



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

**ASSESSING THE PROJECT IMPLEMENTATION PRACTICES: A
CASE STUDY ON BOLE AIRPORT EXPANSION PROJECT**

BY

HABTAMU GEBRE

JUNE, 2019

ADDIS ABABA, ETHIOPIA

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**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL
OF GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF PROJECT
MANAGEMENT**

JUNE, 2019

ADDIS ABABA, ETHIOPIA

**ST. MARY'S UNIVERSITY
SCHOOL OF GRADUTE 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 DR. Temesgen Belayneh. All sources of materials 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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June, 2019

ENDORSEMENT

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

Advisor

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June, 2019

ACKNOWLEDGMENTS

First, I wish to express my thanks to dr. Temesgen belayneh, my advisor, for his patience and support during the completion of this thesis with me in much of the research presented here and without whose support and encouragement I could not have hoped to succeed.

Next, I want to thank Addis Ababa Bole international Airport expansion project workers & co workers and all the participant of the paper for their cooperation on the completion of the research.

Finally, I would like to forward my thanks to my parent, especially to my sister & friends for their supporting and motivation in every ways and allowing me to work on my own initiative.

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ACRONYMS

PMBOK®	Project Management Body of Knowledge
PMI	Project Management Institution
AABIA	Addis Ababa Bole International Airport
DB	Design Build
SSPS	Statistical Package for Social Science
HRM	Human resource management
EPRDF	Ethiopian people's Revolutionary Democratic Front
GDP	Growth Domestic Product
ISO	International Organization for Standardization
PMP	Project Management Plan

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ABSTRACT

In project management, best practice is a general term that includes guidelines & international standards. Standards also issued by specialized organizations are usually based on best practices and guidelines given by professional bodies. The main objective of the study is on assessing the project implementation practices in the AABIA Expansion project in terms of the PMBOK areas of the project implementation phase using project integration, quality, resource, risk, communication, procurement & stakeholder management. Primary data collection was done by unstructured interview; and structured questionnaire was collected from employees involved in project work selected in census survey and as to secondary data; related books, articles, journals and publication from the project office & websites were reviewed. Accordingly, descriptive research design and qualitative approach were employed as a methodology of this study. Percentages using frequency distribution table were used to analyze the data obtained. The findings of the study showed that five of the project management knowledge areas of project implementation practices were practiced even though it was not with full extent & formal procedure. From the seven knowledge areas; all knowledge areas except project integration & resource management (mainly HRM) were practiced adequately but not in complete intent. From the five practiced knowledge areas of the project implementation practices, project procurement & communication management were more executed adequately than the others knowledge areas effectively practiced in the project. Generally, the researcher concluded that, the implementation practices of AABIA expansion project are moderately effective except on project human resource & integration management even though they lack some proper practices on the five knowledge areas. Finally, this study suggested for all the project implementation practices which seem to be implemented in the project need to follow in the full extent & the formal procedures of project management.

Key words: Project management, Project management knowledge areas, Project implementation practices

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

Project management brings structured and consistent performance resulting successes which ultimately bring about satisfaction of stakeholder. The effectiveness of project management practices is highly linked with the effectiveness of the project management process. The project management processes are also increasing in importance as more and more projects are becoming constrained to budgets, schedules and other performance factors (Hailu, 2016). This paper assesses the project implementation practices in terms of the seven PMBOK areas on the project implementation phase which are project integration, quality, resource, risk, communication, procurement & stakeholder's management.

Construction is an industry where large scale & mega projects are undertaken. The processes of project management are used to be implemented in procedural way to achieve the objectives of large scale & mega construction projects (Hailu, 2016).

Therefore, in order to assess the project implementation practices of Bole International Airport Expansion project, the researcher analyzed the current project implementation practices & situations in Ethiopia against the international standard & guideline book, A Guide to the Project Management Body of Knowledge (the Guide to the PMBOK).

The project Management Body of Knowledge is a set of standard terminology & guidelines (a body of knowledge) for project management. The body of knowledge evolves over time and presented in A Guide to the Project Management Body of Knowledge (the Guide to the PMBOK). And until now, the guide book was updated for six times & released its 6th edition in 2017 (Project Management Body of Knowledge – Wikipedia, n.d.).

This paper is used the latest edition of the PMBOK guide which was released before two years. It consist knowledge areas & documents of project management resulting from work overseen by the project management Institute (PMI), which offers the CAPM and PMP certification(Project Management Body of Knowledge – Wikipedia, n.d.).

1.2. Background of Addis Ababa Bole International Airport

Addis Ababa Bole International Airport (AABIA)

Addis Ababa Bole International Airport is based the city of Addis Ababa, Ethiopia; it is located in the Bole area. The airport was formerly known as Haile Selassie I International Airport. It is the main hub of Ethiopian Airlines, the national airline that serves destinations in Ethiopia and throughout the African continent, as well as nonstop service to Asia, Europe, North America and South America. The airport is also the base of the Ethiopian Aviation Academy. As of June 2018, nearly 450 flights per day were departing from and arriving at the airport (Addis Ababa Bole International Airport, n.d.).

History of Addis Ababa Bole International Airport & its expansion project

In 1960, Ethiopian Airlines realized the runway at [Lidetta](#) was too short for its new jet aircraft, the [Boeing_720](#). Thus a new airport was built at Bole and by December 1992 the new runway & control tower were operational. Where as, in 1997, an expansion plan was announced for the airport and the expanded old runway and the new runway are capable of handling the Boeing 747 and Airbus A340 aircraft. The new parallel runway is connected by five entrances and exits to the old runway, which serves as a taxiway. The proposed terminal houses a high tech security and baggage handling system built on more than 43,000 square meters of land (Addis Ababa Bole International Airport, n.d.).

In 2003, the new international passenger terminal was opened, making it one of Africa's largest airport passenger terminals. The new terminal is capable to handle about 3,000 passengers an hour. This project was worth a total of 1.05 billion birr (\$130 million). At the time, the airport was one of a number of airport terminal constructions that have been underway in Ethiopia.

In 2006, a new cargo terminal and maintenance hangar was opened five months late. This was because of expanded specifications vastly to improve Ethiopian Airlines' handling

capacity and needs. The facility can accommodate three to four aircraft at a time. This project was worth a total of 340 million birr.

In 2010, the Ethiopian Airports Enterprise announced another expansion project worth \$27.9 million at the airport. The project will include expansion of the aircraft parking capacity from 19 to 44 in order to accommodate heavier aircraft such as the Boeing 747 and Boeing 777. In the first phase of the project, 15 parking stands will be constructed and the remaining will be completed in the next phase. The expansion will help in easing air traffic congestion due to increase in international travel. This would lead to the new expansion plan in 2012.

Expansion of the passenger terminal, cargo space, hangar, the runway and construction of the hotel is currently being completed by Chinese state-owned companies. In 2012, expansion of the new passenger terminal was announced. The outlay of this expansion was projected at \$250 million. At the same time, a new ramp was completed and can now park 24 aircraft. Another ramp is being built for 14 more aircraft. At the same time, the first phase of expanding the taxiways and adding more aircraft parking was completed. Eventually, this will lead to the expansion of the terminal. This all falls in line with Ethiopian Airlines' plan, "Vision 2025", enabling the airport to accommodate up to 22 million passengers per year. The expansion project started on January 2015, and was scheduled to finish after 3 years on January 2017 even though it was take more than 4years to be completed. The contractor won the contract & has been working on the expansion project was China Communication Construction Company (CCCC), where as the consultant was the French company Airport de PARIS INGINER (ADPI).

The former Prime Minister Haile Mariam Desalegn had purportedly given permission to build a new international airport in the town of Mojo, 65 kilometers south of the capital's current airport in order to increase the competitiveness & capacity of the airport more than 80 million passengers (History of Addis Ababa Bole International Airport, n.d.).

1.3. Statement of the problem

Construction projects usually encounter many problems in developing countries in general and Ethiopia in particular. In Ethiopia, 79.06 percent of projects had failed to meet their objectives. Implementation delay, overestimation of project return and poor

manpower quality of projects were found to be statistically significant cause of project failures to meet their objectives (Lemma, 2014).

A project, to effectively meet its intended goals, needs to have a certain practices.

Wideman (1999:2) defines a practice as “a way of doing things”. It is assumed that there are certain generally accepted project management practices which enhance the practice of managing projects which are expected to be distinctive irrespective of the type of organization or project.

A best practice is defined as “A strategy, approach, method, tool or technique that is particularly effective in helping an organization to achieve its objectives for managing a project” (Best practices in project management: Private and public sectors internationally, 2001:1).

During document analysis in the project office & visiting some activities on the site, some problems were identified. There has been an extended delay in the project and there were some unattended goals of the project. These problems are believed to be due to lack of following some project management practices like human resource, quality, integration and e.tc.

This paper focuses on the assessing the project implementation practices from the country mega projects on the “Addis Ababa Bole International Airport Terminal Expansion & Associated Project” which was financed & constructed by china.

Addis Ababa Bole International Airport Expansion Project (AABIA Expansion Project) is a major development in the Federal Democratic Republic of Ethiopia. As a landlocked country, this expansion Project is vital and of national interest. And since the project implementation practices of this big project & other the country mega projects are critical for managing the country project management practices & it can also indirectly affect the country growth.

Assessing the project implementation practices allow the implementation of an appropriate project management & its practices in order to manage the projects timely, wisely, on budget & quality objectives (W/kidan, 2017).

1.4. Research questions

1.4.1. Basic Research Questions

- To what extent the team members assigned to the project were appropriate & managed?
- How long time in the expansion project, risks documentation & risk response plan activities were practiced?
- To what level stakeholders and their engagement were managed in the AABIA expansion project?

1.5. Objective of the Study

1.5.1 General objective

- To assess the project implementation practices of AABIA expansion & associated works project.

1.5.2 Specific Objectives

- To assess the extent of the team members assigned to the project were trained & managed.
- To evaluate the execution of risk registration & response plan activities.
- To assess the project stakeholders and their engagement in the AABIA expansion project was managed or not.

