

**ADDIS ABABA UNIVERSITY
SCHOOL OF COMMERCE**



**ASSESSMENT ON PRACTICES OF STAKEHOLDER MANAGEMENT IN THE
ETHIOPIAN CONSTRUCTION SECTOR**

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**A Research Project Submitted to Addis Ababa University School
of Commerce in Partial Fulfillment of the Requirements for the
Award of Masters of Arts Degree in Project Management**

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Addis Ababa, Ethiopia**

DECLARATION

I, the undersigned, declare that this study entitled as “**ASSESSMENT ON PRACTICES OF STAKEHOLDER MANAGEMENT IN THE ETHIOPIAN CONSTRUCTION SECTOR**”, is my own work. I have carried out all the research project works independently with the guidance and support of the research advisor. This study had not been submitted to any degree/diploma in this school or any other institution.

Rediate Mekuria

Signature: _____

Date: -----

CERTIFICATION

This is to certify that this project work, **“ASSESSMENT ON PRACTICES OF STAKEHOLDER MANAGEMENT IN THE ETHIOPIAN CONSTRUCTION SECTOR”** which is undertaken by Rediate Mekuria in partial fulfillment of the award of Master’s degree in Project Management at Addis Ababa University School of Commerce, is an original work of her own and not submitted earlier for any degree either at this University or at any other University.

Solomon M. (PhD)

Project Work Advisor

Date

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Table of Contents

Contents	Page
CHAPTER- ONE	
INTRODUCTION	
1.1) BACKGROUND OF THE STUDY	1
1.2) BACKGROUND OF THE ORGANIZATIONS	2
1.3) PROBLEM STATEMENT	4
1.4) RESEARCH QUESTIONS	6
1.5) OBJECTIVES OF THE STUDY	6
1.5.1) GENERAL OBJECTIVES	6
1.5.2) SPECIFIC OBJECTIVES	6
1.6) SIGNIFICANCE OF THE STUDY	7
1.7) SCOPE OF THE STUDY	7
1.8) LIMITATIONS OF THE STUDY	8
1.9) ORGANIZATION OF THE STUDY	8
CHAPTER- TWO	
REVIEW OF RELATED LITERATURE	
2.1. CONCEPTUAL REVIEW (THEORETICAL PERSPECTIVE)	9
2.1.1) STAKEHOLDER MANAGEMENT	9
2.1.1.1) STAKEHOLDERS DEFINED.....	9
2.1.1.2) PROJECT STAKEHOLDERS	9
2.1.1.3) STAKEHOLDERS IN CONSTRUCTION	11

2.1.2) ROLE OF STAKEHOLDER MANAGEMENT IN PROJECT SUCCESS/ FAILURE	11
2.1.3) OVERVIEW OF THE STAKEHOLDER MANAGEMENT PROCESS	12
2.1.4) STAKEHOLDER IDENTIFICATION & ANALYSIS	13
2.1.4.1) IDENTIFYING STAKEHOLDERS, THEIR INTEREST & INFLUENCE	14
2.1.4.2) ANALYZING STAKEHOLDERS' RELATIONSHIPS	16
2.1.5) STAKEHOLDER ENGAGEMENT	17
2.2. EMPIRICAL REVIEW /EVIDENCE	20

CHAPTER- THREE

METHODOLOGY OF THE STUDY

3.1) THE RESEARCH DESIGN AND APPROACH	23
3.2) TARGET POPULATION OF THE STUDY	24
3.3) DATA COLLECTION: TYPES & SOURCES	24
3.3.1) TYPES OF DATA	24
3.3.2) SOURCES OF DATA	24
3.3.3) METHOD OF DATA COLLECTION.....	25
3.4) DATA ANALYSIS: PROCESSING, ANALYSIS, AND PRESENTATION	25
3.5) ETHICAL CONSIDERATIONS	25

CHAPTER- FOUR

DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1) INTRODUCTION	26
4.2) RESPONSE RATES	26
4.3) SECTION A- Background Information	27
4.4) SECTION B - Stakeholder Management Approach	31
4.5) SECTION C - Identifying Project Stakeholders.....	34

4.6) SECTION D – Stakeholder Assessment & Analysis.....	38
4.7) SECTION E - Stakeholder Engagement	40
4.8) SECTION F - Stakeholder Management & Project Success.....	43
4.9) SECTION G – Project Stakeholder Register	45

CHAPTER- FIVE

CONCLUSION AND RECOMMENDATION

5.1) CONCLUSION	50
5.2) RECOMMENDATION	53
REFERENCES	54
APPENDIX	A

LIST OF FIGURES:

Figure -2.1: Potential Stakeholders for Construction Projects	11
Figure -2.2: Information required for project stakeholder register	14
Figure -2.3: Stakeholder Salient Model	15
Figure -2.4: Stakeholder mapping using power/Interest Matrix.....	15
Figure -4.1: Gender of Respondents	27
Figure -4.2: Educational Qualification.....	27
Figure -4.3: Construction working experience of respondents	28
Figure -4.4: Nature of the project	29
Figure -4.5: Estimated project cost.....	30
Figure -4.6: Role in the project	31
Figure -4.7: Current stakeholder management practice.....	32
Figure -4.8: Usage of stakeholder management software	33
Figure -4.9: Project stakeholder register.....	45
Figure -4.10: PSH identification stage in PLC	47
Figure -4.11: Does poor PSM causes project overrun?	48
Figure -4.12: Importance of PSM	49

LIST OF TABLES:

Table-2.1: Project Stakeholders & their r/sps to the PM	10
Table-2.2: Approaches for Stakeholder Analysis & Engagement in Construction.....	18
Table-4.1: Type of Stakeholder software	33
Table-4.2: Identifying project stakeholders	35
Table-4.3: Methods to identifying project stakeholders	36

Table-4.4: Issues about PSH	37
Table-4.5: Assessing PSH Information & Interest	38
Table-4.6: Project Stakeholders attribute	39
Table-4.7: Stakeholder Engagement Strategy	41
Table-4.8: Stakeholder Engagement Method.....	42
Table-4.9: Stakeholder Management & project success.....	43
Table-4.10: Stakeholder Information & documentation.....	46

ACRONYMS & ABBREVIATIONS

PLC: Project Life-Cycle

PM: Project Manager

PSH: Project Stakeholder

SH: Stakeholder

PSM: Project Stakeholder Management

AAU – Addis Ababa University

SPSS – Statistical Packages for Social Sciences

PMBOK – Project Management Body of Knowledge

PMI – Project Management Institute

TPMO= Transport Program Management Office

MoH- Ministry of Health

AA- Addis Ababa

ABSTRACT

The aim of this study is to develop an understanding of the theoretical basis and practical implementation of stakeholder management in the construction industry and to evaluate the awareness of stakeholder management amongst project managers in the construction industry in Ethiopia. Consequently, the focus of this study is the evaluation of stakeholder management practices and approaches practiced by project managers and assessment of the impact of stakeholder management on project success in the selected construction organizations that are recently functioning in Ethiopia. The research findings which have been summarized and presented in this study were carried out based on four local construction companies namely Rama Construction, MH Engineering, Bereket Tesfaye Consulting Architects & Engineers and Transport program Management Office (TPMO). For the reason that the prime purpose of the study is to investigate the stakeholder management experience of the designated institutions as practiced in their respective projects, this study has made use of descriptive method of research design. In the meantime, mixed research approach has been adopted to carry out the study. The target populations of this study are the project managers and resident engineers in the selected organizations who are working in Addis Ababa. Because the target population is smaller in number, it is a census study. Since the study mainly focused on those individuals who had experience with project stakeholder management, a non-probability purposive sampling technique was adopted. The findings of this project highlight the importance of stakeholder management in construction projects. The results of the survey show that most respondents advocate that effective stakeholder management is a critical factor in the achievement of both hard and soft project success criteria. The outcomes of the survey of project managers in the construction industry in Ethiopia, particularly in the selected four companies, considered the majority of analysis and engagement methods as effective. The particular method adopted is often dependent on the characteristics of the project and stakeholders. But as seen from the results, almost half of the respondents did not document the stakeholder information in Stakeholder Register nor use stakeholder management software. The results suggest construction project managers in Ethiopia lack the implementation to undertake stakeholder management processes in accordance with a standardized methodology. According to the result, most Project managers in the Ethiopian construction sector are aware of stakeholder management and its significance to project success but their position on project stakeholder management (PSM) is very wavering and unreliable. In addition to this, project stakeholder management efforts are not being supported by the allocation of adequate funds and other non-financial assistances. Finally, the new knowledge of stakeholders' influence strategies and better understanding of how construction projects can deal with stakeholder influences supports project managers in the development of effective project stakeholder management approaches.

Keywords: Project Stakeholders, Project Stakeholders Management, Project Success

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

Construction project management, as a discipline, has focused on the process of planning, and managing the complex array of activities required to deliver a construction project. Different stakeholders have different levels and types of investments and interests in projects in which they are involved (Atkin and Skitmore, 2008). Today almost every project takes place in a context where stakeholders play a major role in the accomplishment of the tasks. Often the project is sensitive to actions and decisions taken by the stakeholder (Karlsen, 2002).

Stakeholders need to be identified and their power and influence mapped so that their potential impact on projects can be better understood. Appropriate strategies can then be formulated and enacted to maximize a stakeholder's positive influence and minimize any negative influence. This becomes a key risk-management issue for project managers. Failure to appreciate this has led to countless project failures, primarily because construction stakeholders have the resources and capability to stop construction projects. (Bourne and Walker, 2005)

The main steps involved in stakeholder management in construction projects include stakeholder identification, stakeholder analysis, stakeholder classification and formulating/adopting stakeholder management strategy (Cleland, 1999). Moreover, the effective use of communication, negotiations, intuition, incentives, concessions, and workshops/meetings are useful operational principles for managing stakeholders (Chinyio and Akintoye, 2008).

The construction industry makes significant contributions to the socio-economic development of countries. It constitutes a large part of the economy and contributes between 5 and 10 percent of gross domestic product (GDP) in all countries, employs up to 10 percent of the working population and responsible for about half of the gross fixed capital formation (Lopes, 2012).

The sector's contribution is greater in the case of developing countries including Ethiopia and the industry has been playing a crucial role in sustaining country's rapid and equitable socio-economic development and changing the livelihood of millions of peoples. (Derso, 2018). Information obtained from Ministry of Construction indicated that the sector had a 9.5 percent share from Ethiopia's total Gross Domestic Product (GDP) in 2016.

The Ethiopian construction industry is the major sector where public and private sectors are investing huge amount of budget. It has important contributions to the economy's growth through poverty reduction and increasing employment opportunities. The sector has registered a remarkable growth, over the last 11 years there has been increased investment on the development and expansion of various infrastructure projects (Construction Industry Development Policy, 2014). The sector is the second largest employing industry through creating jobs for over 1.8 million citizens thereby alleviating urban poverty. (Ibid)

Moreover, the industry has contributed to entrepreneurship and private sector's participation significantly increases in that the number of contractors, consultants and suppliers that are engaged in the construction business has shown steady progress. (Ibid)

Despite its significant importance and achievements in the last two decades, the Ethiopian construction industry has encountered challenges. Quality gaps, time and cost overruns attribute to the sector's poor performance. Furthermore, shortage of competent, certified human resources together with lack of effective construction project management system and the change resistant behavior of the industry has resulted in low productivity. The unreliable, import-dependent and inefficient supply chain of the construction materials, machineries and finance stated to worsen the situation (Ibid). The problem is further compounded by poor capital base of the local contractors and consultants, lack of credit facilities in the market and low level of investments through the sector.

The ability of project managers to deliver projects in a cost effective and efficient manner is crucial. Hence, the area of stakeholder management, which as described previously plays a significant role in the delivery of successful projects, is of critical importance to the economic performance of the Ethiopian construction industry.

The role of the project manager should involve not simply an understanding of the technical realities at hand, but also of the links between technology, the environment, the community and the people in it. Consequently, project managers for instance, have been reported to be having difficulties in analyzing the stakeholders adequately before adopting a stakeholder management strategy (Jepsen and Eskerod, 2009). This indicates the need to study the current practice of stakeholder management and the level of awareness among project managers on stakeholder management approaches in the construction projects.

This project aims to understand the role of stakeholder management and the factors that influence how it is employed in the construction industry from the perspectives of project managers. So as to achieve this aim, previous work on awareness of stakeholder management among project managers has been reviewed. The awareness of key stakeholder management approaches among project managers, the impact of stakeholder management on successful project delivery, the comparison of project manager's stakeholder management approach perception with the finding from stakeholder theory and the current practice of stakeholder management within the selected construction companies as perceived by the project managers were investigated using a survey among professionals practicing within Ethiopia.

1.2. Background of the Organizations

Rama Construction plc. - (contractor)

Rama Construction Private Limited Company is A Grade - I General Construction Company. The company is certified in Integrated System of Quality and Environmental Management System ISO 9001:2008 and ISO 14001:2004 Ethiopia. The Company was established in 1995 in Addis Ababa, registered under Ethiopian law.

Ever since its establishment the Company has successfully accomplished different construction works estimated at hundreds of millions of Birr for the Federal Government, Regional Governments and the Private sectors of Ethiopia. Currently the Company is undertaking a number of construction activities in different parts of the country. This company is engaged in both Building and Road construction work.

