Most Ethiopian development projects are not achieving their performance as planned because of ineffective project managements at project sites and project organizations. According to PMBOK guideline and empirical evidences, project performance increases with the better understanding of the project management knowledge areas and project management process groups. This study will be an input to identify in which life cycle of the project that the project needs improvement, helps to understand the role of practicing project management process/ knowledge areas.

Therefore, this research is aimed at providing up-to-date information and evidence-based recommendations which may help the government and other concerned bodies working in the area of construction industries to use as an input for proper project management practice. It may also support policy makers in their effort to address similar problems. Furthermore, the potential findings are believed to help academicians and researchers in doing further researches on the same subject with the aim of improving the performance of mega projects in the country.

## **1.6. Scope of the Study**

In Addis Ababa, there are many different construction projects being implemented, so that it is difficult to assess all construction projects. Hence, this study will be aimed at conducting assessment only on selected real estate construction projects focused on ten project management areas stated in PMI 2013 on determining current practice of project management. The research is also not aimed at developing new project management guidelines and construction of houses except forwarding recommendations depending on the findings.

## **1.7. Limitations of the Study**

Getting accurate information from the respondents was one of the major challenges since some of the respondents were threatened that the information may be used against them by the researcher. The challenge was minimized by assuring the respondents of confidentiality of the information they gave. The respondents of the study were usually very busy and therefore they required a lot of time in order to fill in the questionnaires. The challenge was overcome by giving the respondents the questionnaires at the right time. The challenge was minimized by giving clear information about the study in order to get positive response and accurate information.

## **1.8. Organization of the Research Report**

This study has five chapters. The first chapter is Introduction of the study including, background of the study, statement of the problem, Objectives of the study, research questions, scope of the study, definitions of basic terms and organization of the study itself. The second chapter presents review of related literature knowledge from literatures that are reviewed in a way that explain the theoretical, empirical and conceptual background and the gaps in other works as well as experiences from other countries. The third chapter presents the research methodology. The fourth chapter addresses the results and discussion of the study. The fifth chapter presents summary of findings, conclusions and recommendations of the study.

## **CHAPTER TWO**

### **LITRATURE REVEIW**

#### **2.1. Introduction**

This part of the project presents a brief summary of previous studies, which are related to the subject under study. It also briefs the terms and points used throughout the project. The literature review has three section theoretical, empirical and conceptual framework of the study.

#### **2.2. Theoretical Framework of the Study**

##### **2.2.1 Project**

The Project management Institute (2013: P3) define project as a temporary endeavor undertaken to create a unique product, service, or result. Project as temporary rather than permanent social system or work systems that are constituted by teams within or across organizations to accomplish particular tasks under time constraints. Many other scholars and books prefer to define by common characteristics of projects instead of giving a direct definition so that anyone can define project by integrating these features of projects. Different scholars provide the unique features of projects. (PMBOK® Guide, 5th Edition, 2012) provide comprehensive characteristics of projects. A project has a unique purpose, temporary, developed using progressive elaboration, requires, resources often from various areas, should have a primary customer or sponsor, and involves uncertainty.

##### **2.2.2 Project Management**

Project Management Institute, (2013: P5) defines Project management as an application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. Project management is a set of tools, techniques, and knowledge that, when applied, helps to achieve the three main constraints of scope, cost and time. (Charvat, 2003). Project management is a process of managing resources in such a way that a project is completed within defined scope, quality, time, and cost constraints (Weiss & Wysocki, 1992). According to Gray and Larson (2006), project management is a task derived from an organization that enables professional project managers to use their skills, tools and knowledge to plan, execute and control a unique project within a limited lifespan by meeting the specification requirements of

the organization. Another definition of project management by (APM, 2006) is the process by which projects (unique, complex, non-routine, one-time effort limited by time, budget, and resources) are defined, planned, monitored, controlled and delivered such that the agreed benefits are realized.

Project management is the application of knowledge, skill, tools and techniques to project activities in order to meet or exceed stakeholder needs and expectations from project. Meeting and exceeding stakeholder needs and expectations invariably involves balancing competing demands among scope, time, cost and quality; stakeholders with differing needs and expectations and identified needs and unidentified expectations (PMBOK 1996, Wideman 2002).

### **2.2.3 Project Management Process Groups**

Project management is accomplished through the appropriate application and integration of the different logically grouped project management processes, which are categorized into five Process Groups. According to PMI (2013: P5), these five Process Groups are: Initiating, Planning, Executing, Monitoring and Controlling, and Closing. These Project management processes will be discussed below as an independent topic.

#### **2.2.3.1 Initiating processes**

The first step of any project involves casting a vision for what will be accomplished throughout the duration of that project. It is the foundation of other four next process groups and it is also a critical part making sure align the vision of the ongoing health of the project. This stage includes establishing the phases of the project, organizing teams, acquiring necessary permits and setting initial workers in place.

#### **2.2.3.2 Planning processes**

This portion of the project involves more than just a brief over view of the project before getting started and taking the boarder ideas established with in the initiating stage and fleshing them out in greater detail or mapping out all of this details.

### 2.2.3.3 Executing processes

The process of coordinating people and resources to carry out the plan and a place where most of the budget is spent as well as where stakeholder may get involved and make changes or requests.

### 2.2.3.4 Monitoring and controlling processes

The process of assessing and managing team members during this period, recognizing the need for change, effectively handling the team members while keeping the project on track and measuring progress against projections taking corrective actions when necessary.

### 2.2.3.5 Closing processes

The process of analyzing acceptance of the project or phase and bringing it to an end.

## **2.2.4 Project Management Knowledge Areas**

There are ten general project management knowledge areas which are: project integration management, project scope management, project time management, project cost management, project quality management, project human resource management, project communications management, project risk management, project procurement management and project stakeholder management.

### **2.2.4.1 Project Integration Management**

Project integration management includes the processes and activities to identify, define, combine, unify, and coordinate the various processes and project management activities within the project management process groups. In the project management context, integration includes characteristics of unification, consolidation, communication, and integrative actions that are crucial to controlled project execution through completion, successfully managing stakeholder expectations, and meeting requirements (PMI, 2013: P63).

According to Saylor.org (2009: P25) Flowcharts, diagrams, and responsibility matrices are tools to capture the work processes associated with executing the project plan. The first draft of the project procedures manual captures the historic and intuitional knowledge that team members

bring to the project. The development and review of these procedures and work processes contribute to the development of the organizational structure of the project.

Project integration management incorporates allocation of resources, prioritizing among objectives and alternatives, managing the interactions among the rest of project management Knowledge Areas and creating an environment that encourages team members to fully engage in the project and encourages innovative approaches to developing the project plan. Project integration management processes include the following (PMI, 2013: P63):

This knowledge area contains the processes like develop project charter, develop project management plan, direct and manage project work, monitor and control project work, perform integrated change control, close project or phase that hold the overall project together and integrate it into as a whole.

#### **2.2.4.2 Project Scope Management**

According to PMI (2013: P106), project scope management comprises the processes required to make sure that the project is armed with all the appropriate efforts to accomplish the project as need. In other word, the project scope is a document that describes the parameters that define a system and determine the behavior of the project, what work is done within the boundaries of the project, and the work that is external to the project boundaries (Saylor.org, 2009: P26).

PMI (2013: P106) listed the following specific efforts as part of project scope management: plan scope management, collect requirements, define scope, create WBS, validate scope, and control scope.

#### **2.2.4.3 Project Time Management**

According to Saylor.org (2009: P26), the definition of project success often includes completing the project on time. The importance of ensuring work proceeds efficiently within individual tasks, along with the interfacing of related tasks, is a key message in project time management (Hammer&Heikkila, 2002: P143, cited in Pasian, 2011: P19). The ultimate measure being project success, based on effective control of time management processes, tools and practices. The

development and management of realistic project schedule and project plan is a primary responsibility of the project manager to complete the project on time.

Accordingly, project time management includes the processes required to manage the timely completion of the project such as the following (PMI, 2013: P141): plan schedule management, define activities, sequence activities, estimate activity resources, estimate activity durations, develop schedule and control schedule.

#### **2.2.4.4 Project Cost Management**

The definition of project success often includes not only completing the project on time, but also completing the project within budget. Developing and controlling a project budget that will accomplish the project objectives is a vital project management skill.

Project cost management includes the processes involved: planning, estimating, budgeting, and controlling costs so that the project can be completed within the approved budget. Project cost management processes include the following (PMI, 2013: P193):

#### **2.2.4.5 Project Quality Management**

Hoyer & Hoyer (2001: PP55-59, Cited in Oschman, et al., 2006) defined quality as “the total composite product and service characteristics of marketing, engineering, manufacturing and maintenance through which the product and service in use will meet the expectations of the customer.” Project quality management includes the processes and activities of the performing organization that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken. Project quality management uses policies and procedures to implement, within the project’s context, the organization’s quality management system and, as appropriate, it supports continuous process improvement activities as undertaken on behalf of the performing organization. Project quality management works to ensure that the project requirements, including product requirements, are met and validated (PMI, 2013: P227).