1.6. Significance of the study

Considering the importance of project management in the construction companies, specifically in building construction, and the booming of construction activities in Ethiopia, it is assumed that the research output will contribute in identifying which project management knowledge area is practiced well and lead to the best project implementation practices on construction projects in Ethiopia.

Since project management is an area with a growing body of knowledge, this research will contribute in adding other concepts to the existing body of knowledge with a particular emphasis on construction practices being currently implemented & for future practices should be implemented appropriately.

Even though the research focuses on construction projects, the findings and the outcome will be relevant to practitioners in other types of projects.

The research will also give inputs for the big & mega governmental construction projects financial & constructed by china which is the Ethiopia country's governmental development policy based on it.

Generally, this study will be helpful for the projects to demonstrate about the contribution of the best project implementation practices, so as to improve the implementation practices of the upcoming projects done in the construction industry. This will facilitate for attaining the goals of the project within planned time, under the given budget and at agreed or targeted quality required of products efficiently and effectively.

Even though the research focused on construction project, it is also help to understand the role & use of practicing project implementation practices, for practitioners, planners, policy makers and applying it for further development in other projects. In addition, this paper work can serve as a future reference for researchers on the subject matter.

1.7. Scope & Limitations

1.7.1 Scope & Delimitation of the study

The study focused only on one specific project i.e. Addis Ababa Bole International Airport (AABIA) Terminal expansion & associated works Project due to the fact that information was available to a great extent.

Also this study is only concentrated on assessing project implementation practices, through the generally accepted project management knowledge areas defined by PMBOK, which enhances the implementation of projects.

1.7.2 Limitations of the study

Mainly, the research strategy employed a characteristic of case survey; one of the limitations of survey research is the problem of meaning where respondents may vary in the understanding of the questions. Since questionnaire based survey employed mainly for data collection, then the limitation is it provides indirect information filtered through views of the respondents.

Data analysis is conducted based on gathering information from questionnaires; therefore, the other limitation is to what extent the participants understood the terms and requirements of project management processes & project implementation practices. Since, the survey is limited to small sample size, generalizing the findings and its validity considered as limitation in this research.

The other limitation is the study focused only the seven PMBOK areas which didn't include the other knowledge areas of project management like project HSSE management. Only the seven Project Management Body knowledge areas are taken on this study due to the time limitation to cover additional knowledge areas by the researcher.

Due to the project is a big governmental project & highly influenced by the politics of the Ethiopian & Chinese governments , some key respondents were refused to fill the questionnaires & give appropriate information details about the project. Most of the challenges were come from the client or stakeholders sides & some from the contractor side.

1.8 Organization of the Research Report

Structurally, the paper composed of five chapters. In the first chapter presented introductory materials, which includes background of the study, background of AABIA, problem statement, research objective, research questions, methodology, significances of the study, limitation of the study, and scope & delimitations of the study. The second

chapter presented the related literatures reviewed to base the study on existing literature including Journals articles & books. Chapter three contains the details of the research methodology to gather and analyze data from which findings are drawn. With the background, the report presents analysis and interpretation of the data gathered in the fourth chapter. Finally, it is included with the summary and conclusion of the study & recommendations that are made in the fifth chapter. The references also used in the study, interview guide and questionnaire used are included in the Appendix section.

CHAPTER TWO

REVIEW OF RELATED LITRATURES

2.1. Introduction

This chapter dealt with the literature relevant to the study and provides a summary of previous related studies and various literatures on the research problem areas. The review of related literatures intended to answer the research questions and contribute to the emergent knowledge base of project implementation practices in the project.

2.2. Project

Many authors and references have defined project in different ways emphasizing its different aspects. Summarizing those definitions given, this research defines a project as a temporary endeavor (that has definite beginning and end time) undertaken following specific cycle of Initiation, Definition, Planning, Execution and Close to create a unique product, service, or result through novel organization and coordination of human, material and financial resources (PMI, 1996). It is a sequence of unique, complex, and connected activities that have one goal or purpose and that must be completed by a specific time, within budget, and according to specification (Robert.K.)

.In general, a project is a unique, well-defined effort to produce specified results within a set timeframe, at a given cost, in a multifunctional environment and under special management (Berry, A.D and T.Duhig, 1987).

2.3. Project management

Similar to the case for project, many and different definitions were given for project management. Summarizing those definitions this research defines Project management as: The application and integration of modern management and project management knowledge, skills, tools and techniques to the overall planning, directing, coordinating, monitoring and control of all dimensions of a project from its inception to completion,

and the motivation of all those involved to produce the product, service or result of the project on time, within authorized cost, and to the required quality and requirement, and to the satisfaction of participants. [(Atkinson R, 1999), (Kerzner, 2003)].

The functions of project management include defining the requirements, establishing the extent of work, allocating the resources required, planning the execution of the work, monitoring the progress and adjusting deviations from the plan (Munns and Bjeimi, 1996). As described in Project Management Body knowledge guides five types of management processes: initiating, planning, executing, controlling and closing (PMI, 2000).

2.4. Project and project management

Researches indicated that project success is influenced by project planning (Aladwani, 2002; Dvir et al., 2003; Ubani et al., 2010; Whittaker, 1999). Project planning involves the process of preparing for the commitment of resources in the most economical manner. It defines the activities and events of the project together with the required resources, cost, time, and success milestones for achievement of project objectives. The plan must indicate the materials, equipment, facilities, human and other resources that are necessary to complete the project.

Project execution was launched to start without proper development of a project plan, which often causes delays, high costs and general execution problems in the project (Antvik and Sjöholm, 2007).

The research by Kerzner (2013) clearly demonstrated that the primary motive of project planning is uncertainty reduction, an idea which was also supported by (Zwikael & Sadeh, 2007). The studies by Gibson et al. (2006) show a positive relation on the efforts of project planning with project success and inversely related to the risks.

However, according to the Project Management Institute (PMI), 48% of the project management processes is taken by project planning activities and considered to be time consuming by project managers (PMI, 2008). Accordingly, Zwikael (2009) identified the relative importance of the project management activities used during the planning phases and their impact on project success in Israel, Japan and New Zealand. However, he fails

to consider the planning input factors which were proved to have an impact on the project planning activities (Lemma, 2014).

2.5. The Five Traditional Process Groups



In project management generally a Guide to the Project Management Body of Knowledge (PMI, 2017), specifically best practices dictate a very specific series of process groups that should be performed. These are referred to as Initiating, Planning, Executing, Monitoring and Controlling, and Closing. The question arises: what problem are organizations trying to solve by having five discrete process groups? According to PMI (2017) they are called process groups because each one contains or houses specific processes that should be performed. The answer is that these processes give an organizational background to successfully plan, execute, and manage a well-run project. With that said, let's look at each of these process groups in turn and discover why each is so vital to a project's success (PMI, 2013).

1. Project Initiation

According to PMI, the process of Initiating helps to set the vision of what is to be accomplished. This is where the project is formally authorized by the sponsor, initial scope defined, and stakeholders identified. Stakeholder identification is crucial here because correct identification (and subsequent management) of stakeholders can literally make or break the project (PMI, 2013).

2. Project Planning

Once the project receives the green light, it needs a solid plan to guide the team, as well as keep them on time and on budget. A well-written project plan gives guidance for obtaining resources, acquiring financing and procuring required materials. The project plan gives the team direction for producing quality outputs, handling risk, creating acceptance, communicating benefits to stakeholders and managing suppliers (PMI, 2017).

The project plan also prepares teams for the obstacles they might encounter over the course of the project, and helps them understand the cost, scope and timeframe of the project (PMI, 2013).

3. Project Implementation

Naturally, the next thing to do after planning is to execute, to do the work. But what's important here is that projects now have a project management plan to which we can execute. It helps keep the project on track (PMI, 2017).

Project implementation is the phase that is most commonly associated with project management. Execution is all about building deliverables that satisfy the customer. Team leaders make this happen by allocating resources and keeping team members focused on their assigned tasks.

Execution relies heavily on the planning phase. The work and efforts of the team during the execution phase are derived from the project plan (PMI, 2013).

4. Project Monitoring and Control

According to PMI (2017), these are "processes required to track, review and regulate the progress and performance of the project; identify any areas in which changes to the plan are required; and initiate the corresponding changes. Monitoring and control are sometimes combined with execution because they often occur at the same time. As teams execute their project plan, they must constantly monitor their own progress.

To guarantee delivery of what was promised, teams must monitor tasks to prevent scope creep, calculate key performance indicators and track variations from allotted cost and time. This constant vigilance helps keep the project moving ahead smoothly.

5. Project Closure

Teams close a project when they deliver the finished project to the customer, communicating completion to stakeholders and releasing resources to other projects. This vital step in the project lifecycle allows the team to evaluate and document the project and move on the next one, using previous project mistakes and successes to build stronger processes and more successful teams (PMI, 2017).

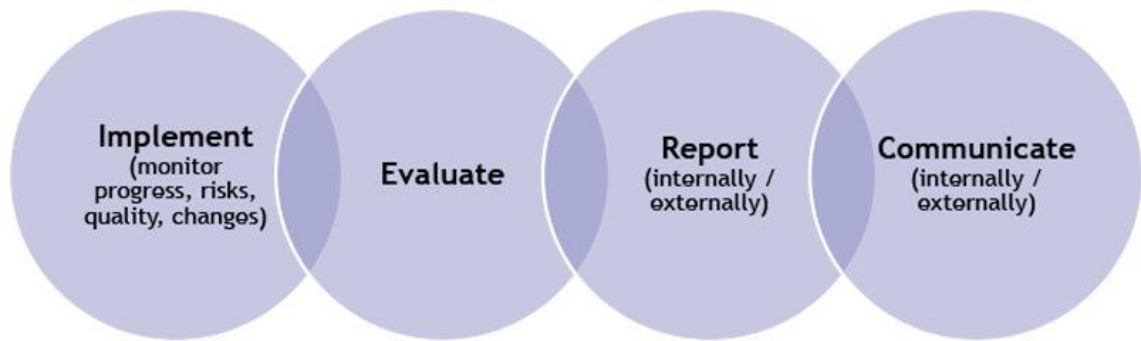
Although project management may seem overwhelming at times, breaking it down into these five distinct cycles can help your team manage even the most complex projects and use time and resources more wisely (PMI, 2013).