MH Engineering plc - (Consultant)

MH Engineering plc is an Ethiopian based independent firm offering a broad range of technical services specializing in Civil Engineering, Architecture and other related works. It is a grade 1 consultancy company. The company was established in 1997 with the primary objective of providing multi-disciplinary consulting services to the public as well as private firms engaged in the development of various types of economic and social infrastructures and buildings. The firm has the capacity to undertake such tasks as feasibility and engineering management studies, engineering services including design, supervision and contract administration of buildings, roads and other related works. It also provides services in other types of civil engineering works including surveying, structural, environmental and geo-technical engineering.

MH Engineering plc has a vision to be an international Engineering and Architectural consultancy firm known for professional and business integrity. It has designed more than 400 buildings and 15 road projects in the past ten years since its formation. MH Engineering plc is engaged in the design, supervision and contract administration of more than 200 buildings.

Transport Programs Management Office (TPMO) - (Client)

Transport Programs Management Office, currently called Transport Bureau, was established to: Lead & coordinate all transport projects (plans, undertake studies, initiate, develop, and operate transport projects), Provide advice and research based recommendations and strategic planning and build strong institutional capacity of various stakeholders to assure sustainable development of the transportation system of the City

TPMO has a vision of making Addis Ababa having up to standard road networks, providing urban public transport services, and establishing road traffic safety that is competent with that of middle income countries.

To assure the main objective, the company has made studies and strategic plan preparation, Institutional capacity building, Project coordination and integration, Sustainable operation of transport systems and services. The transport system solutions have to be integrated, coordinated, cost effective, environmentally friendly & safe project and program.

There are different departments and divisions in the firm. The construction division specifically is sub-divided into two: The Public Transport Infrastructure Department and Vehicle Parking Development Department. Under Public Transport Infrastructure Department there are Terminal and Depot projects.

While under Vehicle Parking Development Department, there are parking building, Surface parking and Smart parking projects.

Bereket Tesfaye Consulting Architects & Engineers

Bereket Tesfaye Consulting Architects & Engineers is a grade 1 consulting firm located in Addis Ababa, Ethiopia. It provides various services on Consulting and engineering business sectors using advanced technologies. The firm has the capacity to undertake such tasks as feasibility and engineering management studies, engineering services including design, supervision and contract administration of buildings, roads, railway, water supply, infrastructures and other related works. It also provides services in other types of civil engineering works including surveying, environmental engineering, etc...

1.3. Problem statement

In most situations the relationship with the stakeholder is taken care of by the project manager. Consequently, the results of the stakeholder management are dependent on the project manager's experience, relationships, and capability (Karlson, 2002).

Poor stakeholder management can lead to many serious problems in construction projects, such as: poor scope and work definition, inadequate resources assigned to the project (both in terms of quantity and quality), poor communication, changes in the scope of work and unforeseen regulatory changes, all of which may be the major source of delays and cost overruns (Yang et al., 2009). To ensure a successful project, the project manager & the team must identify the stakeholders, determine their requirements and expectations, and manage their influence in relation to the requirements.

Stakeholder management is not effectively practiced in the Ethiopian construction industry. As seen on different construction projects, project manager's incompetency to identify, analyze, prioritize and engage stakeholders in an efficient way has lead various projects to finish beyond the allocated time, budget, resource and also brought conflicts among different groups (professionals, institutions, community...). Ethiopia's project managers are not as adept as other European or Chinese managers; thus, making project management a hassle. Project managers for instance, have been reported to be having difficulties in analyzing the stakeholders adequately before adopting a stakeholder management strategy. Furthermore, shortage of competent, certified human resources together with lack of effective construction project management system and the change resistant behavior of the industry has resulted in low productivity in Ethiopia. Due to stakeholder management defect, poor scope definition, poor communication, changes in the scope of work and unforeseen regulatory changes, all of which may be the major source of delays and cost overruns attribute to the sector's poor performance.

There are a number of literatures available on stakeholder management theory. Furthermore, several authors have highlighted the importance of stakeholder management in the construction industry and developed frameworks for analysis and engagement of stakeholders. However, there is a knowledge gap on evaluating the awareness and attitudes of practitioners in the construction industry

to stakeholder management and assessing the factors that influence the stakeholder management approaches adopted in practice.

Based on a preliminary interview conducted with the project coordinators at Rama Construction and Bereket Tesfaye Consulting Architects and Engineers the researcher was able to identify the project management problems faced by the organizations and some of them include; within the consulting organization, the employer by itself doesn't know the responsibility and duty of the assigned project. Plus the capacity of the employer (client), knowledge wise and financially, for that specific task and project is questionable. On the contractor's side, one of the major problem that holds the company from managing the various projects on hand is cash flow (Payment is not released on time hence unhappy workers, materials are not available on time due to cash flow holdback, idle time of machineries on site etc.), the other problem is lack of thorough planning & scheduling before the project is undertaken. In the case of the contractor company, project management issues are undertaken by the project coordination department while in that of consulting firms, it is undertaken by contract administration and supervision department and large client companies have engineering departments. As gathered from the preliminary interview, there is a major problem in stakeholder management practices due to uncoordinated and unstructured stakeholder management practice in the organizations. No one wants to take responsibility to devise stakeholder management strategies & approaches so everyone works individually uncoordinated and not considering from the project's perspective. If there was a structured & coordinated stakeholder management strategy and practice within the construction organizations, the vast gap that prevails would have been minimized and many project failures would have been reduced. In most construction endeavors, the type of relationship between the stakeholders especially the internal stakeholders is sequential. The contractor firm reports the work progress to the consultant; the consultant determines if the project is going according to budget and if it's lagging behind and reports to the client. The client calls a meeting and discusses the issue. Collaboration of these stakeholders from the inception stage of the project is very poor, hence vast communication gap avails. Plus the soft skills of most project managers in the construction sector needs upgrading. In the selected companies as well as similar firms, stakeholder identification, analysis, assessment and engagement is not professionally implemented. The key stakeholders will be known at the start of the project but the external stakeholders are not identified and engaged in the project till it is finished unless the project is of mega magnitude like dam construction, irrigation projects & waterworks project. The community and end users will be involved in these types of projects since it concerns them.

This research tries to fill the knowledge gap by assessing the current stakeholder management practices of the construction sector, the impact of stakeholder management on project success as observed by project managers and the awareness and perception of stakeholder management approaches amongst project managers in the selected companies of the construction industry in Ethiopia.

1.4. Research questions

The research question is the most critical part of any research. Saunders et al. (2009) argue that the extent to which a clear set of conclusions are drawn from the data collected is determined by the clarity of the research questions. Furthermore, it is important to develop a research question that the researcher is interested in so that the researcher can completely focus on the research.

The research study is basically on the awareness level of project managers on the practices of stakeholder management in the construction projects of the three case companies.

The primary research question that motivated the researcher to undertake this project work is:

- What is the perception of stakeholder management amongst Project Managers in the Construction Industry in Ethiopia?

The sub research questions are as follows:

- ✓ What is the current practice of stakeholder management in the institutions under consideration? (Is stakeholder management done as a personal intuitive initiative or based on a conscious strategy for doing so?)
- ✓ What are the key stakeholder management approaches as perceived by project managers and how is their effectiveness measured?
- ✓ What is the impact of stakeholder management on successful project delivery as perceived by project managers?
- ✓ What factors & methodologies of stakeholder management influence how stakeholder management is employed in the construction industry from the perspectives of project managers as compared with stakeholder theories?

1.5. Objectives of the study

1.5.1. General Objectives

The general objective of this study is to rise our knowledge on the extent of awareness of stakeholder management practices among project managers in the construction industry in Ethiopia. The purpose of the research is to understand the role of stakeholder management and the factors that influence how it is employed in the construction industry from the perspectives of project managers.

1.5.2. Specific Objectives

The following objectives are the focus of the research /project work:

- A. To assess the current practice of stakeholder management within the selected construction companies as perceived by the project managers.
- B. To determine the awareness level amongst project managers on key stakeholder management approaches and measuring their effectiveness in the construction industry in Ethiopia.

- C. To assess the impact of stakeholder management on project success as observed by project managers
- D. To compare the perception of the key stakeholder management approaches amongst project managers in the selected construction companies in Ethiopia with the findings from stakeholder theory.

1.6. Significance of the study

The importance of this research stems from the essence of stakeholder management itself, for the reason that stakeholder management has been identified as one of the most important tools in determining any project success; the researcher acknowledges that stakeholders' reaction determines the achievement and failure of projects. Hence, every project management ought to struggle to keep project stakeholders satisfied as it is the only way to secure their support for the successful accomplishment of projects.

The findings of this study will have the following contributions: It will help to gain a better understanding of project stakeholder management and investigate the awareness of this subject amongst project managers in the construction industry in Ethiopia. It will also help assess the current practices of stakeholder management in the construction industry. The construction companies (contractors), consulting firms as well as clients in the construction industry will gain immense knowledge about stakeholder management approaches and the perceptions/attitudes of construction project managers on the subject matter; thereby prompting these internal stakeholders especially the selected case companies, to assess where the awareness/perception level of their project managers lays to take the necessary action to fill in the gap.

The findings can also initiate other researchers to carry out further studies after identifying the gaps that this study failed to address.

1.7. Scope of the study

Even though stakeholder management is a vast area of study covering various concepts under it, this study is delineated to stakeholder identification, analysis, perception level of project managers and approaches taken by project managers on managing stakeholders. This study is delimited to internal stakeholders (contractors, consultants, clients) performing various projects in different parts of Ethiopia. But this study mainly focuses on projects located in Addis Ababa. The selected contractor company is Rama Construction plc., Consulting Company is MH Engineering and Bereket Tesfaye consulting Architects & Engineers & Client Company is Transport Program Management Office (TPMO). This study mainly focuses on project managers working on site as well as at Headquarters; and focuses on the managers of the projects in their respective companies mentioned above.

1.8. Limitation of the study

The researcher experienced the following major challenges (limitations) during this research project work: The study focused on only four representative construction companies out of the many construction companies in the city which makes it difficult to generalize from, lack of willingness from some stakeholders to offer the researcher the information she needed, some project managers working in a high security project like the prime minister office and the palace project were inaccessible, some of the respondents who participated in the survey were not genuine when answering the questionnaires, poor research culture of the society, etc...

1.9. Organization of the study

This research report is organized into five chapters.

The first chapter provides the introductory aspect of the study which encompasses the background of the study, background of the organizations, statement of the research problem, the research question, objective of the study, scope of the study, significance of the study, limitations of the study .. This chapter is also devoted to rationalize why the researcher picked stakeholder management as her subject of study

The second chapter discusses literatures related to the study's subject of interest. This section of the study report is further subdivided into two sections: theoretical framework and empirical evidences. Here the researcher has made an attempt to link her research work with previous body of knowledge on the theme.

The third chapter is about the research design and methodologies employed. In this segment of the study report, the research design and methodologies chosen have been outlined and explained. Moreover, the validation behind the selection of each research methodology and research design has been justified.

The Fourth chapter is about data analysis and results. This chapter of the document describes the course of action relating to data processing, analysis, interpretation and presentation of findings.

The last chapter offers conclusions and recommendations. Here it is worth to mention that this section of the document summarizes the main research findings directing insights and recommendations for further studies in the area.

CHAPTER TWO

REVIEW OF RELATED LITERATURES

This chapter discusses the definition of stakeholder, stakeholder management, type of stakeholder, stakeholder identification, analysis and engagement and project stakeholder management in the construction industry.

In this section of the literature are two most important areas of relevance to this study. These are conceptual review (or theoretical perspectives) of stakeholder management approaches & methodologies and empirical review/empirical evidence into the project stakeholder management in the construction industry. These areas are discussed as here under.

2.1. CONCEPTUAL REVIEW (or THEORETICAL PERSPECTIVE)

2.1.1. Stakeholder management

2.1.1.1. Stakeholders defined

Larson and Gray (2011) describe project stakeholders as the “people and organizations that are actively involved in the project, or whose interests may be positively or negatively affected by the project”. Similarly, the PMBOK Guide defines project stakeholders as “an individual, group, or organization who may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project” (PMI, 2013). For construction projects, Bourne (2005) adopted a wider definition of stakeholders as “individuals or groups who have an interest or some aspect of rights or ownership in the project, and who can contribute in the form of knowledge or support, or can impact or be impacted by, the project”. For this research, the project stakeholder definition proposed in the PMBOK Guide is adopted for construction project stakeholders as:

“Stakeholders are individuals, groups, or organizations who may affect, be affected by, or perceive themselves to be affected by a decision, activity, or outcome of a construction project”.