Project quality focuses on the end outputs that reflect the purpose of the project. The project manager is accountable for developing a project implementation mechanism that gives a clear

understanding of the expected project outputs and the quality specifications through these quality management processes such as: plan quality management, perform quality assurance and control quality.

#### **2.2.4.6 Project Human Resource Management**

Human resource management is a branch of management which deals with people at work in an organization. Armstrong (2006: P1) defined HRM as a strategic and coherent approach to the management of an organization's most valued assets – the people working there who individually and collectively contribute to the achievement of its objectives. Storey (1989, cited in Armstrong, 2006: P1) believes that HRM can be regarded as a 'set of interrelated policies with an ideological and philosophical underpinning'. Mathis and Jackson (2006: PP11-13) stated human resource management involves several activities such as HR Planning and Analysis, equal Employment Opportunity, staffing, HR Development, compensation and benefits, health, safety, and security, employee and labor/management relations. As one wing of human resource management, project human resource management includes the organizing, managing, and leading the project team. The project team consists of the people with assigned roles and responsibilities for implementation of the project. Staffing the project with the right skills, at the right place, and at the right time is an important responsibility of the project management team.

Although, roles and responsibilities are assigned for project team members, it is important to involve all of them in the process of project planning to add their experience to the process as well as to motivate them so that their commitment will be stronger.

PMI (2013: P266) stated project human resource management processes as: plan human resource, acquire project team, develop project team, and manage project team

#### **2.2.4.7 Project Communications Management**

Completing a complex project successfully requires teamwork, and teamwork requires good communication among team members. The processes of project communications management are required to ensure timely and appropriate planning, collection, organization, storage, retrieval, and management of project information. Project managers devote most of their time to



communicate with team members and other involved bodies, whether they are insiders or outsiders of the organization. Effective communication creates a hinge between the different involved bodies having different background, different experience, and different viewpoints which have significant impact on the bottom line of a project. Project communications management processes include plan communications, manage communications and control communications.

#### **2.2.4.8 Project Risk Management**

Risk is the probability of deviation of an outcome from expectation. Risk exists on all projects. The role of the project management team is to understand the types and levels of risks on the project so that they can develop and implement plans to diminish these risks. The type and amount of risk varies by industry type, complexity, and phase of the project. The project risk plan will also reflect the risk profile of the project manager and key stakeholders. People have different positions on facing risks which place on a continuum from risk averse to risk taker.

The key discipline of project risk management lacks the optimality that is assumed in best practice standards. Renn (1998: P64, cited in Kutsch, 2008: P2) argues in this context that the set of assumptions of a mainly objective analysis of risk “is a virtue as much as it is a shortcoming”.

The highest ranked factor for project failure (Whittaker, 1999, cited in Kutsch, 2008: P2) is project risk management, the systematic process of identifying, analyzing, and responding to risks as project-related events or conditions which are not definitely known and which have the potential of adverse consequences on a project objective (PMI, 2013: P310). So, care has to be taken on the proper management of risk management.

The objectives of project risk management are to increase the likelihood and impact of positive events, and decrease the likelihood and impact of negative events in the project.

Project risk management involves processes such as the following (PMI, 2013: P309): Plan risk management, identify risks, perform qualitative risk analysis, perform quantitative risk analysis, plan risk responses and control risks.

#### **2.2.4.9 Project Procurement Management**

PMI (2013: P366) stated that Project Procurement Management includes the processes necessary to purchase or acquire products, services, or results needed from outside the project team. The organization can be either the buyer or seller of the products, services, or results of a project. But, as Saylor.org (2009: P37) explained, the procurement effort on projects varies widely and depends on the type of project. So that, Project Procurement Management includes the contract management and change control processes required to develop and administer contracts or purchase orders with variety of efforts. For a successful accomplishment of Procurement, Project

This process includes: plan procurement management, conduct procurements, control procurements and close procurements.

Selection of the type of procurement and contract management delivery system is affected by size of a project, financial capability of the client, experience, previous performance of the contractor and other factors.

#### **2.2.4.10 Project Stakeholder Management**

Stakeholder management has been one of the core soft skills area that has been highlighted as being necessary for PM to advance (Crawford, 2005; Morris et al., 2006; Winter et al., 2006, cited in Bourne & Walker, 2007: P129). The processes of project stakeholder management necessary to identify entities those could impact or be impacted by the project, to assess expectations of stakeholders, and to develop suitable managerial strategies to be well benefited from the involvement of stakeholders. Legris and Collerette (2006, cited in Pasion, 2011: P21) emphasize stakeholder management as a contribution that can improve the implementation process. Sutter field et al. (2006, cited in Pasion, 2011: P21) echo this view when they argue that effective stakeholder management (possibly through a Strategic Management Framework) can minimize changes in project planning and increase quality specifications (as opposed to quantity specifications). It is implied in both research efforts that strategic management can impact cost control during project implementation.

Stakeholder management also gives attention on smooth communication with stakeholders to recognize their expectations, deal with issues resolution of conflict of interests. Stakeholder satisfaction should be considered as the heart of any project. A well-structured project management involves: identify stakeholders, plan stakeholder management, manage stakeholder engagement, and control stakeholder engagement.

### **2.3. Empirical Framework of Project Management**

According to Meredith and Mantel, actual experience with project management indicates that the majority of the organizations using it experience better control and better customer relations. Other advantages include lower costs, higher quality and reliability, higher profit margins, a sharper orientation towards results, improved interdepartmental co-ordination and higher employee morale. Other benefits identified by Kerzner are: improved efficiency and increased profitability through better utilization of limited resources; and enhanced planning, estimating and cost control leading to a more consistent achievement of milestones and objectives.

The Project Management Institute further confirms that project management helps organizations meet their customers' needs by standardizing routine tasks and reducing the number of tasks that could potentially be forgotten. Project management thus ensures that available resources are used in the most effective and efficient manner. Project management also provides senior executives with insight into what is happening and where things are going within their organization. The application of project management principles enables senior executives to: establish measures of success, enable customer focus and alignment, quantify value commensurate with cost, optimize the use of organizational resources, incorporate quality principles, put strategic plans into practice.

Furthermore, it is stated that project management has gained popularity because of significant changes in the workplace. Some of these changes include: Downsizing (fewer people to do more tasks) Projects and services have grown larger and more complex Fierce global competition Easier access to information through vast communications networks More sophisticated customers demanding higher quality goods and services Exponential technological growth Multinational organizations seeking to establish uniform practices for managing projects

According to Penny packer, “implementing project management adds significant value to organizations”. This conclusion is based on the results of a survey of more than 100 senior-level project management practitioners across various organizations and industries. More than 94 percent of the respondents stated that implementing project management added value to their organizations. Organizations cited significant improvements in financial measures, customer measures, project/process measures and learning and growth measures. Organizations of all sizes and in all industries reported improvement. The companies surveyed noted average improvements in the order of 50 percent in project execution, 54 percent in financial performance, 36 percent in customer satisfaction and 30 percent in employee satisfaction.

Based on these results as well as the benefits identified by the respective authors, it can be concluded that those organizations that do not implement project management will be at a competitive disadvantage to those who do. The future of project management Project environment has always been a challenge, but never so much as at the current time. Reasons cited are: Today’s flatter organizations have to work with leaner resources and shrinking costs. The team approach, typical of project management operations, is spreading to all types of organizations and to all kinds of work. Philosophies of total quality management, concurrent engineering, partnering and self-directed teams are eroding traditional bureaucratic modes in favor of a more ad hoc style of leadership. Conditions are changing, from position power to knowledge power, from managing by procedure to getting the job done and from hierarchical control to individual empowerment. The emphasis is on shorter time cycles, quicker response to problems and changes, teamwork and shared responsibility.

More organizations are adopting project-management practices, bringing these special methods to enterprises that were previously considered to be outside of the project domain. It is speculated that in many organizations, project management will no longer be a separately identified function, but will be embedded in the overall management of the business. Also, the emphasis is considered to be shifting from a single project focus to managing the efforts on multiple projects. The typical project management environment will, therefore, be multiple-project which means that most of the project decisions will require consideration of schedule, resource and cost concerns on other project work, necessitating the review and evaluation of multiple-project data. Consequently, functional managers, supporting multiple projects with

shared and limited resources, will need to know the demands on their resources and the impact of new project loads and changing priorities.