2.6. Project implementation

To implement a project means to carry out activities proposed in the application form with the aim to achieve project objectives and deliver results and outputs. Its success depends on many internal and external factors. Some of the most important ones are a very well organized project team and effective monitoring of project progress and related expenditures (European Union INTRACT sharing expertise, 2013).

Overall management has to be taken over by the lead partner and project manager, who is often employed or engaged by the lead partner. The project management has to have an efficient management system and always has to be flexible to current needs and changed situations, as the project is rarely implemented exactly according to the initial plan. Nevertheless, the partnership should aim to deliver quality results and outputs. Quality means meeting expectations described in the application and those agreed within the partnership (European Union INTRACT sharing expertise, 2013).

Figure 2.1 Project implementation tasks



Source: European Union INTRACT sharing expertise, 2013

Table 2.1 Responsibilities within the partnership

Responsibilities	Lead partner	Partners
<p>Continuously monitor project progress</p> <p><i>(ensure that the project stays on track)</i></p>	<ul style="list-style-type: none"> ✓ Monitor progress of key project elements ✓ Deliverables comply with content and quality requirements ✓ Milestones are met ✓ Cost as budgeted ✓ Review and process requests for modifications to the plan 	<ul style="list-style-type: none"> ✓ Review progress of tasks on partner level ✓ Report to the LP/ inform about the progress ✓ Inform of the potential risks and problems associated with risks
<p>Conduct team reviews</p> <p><i>(review progress and plan for the next activities)</i></p>	<ul style="list-style-type: none"> ✓ Determine the information needs in the partnership ✓ Decide/ discuss how best to communicate information ✓ Acquire the necessary information (e.g., through 	<ul style="list-style-type: none"> ✓ Inform about information needs and discuss them with the LP and the rest of the partnership ✓ Regularly exchange status information ✓ Present/ discuss plans

	programme sources)	for next actions, and outline action points
<p>Manage modifications</p> <p><i>(monitor modifications to one or more project parameters)</i></p>	<ul style="list-style-type: none"> ✓ Document the modifications requested, prioritize modifications that involve the whole partnership ✓ Estimate the resources involved to implement the modification that involves all relevant partners ✓ Inform programme management, or make a request for a modification ✓ Include an alternative solution ✓ Provide a description of how the modification requested affects the project resources and outcomes ✓ Ensure the approved modifications are incorporated in the project structure and carried out 	<ul style="list-style-type: none"> ✓ Outline the modification – link it to the original plan – highlight deviations ✓ Estimate the impact of the modification on the partner’s part of the project, and on the project as a whole ✓ Inform and discuss with the LP and the rest of the partnership
<p>Communicate</p> <p><i>(ensure that the project achievements are communicated)</i></p>	<ul style="list-style-type: none"> ✓ Harmonize key messages used for communication ✓ Prepare information and material to be used for communication ✓ Communicate project 	<ul style="list-style-type: none"> ✓ Prepare and present deliveries and achievements as requested ✓ Communicate project achievements in their

<i>to the relevant stakeholders)</i>	achievements in their networks	networks
Formal project progress review <i>(ensure that the relevant programme bodies are kept informed of project progress</i>	<ul style="list-style-type: none"> ✓ Identify what needs to be prepared for the review ✓ Allocate tasks in the partnership regarding the provision of information ✓ Establish logistics for information flow between the partnership and the programme ✓ Undertake overall project progress review (e.g., against timetables, indicators, etc.) 	<ul style="list-style-type: none"> ✓ Undertake progress review (e.g., against timetables, indicators, etc.) ✓ Prepare and present status information as requested ✓ Identify action items that require attention by management and/or stakeholders

Source: European Union INTRACT sharing expertise, 2013.

2.7. Knowledge areas of Project Management

Projects are divided into components, and a project manager must be knowledgeable in each area. A Knowledge Area is standing for a complete set of concepts, terms, and activities which create a specialized professional field known, as project management. Project teams should use these Knowledge Areas and other extension Knowledge Areas for specific project types, as appropriate. 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. Since the study focused area is on the implementation practices, it is limited to the seven knowledge areas of project management except project scope management, project time management & project cost management (Project management institute, 2017).

PMI (2013: P60) defines the important aspects of each knowledge area and how it integrates with the five Process Groups. As supporting elements, the knowledge areas provide a detailed description of the process inputs and outputs along with a descriptive explanation of tools and techniques most frequently used within the project management processes to produce each outcome (Project management institute, 2017).

2.71. 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, managing stakeholder expectations, and meeting requirements. Project Integration Management includes making choices about resource allocation, making trade-offs among competing objectives and alternatives, and managing the interdependencies among the project management Knowledge Areas.

The need for Project Integration Management is necessary in situations where individual processes interact. For example, a cost estimate needed for a contingency plan involves integrating the processes in the Project Cost, Time, and Risk Management Knowledge Areas. When additional risks associated with various staffing alternatives are identified, then one or more of those processes may be revisited. The project deliverables may also need integrating with ongoing operations of the performing organization, the requesting organization, and with the long-term strategic planning that takes future problems and opportunities into consideration. Project Integration Management also includes the activities needed to manage project documents to ensure consistency with the project management plan and product, service, or capability deliverables (PMI, 2013).

2.72. PROJECT QUALITY MANAGEMENT

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.

Project Quality Management addresses the management of the project and the deliverables of the project. It applies to all projects, regardless of the nature of their deliverables. Quality measures and techniques are specific to the type of deliverables being produced by the project (PMI, 2013).

Perform Quality Assurance: - The process of auditing the quality requirements and the results from quality control measurements to ensure that appropriate quality standards and operational definitions are used (PMI, 2013).

2.73. PROJECT RESOURCE MANAGEMENT

Project resource management has gone through major changes. Some of them were big gaps in earlier editions (edition 1-5) and some of them were logically moved from project schedule management area (PMI, 2017). In the PMBOK 6th edition, physical resources & human resources are dealt with in the same knowledge area. However, the skills and competencies needed to deal with human resources are different than the ones needed to handle physical resources (PMI, 2017).

Resource Management includes the processes that acquire, assign, organize, manage, and lead the project team & other resources in the project such as humans, materials or machineries & equipment. The project team is comprised of the people with assigned roles and responsibilities for completing the project. Project team members may have varied skill sets, may be assigned full or part-time, and may be added or removed from the team as the project progresses. Project team members may also be referred to as the project's staff. Although specific roles and responsibilities for the project team members are assigned, the involvement of all team members in project planning and decision making is beneficial. Participation of team members during planning adds their expertise to the process and strengthens their commitment to the project (PMI, 2013).

Acquire resource: - The process of confirming human & other project resources availability and obtaining the team necessary to complete project activities.

Develop Project Team: - The process of improving competencies, team member interaction, and overall team environment to enhance project performance.

Manage Project Team: - The process of tracking team member performance, providing feedback, resolving issues, and managing changes to optimize project performance (PMI, 2013).

2.74. PROJECT COMMUNICATION MANAGEMENT

Project Communications Management includes the processes that are required to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring, and the ultimate disposition of project information.

Project managers spend most of their time communicating with team members and other project stakeholders, whether they are internal (at all organizational levels) or external to the organization.

Effective communication creates a bridge between diverse stakeholders who may have different cultural and organizational backgrounds, different levels of expertise, and different perspectives and interests, which impact or have an influence upon the project execution or outcome (PMI, 2013).

Manage Communications: - The process of creating, collecting, distributing, storing, & retrieving and the ultimate disposition of project information in accordance with the communications management plan (PMI, 2013).

2.75. PROJECT RISK MANAGEMENT

Project Risk Management includes the processes of conducting risk management planning, identification, analysis, response planning, and controlling risk on a project.

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 (PMI, 2013).

Perform Qualitative Risk Analysis: -The process of prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact.

Perform Quantitative Risk Analysis: -The process of numerically analyzing the effect of identified risks on overall project objectives.

Plan Risk Responses: -The process of developing options and actions to enhance opportunities and to reduce threats to project objectives (PMI, 2013).

2.76. PROJECT PROCUREMENT MANAGEMENT

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.

Project Procurement Management includes the contract management and change control processes required to develop and administer contracts or purchase orders issued by authorized project team members.

Project Procurement Management also includes controlling any contract issued by an outside organization (the buyer) that is acquiring deliverables from the project from the performing organization (the seller), and administering contractual obligations placed on the project team by the contract (PMI, 2013).

Conduct Procurements: - The process of obtaining seller responses, selecting a seller, and awarding a contract (PMI, 2013).

2.77. PROJECT STAKEHOLDER MANAGEMENT

Project Stakeholder Management includes the processes required to identify the people, groups, or organizations that could impact or be impacted by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution. Stakeholder management also focuses on continuous communication with stakeholders to understand their needs and expectations, addressing issues as they occur, managing conflicting interests and fostering appropriate stakeholder engagement in project decisions and activities. Stakeholder satisfaction should be managed as a key project objective (PMI, 2013).

Manage Stakeholder Engagement: -The process of communicating and working with stakeholders to meet their needs/expectations, address issues as they occur, and foster appropriate stakeholder engagement in project activities throughout the project life cycle (PMI, 2013).

2.8. Best practices, guidelines or international standards in project management?

A best practice is a technique, method, or process that is believed to be more efficient and effective in achieving a goal than any other techniques, methods and processes, when applied to a particular condition or circumstance. Best practice is based on experience and is used to describe the process of developing and following a standard way of doing things. In project management, best practice is a general term that includes:

- Guidelines;
- International standards.

Both standards and guidelines are looking to improve project management. In practice most project managers do not make any difference between the two concepts, reason why we decided to write this article about both international standards and guidelines in project management, as methods that can contribute to goal achievement when dealing with projects, as best practices.