2.1.1.2. Project stakeholders

Let’s take a look at project stakeholders and their relationships to the project manager. (Getahun, 2017)

Table 2.1. Project stakeholders and their relationships to the project manager

STAKEHOLDER GROUP	ROLES
TOP MANAGEMENT	Top management may include the president of the company, vice-presidents, directors, division managers, the corporate operating committee, and others. These people direct the strategy and development of the organization. If you have top management support, which means it will be easier to recruit the best staff to carry out the project, and acquire needed material and resources; also visibility can enhance a project manager’s professional

	standing in the company. If not, failure can be quite dramatic and visible to all, and if the project is large and expensive (most are), the cost of failure will be more substantial than for a smaller, less visible project. Some suggestions in dealing with top management are: Develop in-depth plans and major milestones that must be approved by top management during the planning and design phases of the project, Keep them informed of project risks and potential impacts at all times.
THE PROJECT TEAM	The project team is made up of those people dedicated to the project or borrowed on a part-time basis. As project manager, you need to provide leadership, direction, and above all, the support to team members as they go about accomplishing their tasks. Working closely with the team to solve problems can help you learn from the team and build rapport. Showing your support for the project team and for each member will help you get their support and cooperation.
MANAGER OF THE PROJECT MANAGER	Typically the boss decides what the assignment is and who can work with the project manager on projects. Keeping your manager informed will help ensure that you get the necessary resources to complete your project. If things go wrong on a project, it is nice to have an understanding and supportive boss to go to bat for you if necessary. By supporting your manager, you will find your manager will support you more often.
GOVERNMENT	Project managers working in certain heavily regulated environments will have to deal with government regulators and departments. These can include all or some levels of government from municipal, provincial, federal, to International.
CONTRACTORS, SUBCONTRACTORS, AND SUPPLIERS	There are times when organizations don't have the expertise or resources available in-house and work is farmed out to contractors or subcontractors. This can be a construction management professional, network consultant, electrician, carpenter, architect, or anyone who is not an employee. Managing contractors or suppliers requires many of the skills needed to manage full-time project team members. Engage in actual construction according to the designs, specifications, contract documents communicated by the relevant parties.
CONSULTANT	Provides the consultancy advice for the project on designing, evaluating the cost, technical issues/advice (engineering advice, electrical, civil etc).
CLIENT	The client can be public or private. The main difference between a private construction project and a public project is that the client and the beneficiary are the same in a private construction project and in the reconstruction housing project the main initiator is the government and benefit accrues to the community affected.

Source: Getahun Y. (2017) with some modifications)

2.1.1.3. Stakeholders in construction

The list of stakeholders in a construction project is often large and would include the owners and users of facilities, project managers, facilities managers, designers, shareholders, legal authorities, employees, subcontractors, suppliers, process and service providers, competitors, banks, insurance companies, media, community representatives, neighbors, general public, government establishments, visitors, customers, regional development agencies, the natural environment, the press, pressure groups, civic institutions, etc. Figure 2.1 presents the potential stakeholders in a construction project divided into internal and external stakeholders (Olander, 2006).

The number of stakeholders involved or interested in the project can dramatically increase the complexity and uncertainty of the situation.

Figure 2.1 : Potential stakeholders for construction projects



Source: Olander, 2006.

2.1.2. Role of stakeholder management in project success/failure

Stakeholder Management is the process of identification, analysis, communication, decision making and all other kinds of activities in terms of managing stakeholders (yang et al, 2011). Effective Stakeholder Management creates positive relationships with stakeholders through the appropriate management of their expectations and agreed objectives.

In the construction industry, researchers in the area of project success focus on two main interrelated topics, namely project success criteria and project success factors. Yong and Mustaffa (2012) define project success criteria as the measure by which a project will be judged as a success or failure. Project success factors are the factors that influence the project performance. Traditionally, the triple

constraints of cost, time and quality, described by Atkinson (1999) as “the iron triangle”, are the criteria utilized to measure project success in the construction industry. However, Chandra et al. (2012) argue that the requirements and satisfaction of the stakeholders are equally important project success criteria.

Particularly, the long-term success of major construction projects is determined by the project stakeholders’ perception of the outcomes achieved rather than the delivery of the project in accordance with the planned budget, schedule and specifications (Shahu et al., 2012). In addition, the PMBOK Guide recognizes stakeholder satisfaction as a “key project objective” (PMI, 2013).

Yong and Mustaffa (2012) indicate success criteria can be classified into two main groups:

- ✓ *Hard objectives*- which are tangible and measurable (i.e. criteria of cost, time, quality, health and safety and environmental sustainability) and
- ✓ *Soft objectives*- which are intangible, subjective and less measurable (i.e. satisfaction, effective communication and relationships among stakeholders)

Given the increasing emphasis on stakeholder satisfaction as a key project success criterion and the potential for time and cost reductions, it is unsurprising that stakeholder management is considered to be a critical factor in the successful delivery of construction projects (Mohan and Paila, 2013).

The following sections of this chapter include a detailed discussion of stakeholder theory and the previous project stakeholder management studies undertaken in the construction industry.

2.1.3. Overview of the stakeholder management process

The identification of stakeholder expectations and analysis of stakeholders to determine their influence are the critical steps required to allow development and implementation of stakeholder related strategies. This suggests that the strategies adopted should prioritize the magnitude of the affect a stakeholder could have on a project rather than the impact of a project on the stakeholder or the stakeholders’ objectives (Johnson et al. ,2008).

Following an extensive review of the literature, Yang (2010) concluded that the main stakeholder management theory is concerned with two principal areas:

- Identifying project stakeholders, evaluating the dedication and interests of stakeholders, and determining their potential influence on the project.
- Analyzing different types of stakeholder relationships, explaining how stakeholders react to the divergence of the project objectives from their own objectives, and formulating strategies based on this analysis.

Previous studies have led to some confusion by utilizing terms such as “stakeholder management”, “stakeholder analysis” and “stakeholder engagement” interchangeably to describe interrelated concepts without including an unambiguous definition of their meaning. Furthermore, the stakeholder management approach detailed in the PMBOK Guide (PMI, 2013) assigns the procedures

involved in stakeholder management to the project management process groups. This framework classifies “stakeholder analysis” as a technique under the process group titled “identify stakeholders”.

According to the PMBOK Guide (PMI, 2013), stakeholder management includes processes required to achieve the following:

- Identify stakeholders.
- Analyze stakeholder expectations and their impact on the project.
- Develop effective engagement strategies that facilitate stakeholder involvement in project decision-making and execution.

In addition, the PMBOK Guide suggests the focus of stakeholder management should be on continuous communication with stakeholders.

Studies by Reed (2008) and Yang et al. (2011) broadly agree that stakeholder analysis comprises the following three steps:

- ✓ Identifying stakeholders and their interests.
- ✓ Assessing stakeholders’ influence.
- ✓ Analyzing stakeholders’ relationships.

Reed et al. (2009) conclude the failure to engage stakeholders at an early stage impacts adversely on the quality and robustness of decisions. Effective communication among stakeholders on a continual basis is central to the processes involved in stakeholder engagement.

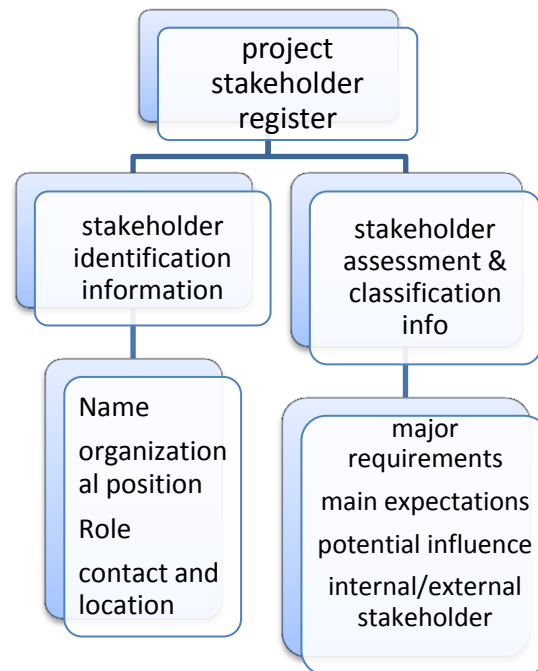
Stakeholder engagement is interrelated with the stakeholder identification and analysis processes since certain stakeholder identification and analysis techniques require data that is ascertained from stakeholder engagement (Reed, 2008). For example, snowballing is a stakeholder engagement method that is used to involve existing stakeholders in the identification of other stakeholders and their interests (Yang et al., 2011). Additionally, stakeholder workshops can provide important insights regarding the relationships between stakeholders. This information can then be utilized to analyze these relationships and their impact on the project.

The interrelationship between stakeholder engagement and stakeholder identification and analysis highlights the dynamic nature of the stakeholder management process (Yang et al., 2011).

2.1.4. Stakeholder identification and analysis

The PMBOK Guide states this process involves identifying the project stakeholders and analyzing the relevant data with respect to their interests, involvement, interdependencies, influence and potential impact on project success (PMI, 2013). The outcomes of this process should be documented in a Project Stakeholder Register (refer to Figure 2.2). This register is a “live” document that is reviewed and updated throughout the project life cycle and includes sufficient information to identify, assess and classify the project stakeholders. The Project Stakeholder Register provides the basis for the development of stakeholder engagement strategies (PMI, 2013).

Figure2.2 : Information required for Project Stakeholder Register



Source: PMBOK Guide, p.398 (PMI, 2013)

2.1.4.1. Identifying stakeholders, their interests & influences

The PMBOK Guide suggests there are two categories of stakeholders, internal stakeholders and external stakeholders (PMI, 2013). Internal stakeholders are actively involved in the execution of the project and external stakeholders are affected by the project (Olander, 2007).

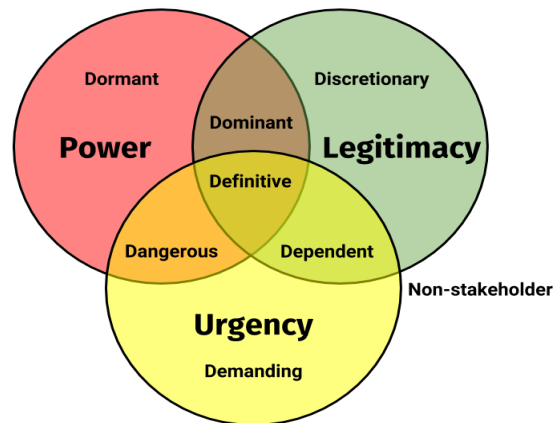
The main methods proposed in the literature for the identification of project stakeholders and assessment of stakeholder attributes are discussed in this section.

Salient model

The salient model proposed by Mitchell et al. (1997) is generally recognized as a critical theoretical development in stakeholder theory and considered by some authors to provide the definitive stakeholder identification and assessment model. According to the PMBOK Guide, the salient model is based on the attributes of power (ability to impose their will), urgency (need for immediate attention) and legitimacy (their involvement is appropriate). Any individual, group or organization possessing any one or more of these attributes is identified as a project stakeholder (Olander, 2007). The relative importance of the stakeholder is determined by the combination of these attributes.

The stakeholder classes included in the salient model are dormant stakeholders, discretionary stakeholders, demanding stakeholders, dominant stakeholders, dangerous stakeholders, dependent stakeholders and definitive stakeholders.

Figure 2.3 : Stakeholder salient model



Source: Yang (2010).

Other stakeholder evaluation or mapping methods proposed in the literature include power/interest matrix, vested interest-impact index and stakeholder impact index.

Power/interest matrix

The power/interest matrix is a stakeholder mapping technique used to identify stakeholder expectations and power. The two stakeholder attributes are used to classify stakeholders in relation to their ability to influence the project and their level of interest in their expectations being met (Johnson et al., 2011). The power/interest matrix, as shown in Figure 2.4, provides a visualization of the relative importance of the project stakeholders

Figure 2.4 : Stakeholder mapping using Power/Interest matrix



Source: Johnson et al., 2011, p.142

Vested interest-impact index

In the analysis of two construction project case studies, Olander and Landin (2005) used a scale from 0 to 10 to place stakeholders in the power/interest matrix. However, they encountered difficulties in assessing the power and level of interest on a scale. Bourne and Walker (2005) proposed substituting

power and levels of interest with influence impact and vested interest levels. In this model the influence impact level represents the level of impact each stakeholder has on the project and the vested interest level assesses the probability that a stakeholder will have an impact on the project decisions.

Stakeholder impact index

While the vested interest-impact index approach provides a method to quantitatively assess project stakeholders, it still has certain limitations. It does not assign stakeholders to particular classes, as proposed by Mitchell et al. (1997) in the salient model. Furthermore, this method does not assess the attitudes of project stakeholders towards the project (i.e. are the stakeholders project advocates or opponents?). Olander (2007) argues that the attitude or position a stakeholder has towards the project determines whether each stakeholder has a positive or negative impact on the project decision-making process.

To overcome the limitation of the stakeholder analysis models discussed previously in this section, Olander (2007) developed the stakeholder impact index (SII), which combines the attributes included in the salient model, the vested-interest index and the position of stakeholders into a single stakeholder analysis tool.

2.1.4.2. Analyzing stakeholders' relationships

A major limitation of the stakeholder classification methods described previously is that they do not address the management of stakeholder relationships. Yang (2010) states "effective management of the relationships between the project management team and its stakeholders is an important key to project success". In construction projects, Olander (2006) argues that stakeholders are components of a system and that an analysis of the relationships between these components must be considered.