Kwak and Ibbs reiterate that many organizations are projecting their operations and processes to plan, manage and complete their projects successfully. The compelling reason for such projecting is the growing pressure on managers to integrate, plan and control time-intensive and one-of-a-kind endeavors. Project management tools and practices appeal to companies in many industries and application areas because they offer real help in meeting today's time-to-market in a highly competitive business environment.

The traditional command and control structures are rapidly disappearing and in their place are task forces, self-directed work teams and various forms of project-driven organizations. Project management has thus become the new general management approach through which organizations respond to change and also to facilitate the development and exploitation of markets ahead of their competitors. The project-based approach integrates and co-ordinates strategic and operational dimensions to achieve business success. The increase in demand for services and the scarcity of resources experienced in the communications industry has drastically influenced the way business is done (doing more with less) and has also changed the nature of its projects. The focus has changed from mere project management to managing by projects, where many of the ongoing operations of the organization are treated as projects. The result is that modern projects are characterized by: Technical complexity (technological advances) Skills diversity Intensive market research (owing to the uncertainty within the dynamic business environment) Market analysis (to get ahead of competition)

According to (Kerzner, 2009: PP7-8) project management excellence is defined as a continuous stream of successfully managed projects. Any project can be driven to success through formal authority and strong executive meddling. But in order for a continuous stream of successful projects to occur, there must exist a strong corporate commitment to project management, and this commitment must be visible.

A major study of project management maturity at a global level was conducted by Price Water House Coopers (2004) in which two hundred responses were gathered from a balanced group of companies from thirty different countries across the globe. Some of the relevant key findings for the study were as follows: That there was a positive correlation between project maturity and project performance. A higher project management level would most likely deliver superior performance in terms of overall project delivery and business benefits; that the current level of maturity is 2.5 indicating that the current state of project management in organizations is at the level of informal processes; that many of the project failures are due to an imbalanced organization; Organizational structure has a big influence in overall project performance. Organization structure influences the performance and outcome of projects

The study named "Building construction project management success as a critical issue in Real Estate development and investment" was conducted by Nwachukwu and Emoh (2011). The study assessed Nigerian Project management practice on the area of building construction, particularly in Real Estate development and investment. The study tried to address project success factors that contribute to the achievement of project goals. In the paper project success and success test criteria are discussed as the following. According to the study a project is termed successful with in time, budget, effectiveness, quality and client satisfaction parameters completed on time; completed within budget; completed in accordance with the original set performance and quality standards; and accepted by the intended users or clients whether the client is internal or from outside the organization by the use of established management techniques of planning, organizing, directing and control. The issues on life cycle management, time management, conflict resolution and management, networking, contracts management, project choice and project quality are the key factors that contribute to project success" (Nwachukwu & Emoh, 2011: P59).

As stated by (Jekale, 2004 cited in Abadir, 2011: P38), there is no enough construction and management capacity in Ethiopia. The parties involved in construction companies are less experienced in project management. The management of construction project is highly influenced by the utilization of scarce financial and physical resource with controlling activities limited to cost and time monitoring dimensions only. Contractors cannot properly administer contract, most of them are not properly trained to prepare cost and schedule reports, quality

records, safety reports, change order records, claims records, progress reports, payment requisition, etc. Most local contractors even don't have project management knowledge or are not interested to pursue legitimate claim for fear of damaging working relationships and their reputation in the industry as they will be dealing usually with few public institutions.

The study conducted by Abadir H. Yimam in 2011 on Project Management Maturity in the Construction Industry of Developing Countries (The Case of Ethiopian Contractors) tried to show the level of contractors on project management using maturity model to address the gaps and identified two major gaps in the existing maturity models. Using the model, maturity assessment of contractors in Ethiopia shows that, low level of PM maturity (Informal practice of the basic processes) is found. Further, the research found there was higher level of project management maturity in ISO certified contractors and contractors which took part in Capacity Building Program than they are not. Similarly, Road contractors PM maturity is found to be higher than Building contractors. In addition, the research found higher maturity level for material, procurement, cost, financial, time, and human resource management. Risk and safety management are found to be the least matured PM areas.

The study done by (Melat, 2017) revealed that, real estate development construction projects were failing in every measure of project success. Real estate development construction projects take longer time than planned which by itself is cause for cost over runs of projects. While motivating and initiating subordinate team members for the successful completion of project by providing idea; project managers were failed to motivate and initiate subordinate team members. As a result the subordinates were not willing to take assignment and have impact on project completion and success.

It is known that planning is imperative among the major pillars in real estate construction. However, due to majority of real estate constructions project schedules are not properly planned and designed construction completion time is delayed, project cost overruns, affect originally set quality and finally fails in every aspect of project management.

Many studies in the area have indicated the need to improve the capacity of contractors in areas such as financial management, project estimating and costing, total quality management, change management, claim management, business planning, personnel and general management skill, etc. which almost all can be included under the Project management knowledge areas given by PMI. This shows that improving the project management capacity of contractors can significantly improve the current status of the construction industry in the country (Abadir, 2011: PP38-39).



## 2.4. Conceptual Framework of Project Management

The proposed framework, the figure below shows assessing project management practices with the ten project management knowledge areas.



Figure 1: Conceptual Framework for Assessing the Practice of Project Management.

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1. Research design**

The research is descriptive in order to assess the practice of project management and describe the problems related to project management in Real Estate Construction Companies in Addis Ababa, Ethiopia. The researcher followed both quantitative and qualitative approaches of research. The data was collected through structured questionnaire from the target population by quantitative approach about the practice of project management using statistical models. The problems related to project management will be assessed by open ended questions which is qualitative approach, it describes the actual condition of project management practice in the Real Estate industry in a non-numerical way and this will help by giving additional information for cross checking purpose.

#### **3.2. Target Population**

The numbers of Real Estate developers registered in Addis Ababa investment Authority are 382, which are the total population. From these real estate developers, based on the data from Addis Ababa City Land Administration and Construction License Authority, currently, there are 124 Private Real Estate Housing Construction Companies operating in Addis Ababa by receiving land from the concerned body will take as target population.

#### **3.3. Sample and Sampling Techniques**

In order to determine the sample size, the researcher referred to Carvalho 2005 work as indicated in Table 1 below. Accordingly, 124 real estate companies range between 91 up to 150. Therefore, the researcher takes the medium sample size, which is 20.

Table 1: Ranges of population size for sample size determination

Population size	Low	Medium	High
51-90	5	13	20
91-150	8	20	32
151-280	13	32	50
281-500	20	50	80
501-1,200	32	80	125
1,201-3,200	50	125	200
3,201-10,000	80	200	315
10,001-35,000	125	315	500
35,001-150,000	200	500	800

Source, J Carvalho, 2005.

In addition, the number of consultants involved in this study were 11, contractors, were 17. Totally, 28 people were participated in this study who is working in the selected twenty private Real Estate Construction companies.

### 3.4.Data Sources

So as to get adequate data, the study selected respondents and engaged both primary and secondary sources of data. As the primary source of data, the study used questionnaire which helped in answering questions related to the study objectives. As a secondary data source: articles, related books, journals, publication from the project office and other online information were reviewed.

### **3.5. Instruments of Data Collection**

A structured self-administered questionnaire was prepared to collect a primary data from the study participants. The questionnaires were developed from different sources. A qualitative data collected through open-ended questions from the study participants to collect additional information to support the findings.

### **3.6. Procedure of Data Collection**

Before collecting the actual data for the study, pre-testing of the self-administered questionnaire was conducted in One Real Estate, where 5% from the total sample considered checking for clarity of the questions. Field assistances with a first degree in engineering field was recruited and trained on data collection procedures. The data collection was undertaken in the presence and with closer supervision of the researcher. Data was checked continuously for completeness. Data entry was done after checking for completeness and coding.

### **3.7. Data processing and analysis**

The questionnaires were distributed among the employees through their departments. The survey period for data collection spanned over a period of six weeks. The advantage of selecting this strategy was to ensure confidentiality, and to keep track on those who may not return the questionnaire on time, and need to be reminded. After collecting data from the randomly sampled size through the questionnaire, data were edited the same day to check for completeness and consistency. The next step was coding the responses in the coding sheets by transcribing the data from questionnaire by assigning characters symbols (numerical symbols). This was followed by screening and cleaning of data to make sure there were no errors.

The data collected was cleaned, coded and entered into SPSS version 23 for analysis. It was summarized and presented using percentages, tables and graphs. Descriptive statistics such as frequency distribution along with the relative distributions of respondents was produced. In addition, the percentage distributions of project management knowledge areas were described in tables and graphs. Furthermore, the analyses of items of project management practice process groups were made and results were displayed using graphs and tables.