Whereas standards are expected to be objective, definitive and robust, guidelines issued by professional bodies are open to interpretation (Ahlemann, Teuteberg, Vogelsang, 2009, pp. 293). But, standards issued by specialized organizations are usually based on best practices and guidelines given by professional bodies. However, sometimes guidelines become standards, such as PMI's project Management Body of Knowledge, which became an ANSI norm in 2004 (Ahlemann, Teuteberg, Vogelsang, 2009, pp. 293).

2.81. Advantages of using best practices in project management

Historically, in the 1950s project management was first recognized as a separate management method, different from other management methods employed in government or corporate business (Nielsen, 2006, pp. 61).

Nowadays, project management has reached a global level, the methods of project management evolving in guidelines and international standards, generally accepted and employed. The attributes for global standards are: relevant, useful, acceptable, applicable, meaningful, used and valued, according to The Global Working Group (Nielsen, 2006, pp. 62, www.aipm.com).

A. Transfer of knowledge: Project management is the most widely found cause for failure to meet project objectives and goals (Nielsen, 2006, pp. 61). A standardized approach of project management comes to support the project manager when dealing with multiple projects with different competency needs, reducing the management risk and maximizing the achievement of goals;

B. Better communication: Communication is a key element in project management, being a major factor that influences the success or the failure of a project. Standards are also expected to help harmonize divergent terminology and different understandings of processes and methods (Ahlemann, Teuteberg, Vogelsang, 2009, pp. 292);

C. Time and cost savings: Projects are time dependent, so time management is part of project management. It's only when you measure time when you see how precious resource is spent reinventing the wheel (Ford, 2008, pp. 31). Best practices in project management bring the benefit of saving time and money in dealing with projects, goals that all project based organizations must strive toward, particularly in time of economic recession;

D. Better process quality: Standards and guidelines improve quality by reducing failure and maximizing the achievement of goals;

E. Better team work: The team will be better organized, the tasks will be clearly defined and the team work will be more efficient;

F. Better position on the market: Applying international standards and best practices in project management contributes to a better position of the business on the market, as it will prove high project management competence to all stakeholders;

G. An international approach of labor: A standard approach of knowledge, competence and processes facilitates working in an international environment;

H. Better monitoring and controlling of projects: In a global economy, standards are needed to improve the efficiency of monitoring and controlling international projects;

I. A more efficient and objective audit: Standards are essential in auditing projects.

Following international standards will increase the efficiency of the auditing process

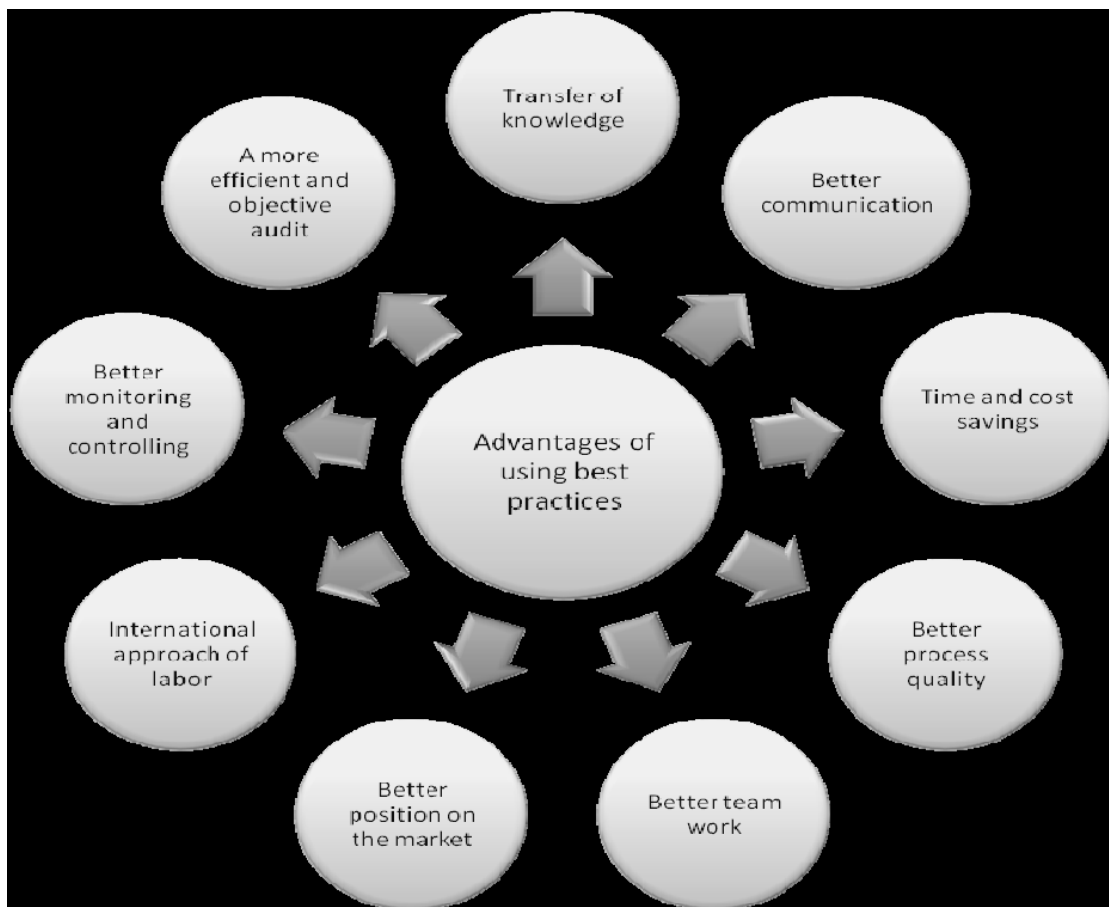


Figure 2.2 the advantages of using best practices in project management

Source: Liviu et al., 2010

2.9. Conceptual Framework for Project implementation Practices

The framework for this research is illustrated in the below figure. It shows assessing Project implementation practices with the seven project management knowledge areas. Only the seven Project Management Body knowledge areas are taken on this study due to the time limitation to cover additional knowledge areas by the researcher.

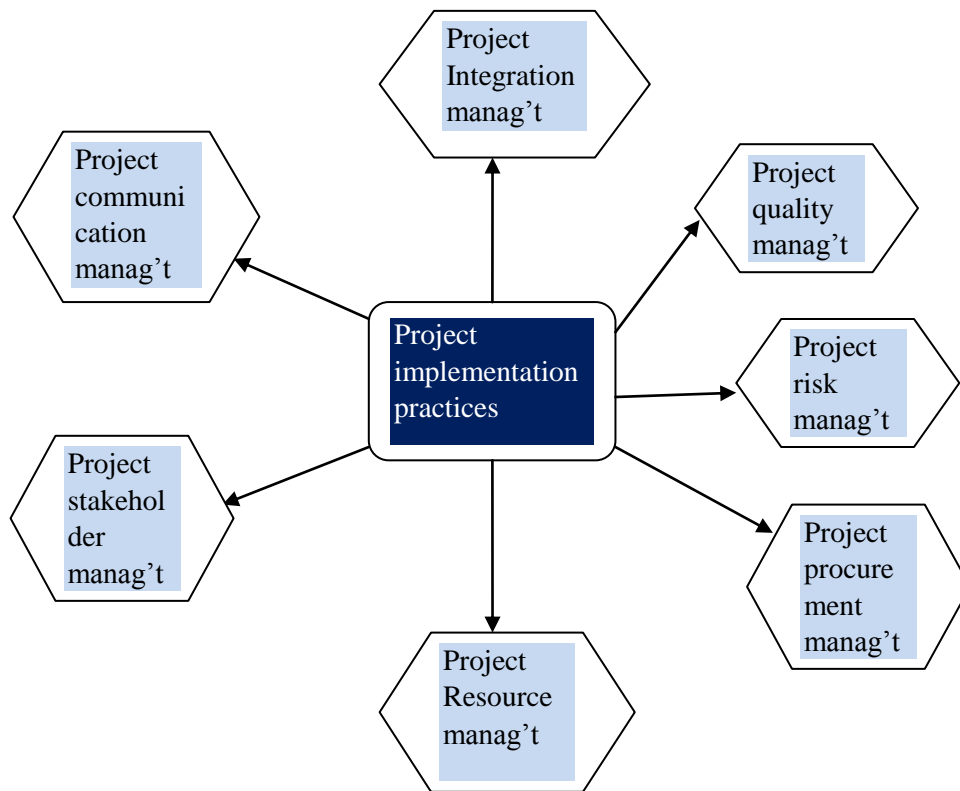


Figure 2.3 Conceptual framework for accessing project management practices

Source: prepared by the researcher, 2019

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Research approach & Method

This study adopted a qualitative approach as research approach of the study. The qualitative researches approach used in this study which concerned with discussion making based on perspective & provide both an in-depth look at context, processes, and interactions and precise measurement of attitudes. So it is extremely important to get as much data as possible for later analysis to ensure the assessment of project implementation practices and investigate how the knowledge areas of project implementation were adopted properly in the project.

The research is used descriptive type of research design, in order to describe the research's title & its objectives better. Since all the variables or project management knowledge areas proposed to describe the research title & general objectives of "assessing project implementation practices", descriptive type of research design is preferred on this study. Therefore, this study is conducted with descriptive research method of qualitative approach.

3.2. Sources of Data

The study used both primary and secondary data sources. Primary sources of data include unstructured interview and questionnaire, where as to describe the title's objectives, various literature reviews was taken as secondary data sources.

The primary data collected from Key project workers using survey questionnaire. And other primary documents or files are collected from the project office. The professional employees from the three categories or companies who work on the project were chosen to fill the questionnaire. Because of this, it was guide to receive unbiased and more accurate response.

To strength the reliability of research data and supplement the information missing in the questioner survey, information was collected from other related researches, Journals, & other literatures as secondary data sources.

3.3. Population of the study

Information was gathered from three categories of population; from client, consultant & contractor in order to assess all perspectives towards answering of all research questions and without biasing information or fairly. Therefore 66 target respondents was taken from the project such as department team leader, project & construction managers, resident engineer, project coordinator, contract administrator and consultants, senior site, quality and office engineers involved in the expansion project.