Stakeholder Circle

Hidden project stakeholders do not have sufficient power to affect the project directly but can have a strong positive or negative impact on a project through their relationships with powerful project stakeholders. Hence, the successful delivery of project outcomes may hinge on the ability of the project manager to develop and maintain robust relationships with the project stakeholders (Bourne and Walker, 2006). Bourne (2005) developed the Stakeholder Circle to provide a stakeholder management tool capable of managing relationships between the project stakeholder community and the project and, ultimately, increasing the likelihood of project success.

The Stakeholder Circle methodology utilizes some of the stakeholder classification techniques discussed previously and consists of three stages as follows:

- ✓ **Stage 1** - Identifying project stakeholders:
- ✓ **Stage 2** - Prioritizing project stakeholders:
- ✓ **Stage 3** - Developing a project stakeholder engagement strategy:

The success of stakeholder relationship management processes based on the Stakeholder Circle is determined by the ability of the project team to accurately assess the influence of each stakeholder. Hence, it is likely that as project complexity increases, the accuracy of the project team's assessments decrease (Yang, 2010). Therefore, additional tools are required to overcome this limitation. Mohan and Paila (2013) suggest that Social Network Analysis (SNA) can be combined with other stakeholder assessment techniques to overcome this limitation.

Social Network Model

Rowley (1997) introduced the social network model, which emphasizes the impact of entire stakeholder structures or networks over the influence of individual stakeholders on the project. The social network model aims to assess the impact of the multiple and interdependent relationships that are present within a project environment.

Bourne (2005) explains that the social network model considers the following two aspects of an organization's stakeholder network:

- ✓ The *density* of the stakeholder network surrounding an organization. This aspect describes the connections between all stakeholders, including the project management team, and reflects the effectiveness of the stakeholder's communication and influence.
- ✓ The *centrality* of the organization, which is the position of the organization in the network relative to other project stakeholders. This aspect illustrates the number of links between the focal organization and the other stakeholders and relates to the power or influence of the stakeholder within the structure of the project network. It can be different to the individual stakeholder power described in the salient model or power/interest matrix, since the stakeholder's centrality is based on their relationships with other project stakeholders rather than their ability to directly influence the project decisions themselves.

2.1.5. Stakeholder engagement

Bourne (2005) emphasized the importance of stakeholder engagement in the stakeholder management process by including the development of a project stakeholder engagement strategy as the third and final stage in the Stakeholder Circle methodology. The PMBOK Guide recommends that the management of stakeholder engagement processes include communicating and collaborating with stakeholders to meet their needs and expectations, addressing stakeholders' issues and cultivating stakeholder involvement in project activities throughout the project life cycle (PMI, 2013). This approach minimizes stakeholder resistance and significantly increases the likelihood of project success (PMI, 2013). Bourne and Walker (2006) argue that engagement strategies should be designed to correspond to the project stakeholders' expectations and needs and developed based on the stakeholders' interest in the project and level of support for the project.

Previous studies have identified a number of strategies that can be utilized for the management of stakeholder engagement processes. These strategies typically range from holding to concession. Freeman (1984) describes holding as doing nothing and monitoring existing programs, maintaining and

reinforcing the status quo and guarding against changes in processes. The converse to this strategy is concession, which is defined as listening and yielding to stakeholder demands.

- ❖ *Holding*: Either fighting against addressing a stakeholder’s issues or completely withdrawing and ignoring the stakeholder.
- ❖ *Defense*: Doing only the minimum legally required to address a stakeholder's issues.
- ❖ *Compromise*: Negotiating with stakeholders and trying to get a compromising solution.
- ❖ *Concession*: Implementing stakeholders’ requirements or yielding to stakeholders’ demands.

According to Yang et al. (2011) project managers should choose approaches corresponding to the stakeholder management process, also he mentioned that there is no stand-alone approach, and most of the approaches should be combined with other approaches.

Table. 2.2. *Approaches for stakeholder analysis and engagement in construction*

Approaches	Strength	Limitation	Analysis *	Engagement **
Formal Memos	<ul style="list-style-type: none"> • Provides detailed information about stakeholders 	<ul style="list-style-type: none"> • Can be time consuming to document the information 	✓	
Meetings	<ul style="list-style-type: none"> • Cheap and relatively easy to organize • Makes use of existing networks and allows specific stakeholders to be targeted • Face-to-face contact ensures attendees understand issues and information can be elicited about opinions they express 	<ul style="list-style-type: none"> • Unknown issues and previous relationships between the stakeholders may drive responses • Opinions might not be representative of the wider community 		✓
Interviews	<ul style="list-style-type: none"> • Allow in-depth discussion and understanding of issues • Individual contract means that the location of the meeting is flexible • Able to explain points in own language • Usually low cost and easy to arrange 	<ul style="list-style-type: none"> • Can be time consuming for the project team • Can be expensive • May not have sufficient time • Requires skilled interviewers • Little quantitative information gathered and not majority opinion 	✓	✓
Negotiations	<ul style="list-style-type: none"> • Cheaper and faster to solve problems 	<ul style="list-style-type: none"> • The project team should well prepared • Concessions should be made sometimes 		✓
Personal past experience	<ul style="list-style-type: none"> • Clear understanding about the previous stakeholders 	<ul style="list-style-type: none"> • May have cognitive limitations 	✓	

	<ul style="list-style-type: none"> • Saves time for consultations 	<ul style="list-style-type: none"> • Can be useless due to the unique nature of projects 		
Professional Services	<ul style="list-style-type: none"> • Provide complete plans for stakeholder management • Saves time for project managers 	<ul style="list-style-type: none"> • Can be costly • May have a bias on the project 	✓	
Questionnaire and surveys	<ul style="list-style-type: none"> • Respondents' anonymity can encourage more honest answers • Can reach respondents who are widely scattered or live considerable distances away • Provides information for those unlikely to attend meetings and workshops • Allows the respondent to fill out at a convenient time • Provide larger samples for lower total costs 	<ul style="list-style-type: none"> • Low response rates can bias the results. • Care must be taken that the wording of questions is unambiguous to prevent skewed results • Care is needed in sampling to make sure representative samples are taken • Information gathered can be superficial 	✓	
Workshops	<ul style="list-style-type: none"> • Ideal for looking at specific issues • Excellent for discussion on criteria or analysis of alternatives • Offers a choice of team members to answer difficult questions • Builds ownership and credibility for the outcomes 	<ul style="list-style-type: none"> • Not a totally individualized discussion • Needs to be well facilitated by credible individuals who have the interpersonal skills to deal with challenging issues • If actions not followed through can destroy trust 	✓	✓
Social Contacts	<ul style="list-style-type: none"> • Build trust with stakeholders • Maximizes two-way dialogue 	<ul style="list-style-type: none"> • Only suitable for some stakeholders • Requires creativity and resource investigation to reach a large number of people 		✓

* Stakeholder analysis (an approach for determining the stakeholder' needs and concern);

**Stakeholder engagement approach.

Source: Yang et al., 2011

2.2. EMPIRICAL REVIEW/EVIDENCE

As revealed by plentiful related literatures; similar researches have been carried out on project stakeholder management in the construction industry. Accordingly, in this part of the literature review, the empirical evidences on the stakeholder management in construction projects are discussed.

2.2.1. Project stakeholder management in the construction industry

A study conducted in Ethiopia, by Melese, S. (2018), by the title of “Analysis of the Role of Stakeholders in the Ethiopian Construction Industry” at College of Business and Economics: carried out thirty six semi structured interviews with key stakeholders in the construction sector. The study indicated that according to the interview and revised document, all key stakeholders who are involved in the industry are not playing their role absolutely. The key actors (professionals, consultants and contractors) are not applying their role in accountability; projects are not completed according to a preset schedule, cost and quality. According to the study, the challenges that face the key stakeholder’s engagement include Shortage of hard currency, corruption, in efficient resource utilization, inflation, shortages of raw material supply, weak regulatory frame work, poor university - industry linkages, lack of appropriate budget and shortage of capital, non-transparent procurement system.

Another study conducted in Ethiopia on “Assessment of Stakeholders Management Practices with a special focus on selected joint projects in Ethiopia” by Getahun, Y. (2017), with a sample size of sixty six questionnaires conducted semi-structured interviews with major stakeholder management champions. The findings show that 95% of the respondents acknowledge the importance of stakeholder management to enhance the propensity of realizing successful joint project execution. This reflects that, the respondents quite agree that poor stakeholder management practices influenced joint projects failure.

2.2.1.1. Previous studies using the case study research strategy

There is a significant quantity of literature available on stakeholder management theory, some of which has been discussed in the previous sections of the literature review. Furthermore, several authors have highlighted the importance of stakeholder management in the construction industry and developed frameworks for analysis and engagement of stakeholders. The frameworks have typically been developed based on a literature review and their effectiveness explored through case studies.

The case studies were utilized to test the stakeholder management methodologies presented in the research. The methodology developed by Reed et al. (2009) is similar to the Stakeholder Circle methodology proposed by Bourne and Walker (2006). Both methodologies comprise stages that involve identifying the project stakeholders and their interests, analyzing stakeholders’ influence and relationships and developing stakeholder engagement strategies. Reed et al. (2009) used four projects in the natural resource management field to investigate the effectiveness of stakeholder analysis techniques using participatory (i.e. involving stakeholder engagement) and non-participatory (i.e. no stakeholder engagement required) methods.

Bourne and Walker (2006) emphasized the capability of the Stakeholder Circle tool to help project managers devise appropriate stakeholder engagement and leadership strategies through enhanced understanding of stakeholders' influence. However, Reed et al. (2009) acknowledged that due to time constraints, the use of the more complex stakeholder management software applications, such as Stakeholder Circle and Social Network Analysis, are not widespread among project managers in the construction industry. Typically, more simplistic stakeholder analysis methods (e.g. interest-influence matrix) are preferred by practitioners.

All of the studies concluded that adopting a standardized stakeholder management methodology contributes to the effectiveness of the stakeholder analysis process and using formal methods to undertake stakeholder analysis assists in delivering successful projects.

2.2.1.2. Previous studies using the survey research strategy

The research undertaken using case studies demonstrate the range and complexity of stakeholder management methodologies and analysis tools available to practitioners. However, a limited number of studies have been undertaken to evaluate the awareness and attitudes of project managers in the construction industry to stakeholder management and assess the factors that influence the stakeholder management approaches adopted in practice. The scope of these studies was limited to the construction industries in Indonesia, Australia, Hong Kong, Vietnam and the United Kingdom.

The studies undertaken previously generally focus on the following areas of stakeholder management:

- Evaluating the impact of stakeholders on project success
- Identifying stakeholder management approaches and measuring their effectiveness
- Identifying the critical success factors involved in stakeholder management

Nguyen et al. (2009) carried out a survey of project managers employed by state-owned civil engineering design firms in Vietnam to investigate the relative impact of project stakeholders. The respondents were asked to evaluate the identified project stakeholders in terms of the stakeholder attributes in the stakeholder impact index. The findings of the survey highlighted the significant influence of clients and the project team on state-owned civil engineering projects in Vietnam.

Chandra et al. (2012) developed a model to predict the influence of stakeholders on project success. The study examined the following three stakeholder elements that impact on project success criteria: *stakeholder impact, stakeholder engagement and stakeholder psychological empowerment*. The results of a survey of over 204 individuals involved in construction projects found that all three of the stakeholder elements examined have a significant influence on project success in the Indonesian construction industry.

Yang et al. (2011) carried out a study of the construction industries in Hong Kong and Australia. The purpose of the study was to identify practical stakeholder analysis and engagement

approaches and measure the effectiveness of these approaches. This resulted in a comprehensive typology of approaches for stakeholder analysis and engagement. Many of the approaches are multi-functional since they can be utilized for identifying, analyzing and/or engaging stakeholders.

CHAPTER THREE

METHODOLOGY OF THE STUDY

3.1. The Research Design and Approach

3.1.1. *Research design:*

There are different types of research designs, namely: Action Research Design, Case-study design, Causal design, Descriptive design, Experimental design, Exploratory design, Cross-sectional design, longitudinal design, observational design, etc...

For the reason that the researcher's prime motive is to investigate/(assess) & understand current practices and project managers awareness on stakeholder management practices of the designated organizations, this study made use of **descriptive** method of research design. Since descriptive research method describes the characteristics of the population that is being studied, this methodology focuses more on the "what" of the research subject rather than the "why" of the research subject. The researcher wants to understand the current practices and awareness amongst the project managers on stakeholder management practices in the construction industry in Addis Ababa, so the researcher conducted survey of this region, gather data and then conduct descriptive research on this demographic segment. The research then uncovered details on "what is the current practice of stakeholder management in the industry and what is the project manager's awareness level on stakeholder management approaches", but not cover any investigative details on "why" the practice exists because of the objective of the study.

3.1.2. *Research approach:*

Mixed (integrating qualitative with quantitative) research approach has been adopted to carry out this study. Quantitative methods are concerned with the collection and analysis of numerical data that represents the properties of the phenomenon being measured. Conversely, qualitative methods are used to generate and analyze non-numerical data. Some of the reasons why the researcher chose the adoption of this approach include, but are not limited to: the motive of the study (i.e., to assess the stakeholder management practices of the selected organizations), its remarkable efficiency, its outstanding application in identifying relevant variables and their relationships in the stakeholder management process, mixed method is really useful in understanding contradictions between quantitative results and qualitative findings, its tendency to reflect participants' point of view giving voice to study participants and ensuring that study findings are grounded in participants' experiences and its propensity to collect rich, comprehensive data.