### **3.8.Ethical Considerations**

The researcher has obtained official introduction letter from St. Mary's University to conduct the study, and was able to approach respondents to collect relevant information for achieving the research objectives, and answer earlier outlined research question. A cover letter was attached to the questionnaires to introduce the respondents to the research topic to avoid any suspicion or mistrust respondents might have about the study. The cover letter is also expected to help motivate respondents to participate in the study and answer the questions and to assure them of anonymity and confidentiality, and to show them how to fill the questionnaires.

### **3.9.Reliability**

The internal consistency of items used in measuring the different groups of items was tested using Cronbach's alpha statistics. First, the five different dimensions of project management was checked; thereafter, the internal consistency of the ten project management knowledge areas were checked. The values of the Cronbach's alpha are indicated in the tables below. There is a high level of internal consistency between the items of the various project phases as the values are large (all values are larger than 0.7). Thus, we can say that the items measure a relatively similar concept as attested by the alpha values (*see* Table 2).

Table 2: Reliability test result for the project phases

<b>Project phases</b>	<b>Cronbach's alpha</b>	<b>No. of items</b>
Project initiation phase	0.81	5
Project planning phase	0.96	27
Project execution phase	0.90	9
Project monitoring and controlling phase	0.90	13
Project closing phase	0.95	6
<b>All Items</b>	<b>0.98</b>	<b>60</b>

**Source: Own Survey, 2019**

The reliability of items used in measuring the ten different dimensions of project management knowledge areas were displayed in the table below. The values of Cronbach's alpha are indicated are high indicating a very good level of internal consistency (*see* Table 3).

Table 3: Reliability test result for project management practice knowledge areas

Management Dimensions	Cronbach's alpha	No. of items
Integration	0.93	15
Scope	0.90	11
Time	0.88	9
Cost	0.88	13
Procurement	0.87	9
Human Resource	0.94	11
Quality	0.90	9
Communication	0.91	11
Risk	0.94	13
Stakeholder	0.94	17

Source: Own Survey, 2019

### 3.10. Validity

The first method to check validity of data measuring instruments was personal evaluation whether or not they accurately collect data. It was done by the researcher, its advisors, and some other individuals in which they evaluate whether the questions included in the questionnaire to collect the necessary data or not. Content validity was traced to check the questions in the questionnaires are fairly distributed among the different areas of the study, particularly on project management.

## CHAPTER FOUR

### RESULTS AND DISSCUSSION

#### **4.1 Introduction**

In this chapter, the data collected are analyzed and presented in tables and graphs. First, the background characteristics of respondents is displayed and in a follow up the internal consistency of the measurements used in the present research context is shown. Finally, the result for project management knowledge areas is shown.

#### **4.2 Background Information of Respondents**

A total of 17 respondents, real estate companies, returned the filled out questionnaire. Seven in ten of the respondents were males and three in ten had a master's level of educational attainment. A little more than a third (35.3%) was single and the same number of respondents (35.3%) did not receive training on project management (*Table 4*). The average age of respondents was 33.8 years (with a standard error of 1.9 years). The average duration of service year as a project manager was 4.4 years (with a standard error of 0.9 years) and the average duration in the current post was 3.4 years (with a standard error of 0.6 years).



Table 4: Background information of respondents, 2019

<b>Characteristics and categories</b>	<b>No.</b>	<b>%</b>
<b>Gender</b>		
Male	12	70.6
Female	5	29.4
<b>Educational level</b>		
Degree	12	70.6
Masters	5	29.4
<b>Marital status</b>		
Single	6	35.3
Married	11	64.7
<b>Received training on project management</b>		
Yes	11	64.7
No	6	35.3
<b>Total</b>	<b>17</b>	<b>100.0</b>

Source: Own Survey, 2019

### 4.3 Project management practice knowledge areas

The average and standard deviation of the scores of project management knowledge areas are shown in the table below. The scores of knowledge areas are produced by combining all the items/questions that are used to measure each of these variables. Following are discussion on the findings.

#### **Integration**

According to respondents, there is an average of 3.8 rates out of 5 for the practice of project integration management. This rating value indicates there is an average of 76.0% performance of project integration management in the industry. It is beyond the overall practice score (74.0%) of project management knowledge areas. Accordingly, this project management knowledge practice is practiced well. It is also shown in the table that there is a 0.7 standard deviation of the rating

on project integration management by respondents, which leads to a 14.0% standard deviation in terms of percent rating. The average standard deviation of the overall project management knowledge areas in terms of percent is 16.0%. That means the respondents indicated that there is less deviation of project integration management practice from the overall project management knowledge areas practice. As a result, it can be concluded that there is a convergent practice of project integration management across respondents.

The practice of a good project integration management is vital to avoid burden of responsibility by appropriately coordinating project activities and smoothly run projects to closing without delays and with great quality. In the present study, the positive outcome of project integration management is indicative of the fact that the development of project management plan such as management of project work, monitoring and control of activities and a plan of holding the various parts of the project together and integrating it into as one has been attempted on a satisfactory level. However, there were instances where project integration management practice was not made and presence of fragments of activities that led to lack of synchronization between the different parts of the project which in turn affected the time and cost management of the project.

### **Scope**

According to respondents, there is an average of 3.7 rates out of 5 for the practice of project scope management. This rating value indicates there is an average of 74.0% performance of project scope management in the industry. It is similar with the overall practice score (74.0%) of project management knowledge areas. Accordingly, this project management knowledge practice is practiced on an average level. It is also shown in the table that there is a 0.8 standard deviation of the rating on project scope management by respondents, which leads to a 16.0% standard deviation in terms of percent rating. The average standard deviation of the overall project management knowledge areas in terms of percent is 16.0%, which means the respondents indicated that there is an average level of deviation of project scope management practice from the overall project management knowledge areas practice. As a result, it can be concluded that there is a more or less similar practice of project scope management across respondents.

In this study, it was found that the performance of projects in project scope management was average; the gaps observed in project scope management were mainly due to factors including changes in design which broadens the scope of the work, tight schedule, and task overlap with other projects. In addition, scope management and its inappropriate planning and execution had a consequence on the timeliness, cost overrun and quality of projects.

### **Time**

According to respondents, there is an average of 3.5 rates out of 5 for the practice of project time management. This rating value indicates there is an average of 70.0% performance of project time management in the industry. It is less than the overall practice score (74.0%) of project management knowledge areas. Accordingly, this project management knowledge practice is poorly practiced. It is also shown in the table that there is a 0.9 standard deviation of the rating on project time management by respondents, which leads to an 18.0% standard deviation in terms of percent rating. The average standard deviation of the overall project management knowledge areas in terms of percent is 16.0%, which means the respondents indicated that there is high deviation of project time management practice from the overall project management knowledge areas practice. As a result, it can be concluded that there is a divergent practice of project time management across respondents.

A timely submission project was a challenge and usually takes an extra amount of time than was originally planned. Project durations were not usually properly planned and duration extends due to lack of follow up of project activities and poor scheduling. Strict monitoring and control systems and appropriate use of human resources along with improved communication between different parts of the project members may improve the challenge of project time management.

Table 5: Project management practice knowledge areas

Management Knowledge Areas	Average (out of 5)	Standard Deviation	Average (%)
Integration	3.8	0.7	76
Scope	3.7	0.8	74
Time	3.5	0.9	70
Cost	3.8	0.7	76
Procurement	3.7	0.8	74
Human Resource	3.8	0.9	76
Quality	3.6	0.9	72
Communication	3.6	0.9	72
Risk	3.4	0.9	68
Stakeholder	3.7	0.7	74
Overall	3.7	0.8	74

**Source: Own Survey, 2019**

### **Cost**

According to respondents, there is an average of 3.8 rates out of 5 for the practice of project cost management. This rating value indicates there is an average of 76.0% performance of project cost management in the industry. It is beyond the overall practice score (74.0%) of project management knowledge areas. Accordingly, this project management knowledge practice is practiced well. It is also shown in the table that there is a 0.7 standard deviation of the rating on project cost management by respondents, which leads to a 14.0% standard deviation in terms of percent rating. The average standard deviation of the overall project management knowledge areas in terms of percent is 16.0%. That means the respondents indicated that there is less

deviation of project cost management practice from the overall project management knowledge areas practice. As a result, it can be concluded that there is a more similar practice of project cost management across respondents.

Though project cost management showed an above the overall average performance in the present study, cost overrun due to an unplanned elongation of project duration has been resulted in as a consequence of rise in cost of individual items, inflation, and problem of cash management. The good performance of project cost management coupled with a poor project time management led to project delay or failure and waste of resources.

### **Procurement**

According to respondents, there is an average of 3.7 rates out of 5 for the practice of project procurement management. This rating value indicates there is an average of 74.0% performance of project procurement management in the industry. It is similar with the overall practice score (74.0%) of project management knowledge areas. Accordingly, this project management knowledge practice is practiced on an average level. It is also shown in the table that there is a 0.8 standard deviation of the rating on project procurement management by respondents, which leads to a 16.0 % standard deviation in terms of percent rating. The average standard deviation of the overall project management knowledge areas in terms of percent is 16.0%, which means the respondents indicated that there is an average level of deviation of project procurement management practice from the overall project management knowledge areas practice. As a result, it can be concluded that there is a more or less similar practice of project procurement management across respondents.