3.31. Sampling Design & techniques

A sample of respondents is drawn from the employees of AABIA project office & site team; which is from the three categories targeted under the project mainly from clients, consultants & contractors. There were an average total of 582 peoples working directly & indirectly around the project; and 66 peoples targeted purposely to answer the research questions properly. A purposive sampling was taken to sample the population and in order to achieve the research objective by obtaining necessary information from the key or important respondents of the project. The study also used a random stratified sampling technique to select the sample from the three population categories who were working on the three different companies of the project to arrive at a sample size of 57 respondents (38 from contractor, 10 from consultant & 9 from client side after randomly selected).

In principle, accurate information about given population could be obtained only from census study. However, due to time constraint, in many cases, a complete coverage of population is not possible; thus sampling is one of the methods, which allow the researcher to study relatively small number of units representing the whole population (Sartnakos, 1998). This study applied simplified formula provided by Yamane, (1967) to determine the required sample size at 95% confidence level, degree of variability = 0.5.

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

Where:

n = Desired sample size

N = Total population size

e = Accepted error limit (0.05) on the basis of 95 percent degrees of confidences put into decimal *form*

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

$$n = 66 / 1 + 66(0.05)^2$$

$$n = 66 / 1.165 = 56.65$$

$$N = 57$$

3.4. Methods/tools of Data Collection

This study used mainly a questionnaire as tools of data collection instrument; where as unstructured interview was also taken with main project/construction manager, resident engineer & project coordinator. A Structured Questionnaire used to collect data from the key workers of the project. The questions are 5 point Likert scale types.

The questionnaire has two parts. The first part addresses the demographic characteristics of respondents and second part deals with questions on assessing the project implementation practices.

Questionnaires distributed to managers, site & office engineers, team leaders, and consultant & contract administrators. The target groups were selected as respondents because they were deemed to be knowledgeable about the project implementation practices of the project.

The research evidence was gathered by using both close-ended and open-ended questionnaires. Mixed questionnaires have many merits; the most important of this advantage is its considerable flexibility (McNabb, 2005).

3.5. Method of Data Analysis

This study adopted the qualitative data collection methods & analysis. The component part of descriptive statistics as frequency distribution analysis used while analyzing the data for quantitative data analysis; therefore, it is used for describing the research objectives by using the percentage distribution of the respondents & the simplest technique which allow the presentation of the frequency of values observed easily. All the data is processed, their analysis and interpretation also used a Statistical Package for the Social Sciences (SPSS 20). While the data is obtained with the unstructured interview, it was analyzed qualitatively using sentences and phrases by bringing the common ideas and concepts of the responses together into a common understanding.

3.6. Validity and Reliability of the Instruments

To ensure reliability of the research instrument, the questionnaires were prepared in advance and pre-tested using a small (15) number of respondents, randomly selected from target respondents. This is also assisted the removal of any ambiguities hence focused the questionnaire to collect data relevant to the study. The researcher also did Cronbach's alpha test to check reliability, of the questionnaire using SPSS 20. The reliability of the questionnaire is presented in the table below indicates that the proposed constructs have a relatively high reliability, having a Cronbach's alpha value ranging from 0.715 – 0.822, which is considered as satisfactory. Nunally (1978) suggested that the minimum of 0.70 would be an acceptable level. Similarly, it has been stated on (Hair et al., 1998) that, a commonly used value for acceptable reliability is 0.70

In addition, the researchers gave the questionnaire for advisor opinion to ensure validity of the data collection instrument. This involved going through the questionnaire in relation to the set objectives and making sure that they contain all the information that can enable answer these objectives.

Table 3.1 Reliability Result of the Constructs

No.	Variables	Cronbach's Alpha	No. of Items	Scale
1	Project integration management	0.715	5	1-5
2	Project quality management	0.744	5	1-5
3	Project resource management	0.733	3	1-5
4	Project communication management	0.762	4	1-5
5	Project risks management	0.770	4	1-5
6	Project procurement management	0.822	3	1-5
7	Project stakeholder management	0.781	3	1-5

3.7. Research Ethics

During a study of research, the researcher or data collector should not treat people unfairly or badly. He or she should not harm people, or use the information he/she discovers in his/her research to harm them, or allow it to be used to do harm (Fisher, 2007). Thus, the researcher followed ethically and morally acceptable processes throughout the research process. The data were collected with the full permission of the participants and confidentially without disclosing the respondents' identity.

According to Kumar and Kandasamy (2012) ethical considerations in research work are the following:

- **Right to choose;** everyone has the right to determine whether or not to participate in a marketing research project.
- **Right to be informed:** Research participants have the right to be informed of all aspects of a research task. Knowing what is involved, how long it takes, and what was done with the data, etc.
- **Right to Privacy:** all consumers have the right to Privacy.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1. Introduction

In this chapter of the study, the data collected from the respondents through questionnaire is analyzed and interpreted. To analyze the collected data from the questionnaires distributed in line with the overall objective of the research, statistical procedures were carried out using SPSS q20.0 software. The questionnaire were developed in five scales ranging from five to one; where 5 represents Strongly agree, 4 agree, 3 Neutral, 2 disagree, and 1 strongly disagrees. While Qualitative analysis is done for the unstructured interviews conducted.

4.2. Respondents' Demographics

In this section, the personal profile of respondents is presented. This includes Gender, Age, working position and Educational qualification.

Table 4.1 Demographic information of the respondents'

No.	Description	Respondent		Total		
		Frequency	%	N	%	
1	Educational qualification	PhD	2	3.5	57	100
		Masters Degree	4	7.0		
		First Degree	49	86.0		
		Diploma	2	3.5		
2	Working position	Project /site manager	4	7.0	57	100
		Project coordinator	1	1.8		
		Site/office engineer	32	56.1		
		Site supervisor	9	15.8		
		Resident engineer	1	1.8		
		Project member	10	17.5		

Source: own survey, 2019

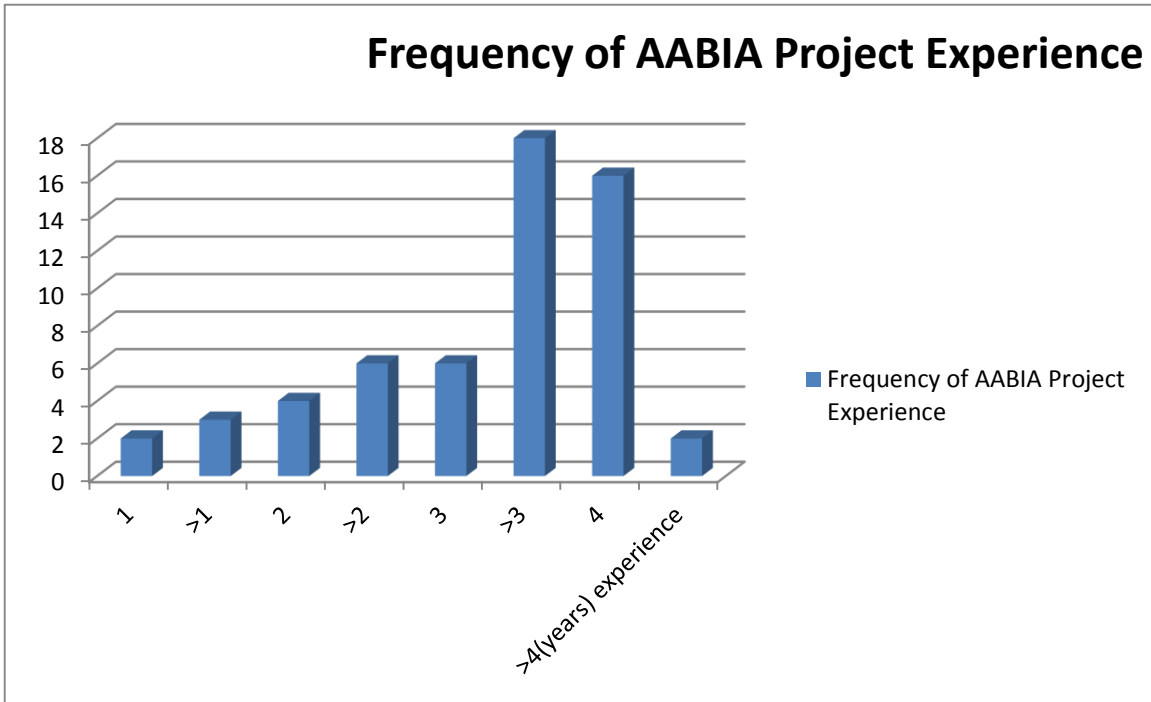


Figure 4.1 Respondents' service period on AABIA Expansion project
 Source: own survey, 2019

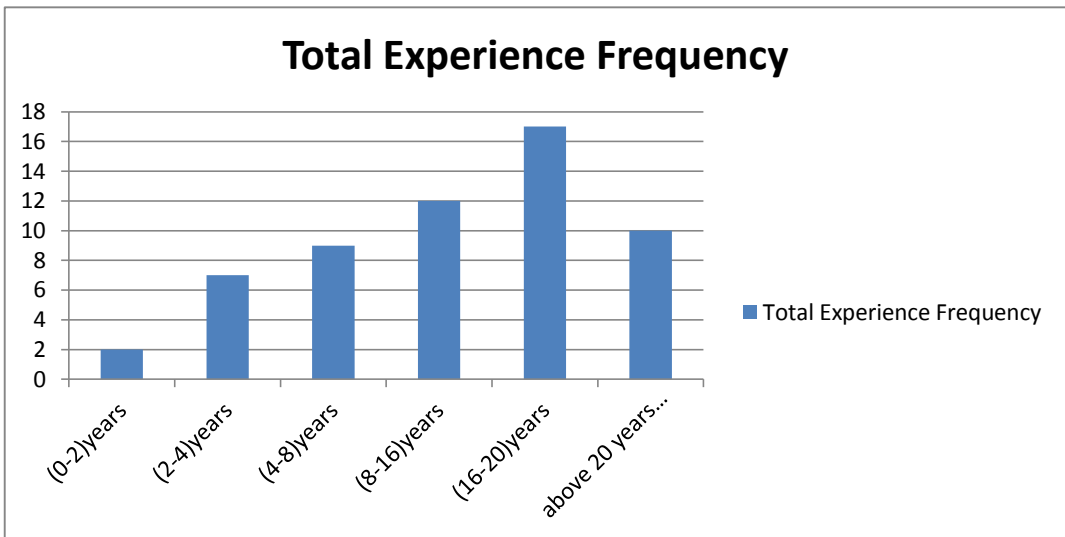


Figure 4.2 Respondents' total experience on other projects
 Source: own survey, 2019

As shown on above both figures, most of the respondents have between 3 & 4 years AABIA expansion project experience and most of them have above 8 years total work experience including other projects. This result show that most of the respondents have

been involved since the starting period of the project and who have more experience & worked on another projects which helps this paper work to obtain genuine data from the responses of the questionnaire & to answer according research questions properly.