Research time horizon: The research focuses on the current awareness among project managers of stakeholder management in the construction industry in Ethiopia and is time constrained. Hence, the researcher adopted a **cross-sectional survey** strategy.

3.2. Target Population of the study

According to Hair et al. (2003), the target population comprises the entire group of objects or elements that possess the relevant data required for the research. The research objectives and scope of the study are critical in defining the target population. The research objective for the primary research element of this study is concerned with the current practices & awareness of stakeholder management activities among project managers in the construction industry in Ethiopia. Hence, the criteria used to select the target population are:

- Individuals involved in project management activities for construction projects in the selected companies.

Target population of project managers in the four construction companies, Rama Construction, MH Engineering, Bereket Tesfaye Consulting Architects & Engineers and Transport Program Management Office (TPMO), who are carrying out the execution activities of the construction projects were set. From the data obtained from the respective company's Human Resources records, there are, 15 project managers in Rama Construction out of which 7 are working in Addis Ababa, 8 Resident Engineers working in MH Engineering in Addis Ababa, 15 Resident Engineers in Bereket Tesfaye Consulting Architects and 8 project managers working in TPMO; which makes a total of **thirty eight (38)** target populations. Since the target population is small in number, census survey is conducted.

3.3. DATA COLLECTION: TYPES & SOURCES

3.3.1. Types of data

Both *primary and secondary* data sets were used for this project/study.

3.3.2. Sources of Data

Data in this research was collected from multiple sources. It is generally accepted that multiple data sources allow an investigator to address a broader range of attitudinal, and behavioral issues (Eisenhardt, 1989). In-depth interviews with the major stakeholder management professionals (project managers in this case, one from MH Engineering and one from Rama Construction was utilized as one source of the data collection for the reason that well-informed respondents can provide important insights into the situation. An interview is a better method of obtaining valid data efficiently.

The researcher made use of questionnaires to further enhance the data collection system. In addition to this, secondary data collection sources also included review of relevant documents, such as journals, books, websites and previous researches of other countries were conducted. It is considered that documents can be used to support, validate and supplement evidence from other sources.

3.3.3. Method of data collection

The main data collection technique was questionnaire survey administered among experienced construction project managers. The questionnaire used in this study was designed predominantly to collect quantitative data with opportunity provided for the respondents to make comments in order to elicit any information that may have been missed by the questions.

Both primary and secondary data were used for the successful achievement of the study objectives. The primary data for this study was gathered through questionnaire and face to face interview. Face to face interview enables to secure in-depth and detail information, allows the researcher to improve the quality of information collected, and helps the researcher to make clarification about the question to the interviewee, if a need arises. In the meanwhile, the secondary data was obtained by reviewing the relevant documents (mentioned above).

The researcher used questionnaire and interviews data collection methods. The questionnaire was adopted from sources of similar studies from O'Halloran (2014) and Getahun.Y (2017).

3.4. Data analysis

In order to analyze the raw quantitative data collected from the questionnaire and the raw qualitative data collected from the interview, the researcher used **Statistical Package for Social Sciences (SPSS)** computer software. The data was exported to the program SPSS in a Microsoft Excel file format to undertake statistical analysis. The data gathered from the responses to the questionnaire was primarily analyzed for frequency distribution and measures of central tendency. For questions where the respondents were asked to rate the effectiveness of a number of stakeholder analysis or engagement methods on a Likert scale, the frequency and arithmetic mean value for each method was calculated.

Different statistical tools such as Frequencies, Mean, Percentiles, and proportions along with charts and tables were also used to present the results. The Likert scale questionnaire was analyzed using Descriptive statistics (frequencies, mean, percentage and charts).

3.5. Ethical Considerations

The information provided will be kept confidential and the response that key informants reply will not be used for any other purpose other than this research work and will have no effect on them. The respondents will be assured that the information they provide is confidential and used for academic purpose only.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1. INTRODUCTION

This section of the study is organized in such a way as to support the discussion presented on the research findings with illustrative figures and tables. Accordingly, each of the research questions are answered by using tables and figures to summarize major research findings relating to the research question focused; and then suitable explanation is presented to the figures presented in the relevant tables and charts. The chapter also describes how the collected data is processed, analyzed, interpreted and presented. Here it is worth to mention that different data collection tools such as interview & questionnaires were used as appropriate. Similarly, in the analysis of the data collected, each data collection tool is examined as a whole to obtain an understanding of the opinions and perspectives of the respondents from all the concerned parties as to what is considered to be the position of Stakeholder management in the views of the project managers and resident engineers in the selected projects/ Organizations.

Data collected through questionnaires & semi-structured interviews from the purposively selected respondents were carefully fed to the SPSS (version 25) software. Then, using the SPSS descriptive statistics, these data were analyzed to determine the trends of the actual practices of stakeholder management approaches in the selected projects/companies and interpreted critically. Hence, this chapter presumably deals with these details of data presentation, analysis and interpretations.

4.2. RESPONSE RATE

A questionnaire booklet consisting of 22 questions was distributed to 38 construction project managers and resident engineers from the selected companies in the Ethiopian construction sector. Out of the 38 questionnaires distributed to the selected respondents 35 were filled properly and returned back. Therefore, this shows that the response rate (RR) was 92.10% which is suitable to proceed with.

The data gathered from the responses to the twenty two questions are primarily analyzed for frequency distribution and measures of central tendency. For questions where the respondents were asked to rate the effectiveness of a number of stakeholder analysis or engagement methods on a Likert scale, the methods have been ranked in accordance with their arithmetic mean values.

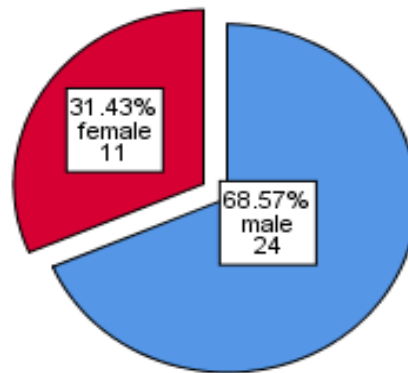
Pie charts, bar charts and frequency tables are used to present the quantitative data findings. Accordingly, analysis and presentation was carried out as follows.

4.3. SECTION A – Background information

Section A of the questionnaires was intentionally designed to extract the general information – Gender, educational level, work experience, nature of the project, the estimated cost & role of the organization in the project and their distributions followed by their interpretations are summarized as below.

Respondent's Gender

Fig 4.1. Gender of Respondents

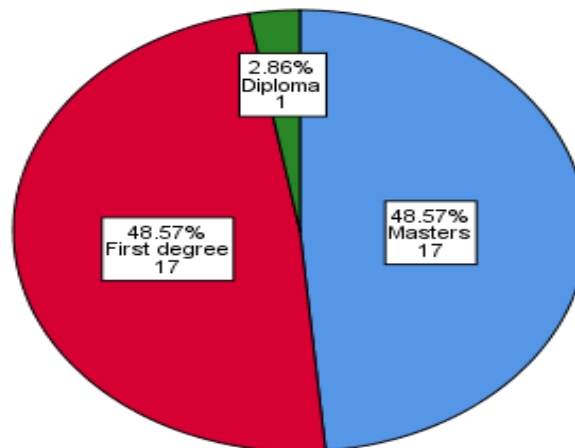


(source: own survey data, 2020)

The gender of the respondents was 68.6% (24) male and 31.4% (11) female. See figure 4.1 above. The distribution shows that most of the respondents (more than half) are male.

Respondent's Educational Qualification

Fig. 4.2. Educational qualification

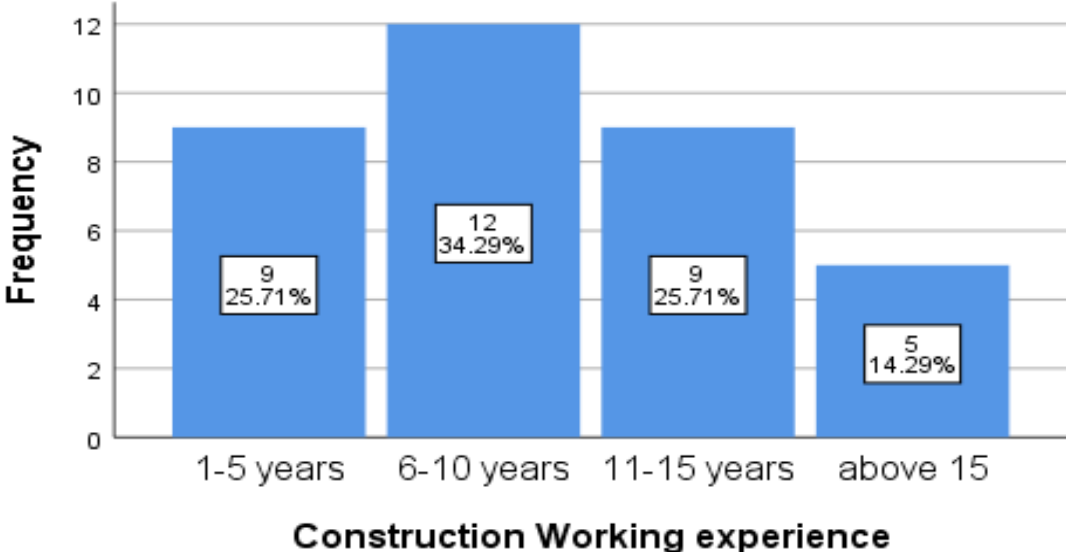


(source: own data survey,2020)

According to the analysis results for the educational level, we can see from figure 4.2 above that,2.9% (1) of the respondent was diploma holder, 48.57% (17) of them were first degree holders, while 48.57% (17) of them were postgraduates (master’s degree holders) and from which it is seen that most of the respondents held an educational level of first degree which in turn indicates that the respondents had enough knowledge background to respond to the study subject area

Respondent’s working experience

Fig. 4.3. Construction working experience of respondents

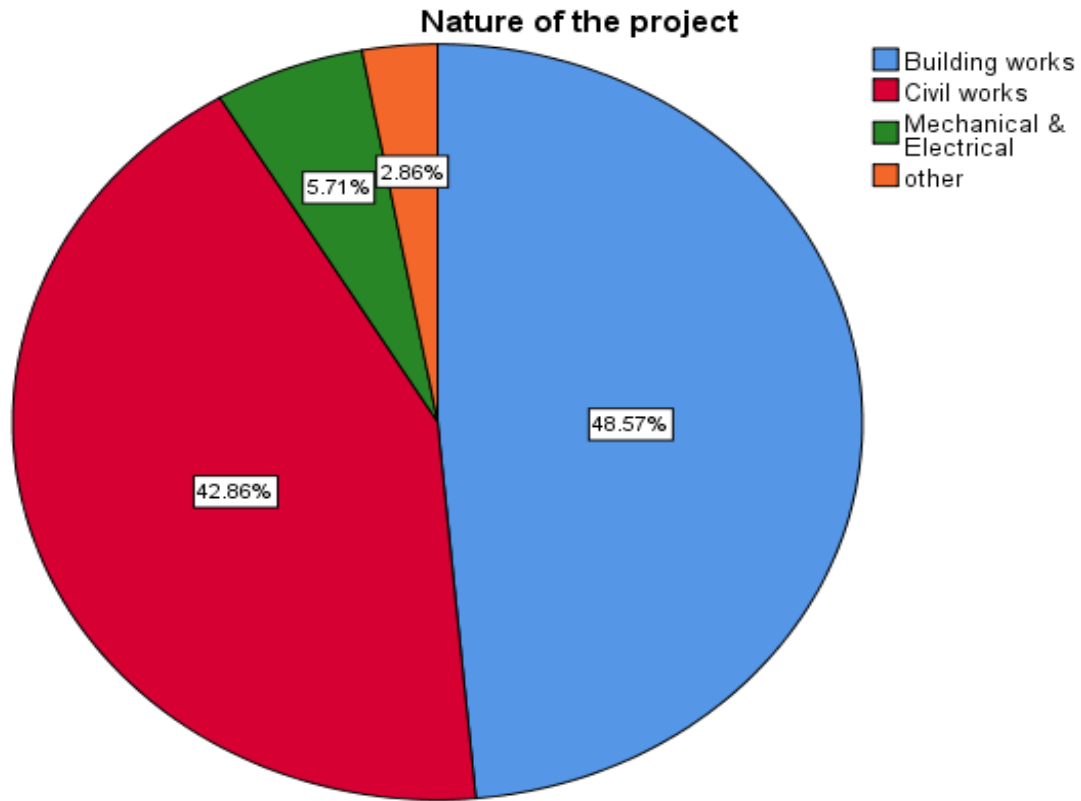


(Source: own data survey, 2020)

According to the survey results, out of the 35 respondents, 34.29% (12) of the respondents have 6-10 years of experience, followed by 25.71% (9) respondents with 11-15 years of experience and similarly 25.71% (9) with 1-5 years of experience. The remaining 14.29% (5) are with above 15 years of experience.