A lengthy purchase request and processing time and lack of procurement management plan in general may have impacted/exposed the project to an increase in cost. Regardless, the average project procurement management, however, is an encouraging performance as it greatly impacts the successful completion of a project positively.

## **Human Resource**

According to respondents, there is an average of 3.8 rates out of 5 for the practice of project human resource management. This rating value indicates there is an average of 76.0% performance of project human resource management in the industry. It is beyond the overall practice score (74.0%) of project management knowledge areas. Accordingly, this project management knowledge practice is practiced well. It is also shown in the table that there is a 0.9 standard deviation of the rating on project human resource management by respondents, which leads to an 18.0% standard deviation in terms of percent rating. The average standard deviation of the overall project management knowledge areas in terms of percent is 16.0%. That means the respondents indicated that there is high deviation of project human resource management practice from the overall project management knowledge areas practice. As a result, it can be concluded that there is a divergent practice of project human resource management across respondents.

Appropriate human resource management in projects has been observed having a positive link with project duration. A sufficient number of human resources with proper training and motivation may have contributed to the above average performance of human resource management. However, skilled labor management, establishing good relationship with staffs, and an incentive to reduce high turnover of skilled and experienced personnel might help to further improve the performance of human resource management of projects.

## **Quality**

According to respondents, there is an average of 3.6 rates out of 5 for the practice of project quality management. This rating value indicates there is an average of 72.0% performance of project quality management in the industry. It is less than the overall practice score (74.0%) of project management knowledge areas. Accordingly, this project management knowledge practice is poorly practiced. It is also shown in the table that there is a 0.9 standard deviation of the rating on project quality management by respondents, which leads to an 18.0% standard deviation in terms of percent rating. The average standard deviation of the overall project management knowledge areas in terms of percent is 16.0%, which means the respondents indicated that there is more deviation of project quality management practice from the overall project management

knowledge areas practice. As a result, it can be concluded that there is a divergent practice of project quality management across respondents.

Compromised quality of projects was a result of multiple factors having an independent and interacting influence. It might be the poor project time management in combination with rising prices of materials as project duration gets elongated that played the major roles in poor practice of project quality management.

### **Communication**

According to respondents, there is an average of 3.6 rates out of 5 for the practice of project communication management. This rating value indicates there is an average of 72.0% performance of project communication management in the industry. It is less than the overall practice score (74.0%) of project management knowledge areas. Accordingly, this project management knowledge practice is poorly practiced. It is also shown in the table that there is a 0.9 standard deviation of the rating on project communication management by respondents, which leads to an 18.0% standard deviation in terms of percent rating. The average standard deviation of the overall project management knowledge areas in terms of percent is 16.0%, which means the respondents indicated that there is more deviation of project communication management practice from the overall project management knowledge areas practice. As a result, it can be concluded that there is a divergent practice of project communication management across respondents.

Project communication management is vital for coordinating the various teams and put the different pieces of a project together to achieve project goals. The poorly practiced communication management could have been due to irregular and unplanned communication, unscheduled meetings and lack of devotion for work. This poor communication management in turn would result in gaps between the various teams leading to an uncoordinated activities resulting in poor time and quality management.

## **Risk**

According to respondents, there is an average of 3.4 rates out of 5 for the practice of project risk management. This rating value indicates there is an average of 68.0% performance of project risk management in the industry. It is less than the overall practice score (74.0%) of project management knowledge areas. Accordingly, this project management knowledge practice is poorly practiced. It is also shown in the table that there is a 0.9 standard deviation of the rating on project risk management by respondents, which leads to an 18.0% standard deviation in terms of percent rating. The average standard deviation of the overall project management knowledge areas in terms of percent is 16.0%, which means the respondents indicated that there is more deviation of project risk management practice from the overall project management knowledge areas practice. As a result, it can be concluded that there is a divergent practice of project risk management across respondents.

One of the poorly practiced management activity is project risk management. Lack of risk assessment and plan of action have a devastating consequence such as loss of life, extension of project duration, and cost overrun. Inappropriate risk management is one of the highest ranked factors that contribute to project failure. It, thus, requires to systematically identify, analyze, and respond to risks that are not definitely known and which have the potential to adversely affect project objective.

## **Stakeholder**

According to respondents, there is an average of 3.7 rates out of 5 for the practice of project stakeholder management. This rating value indicates there is an average of 74.0% performance of project stakeholder management in the industry. It is similar with the overall practice score (74.0%) of project management knowledge areas. Accordingly, this project management knowledge practice is practiced on an average level. It is also shown in the table that there is a 0.7 standard deviation of the rating on project stakeholder management by respondents, which leads to a 14.0% standard deviation in terms of percent rating. The average standard deviation of the overall project management knowledge areas in terms of percent is 16.0%, which means the respondents indicated that there is an average level of deviation of project stakeholder



management practice from the overall project management knowledge areas practice. As a result, it can be concluded that there is a similar practice of project stakeholder management across respondents.

Project stakeholder management is practiced at an average level as that of the overall project practice implying that a good communication with stakeholders by recognizing their expectations and dealing with issues of conflict of interests. Presence of gaps in communication and a defined stakeholder's responsibility might have contributed to the reduced level of stakeholder's management practice.

Chart below summarizes the average rate in percent of each knowledge management against the average practice of project management knowledge areas as a reference (dotted line). It is shown that project integration management, project cost management, and project human resource management are far more practiced than the average project management knowledge area practice. Project scope management, project procurement management and project stakeholder management are practiced more or less equals with the average. On the average project risk management, project time management, project quality management, and project communication management are practiced below average and are listed from the very worst to the least worst in this statement.

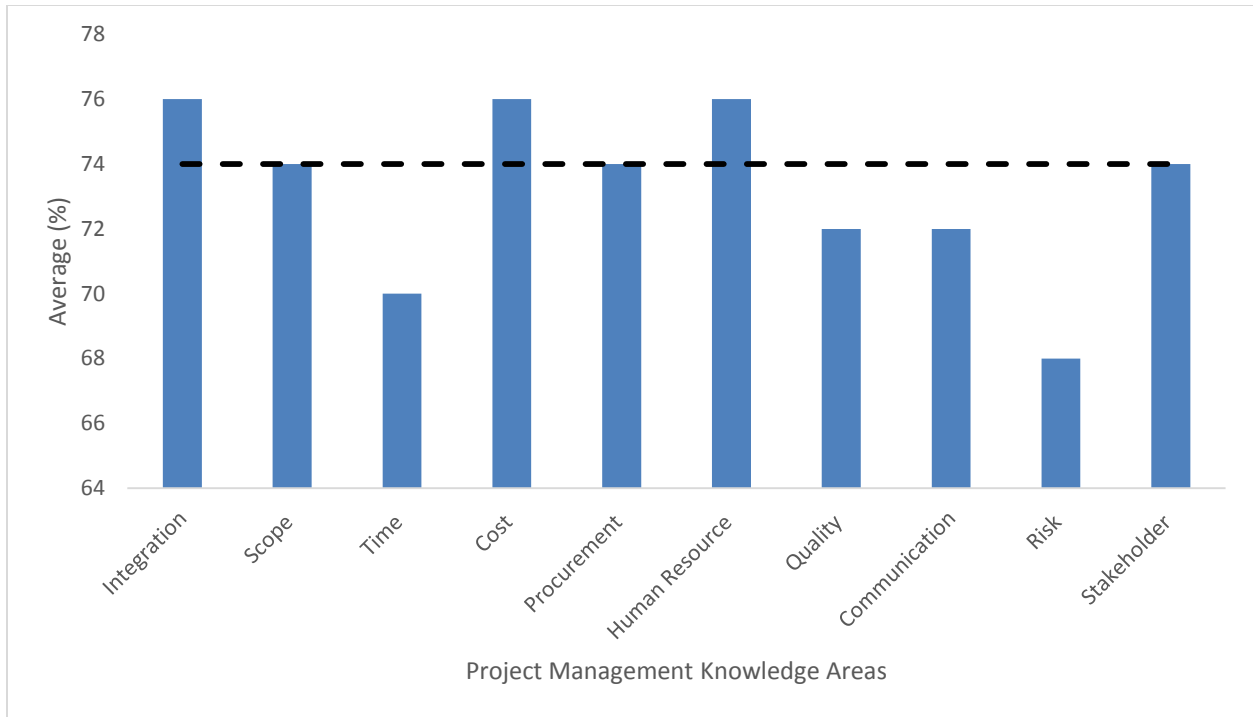


Figure 2: Average rate in percent of project management knowledge areas

The above chart alone (Figure 2) cannot describe the practice of each project management knowledge areas since there may be fluctuation of practice. Accordingly, it is important to study the variation in the practices. One of the tools to analyze the variation of the practices is standard deviation. It is also discussed in the above analyses together with mean of each of practices. The following chart shows summary of the standard deviations of each project management knowledge area together with the overall standard deviation (dotted line).