4.3. Assessing the general question raised about the project

Table 4.2 General Background about the project

No.	Description			Respondent		Total		
				Frequ ency	%	N	%	
1	Major challenges of the project	Internal	Lack of clarity in scope	yes	26	45.6	57	100
				no	31	54.4		
			Time, Cost and Quality	yes	49	86.0	57	100
				no	8	14.0		
			Resource	yes	15	26.3	57	100
				no	42	73.7		
			Finance	yes	20	35.1	57	
		no		37	64.9			
		Policies and procedures	yes	32	56.1	57	100	
			No	25	43.9			
		External	Organizational culture	yes	31	54.4	57	100
				no	26	45.6		
			Government	yes	12	21.1	57	100
				no	45	78.9		
Environment	yes		7	12.3	57	100		
	no	50	87.7					
2	Training Access	Yes	Monthly		6	10.53	57	100
			Quarterly		2	3.5		
			Semi-Annually		6	10.53		
			Yearly		2	3.5		
			Once		4	7.0		
			No Response		0	0		
		No	37	64.9				
3	Status of the project Success	Very Successful			4	7.0	57	100
		Successful			11	19.3		
		Fairly Successful			36	63.2		
		Not Successful			6	10.5		

Source: own survey, 2019

On the above table, which shows the general background of the project and for the major challenges of the project, some of the respondents mention that there are main internal

challenges like Time, Cost and Quality & Lack of following procedures & policies while organizational culture is responded by the respondents as the main challenges of external. This shows that the project faces both internal and external challenges. Concerning the training access in the project, most the respondents agreed that there is less training access in the project & the contractor company. From those few trainings most of them were human safety (HSSE) trainings even though the rules were not practiced well on the site. With the respect to the status of the project success, only some respondents rated it as a successful project, and mostly responded as a project that was fairly successful; while few respondents didn't agree about the successfulness of the project. This shows that the project lacks some inputs to be more successful.

4.4. Assessing the project implementation practice using the project management knowledge areas

Assessments of each of the project implementation practices is obtained by using percentages of frequency distribution and responses of respondents under each knowledge areas and results are discussed in the following sections.

Table 4.3 Project integration management

NO.	Variables	Type	Frequency	Percent
1	Project deliverables were directed & managed on the project	Strongly Agree	1	1.8
		Agree	6	10.5
		Moderately Agree	39	68.4
		Disagree	6	10.5
		Strongly Disagree	5	8.8
		TOTAL	57	100
2	Project tools & techniques like Expert judgment and meetings were conducted & managed during the execution	Strongly Agree	3	5.3
		Agree	22	38.6
		Moderately Agree	31	54.4
		Disagree	1	1.8
		Strongly Disagree	0	0
		TOTAL	57	100
3	There was effective coordination of project activities in the project	Strongly Agree	1	1.8
		Agree	7	12.3
		Moderately Agree	17	29.8

		Disagree	19	33.3
		Strongly Disagree	13	22.8
		TOTAL	57	100
4	Work performance data, change requests, PMP update and project documents update were directed & managed	Strongly Agree	2	3.5
		Agree	19	33.3
		Moderately Agree	23	40.4
		Disagree	12	21.1
		Strongly Disagree	1	1.8
		TOTAL	57	100
5	Project knowledge was managed	Strongly Agree	4	7
		Agree	10	17.5
		Moderately Agree	32	56.1
		Disagree	11	19.3
		Strongly Disagree	0	0
		TOTAL	57	100

Source: own survey, 2019

The above table illustrates that some of the respondents disagreed on the three factors of project integration management practice in the project which are coordination of the project activities, 33%, managing of work performance data, change requests & project documents, 21.1% and managing of project knowledge, 19.3%. Especially, majority of the respondents was disagreed on effective coordination of project activities. This statement has been supported by the interview conducted with the resident engineer, who elaborated by stating the project focuses on giving sub contracts to different subcontractors without coordinating & integrating their activities together. Since each subcontractor was working by his schedules, one subcontractor late activity was done before the precedence activity of another subcontractor. The resident engineer said that the project delay and some unattained goals may not have happened if integration of activity was practiced in the project.

Generally except effective coordination of project activities, all project integration factors were almost moderately agreed by the respondents.

Table 4.4 Project Quality management

NO.	Variables	Type	Frequency	Percent
1	Under Perform Quality Assurance, appropriate tools like quality management & control tools and Quality audits were used and implemented	Strongly Agree	2	3.5
		Agree	14	24.6
		Moderately Agree	29	50.9
		Disagree	11	19.3
		Strongly Disagree	1	1.8
		TOTAL	57	100
2	Change requests were performed properly under Perform Quality Assurance for document modification	Strongly Agree	3	5.3
		Agree	15	26.3
		Moderately Agree	22	38.6
		Disagree	16	28.1
		Strongly Disagree	1	1.8
		TOTAL	57	100
3	PMP updates & Project documents Updates were performed under Perform Quality Assurance	Strongly Agree	3	5.3
		Agree	10	17.5
		Moderately Agree	20	35.1
		Disagree	19	33.3
		Strongly Disagree	5	8.8
		TOTAL	57	100
4	Results were monitored to check if they comply with the quality standards identified	Strongly Agree	4	7.0
		Agree	14	24.6
		Moderately Agree	24	42.1
		Disagree	10	17.5
		Strongly Disagree	5	8.8
		TOTAL	57	100
5	Project quality performance were evaluated on regular basis	Strongly Agree	6	10.5
		Agree	15	26.3
		Moderately Agree	21	36.8
		Disagree	10	17.5
		Strongly Disagree	5	8.8
		TOTAL	57	100

Table 4.4 shows the results obtained in response to the questions asked regarding the practice of project quality management. Even though most of the respondents were moderately agreed in all project quality implementation factors, factors like implementation of appropriate project quality audits, project quality document updates & change requests, and result monitoring comply with the quality standards & quality

performance evaluation were disagreed by some percentages of respondent, 19.3, 33.3, 28.1, 17.5 & 17.5 % respectively. . This has been supported by the unstructured interview conducted with the construction manager stated that, since the project activities were delayed from initially ,the clients were more concerned about the progress of the project; therefore the projects quality standards were sacrificed due to a high need of progress.

Table 4.5 Project Resource Management

NO.	Variables	Type	Frequency	Percent
1	Proper acquiring and assigning human resources & other resources	Strongly Agree	3	5.3
		Agree	6	10.5
		Moderately Agree	16	28.1
		Disagree	21	36.8
		Strongly Disagree	11	19.3
		TOTAL	57	100
2	Project team was developed	Strongly Agree	5	8.8
		Agree	2	3.5
		Moderately Agree	22	38.6
		Disagree	20	35.1
		Strongly Disagree	8	14.0
		TOTAL	57	100
3	Project team was managed	Strongly Agree	2	3.5
		Agree	7	12.3
		Moderately Agree	18	31.6
		Disagree	21	36.8
		Strongly Disagree	9	15.8
		TOTAL	57	100

In the above table, there was a disagreement on project resource management factors by most of the respondents except better on developing of project team in human resource management. Both Proper acquiring & assigning resources and managing project team disagreed by 36.8%, whereas, for developing project team moderately agreed by 38.6%. But more number of moderately agreements by the respondents wasn't show that the project teams were well developed because not few respondents were strongly disagreed by that. Strongly disagreement was given by the respondents, 19.3,14 & 15.8 % respectively on the three project resource management factors.

During the interview conducted with the project coordinator it is understood that most of the problems were linked with human resource management. Many local engineers & employees of the contractor weren't assigned properly, and the workers were not effectively managed to give their maximum potential to the project especially on the site. He said that it wasn't applied for the proper project team management, and controlling would have been more interesting and effective if there were incentives to the project team. Therefore, there was bad frustration & lack of satisfaction on the site supervisors & other contractor employees as he explained.

Table 4.6 Project Communication Management

NO.	Variables	Type	Frequency	Percent
1	Creating basic project information available to project stakeholders in accordance to the communications management plan	Strongly Agree	6	10.5
		Agree	15	26.3
		Moderately Agree	24	42.1
		Disagree	7	24.6
		Strongly Disagree	5	8.8
		TOTAL	57	100
2	Proper Collecting and disseminating performance information	Strongly Agree	1	1.8
		Agree	13	22.8
		Moderately Agree	27	47.4
		Disagree	5	8.8
		Strongly Disagree	11	19.3
		TOTAL	57	100
3	The information being communicated to project stake holders has been appropriately generated, as well as received & understood	Strongly Agree	2	3.5
		Agree	14	24.6
		Moderately Agree	28	49.1
		Disagree	2	3.5
		Strongly Disagree	11	19.3
		TOTAL	57	100
4	Manage the communication in the contractor side & with stakeholders	Strongly Agree	2	3.5
		Agree	17	29.8
		Moderately Agree	24	42.1
		Disagree	8	14.0
		Strongly Disagree	6	10.5
		TOTAL	57	100

Most of the respondents as shown on Table 4.6, put themselves on agree and moderately agree scale of response for the questions raised on the factors of the project communication management. The respondents were agreed by 26.3, 22.8, 24.6 & 29.8 % respectively on the four project communication management factors, whereas, moderately agreed by 42.1, 47.4, 49.1 & 42.1 % respectively.