Nature of the project the respondents are involved in

Fig 4.4. Nature of the project

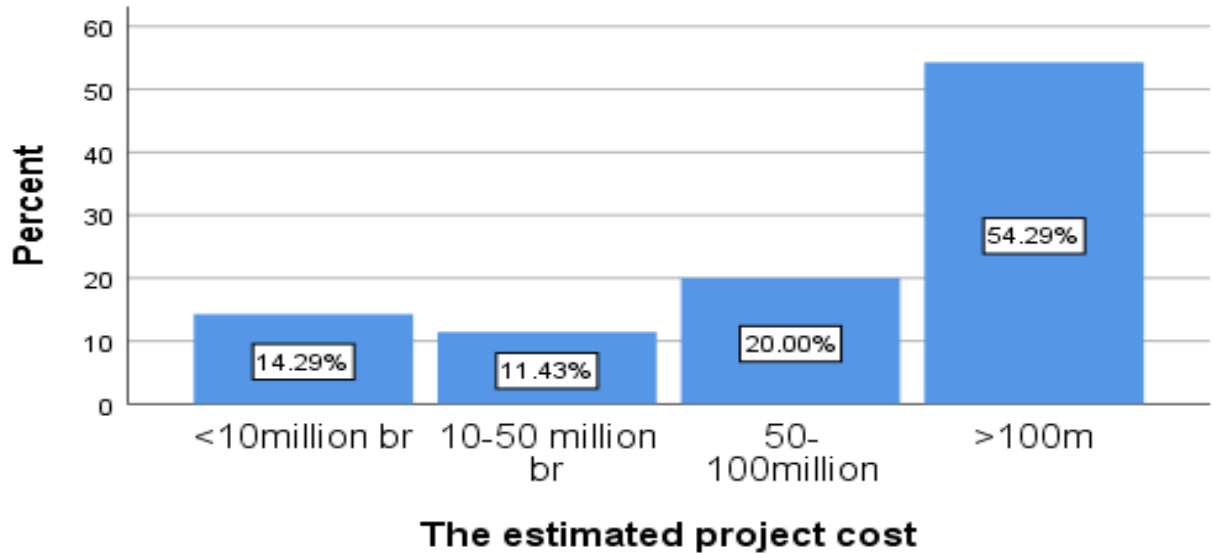


(source: own data survey, 2020)

Out of 35 individuals involved in project management activities in the construction industry in Ethiopia, 48.57% of the respondents based their answers on building project works, 42.86% of the respondents based their answers on civil works projects, 5.71% on mechanical & electrical works and the remaining 2.86% of the respondents' answers are based on other.

Respondent's current project Estimated cost

Fig. 4.5 Estimated project cost

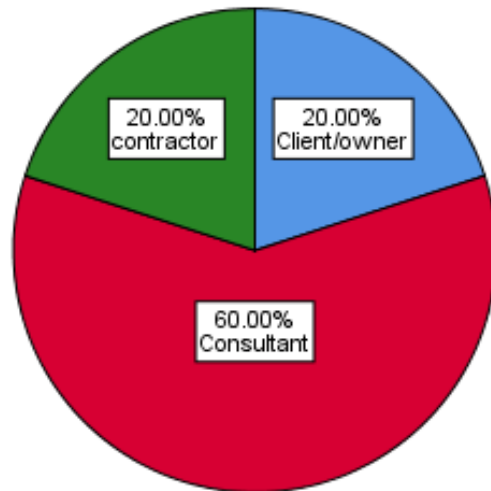


(Source: own survey data, 2020)

According to the responses, the majority of the projects on which the respondents based their answers to the questionnaire had an estimated cost of 100 million br or more (i.e. 54.29%). 31.43% of the respondents selected projects with an estimated cost of 10 million br to 100 million birr. The remaining 14.29% of respondents based their answers on projects with an estimated cost of 10 million br or less.

Respondent's Organization role in the project

Fig. 4.6. Role in the project



(Source: own survey data, 2020)

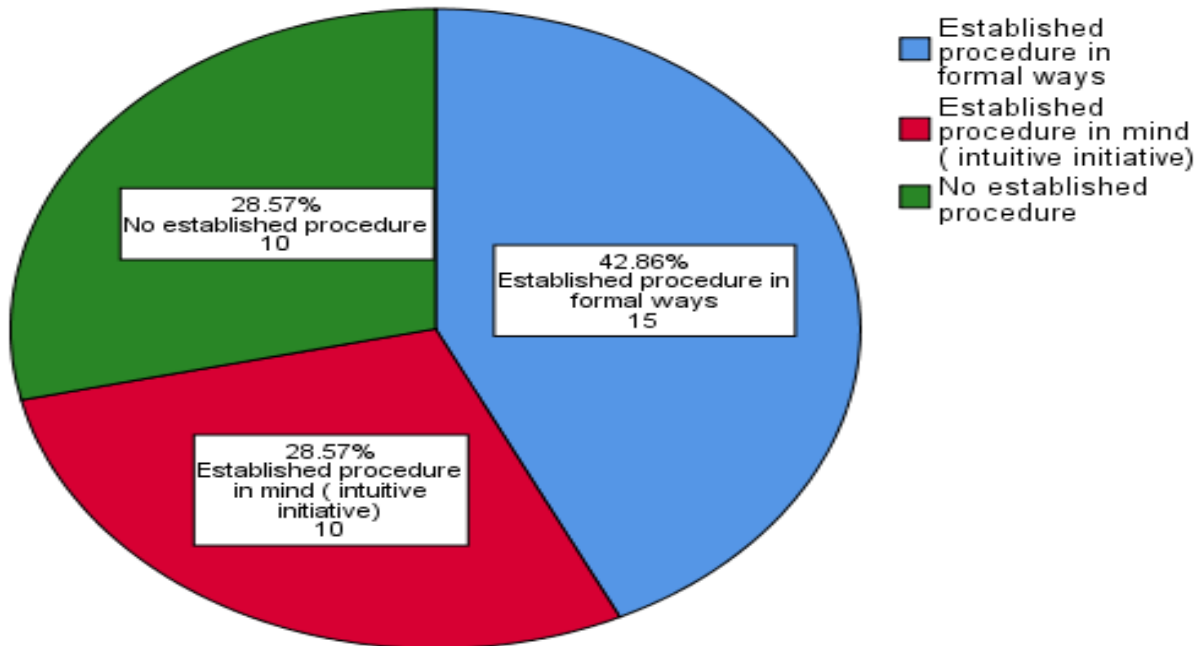
According to the results, it is clear that the majority of the respondents are employed by consulting organizations (i.e. 60%) with the remaining respondents equally divided between contracting (20%) and client (20%) organizations. This indicates a significantly higher response rate to the questionnaire for individuals working in consulting organizations compared to individuals working in contracting and client organizations.

4.4. SECTION B – Stakeholder Management Approach

The research objectives are concerned with determining the awareness amongst respondents of the key stakeholder management methods identified from the literature review. The questions in this section are designed to ascertain if the respondents have an established stakeholder management framework and utilize any specialized software to aid their stakeholder management practice.

Respondent's organization current stakeholder management practice?

Fig. 4.7. Current Stakeholder management practice



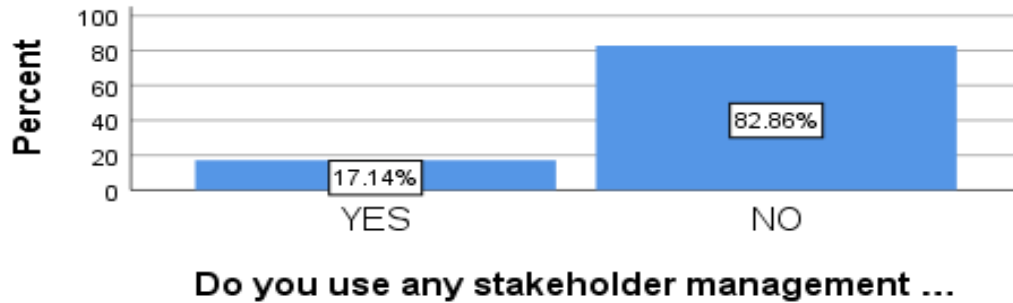
Source: own survey data,2020

According to the results, over half of the respondents either implement their stakeholder management processes based on a procedure stored in their mind (i.e. 28.57%) or have no established stakeholder management procedure at all (i.e. 28.57%). The remaining 42.86% of the respondents implement stakeholder management processes based on a formal framework.

- ❖ The survey results show that 42.86% of the respondents from the Ethiopian construction industry has an established approach to stakeholder management that is implemented in formal ways. But according to the interview the researcher conducted most of the construction companies do not have established procedures. The contactors are usually in a hurry to start the project and finish it as soon as possible, in their way they don't really care to have a documented stakeholder management practice procedure. If the project is through bidding, they will prepare documents for the bid's sake but it won't be implemented as required.

Application of stakeholder management software by respondents

Fig.4.8. use of stakeholder management software



Source: own survey data, 2020

The result of this study shows that the majority of the project managers (82.86%) in the Ethiopian construction industry DO NOT use stakeholder management software as compared to the 17.14% that does.

Table 4.1. Type of stakeholder software

Stakeholder Management Software application	Frequency
Stakeholder Circle	0
Consultation Manager	2
Social Network Analysis (SNA)	0
Centralized Stakeholder Communication System (CSCS)	1
Custom-made database	0
Other	2
Total	5

Source: own data survey, 2020

Out of the five respondents that use stakeholder management applications, two selected Consultation manager, one respondent use Centralized Stakeholder Communication System (CSCS) to aid their stakeholder management processes. Two respondents did not specify the

stakeholder management software application they use. No respondents selected the Stakeholder Circle, SNA software applications or custom made database.

- ❖ According to studies conducted in Hong kong and Ireland by yang et al and o'halloran, there is not likely to be significant usage of stakeholder management software applications amongst project managers in the construction industry. More complex stakeholder analysis software packages (e.g. SNA software applications) are not widely used by project managers due to time constraints.
- ❖ This research survey results show that the majority project managers DO NOT use stakeholder software app. Out of the 17.14 % of respondents who use stakeholder management software applications, two individuals indicated that they use consultation manager or other (Ms project) rather than the more powerful commercially available stakeholder management and analysis applications (e.g. Stakeholder Circle, SNA programs). Hence, it is concluded that the findings of the survey regarding the use of commercial software applications designed specifically for stakeholder management is generally in agreement with the research undertaken in other countries.

4.5. SECTION C – Identifying Project Stakeholders

The questions in this section are used to determine the relative importance of project stakeholders and to measure the effectiveness of the methods adopted to identify project stakeholders.

Project stakeholder Identification

Table 4.2. Identifying project stakeholders

Project stakeholders preferred by the respondents	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Clients	85.75%	14.3%	0%	0%	0%
Contractors	77.1%	20%	2.9%	0%	0%
Consultants	77.1%	17.1%	5.7%	0%	0%
Government	51.4%	31.4%	11.4%	5.7%	0%
Suppliers	40%	42.9%	11.4%	5.7%	0%
Local Authorities	22.9%	51.4%	20%	5.7%	0%
End users	28.6%	42.9%	20%	5.7%	2.9%
Local communities	17.1%	45.7%	28.6%	8.6%	0%
Sponsors	22.9%	40%	25.7%	8.6%	2.9%
General Public	14.3%	37.1%	28.6%	20%	0%
Competitors	5.7%	34.3%	37.1%	17.1%	5.7%
The Media	5.7%	25.7%	40%	14.3%	14.3%

(Source: own data survey, 2020)

According to Table 4.2, the respondents agreed that most of the twelve groups were project stakeholders. The main discrepancy in the respondent opinion regarded the inclusion of general public, competitors & the media. Particularly, in the cases of the media and the proportion of respondents that disagree or strongly disagree with their inclusion as project stakeholders are 22.8% for competitors & 28.6% for the media. The most agreed or strongly agreed stakeholders by the respondents were clients (100%), contractors (97.10%), consultants (94.20%) and government (82.80%).

- ❖ The results of the survey showed client organizations are considered the most important stakeholder. Furthermore, the classification of the media and competitors as the lowest ranked stakeholders. These findings support the supposition that the media

do not have an outright stake in construction projects but can significantly influence legitimate stakeholders.

Methods used to identify stakeholders

Table 4.3. Methods to identifying project stakeholders

Stakeholder identification approaches	mean	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Personal past experience	4.6	68.6%	22.9%	8.6%	0%	0%
Guidelines in the organization	4.26	42.9%	40%	17.1%	0%	0%
Stakeholder forums	4.23	42.9%	42.9%	8.6%	5.7%	0%
Project team brainstorming	4.06	31.4%	51.4%	8.6%	8.6%	0%
Asking other stakeholders	4.06	25.7%	57.1%	14.3%	2.9%	0%
Professional services	4.03	28.6%	48.6%	20%	2.9%	0%
Public engagement method	4.0	22.9%	57.1%	17.1%	2.9%	0%
Social contacts	3.83	14.3%	57.1%	25.7%	2.9%	0%
Directed by higher authorities	3.66	17.1%	34.3%	45.7%	2.9%	0%

Source: own data survey,2020

Respondents ranked personal past experience (91.5% strongly agree or agree) as the most effective method for identifying project stakeholders. Guidelines in their organizations, stakeholder forums and project team brainstorming were also considered as highly effective approaches. “Directed by higher authorities”, “social contacts”, & “public engagement method” are also considered to be appropriate methods as the results of the questionnaire show mean values of greater than 3 (neutral). However, just 51.4% of respondents strongly agree or agree with the use of “Directed by higher authorities” to identify project stakeholders.