As it is seen in figure 3, there is a high practice variation in project time management, project human resource management, project quality management, project communication management, and project risk management. Project integration management, project cost management, project stakeholder management are practiced with less variation than the overall project management knowledge area scores.

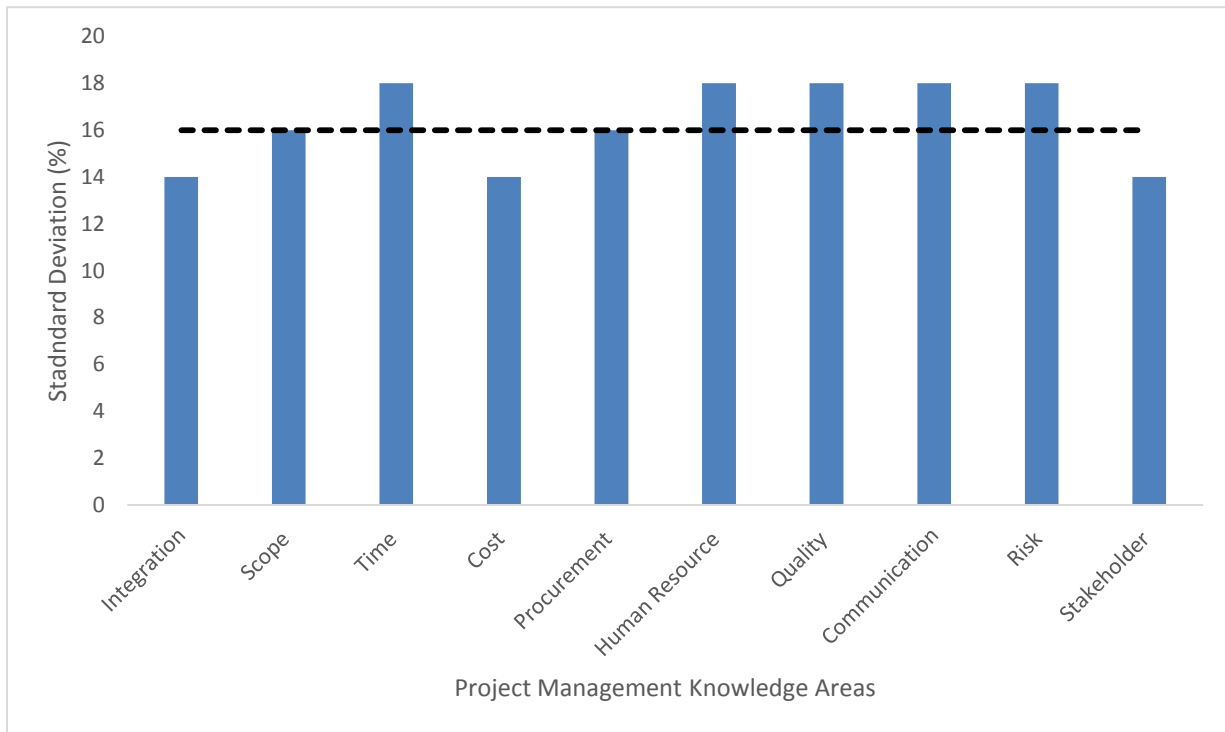


Figure 3: Standard deviation in percent of project management knowledge areas

#### 4.4 Project management practice process groups

##### Project Initiation

As shown in table 6 below, according to respondents, there is an average of 3.9 rates out of 5 for the practice of project initiation process groups. This rating value indicates that there is an average of 78.0% performance of project initiation process groups. It is beyond the overall practice (74%) of project management. Accordingly, this project management process group is practiced well. It is also shown in the table that there is a 0.7 standard deviation of the rating on project initiation Process groups by respondents, which leads to a 14.0% standard deviation in terms of percent rating. As it is indicated in table 4 above, the average standard deviation in terms of percent is 16.0%, which means the respondents indicated that there is less deviation of project initiation process group practice from the overall project management process groups practice. This concludes that there is a convergent practice of project initiation process group.

## **Project Planning**

As shown in table 6 below, according to respondents, there is an average of 3.6 rates out of 5 for the practice of project planning process groups. This rating value indicates that there is an average of 72.0% performance of project planning process groups. It is below the overall practice (74%) of project management. Accordingly, this project management process group is practiced poorly. It is also shown in the table that there is a 0.9 standard deviation of the rating on project planning process groups by respondents, which leads to an 18.0% standard deviation in terms of percent rating. As it is indicated in table 4 above, the average standard deviation in terms of percent is 16.0%, which means the respondents indicated that there is high deviation of project planning process group practice from the overall project management process groups practice. This concludes that there is a convergent practice of project planning process group.

## **Project Execution**

As shown in table 6 below, according to respondents, there is an average of 3.8 rates out of 5 for the practice of project execution process groups. This rating value indicates that there is an average of 76.0% performance of project execution process groups. It is above the overall practice (74%) of project management. Accordingly, this project management process group is practiced well. It is also shown in the table that there is a 0.8 standard deviation of the rating on project execution process groups by respondents, which leads to a 16.0% standard deviation in terms of percent rating. As it is indicated in table 4 above, the average standard deviation in terms of percent is 16.0%, which means the respondents indicated that there is a similar deviation of project execution process group practice from the overall project management process groups practice. This concludes that there is a similar practice of project execution process group.

**Table 6: Project management practice process group**

<b>Management Process</b>	<b>Average (out of 5)</b>	<b>Standard Deviation</b>	<b>Average (%)</b>
Initiation	3.9	0.7	78
Planning	3.6	0.9	72
Execution	3.8	0.8	76
Monitoring and Controlling	3.6	0.9	72
Closing	3.7	1.0	74

**Source: Own Survey, 2019**

### **Project Monitoring and Controlling**

As shown in table 6 above, according to respondents, there is an average of 3.6 rates out of 5 for the practice of project monitoring and controlling process groups. This rating value indicates that there is an average of 72.0% performance of project monitoring and controlling process groups. It is below the overall practice (74%) of project management. Accordingly, this project management process group is practiced poorly. It is also shown in the table that there is a 0.9 standard deviation of the rating on project monitoring and controlling process groups by respondents, which leads to an 18.0% standard deviation in terms of percent rating. As it is indicated in table 4 above, the average standard deviation in terms of percent is 16.0%, which means the respondents indicated that there is higher deviation of project monitoring and controlling process group practice from the overall project management process groups practice. This concludes that there is a similar practice of project monitoring and controlling process group.

### **Project Closing**

As shown in table 6 above, according to respondents, there is an average of 3.7 rate out of 5 for the practice of project closing process groups. This rating value indicates that there is an average of 74.0% performance of project monitoring and controlling process groups. It is the same as the

overall practice (74%) of project management. Accordingly, this project management process group is practiced neither poorly nor well. It is also shown in the table that there is a 1.0 standard deviation of the rating on project closing process groups by respondents, which leads to a 20.0% standard deviation in terms of percent rating. As it is indicated in table 4 above, the average standard deviation in terms of percent is 16.0%, which means the respondents indicated that there is higher deviation of project closing process group practice from the overall project management process groups practice. This concludes that there is a similar practice of project closing process group.

#### **4.5 project management practice according to the plan**

From table 6 the average percentage of planning is 72% and execution phase of the project is 76% of average, this implies that there are unplanned activities in the execution phase which comes from design change by stakeholder interest or municipal laws and regulations it is all about scope change and scope significantly affecting the original time and cost of the project.

#### **4.6 project management knowledge areas consistently practiced throughout project life cycle**

As can be seen from the percent score of knowledge areas over management process, none of the knowledge area considered in the present analysis are consistently applied. Integration is well applied in the initiation process (80%) and is poorly applied in planning (72%), monitoring and controlling (74%), and closing process stages (74%). Similarly, scope, communication, and stakeholder knowledge areas are not applied consistently across phases of project life cycle.