This was also supported by the interview held with the resident engineer by elaborating that, the AABIA project; it was somehow effective in practicing project communication management except some lack of communication between site & design department on the contractor side.

Table 4.7 Project Risks Management

NO.	Variables	Type	Frequency	Percent
1	Risks were identified and documented properly in the project implementation phase	Strongly Agree	1	1.8
		Agree	12	21.1
		Moderately Agree	21	36.8
		Disagree	17	29.8
		Strongly Disagree	6	10.5
		TOTAL	57	100
2	Perform appropriate Qualitative Risk Analysis	Strongly Agree	1	1.8
		Agree	13	22.8
		Moderately Agree	27	47.4
		Disagree	15	26.3
		Strongly Disagree	1	1.8
		TOTAL	57	100
3	Perform appropriate Quantitative Risk Analysis	Strongly Agree	1	1.8
		Agree	10	17.5
		Moderately Agree	22	38.6
		Disagree	18	31.6
		Strongly Disagree	6	10.5
		TOTAL	57	100
4	Risk response plan was developed properly(appropriate risk response implementation)	Strongly Agree	0	0
		Agree	9	15.8
		Moderately Agree	26	45.6
		Disagree	16	28.1
		Strongly Disagree	6	10.5
		TOTAL	57	100

According to Table 4.7 which is intended to show the implementation practice of project risk management in the AABIA expansion project, it can clearly be seen that in all of implementation factors for project risk management majority of the respondents were moderately agreed. It indicates that implementation practice of project risk management was fairly executed in the project. And some respondents were also disagreed in the four variables by 29.8, 26.3, 31.6 & 28.1% respectively. The disagreement was supported by an interview with the resident engineer that, in some activities risks were not identified & registered and it was randomly starting of tasks without careful planning proactively; instead it was reactive. As he said, because of that when problems were happen, solving problems inappropriately without proper risk response plan was an issue in some part of the project. This was also resulted for unnecessary wastages, materials shortages, quality compromising & project delay in the contractor side, as the resident engineer explained.

Table 4.8 Project Procurement Management

NO.	Variables	Type	Frequency	Percent
1	Appropriate quotations, bid, offers or proposal were obtained	Strongly Agree	3	5.3
		Agree	16	28.1
		Moderately Agree	23	40.4
		Disagree	14	24.6
		Strongly Disagree	1	1.8
		TOTAL	57	100
2	Proper potential sellers/ suppliers selection after appropriate evaluation	Strongly Agree	3	5.3
		Agree	18	31.6
		Moderately Agree	22	38.6
		Disagree	13	22.8
		Strongly Disagree	1	1.8
		TOTAL	57	100
3	Sellers or suppliers relationship were managed after awarding the contract	Strongly Agree	1	1.8
		Agree	14	24.6
		Moderately Agree	26	45.6
		Disagree	14	24.6
		Strongly Disagree	2	3.5
		TOTAL	57	100

As can be seen in the above table, almost all of the factors under the implementation practice of project procurement management show a positive response from the

respondents by moderately agree & agree. But there were some respondents who disagreed on those questions by 14, 13 & 14% respectively.

According to the construction manager, even though more attention was given to project procurement management during the final phase of the project, improper supplier selection & difficulty to manage suppliers relationship after awarding of the contract were some challenges in the first period of the project. He said that, since some suppliers were entered informally by client's representatives & because of they were their relatives & friends, they were incapable financially & technically for the work. Therefore, the supplying were delayed & done inappropriately after awarding of the contract in some agreements, as the construction manager said.

Table 4.9 Project Stakeholder Management

NO.	Variables	Type	Frequency	Percent
1	There was effective communication with the project stakeholders	Strongly Agree	1	1.8
		Agree	13	22.8
		Moderately Agree	24	42.1
		Disagree	13	22.8
		Strongly Disagree	6	10.5
		TOTAL	57	100
2	Stakeholder's engagement was on time, therefore as new issues were identified and the current issues were resolved	Strongly Agree	2	3.5
		Agree	11	19.3
		Moderately Agree	25	43.9
		Disagree	12	21.1
		Strongly Disagree	7	12.3
		TOTAL	57	100
3	Stakeholders engagement was managed, therefore their expectation or needs were met	Strongly Agree	2	3.5
		Agree	13	22.8
		Moderately Agree	25	43.9
		Disagree	10	17.5
		Strongly Disagree	7	12.3
		TOTAL	57	100

Source: own survey, 2019

In the above table shows, although some respondents disagreed by 22.8, 21.1, & 17.5% respectively, most of the respondents were moderately agreed with the three factors of

project implementation practice under stakeholder's management. Therefore, this result shows AABIA expansion project has fairly a good practice regarding the project stakeholder implementation practices like communication with stakeholders, on the right time of stakeholder's engagement & about managing their expectation. But not few respondents were strongly disagreed on the three factors; it was by 10.5, 12.3 & 12.3% respectively. This also indicates that the project stakeholder's communication & engagement should be more improved & managed to satisfy the stakeholder's expectation.

The interview conducted indicate similar results regarding the implementation practice and confirmed that the stakeholder's communication between them & in the project was good, and main stakeholders were engaged as there was a weekly meeting between stakeholders to assure clear communication and mutual understanding. In addition, quarterly meetings were held between the project client representative and the board, in order to monitor project progress. Based on data taken from the interview, the project didn't include all key stakeholder's engagement initially due to there was a separate division of organization between Ethiopian airlines & Enterprise; but, since at the end of 3rd year of the expansion project ,Ethiopia government announced that to merge the two different companies as one organization .Therefore , key airlines stakeholders were engaged lately and was cause for delay of the project because of the additional scopes of the expansion project by the new stakeholder's requirements.

Generally, on the assessment of the general background of the project, most of the respondents responded that there are certain main internal challenges of the project like Time, Cost & Quality and Lack of following procedures & policies. According to the questionnaires filled by the respondents, especially quality, time & cost were taken as main internal problems of the project which was directly linked with the contractor performance. While organizational culture is responded by the majority of respondents as the main challenges of external. This was linked with the Chinese contractor company's culture due to the influence of China communism government, politics & country's cultures, according to the interview taken in the project office. Therefore, because of that the contractor's organizational culture was` highly influenced by the China communism

politics and this also affected the company policies and procedures in the project. According to the interview held with the project coordinator, the contractor organizational culture was a main difficulty for the project's consultant named as Airports de Paris Ingénierie (ADPI) to follow all the procedures required on the specification & airport standards of the project. Generally, the findings show that the project influenced by both internally and externally challenges

Despite some bias was observed in the result, the five of project management knowledge areas of project implementation practices (which are project quality, risk, communication, procurement & project stakeholder management) were the most undertaken practices by AABIA expansion project when analyzed using data of questionnaire responses. Almost all the above five knowledge areas of project implementation practices factors were responded by the respondents as they are practiced in the project. Although it was responded by majority of the respondents, some respondents were not believe as the five knowledge areas were practiced; therefore the findings show the practices were not practiced in fully extent.

But, the case is totally different for the two knowledge areas of project management, for project integration & human resource management. Most of the over all respondents were responded on the questionnaires about there was no coordination of the project activities in the project integration management practice. And also the majority of the respondents were agreed that there was no proper acquiring & assigning human resources and were believe that project team was not managed. Therefore, as it was showed in the finding from all frequency distribution tables, the two project management knowledge areas (project integration & human resource management) were not properly practiced on the project; whereas the five project management knowledge areas of project implementation practices (project quality, risk, communication, procurement & project stakeholder management) were more practiced than the two knowledge areas.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

In this chapter presented the summaries of the findings, conclusions derived from the analysis and the recommendations that can help to improve the project implementation practices of AABIA expansion Project.

5.2. Summary of major findings

According to the analysis, the below outlined findings were recognized;

And based on the answer given by the respondents for questions on general background of the project, the following summaries are made,

- ✓ About the challenges of the project, it can be generalized that the challenges of the project are both internal and external. From the external challenges only organizational culture was the main challenge of AABIA expansion project, whereas, lack of following policies & procedures, time, cost and quality as the major internal challenges of the project.
- ✓ In the case of training access in the organization, most of the respondents replied that there was less training access in the project as well as in the China Communication Construction Company (contractor side). Concerning to the successfulness of the project, most of them responded as the project was fairly successful, and only some respondents rated it as a successful project. But few respondents didn't agree about the successfulness of the project. Generally, the project lacks some inputs to be more successful.

According to the findings of the analysis for the project management body of knowledge areas in project implementation practices of AABIA expansion project, the following summaries are also made.

- ✓ Based on the finding of the analysis made on project integration management, majority of the respondents was disagreed on effective coordination of the project activities; and all project integration factors except on effective coordination of project activities were mostly moderate agreed by the respondents.
- ✓ Based on the finding of the analysis made on project quality management, most of the respondents were moderately agreed in all project quality implementation factors even though the factors like the implementation of appropriate project quality audits, project quality document updates & change requests, and result monitoring comply with the quality standards & quality performance evaluation were disagreed by some respondents.
- ✓ In the analysis of the responses of the respondents to figure out if project resource management was practiced in the project, there was a disagreement on project especially on human resource management factors by most of the respondents like proper acquiring & assigning human resources and managing the project team except on developing of project team with some extent.
- ✓ The finding on the project implementation practice of project communication management revealed that most of the respondents agreed and moderately agreed for the questions raised on the factors of the project communication management except some lack of communication between site & design department on the contractor side.
- ✓ Based on the finding of the analysis made on project risk management, in all of implementation factors majority of the respondents were moderately agreed. It indicates that implementation practice of project risk management was fairly executed in the project although some respondents were disagreed because of lack of appropriate of response plan on the project, which was also resulted for unnecessary wastages, materials shortages, quality compromising & project delay.
- ✓ In response to the questions about the project procurement management, almost all of the factors under the implementation practice show a positive response from the respondents by moderately agree & agree. There were also some respondents who disagreed due to improper supplier selection & difficulty to manage supplier's relationship after awarding of the contract.