- ❖ In terms of methods for identifying project stakeholders, the results of the survey indicate personal past experience and adhering to guidelines in the organization are the most effective methods. But according to the interview conducted with project coordinators, the organization’s guidelines are not implemented accordingly.

Issues to be addressed about project stakeholders

Table 4.4. Issues about project stakeholders

Approaches preferred by the respondents	mean	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Addressing stakeholder needs	4.69	74.3%	20%	5.7%	0%	0%
Addressing stakeholder interests	4.46	57.1%	34.3%	5.7%	2.9%	0%
Addressing stakeholder constraints	4.46	54.3%	37.1%	8.6%	0%	0%
Addressing stakeholder commitment	4.31	45.7%	42.9%	8.6%	2.9%	0%

Source: own data survey, 2020

A requesting statement was made to know the extent to which stakeholder needs, constraints, interests and commitments should be addressed and the reactions of the respondent were analyzed and summarized as in table 4.4 above which can be discussed as follows.

From the 35 selected respondents, 94.3% strongly agreed or agreed that stakeholder needs should be addressed and the remaining 5.7% respondents were uncertain. 91.4% of the respondents strongly agreed or agreed that stakeholder interests should be addressed, 5.7% respondents were uncertain and the remaining 2.9% % disagreed. Likewise, 91.4% & 88.6% of the respondents strongly agreed or agreed that stakeholder constraints & commitment should be addressed respectively.

The mean values show there was strong agreement amongst respondents that stakeholders' needs, constraints, interests and commitments should all be addressed.

- ❖ According to an interview with the local contractor's project engineer, the stakeholder issues are not well addressed in a standardized manner. The client's need will be addressed at the design phase of the project. He will describe what kind of design he requires, after the specification and design is approved, the project proceeds. Unless the project is residential building or so, the clients do not intensively participate in most projects especially if the contractor is going to deliver the materials. It's usually the case in governmental projects.
- ❖ In another interview with a Resident Engineer (project manager) at a consulting firm, the researcher was able to understand that, out of the various construction projects undertaken by the company, "The Blood Bank Project" in A.A was well structured and

well established project. This is because the owner is a well-known governmental institution called MoH (Ministry of Health) and the client/financier of the project is an international company called USAID. So, in this particular project they use a well-documented stakeholder management procedure & practice. In this particular case, the issues addressed regarding Stakeholder needs, constraints, interests & commitment involved around the owner. The owner (MoH) notified its constraints to the client and consultants that there is lack of adequate blood bank in the country and that it needs the client to finance this project and puts its needs & requirements in detail and the other constraint was on project location. So, after lot of ups and downs it was decided to be built on the city center (around Mexico). The owner's commitment on the project is up to confirming its approval on the design. They didn't actively participate once implementation took place. They visit the site occasionally.

4.6. SECTION D- Stakeholder Assessment and Analysis

This section is concerned with assessing the effectiveness of stakeholder analysis methods and the factors that influence project managers' prioritization of stakeholders.

Effective methods to analyze project stakeholders' information and interests

Table 4.5. Assessing project stakeholders information & interests

Stakeholder analysis approaches preferred by respondents	Mean	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Meetings	4.60	65.7%	28.6%	5.7%	0%	0%
Workshops	4.31	37.1%	57.1%	5.7%	0%	0%
Personal past experience	4.20	42.9%	37.1%	17.1%	2.9%	0%
Public Consultation	4.09	25.7%	60%	11.4%	2.9%	0%
Formal memos	4.06	31.4%	45.7%	20%	2.9%	0%
Interviews	4.03	40%	31.4%	20%	8.6%	0%
Focus groups	4.03	31.4%	42.9%	22.9%	2.9%	0%
Questionnaires	3.69	22.9%	37.1%	25.7%	14.3%	0%

Source: own data survey, 2020

Respondents ranked “meetings” as the most effective method for assessing stakeholders’ information and interests, closely followed by “workshops” and “personal past experience”. “Public consultation” were also considered by respondents as a highly effective approach. “Formal memos, Interviews, focus groups and questionnaires” are also considered to be appropriate methods as the results of the questionnaire show the mean values of greater than 3 (neutral). Just 60% of respondents strongly agree or agree that “Questionnaire” is an effective method for identifying stakeholders’ information and interests, 25.7% of the respondents were uncertain and the remaining 14.3% disagreed that questionnaire is an effective method. This is the lowest ranked method and achieved a mean score of 3.69.

- ❖ According to the interview conducted with the Resident Engineer at the Blood Bank Project, they mostly use a lot of meetings, Focus Group Discussions (FGD), personal past experiences of similar projects in other countries respectively. They least use interviews and questionnaires.

Factors important for Stakeholder conflicts management

Table 4.6. Project stakeholders attribute

Factors prioritized by respondents	Mean	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Knowledge	4.57	62.9%	31.4%	5.7%	0%	0%
Legitimacy	4.34	42.9%	51.4%	2.9%	2.9%	0%
Urgency	3.94	28.6%	45.7%	20%	2.9%	2.9%
Position	3.80	28.6%	40%	17.1%	11.4%	2.9%
Proximity	3.71	8.6%	60%	25.7%	5.7%	0%
Power	3.46	17.1%	31.4%	37.1%	8.6%	5.7%

Source: own data survey, 2020

The researcher was curious to know which factors from knowledge, legitimacy, urgency, power, position and proximity project managers frequently and effectively utilize to solve conflicts among stakeholders and the responses were shown in table 4.6 above in which, 94.3% strongly agreed or agreed that knowledge and legitimacy are required in their decision making. 5.7 % of the respondents were uncertain if knowledge is of priority. The least number of respondents 48.5% strongly agreed or agreed that power is important but 37.1% were uncertain and the

remaining 14.3% strongly disagreed or disagreed that power is important in decision making to solve conflict.

According to the results, stakeholders' knowledge to the project is deemed the most important attribute for prioritizing stakeholders. Legitimacy and urgency were also regarded by the respondents as important factor thus validating the salient model. Interestingly, although it achieved a mean value greater than 3, the survey results show "power" was considered the least important factor for prioritizing stakeholders. This is in sharp contrast to the study by o'halloran (2014) which considered stakeholder power the most important attribute for prioritizing stakeholders.

- ❖ The interview with contractors project managers show that if there is conflict among stakeholders in construction projects, they will try to solve it using discussions, if it cant be resolved with discussion they will go to mediators. If it's in their agreement and beyond mediation, arbitrators will finalize and rectify their disputes using their power (binding decision) otherwise they will seek legitimacy and settle their disputes in court. Most of the time the contractors get in dispute with the clients and they may end up in court.
- ❖ In another interview with a consultant at Blood bank project, when there is a conflict among stakeholders, they usually call meetings and discuss about the issues. But if the conflict is beyond their control (beyond the contractor's and consultant's scope) the client (USAID) and the owner (MoH) deal with it. For example, if the issue is about delay in the finishing time (schedule of the project) open discussion takes place. There were also issues which were resolved using mediators. In this project, the owner (Ministry of health) used power, legitimacy, position and urgency to facilitate the smooth running of the project so it could be completed on time. The consultants and contractors used their knowledge.

4.7. SECTION E – Stakeholder Engagement

The questions in this section are used to determine the stakeholder engagement strategies and methods preferred by project managers in the Ethiopian construction industry.

Types of strategies used in dealing with project stakeholders

Table 4.7. Stakeholder engagement strategy

Types of strategic approaches preferred by the respondents	Mean	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Compromise	4.17	31.4%	62.9%	2.9%	2.9%	0%
Concession	3.83	17.1%	60%	11.4%	11.4%	0%
Holding	3.20	2.9%	45.7%	25.7%	20%	5.7%
Defense	3.20	2.9%	34.3%	42.9%	20%	0%

Source: own data survey,2020

The responses to this question about strategies for dealing with project stakeholder showed a strong preference among project managers towards cooperation, rather than confrontation, with stakeholders. The mean value of the compromise strategy is greater than the mean values of the other three strategies. There was mixed attitudes towards adopting a concession strategy. 77.10% strongly agreed or agreed that concession strategy is best and 11.40% of the respondents were uncertain about the strategy and the remaining 11.40% disagreed to use it. However, the vast majority of respondents strongly disagrees or disagrees with using defense (20%) or holding (25.7%) strategies. 42.9% of the respondents were uncertain if to use defense strategy. These results indicate it is believed that project managers should be proactive in engaging directly with stakeholders to resolve their issues.

- ❖ According to the theoretical review in chapter 2, stakeholder management model highlighted the need to empower stakeholders in the project decision-making process. Moreover, there are strong positive correlations between levels of stakeholder engagement and stakeholder psychological empowerment and the achievement of project success criteria. These findings suggest that project managers should develop strategies that encourage stakeholder involvement and empowerment.
- ❖ The survey responses indicate that project managers in the Ethiopian construction industry showed a strong preference for the compromise strategy, which emphasizes a cooperative relationship between the project team and stakeholders. In keeping with this attitude, the respondents were generally against using defense or holding strategies.
- ❖ But contrary to this, according to the interview conducted with contractor's project manager, the project manager may use defense approach, concession or compromising

approach as necessary. Mostly they use either compromise or concession approach. On a similar interview with the consultant’s Resident Engineer at the Blood Bank Project, the project was faced with all the three strategies except holding. There was detailed specification and design, so according to that, the project was undertaken and implemented (concession). There also were issues that required alteration so there was negotiation with the clients to modify the designs (compromise). And there were some individuals who wanted to do the minimum required task and wanted to modify the specification to their convenience (defense).

Methods to effectively engage project stakeholders

Table 4.8. Stakeholder engagement methods

Methods to engage Stakeholders	strongly agree or agree	uncertain	strongly disagree or disagree
Social interaction	91.40%	8.60%	0.00%
Site tour	88.60%	8.60%	2.90%
Negotiations	88.60%	11.40%	0.00%
Meetings	88.60%	5.70%	5.70%
Workshops	85.70%	11.40%	2.90%
Public Engagement	74.30%	25.70%	0.00%
Interview	71.50%	25.70%	2.90%
Phone	65.70%	22.90%	11.40%
Questionnaires	57.10%	31.40%	11.40%
Email	54.30%	22.90%	22.90%
Media	48.50%	31.40%	20.00%

Source: own data survey, 2020

Table 4.8 above clearly shows the tabulation of the reactions of the respondents to the statement that says which of the following methods listed are effective in your projects to effectively engage stakeholders out of which 91.4% of the respondents strongly agreed or agreed “social Interaction” as an effective method. 8.6% were the only ones who were uncertain about social interactions and none disagreed. 88.6% of the respondents strongly agreed or agreed that “site tour”, “negotiation” and “meeting” is effective method and 8.6%, 11.4% & 5.7% of them were uncertain about site tour, negotiation & meetings respectively. 1 respondent disagreed that site tour is the best method. The most disagreed method by respondents was stakeholder engagement through “Email” which was 22.9% followed by

“Media” (20%). Some respondents didn’t think “Questionnaires (11.4%)” and “Phone calls (11.4%)” were effective methods either.

Out of the eleven stakeholder engagement methods included in the question, respondents ranked social interactions as the most effective method, closely followed by site tours/walking tours, negotiations and meetings. Workshops, Public engagements and Interviews were also considered by respondents as highly effective approaches. Email and media were the lowest ranked stakeholder engagement methods. Both these methods attracted a significant number of neutral answers, which may indicate that a large proportion of project managers are still undecided about their effectiveness. The remaining methods were generally considered to be appropriate approaches by the respondents.

4.8. SECTION F – Stakeholder Management & Project Success

The purpose of this question is to evaluate the impact of stakeholder management on project success criteria from the perspective of project managers.

Effective stakeholder management in the achievement of project success criteria

Table 4.9. Stakeholder management and project Success

Success Criteria preferred by respondents	Mean	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Long term stakeholder satisfaction	4.63	65.7%	31.4%	2.9%	0%	0%
Effective communication among stakeholders	4.54	60%	37.1%	2.9%	0%	0%
Meeting quality requirements	4.54	60%	34.3%	5.7%	0%	0%
Maintaining good relationship among stakeholders	4.54	65.7%	25.7%	5.7%	2.9%	0%
Avoiding delays in schedule	4.46	57.1%	34.3%	5.7%	2.9%	0%
Avoiding cost overruns	4.17	34.3%	54.3%	5.7%	5.7%	0%
Meeting environmental sustainability requirements	4.17	28.6%	60%	11.4%	0%	0%
Meeting health and safety requirements	4.06	20%	65.7%	14.3%	0%	0%

Source: own data survey, 2020

An important question was raised about stakeholder management and the success criteria preferred by the respondents and the respondents reacted in such a way as it can be seen in table 4.9 above where 97.10% strongly agreed or agreed with “Long-term stakeholder satisfaction and Effective communication among stakeholders” and equal amount of respondents (2.9% each) were uncertain about the effectiveness of the success criterias. 94.3% of the respondents strongly agreed or agreed that “Meeting quality Requirements” is a success criteria they preferred most. 5.7% & 2.9% of the respondents disagreed that Avoiding cost overruns and Avoiding delays in schedule are success criterias they preferred.