**Table 7: Project management practice consistency**

Management Knowledge Areas	Initiation			Planning			Execution			Monitoring and Controlling			Closing		
	Ave	SD	Ave (%)	Ave	SD	Ave (%)	Ave	SD	Ave (%)	Ave	SD	Ave (%)	Ave	SD	Ave (%)
Integration	4.0	0.6	<b>80</b>	3.6	0.8	<b>72</b>	-	-	-	3.7	0.8	<b>74</b>	3.7	1.1	<b>74</b>
Scope	-	-	-	3.7	0.7	<b>74</b>	4.0	0.7	<b>80</b>	3.8	1.0	<b>76</b>	3.6	1.2	<b>72</b>
Communication	-	-	-	3.6	0.7	<b>72</b>	4.0	1.0	<b>80</b>	3.8	1.0	<b>76</b>	4.0	1.1	<b>80</b>
Stakeholder	3.9	1.0	<b>78</b>	3.7	0.8	<b>74</b>	4.0	0.8	<b>80</b>	3.8	0.8	<b>76</b>	3.5	1.1	<b>70</b>

**Source: Own Survey, 2019**

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

In the above data presentation and analysis chapter, project management of Ethiopian Real Estate industry is assessed in terms of project management knowledge areas, project management process groups, major problems faced related to project management areas the extent of practice according to plan and project management areas consistently practiced through process groups.

#### 5.1. Summary of Findings

Based on the analysis, major findings are obtained in the study and listed as follow:

- Project integration management, and project cost management, are practiced above average practice of project management knowledge areas with lower standard deviation than the average.
- Project scope management project procurement management and project stakeholder management are practiced on average practice of project management knowledge areas with average standard.
- Project Human Resource management is practiced above average practice of project management knowledge areas with higher standard deviation than the average.
- Project quality management, project communication management, project risk management, and project time management are practiced below average practice of project management knowledge areas with higher standard deviation than the average.
- Project initiation process groups and project execution process group are practiced above average practice of project management process groups with higher standard deviation than the average.
- Project planning process group and project monitoring and controlling process group is below average practice of project management process groups with higher standard deviation than the average.
- Project closing process group is practiced on average practice of project management process groups with lower standard deviation than the average.



- There are unplanned activities in the execution phase which comes from design change by stakeholder interest or municipal laws and regulations it is all about scope change and scope significantly affecting the original time and cost of the project.
- Integration, scope, communication, and stakeholder knowledge areas are not applied consistently across phases of project life cycle.

## **5.2. Conclusions**

In the above section of summary, major findings are listed. Based on the findings, conclusions are inferred by the study. In this section, the driven conclusions are discussed below.

### **Project Management Practice Knowledge Areas**

The practice of the ten project management knowledge areas are assessed in this study. Accordingly:

- ❖ Project integration management, project scope management, project cost management, project procurement management, and project stakeholder management are practiced well similarly across the Real Estate industry projects.
- ❖ Project human resource management is practiced well but divergently, which means there are different Real Estate companies whose practice of project human resource management may deviate from the expected level obtained from the analysis.
- ❖ Project quality management, project communication management, project time management, and project risk management are poorly practiced in Ethiopian Real Estate Industry projects. Since they have high standard deviation (divergent practice), poor practice of Project quality management, project communication management, project time management, and project risk management may not be seen in some Real Estate companies.

## **Project Management Practice Process Groups**

The practice of project management in Real Estate industry is also assessed in terms of the five project management processed groups. According to this:

- ❖ Project initiation, execution, and closing process groups are practiced well consistently (convergent/similarly) across the Real Estate industry projects.
- ❖ Project planning and monitoring and controlling process groups are poorly practiced consistently (convergent/similarly) across the Real Estate industry projects.

## **Project Management Practice Needs to Improve**

- Project time management, project communication, project quality and project risk management are poorly practiced. So needs to improve these project management knowledge areas and enhance success of projects by monitoring the existing performance on these knowledge areas.
- Project planning process group and monitoring and controlling process groups practices are poor. So needs to improve these process groups and enhance success of projects by monitoring the existing performance on these process groups.

## **Project Management Practice According to the Plan**

There are activities done without plan due to different reasons mainly from scope change this causes time and cost overrun. The activities may come from design change and needs time to carry out have effect on the estimated completion of the project when the time overruns it has a direct effect on cost overrun. Keeping construction projects within estimated costs and schedules requires good project management practices.

## **Project Management Knowledge Areas Consistently Practiced Throughout Project Life Cycle**

For project success, Project management knowledge areas coincide with the process groups. The knowledge areas take place during anyone of these process groups, the process groups as horizontal, while the knowledge areas are vertical. The knowledge areas are the core technical subject matter, which are necessary for effective project management. Project integration

management, project scope management, project communication management and project stakeholder management are better to evaluate the consistency of knowledge areas because they pass all phases of process groups. From the findings this study revealed that none of the knowledge areas are consistently applied across phases of project life cycle that are the chronological phases that every project goes through.

### **5.3.Recommendation**

Based on the study and mainly from the conclusion there are different recommendations to be suggested.

Real Estate companies should maintain their project integration management, project scope management; project cost management, project HR management, project procurement management, and project stakeholder management practices since they are strong in applying these knowledge areas. By assessing the value of these project management knowledge areas on profitability and stakeholder satisfaction in the project; by receiving their customer's feedback to overcome best practice that make to project successful completion in terms of project management knowledge areas.

Real Estate companies should improve their Project time management, project communication, project quality and project risk management. Since practice level of these project management knowledge areas are obtained with high degree of inconsistency across the Real Estate industry, individual firms should internally assess their practice on these knowledge areas and monitoring the existing performance on these knowledge areas to enhance success of their projects

Real Estate companies should maintain their initiation process groups, execution process groups and project closing process group practices since they are strong in terms of running these process groups. By benchmarking the best practice in these process groups, guiding structure for the managing a project from start to finish.

Real Estate companies should improve their Project planning process group and monitoring and controlling process groups practice as they are weak in terms of running this process group by monitoring the existing performance on these process groups to enhance success of their projects

Companies should take causes of not practicing project time, risk, communication and quality management while they plan and make decisions related with on time delivery of projects, in order to take risk measures in advance, in order to have modern project management Information System and prevent quality related problems in advance.

Detail assessments should be conducted among different industries. It can be possible to have detail Study on the practice of single project management knowledge area. This would enable to assess the practice of a certain knowledge area by investigating on each requirements and activities involved in the knowledge area. And this is a great way of taking the best practice as an example and to share lessons learned.

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## **APPENDIX ‘A’**

**ST. MARY’S UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**  
**Master of Project Management Program**  
**Questionnaire**

This questionnaire is conducted to collect data for a research on: Assessing Project Management Practices: on Real Estate construction companies in Addis Ababa, Ethiopia. The information is going to be used as a primary data for this research believing that your frank and genuine responses will contribute vastly to the quality of the findings of this study. The researcher would like to ask you to kindly complete this questionnaire, as truthfully as possible as the responses you provide will be kept confidential and will be used only for the study under consideration.

Thank you in advance for taking part in this endeavor.

Kind Regards

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**Part I: Background Information**

*Below are some questions. Please write your answer in the blank spaces provided or Choose from the choices given and circle your answers to the questions.*

Ser. No.	Questions	Enter or circle your answers.
1	What is your age (in years)?	_____ years
2	What is your gender?	1= Male 2= Female
3	What is your profession?	_____
4	Your higher educational level	1= Certificate 2= Diploma 3= First degree 4= Masters (Second degree) 5= PhD Other: _____
5	What is your current marital status?	1= Single 2= Married 3= Divorced/Separated 4= Widowed
6	What is your current job title (position) in this company?	_____
7	For how many years have you worked in this company with your current job title (position)?	
8	For how many years have you worked in this company in total?	<input type="text"/> years <input type="text"/> months
9	What is your total year of work experience as a project manager?	_____
10	Have you received any training in project management?	<input type="checkbox"/> Yes <input type="checkbox"/> No

**Part II: Please tick (✓) one appropriate response for each statement (item) the level at which you feel that they are implemented by the company you are currently working with**

**I. Project Initiation Phase**

Ser. No	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	The company formally authorized the existence of project using written document/charter					
2	There were written documents that provide the project manager with the authority to apply organizational resources to project activities.					
3	The company clearly identified all stakeholders and determined what kind of relationship each stakeholders might have with company.					
4	The company clearly recognized the project constraints which may impact the project to plan around them.					
5	The company defined objectives, scope and deliverables that the project expected to achieve.					