- ✓ Finally, on the project stakeholder management analysis the finding summarize, AABIA expansion project has fairly a good practice regarding the project stakeholder implementation practices like communication with stakeholders, on the right time of stakeholder's engagement & about managing their expectation, except some respondents were strongly disagreed about their engagement on the initial phase of the project.

5.3. Conclusion

The main aim of the study was to assess the project implementation practices of AABIA expansion project using the seven project management knowledge areas and based on the findings of this study have led to the following conclusions.

The researcher concludes that implementing effective coordination of the project activities is a major problem in AABIA Expansion project.

The project lacks to give more focus on the practice of project human resource management due to lack of proper acquiring & assigning human resources and managing the project team which led to a major difficulty to manage the project based on the project schedules, budget & quality requirement. Therefore, high cost overrun & the project delay more than 50% of the planned completion time of the project was main problem which lead not to finish until now. From the finding it can also be concluded that the team members assigned to the project were not well trained & developed.

The project procurement management wasn't practiced properly on the initial phase of the project due to inappropriate selection of suppliers & lack of managing supplier's relationship after awarding of the contract.

Based on the findings of this study five of the project management knowledge areas of project implementation practices were practiced even though it was not with full extent & formal procedure. From the seven knowledge areas; project quality, risk, communication, procurement & project stakeholder management were practiced adequately but not in complete intent. From the five practiced knowledge areas of the project implementation

practices, project procurement & communication management were executed more adequately than the others knowledge areas.

Finally, the researcher concluded that, the implementation practices of AABIA expansion project are practiced well except on project integration & human resource management even though they lack some proper practices on the five knowledge areas. Generally, the finding has been shown that the project lacks to apply most of the knowledge areas of project implementation practices exhaustively.

5.4. Recommendation

These recommendations include in improving the implementation practice of project management knowledge based on implemented airport expansion project in Addis - Ababa. The following possible recommendations are provided by the researcher.

- In order to have appropriate project quality practice, clients & stakeholders of the project should be concerned about the quality standard of the project or specification of the contract, and should see in a parallel way of the project schedule or time rather than only focusing on the progress of the project. Therefore the main stakeholders or clients should be involved and attended mainly in the project quality meetings (non conformance meeting) rather than focusing on progress meeting only.
- Since projects doesn't exist and cannot be longer without human resources, adequate human resource management is critical way for the success of projects & good practice of project management; therefore, on proper acquiring & assigning of human resources as well as managing of project teams has to be focused for healthy human resource management & project success. The team members assigned to the project also should be well trained & managed. Linking of appropriate work break down structures (WBS) with the project & site organization charts properly also recommended for managing the proper assigning of human resources.

- It should be existed a proper line of communication between site & design department in order to prevent unnecessary costs & delay of project's progress especially in Design –Build contract projects due to a repeated design changes.
- Project has uncertain business behavior and is based on the nature of its goal to create a unique product or service. Hence, major concern should also be given to implementation of project risk management by registering, prioritizing risks and their implication on the project by performing appropriate qualitative & quantitative risk analysis; and develop proper risk response plan, prepare risk management plan, so as to monitor and control the identified risks.
- Appropriate project procurement management should be implemented from the start to end period of the project.
- Since lack of early key stakeholder engagement in the project will cause for delay & other problems of the project, all key project stakeholders should be involved from initial phase of the project & their requirement should be first identified.
- Project integration management is one of the knowledge areas that should extensively be applied in the AABIA expansion project; so that, lack of effective coordination of project activities should be maintained by focusing on giving of sub contracts to different subcontractors with closely managing the coordination of each subcontract activities as one integrated project outcome.
- All the project implementation practices which seem to be implemented in the project need to follow in the full extent & the formal procedures of project management.

5.5. Future Studies

For the future studies & further research, the researcher recommends including additional PMBOK areas of project implementation practices like project HSSE management as extensive knowledge areas of construction; whereas this study focused only on the seven knowledge areas of project management.

Since project implementation practice & practice of project management in Ethiopia is late, it is recommended that a wider research can be conducted in detail by including various national & international projects in the country to compare their project implementation practices.

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APPENDIX A:

Questionnaires

ST.MARY’S UNIVERSITY

School of Graduate Studies

Assessing the Project Implementation practices:

A case study on Bole Airport Expansion Project

Survey questionnaire

Dear Respondent!

I refer to the above subject matter and hereby confirm that I am a post graduate student for MA in **Project Management** in the above named institution, carrying out a thesis paper to finish my master degree. All responses given in this regard will be handled in strict confidence.

Your understanding and co-operation are being solicited for providing all necessary information needed to accomplish the objective of this study.

Thank you in advance for taking part in this endeavor.

Kind Regards
Habtamu

Section A: Demographic characteristics and general background of the respondents

1. What is your Gender?

Male

Female

2. Position?

Project coordinator/stakeholder Project/Site/construction manager

Site/mechanical/sanitary/electrical/façade/quality engineer other

Resident engineer/quantity surveyor planning/electro mechanical Engineer

3. Age in years:

20 – 30

31 – 40

41 – 50

Greater than 50

4. Indicate your Level of Education

Diploma Degree Post Graduate Doctorate

5. Total experience in project work (in year) _____

Section B: General issues about the project

1. Major Challenges of the Project:-

Internal

Lack of clarity in the scope of the project []

Time, cost and quality []

Resources []

Finance []

Policies and procedures []

External

Organizational culture []

Government []

Environment []

2. Is there a project management training access in the project or organization?

Yes []

No []

3. If your answer on Question number (3) is yes, how often?

Monthly [] Quarterly [] Semi-annually [] Yearly [] Once []

4. What is the status of your project in terms of success?

Very successful [] Successful [] fairly Successful [] Not Successful []

Section C: Project implementation practices on AABIA Expansion project related to the ten Knowledge Areas of Project Management

5. What is your level of perception with the following statements “Project implementation practices on AABIA Expansion project”? Circle Using a scale of 1 to 5 where 1 = strongly disagree, 2= disagree, 3= moderately agree, 4= agree, and 5 = strongly agree.

<i>s.n</i>	<i>Descriptions</i>	<i>Strongly disagree(1)</i>	<i>Disagree (2)</i>	<i>Moderately agree (3)</i>	<i>agree (4)</i>	<i>Strongly agree (5)</i>
1	<i>Project integration management</i>					
1.1	Project deliverables were directed & managed on the project	1	2	3	4	5
1.2	Project tools & techniques like Expert judgment and meetings were conducted & managed during the execution	1	2	3	4	5
1.3	There was effective coordination of project activities in the project	1	2	3	4	5
1.4	Work performance data, change requests, PMP update and project documents update were directed & managed	1	2	3	4	5
1.5	Project knowledge was managed	1	2	3	4	5
2.	<i>Project quality management</i>					
2.1	Under Perform Quality Assurance, appropriate tools like quality management & control tools and Quality audits were used and implemented	1	2	3	4	5

<i>s.n</i>	<i>Descriptions</i>	<i>Strongly disagree(1)</i>	<i>Disagree (2)</i>	<i>Moderately agree (3)</i>	<i>agree (4)</i>	<i>Strongly agree (5)</i>
2.2	Change requests were performed properly under Perform Quality Assurance for document modification	1	2	3	4	5
2.3	PMP updates & Project documents Updates were performed under Perform Quality Assurance	1	2	3	4	5
2.4	Results were monitored to check if they comply with the quality standards identified	1	2	3	4	5
2.5	Project quality performance were evaluated on regular basis	1	2	3	4	5
3	Project resource management					
3.1	Proper acquiring and assigning of resources	1	2	3	4	5
3.2	Project team was developed	1	2	3	4	5
3.3	Project team was managed	1	2	3	4	5
4	Project communication management					
4.1	Creating basic project information available to project stakeholders in accordance to the communications management plan.	1	2	3	4	5
4.2	Proper Collecting and disseminating performance information	1	2	3	4	5
4.3	The information being communicated to project stakeholders has been appropriately generated, as well as received &	1	2	3	4	5

<i>s.n</i>	<i>Descriptions</i>	<i>Strongly disagree(1)</i>	<i>Disagree (2)</i>	<i>Moderately agree (3)</i>	<i>agree (4)</i>	<i>Strongly agree (5)</i>
	understood					
4.4	Manage the communication in the contractor side & with stakeholders	1	2	3	4	5
5	Project risks management					
5.1	Risks were identified and documented properly in the project implementation phase	1	2	3	4	5
5.2	Perform appropriate Qualitative Risk Analysis	1	2	3	4	5
5.3	Perform appropriate Quantitative Risk Analysis	1	2	3	4	5
5.4	Risk response plan was developed properly	1	2	3	4	5
6	Project procurement management					
6.1	Appropriate quotations, bid, offers or proposal were obtained	1	2	3	4	5
6.2	Proper potential sellers/ suppliers selection after appropriate evaluation	1	2	3	4	5
6.3	Sellers or suppliers relationship were managed after awarding the contract	1	2	3	4	5
7	Project stakeholder management					
7.1	There was effective communication with the project stakeholders	1	2	3	4	5
7.2	Stakeholder's engagement was on time, therefore as new issues were identified and the current issues were	1	2	3	4	5

<i>s.n</i>	<i>Descriptions</i>	<i>Strongly disagree(1)</i>	<i>Disagree (2)</i>	<i>Moderately agree (3)</i>	<i>agree (4)</i>	<i>Strongly agree (5)</i>
	resolved.					
7.3	Stakeholders engagement was managed, therefore their expectation or needs were met	1	2	3	4	5

Thank you for giving your precious time!!!

APPENDIX B:

Reliability Test Tables

Reliability test table for the overall questions based on the seven project management knowledge areas

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.762	.750	4

Scale: Project Communication Management Factors

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.733	.724	3

Scale: Project Resource Management Factors

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.715	.705	5

Scale: Project Integration Management Factors

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.770	.761	4

Scale: Project Risk Management Factors

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.744	.734	5

Scale: Project Quality Management Factors

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.781	.768	3

Scale: Project Stakeholders Management Factors

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.822	.822	3

Scale: Project Procurement Management Factors