**II. Project Planning Phase**

Ser. No	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	There was adequate and comprehensive project management plan					
2	The company had proper scope management plan					
3	The company determined, documented, and managed each stakeholders ' requirements to meet project objectives					
4	The company developed a detailed description about its real estate development as well as about the output of the project					

5	The company effectively subdivided project deliverables in to smaller components/activities for ease of management and outsourcing					
6	There are clear policies, procedures, and documentation for project schedule					
7	The company clearly identified and documented the specific actions to be performed in the real estate development					
8	The company clearly identified and documented relationships among the project activities					
9	The company effectively breakdown the cost and anticipated supply requirements for the project.					
10	The company effectively estimated time required for project activities.					
11	Effective project schedule models and tools were used for the project. There are clear policies, procedures, and documentation in the company for project cost management.					
12	The company developed an approximation of the monetary resources needed to complete project activities before the project began					
13	The company effectively aggregated the estimated costs of individual activities to establish cost baseline.					
14	There are clear quality requirements and standards in the company for real estate development					
15	There is clear job description and employee staffing management plan in the company and in its projects					
16	The company developed appropriate project communication approaches and plans to communicate with its stakeholders					

17	Risk management activities for a project were clearly defined.					
18	The company determined which risks may affect the project and documented their characteristics					
19	Project risks were prioritized for further analysis to predict their probability of occurrence and impact					
20	The company numerically analyzed the effect of identified risks on overall project objectives					
21	The company developed options and actions to enhance opportunities and to reduce threats to project objectives					
22	Project procurement decisions of the company were documented and approaches were specified to identify potential sellers.					
23	There were appropriate management strategies to effectively engage stakeholders throughout the project life cycle					
24	The company developed the approach to manage the various hazards to satisfy inherent in the project					
25	The company assessed in detail the construction site environment and relevant environmental standards to the project					
26	Key financial issues to be addressed were identified and then project roles, responsibilities and relationships were determined. Claims by different stakeholders were identified in advance.					
27	The company properly qualified which claims by stakeholders should be held					

### III. Project Execution Phase

Ser. No	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	The work defined in the project management plan and approved changes were led and performed properly					
2	There was continuous audit on quality requirements and results from quality control					
3	There was effective human resource planning and project team establishment					
4	The company improved competencies, team member interaction, and overall team environment to enhance project performance					
5	The company effectively tracked team member performance, provide d feedback, resolved issues, and managed related changes to optimize project performance					
6	The company has good project information system in accordance with the communications management plan.					
7	The company effectively obtained, selected, and awarded resource suppliers.					
8	The company communicated and worked with stakeholders to meet their needs/ expectations throughout the project life cycle.					
9	The company regularly carried out safety measures					

#### IV. Project Monitoring and Controlling Phase

Ser. No	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Progress of the project was effectively and regularly tracked, reviewed, and reported against the performance objectives defined in the project management plan.					
2	The company reviewed all change requests; approved managed relevant changes communicated their disposition					
3	The company formalized acceptance of the completed project outcomes.					
4	There was effective monitoring of status of the project, product scope and changes to the scope baseline					
5	The company properly monitored status of project activities to update project progress and manage changes to the schedule baseline to achieve the plan.					
6	The company monitored status of the project to update the project costs and managing changes to the cost baseline					
7	There was effective monitoring and recording of results of executing the quality activities.					
8	There was effective communication monitoring and control throughout the entire project life cycle to ensure the information needs of the project stakeholders are met.					
9	The company implemented and evaluated risk response plans and continuously identified project risks					
10	There was effective management of procurement relationships, contract performance, and related changes and corrections as appropriate					

11	There was effective monitoring of overall project stakeholder relationships and adjustment strategies and plans for engaging stakeholders.					
12	The company monitored specific project results to determine if they comply with relevant environmental standards and identified possible corrective actions					
13	There was effective monitoring of key influences of finance and corrective measures were taken if negative trends are recognized. The company has appropriate claim prevention mechanisms					

**V. Project Closing Phase**

Ser. No	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	The company properly finalized all activities across all Project activities to formally complete the project or phases.					
2	Generating, gathering, and disseminating information to formalize phase or project completion.					
3	All changes to the project were controlled.					
4	The company properly compiled each project financial and technical documents.					
5	The company has appropriate claim resolution mechanisms.					
6	Contract was completed and settled properly.					
7	The company got Post – project sustained impact evaluation in the years after project closeout.					

**Part III. Open-ended Questions**

*Please fill your answers for each question in the blank space provided.*

3.1. Estimated Duration of the project: \_\_\_\_\_

3.2. Actual Time Devoted on the project: \_\_\_\_\_

3.3. Initially estimated total project cost: \_\_\_\_\_

3.4. Actual Project Cost incurred: \_\_\_\_\_

3.5. How many projects have you accomplished? \_\_\_\_\_

3.6. How many houses do the company transferred to customers? \_\_\_\_\_

3.7. When did the company transferred the houses? \_\_\_\_\_

3.8. What problems have you encountered to implement the project management standards related to each of the major project management knowledge areas?

a) Problems encountered related to project **INTEGRATION** management:

\_\_\_\_\_  
\_\_\_\_\_

b) Problems encountered related to project **SCOPE** management:

\_\_\_\_\_  
\_\_\_\_\_

c) Problems encountered related to project **TIME** management:

\_\_\_\_\_  
\_\_\_\_\_

d) Problems encountered related to project **COST** management:

\_\_\_\_\_  
\_\_\_\_\_

e) Problems encountered related to project **QUALITY** management:

\_\_\_\_\_  
\_\_\_\_\_



f) Problems encountered related to project **HUMAN RESOURCE** management:

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g) Problems encountered related to project **COMMUNICATION** management:

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h) Problems encountered related to project **RISK** management:

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i) Problems encountered related to project **PROCUREMENT** management:

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j) Problems encountered related to project **STAKEHOLDER** management:

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3.8. Any other additional information you want to mention that have hindered the practice of project management knowledge areas during the implementation of the projects you are working with:

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ANNEX

1. Average Scores (Median)

Variable	Median Score		
		19	4
Initiation		20	3
1	4	21	4
2	4	22	4
3	4	23	4
4	4	24	3
5	4	25	4
Planning		26	4
1	4	27	4
2	4		
3	4	Execution	
4	4	1	4
5	4	2	4
6	4	3	4
7	4	4	4
8	4	5	4
9	4	6	4
10	4	7	4
11	4	8	4
12	4	9	4
13	4		
14	4	Monitoring and controlling	
15	4	1	4
16	4	2	4
17	4	3	4
18	4	4	4
		5	4
		6	4

7	4	Closing	
8	4	1	4
9	4	2	4
10	4	3	4
11	4	4	4
12	4	5	4
13	4	6	4

## 2. Qualitative Information

### Integration

- Our project lacked integration as a result of improper planning and scheduling
- Lack of coordination of activities was the main challenge
- Lack of coordination among different teams, burden of responsibility, unsynchronized priorities and timeliness
- Work is executed without proper plan and schedule due to lack of integration of management

### Scope

- Task overlap-starting a new project before finishing previous projects
- Poorly defined goal, unrealistic deadlines, changes in scope
- The project scope does not coincide with the time and finance allocated
- Design change broadens the scope of project

### Time

- Project time required was not properly studied and insufficient number of contractors were employed
- Time management was a problem and doubles the initial duration
- Lack of follow up, improper and outdated scheduling
- Too much work is done with very little time

### Cost

- Cost of individual items change more often affecting the project massively. Changes have not been accounted in the planning stage.
- Cash management and inflation was a problem
- Lack of access to management reserves, tracking of expenditure,
- Cost overrun due to not meeting deadline

### Quality

- Quality is a central issue in project management, however, friendships and relationships highly compromise quality of projects
- Quality was not a problem
- Compromised quality due to cost overrun and time
- Quality, specially finishing, is not fulfilled as deadline is not met
- Quality is compromised due to rises in prices of materials

### Human resource

- High turnover of skilled and experienced personnel
- Skilled labor management was a problem-SALARY and other benefits

- 
- Inconsideration of human resource as an asset
  - Health and safety of workers was not kept
  - Poor relationship with staffs
  - Improper assignment and lack of training and motivation among workers

#### Communication

- Unscheduled meetings and lack of devotion/commitment to work
- Communication of Forman, site manager and engineers was not good
- Irregular and unplanned communication
- Communication gap between top, middle and low level management

#### Risk

- Lack of risk assessment, monitoring and evaluation led to unexpected time and cost overrun
- Management of risk was not done appropriately-we had a life loss
- Risk measures are taken after damages happen
- Risk management gets problematic as project duration gets elongated

#### Procurement

- Lengthy material request and purchase process
- Lack of stock-in of enough resources
- Lengthy procurement exposed the project to an increase in prices of materials
- Lack of procurement management plan

#### Stakeholder

- Government offices, supplies, and sub-contractors had a problem of managing their tasks
- Communication with stakeholders on daily basis was challenging
- Undefined stakeholders responsibility
- Belated communication about relevant issues
- Lack of communication and prevalent corruption

#### Other

- Construction requires scientific management but encountered traditional way of management overcoming to fulfill stakeholder's needs.
  - The major challenges were cost, risk and time management
  - Main challenges are financial and design problems
  - Lack of documentation, delay of construction permit, capacity problem of the contractor, supervision problem, inflation of materials
-