The results to the survey show that all respondents strongly agree or agree that effective stakeholder management is a critical factor in the achievement of long-term stakeholder satisfaction. Mean values for avoiding delays in schedule, maintaining good relationships, meeting quality requirements and effective communication among stakeholders ranged from 4.46 to 4.54, which indicates these project success criteria are also strongly linked to the stakeholder management processes. Although ranked lower by the respondents, stakeholder management is still considered to have an important role in helping projects meet environmental sustainability and health and safety requirements.

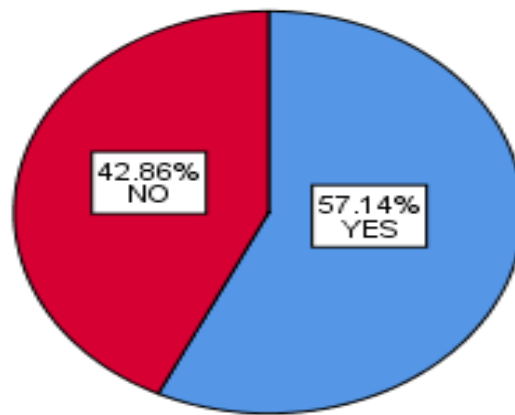
- ❖ According to the theoretical review, stakeholder management has a significant influence on the achievement of project success. Particularly, studies of construction projects put emphasis on the critical role of stakeholder management in the realization of project success criteria.
- ❖ The results to the survey show that most respondents strongly agree or agree that effective stakeholder management is a critical factor in the achievement of both hard (e.g. cost, schedule, quality) and soft (e.g. long-term stakeholder satisfaction, effective communication among stakeholders) project success criteria.
- ❖ According to the interview conducted, Stakeholder management is a critical factor in the achievement of project success particularly in the Blood bank project. Since the client, USAID, is an international company, they used to grade and evaluate the stakeholders according to the factors and criterias of PMBOK. This helps the client organization to evaluate the stakeholders for performance appraisal and future work. On a similar note, the interview conducted with the contractor’s project manager also confirmed that effective stakeholder management is definitely a critical factor in the achievement of project success.

4.9. SECTION G – Project Stakeholder Register

This section is included to estimate the proportion of project managers that maintain project stakeholder registers on their projects and to assess the type of stakeholder information that should be documented.

Project stakeholder register documentation

Fig. 4.9 project stakeholder register



Source: own survey data

To the question raised if stakeholders were documented in the project stakeholders register the results of this study reveal that 57.14% of the respondents documented the stakeholders in a project stakeholder register. The remaining 42.86% of the project managers that responded to the survey did not use a stakeholder register during their project.

- ❖ Contrary to this, according to the interview conducted with the construction office project manager, he said that in the Ethiopian construction context, since the sector use traditional approach of doing things it is not common to document a well written documentation. There is no formally established document and procedure in many construction projects. Many construction companies do not have a structured system on stakeholder management. Especially contractors think that developing procedures and strategies regarding stakeholder management processes is a waste of time. Most project managers in the construction sector prefer to finish their projects on hand fast and move on to the next project hence want to use shortcut (minimum paperwork, minimum procedures/practices, etc..) so, they don't want to take time to utilize established procedures, methodologies & practices of stakeholder management or the

like. Even if there is the documentation on the register, it is not practiced and brought down on the ground.

Information about project Stakeholders to be included in the project stakeholder register

Table 4.10 Stakeholder information and documentation

Stakeholder register contents	Mean	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Stakeholder requirement of the project	4.54	57.1%	40%	2.9%	0%	0%
Stakeholder identification information	4.54	62.9%	31.4%	2.9%	2.9%	0%
Stakeholder expectation of the project	4.20	31.4%	57.1%	11.4%	0%	0%
Stakeholder classification : internal/external	4.14	34.3%	45.7%	20%	0%	0%
Stakeholder potential influence in the project	4.11	31.4%	54.3%	8.6%	5.7%	0%
Stakeholder position	4.06	31.4%	45.7%	20%	2.9%	0%

Source: own survey data, 2020

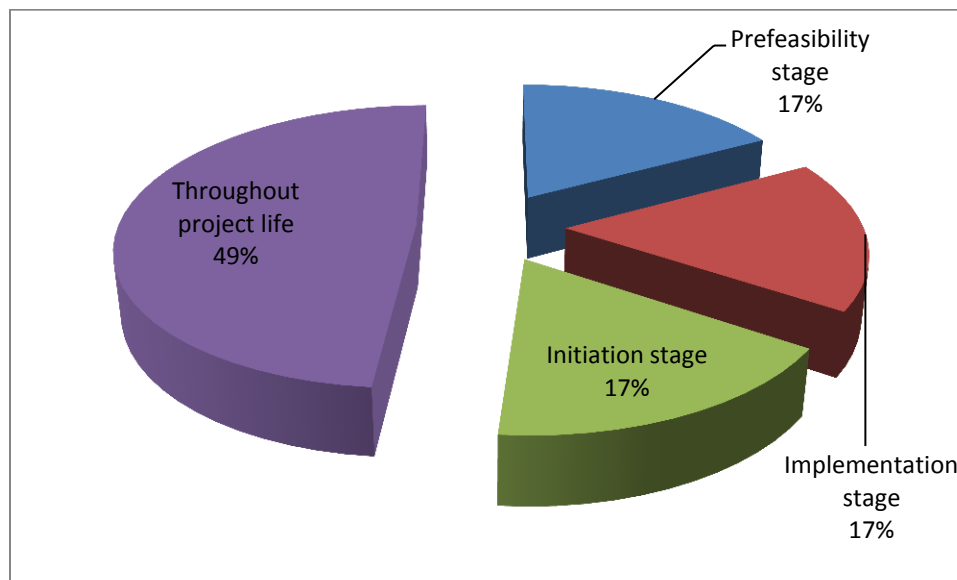
Finally, to see which contents should be included in the stakeholder register the respondents were requested to rate the contents they preferred and accordingly 97.1% & 94.3% of the respondents either strongly agree or agree to include Stakeholder Requirement of the project and Stakeholder identification respectively. Only 1 respondent was uncertain to include SH identification. The least agreed stakeholder register content was stakeholder's position 77.1% agreed to include it 20% were uncertain about it and 2.9% disagreed to include this content in the register.

Respondents ranked stakeholder requirement of the project as the most important data to be included in the project stakeholder register. A significant proportion of respondents also strongly felt that stakeholder identification (94.3%), stakeholder expectation of the project (88.5%), and stakeholder classification (80%) should also be documented in the register. To a lesser extent, most respondents considered information pertaining to stakeholder influence and position of sufficient importance for inclusion in the project stakeholder register.

- ❖ According to the results of the survey, More than half (57.14%) of project managers maintain a Project Stakeholder Register. In terms of the information that should be included in the register, virtually all of the respondents agreed that stakeholder requirements should be included in the project stakeholder register. Stakeholder identification information, SH expectation and stakeholder classification were also highly agreed contents by project managers to be included in the SH Register.
- ❖ From the interview with the resident engineer who was working at the Blood bank project, since the client is an international organization (USAID), their project uses a well-documented stakeholder management procedure and practice. They had a stakeholder register including internal and external stakeholders of the project, the expectations of the owner and their requirement of the project, etc...After the owners (MoH) notify their expectations and requirements during the initial design phase they don't get deeply involved with the project implementation stage.

Project life cycle (PLC) stage to identify stakeholders

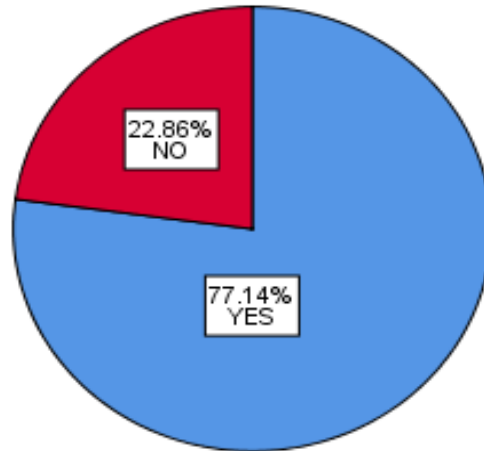
Fig.4.10—Project stakeholders Identification stage in project life cycle



In theory, project stakeholders should be identified in the early stages of the project life cycle. This enables the stakeholders to contribute their part for the successful completion of the project during its entire lifecycle. As shown In figure4.10 above, 49% of the respondents answered that they identify stakeholders throughout the project life. This finding is an indication of a problem since stakeholder identification needs to be performed beginning from the conception of the project instead of identifying all through the projects life.

Does project overrun (if any) have anything to do with PSM?

Fig.4.11 Does poor Project stakeholder management cause project overrun?



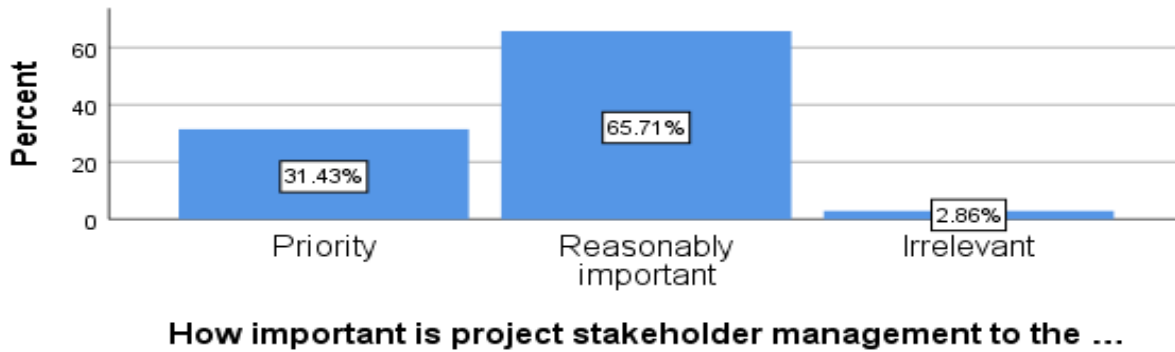
Source: own survey data,2020

As illustrated on Figure 4.11 above, 77.14% of the respondents answered that deprived project stakeholder management practice is likely to cause project overruns (both cost and schedule overruns). The use of a poor PSM practice is very costly. It costs companies project overruns and serious financial complications in due course. In the end, this forces the company to immensely compromise its project performance.

- ❖ According to the interview conducted, project over run have to do with PSM. For instance, at the beginning of the project, there was a licensing issue on the consultant's part and that in turn had an adverse effect on the delay of the project.

Importance of project stakeholder management to the performance of projects

Fig. 4.12. Importance of PSM



Source: own data survey

As shown in fig. 4.12 above, 97.14% of the respondents agreed the importance of stakeholder management to enhance the tendency of realizing successful project execution. In addition, what matters most is the performing organizations past history. According to the interview conducted with the project coordinators, for these organizations, what is most important is the finance source. Once the fund needed to perform the project is secured; all other stakeholders are very likely to cooperate with the performing organization irrespective of how they are managed.

CHAPTER- FIVE

CONCLUSION AND RECOMMENDATION

In this final chapter of the study concluding statements are drawn, the summary of research findings are discussed, and some recommendations for future researches are made. It also discusses the major findings for the four research objectives placed for examination in this study. The purpose of the study was to gain a better understanding of project stakeholder management and investigate the awareness of this subject amongst project managers in the construction industry in Ethiopia. This research purpose has been achieved by answering the research question and satisfying all the stated objectives. The following section provides a summary of the findings. Finally, the recommendations for further research directions have been outlined.

5.1. Conclusions

This research has provided an inclusive assessment of stakeholder management practices in the selected Construction projects. The researcher of this study believes that this research has the possibility to create awareness about this important issue. In addition, the factors identified by this study to have an effect on the quality of stakeholder management practice in construction projects can serve practitioners in the project sector as well as at institution levels as a useful guide to stakeholder management assessments.

As per the findings of the survey, the current stakeholder management practice in the selected construction companies as perceived by project managers show that 42.86% of the participants use established Stakeholder management (SHM) procedure in formal ways at organizational level. The other half either use no established procedure at all, practicing SHM in an unorganized and random protocol, or use established system intuitively (in mind) based on individual's own determination. This undermines the stakeholder management efforts and the potential advantages that could have been gained had it been carried out in an organized protocol. In the Ethiopian construction context, since the sector use traditional approach of doing things it is not common to document a well written documentation. According to the interview, there is no formally established document and procedure in many construction projects. Many construction companies do not have a structured system on stakeholder management. Especially contractors think that developing procedures and strategies regarding stakeholder management processes is a waste of time. Most project managers in the construction sector prefer to finish their projects on hand fast and move on to the next project hence want to use shortcut (minimum paperwork, minimum procedures/practices, etc..) so, they don't want to take time to utilize established procedures, methodologies & practices of

stakeholder management or the like. Even if there is the documentation on the register, it is not practiced and brought down on the ground as necessary.

In a similar note, almost all of the respondents DO NOT use stakeholder management software application which indicates that the project managers are unaccustomed with the software app. From the semi-structured interview conducted on project managers & coordinators, the researcher was able to conclude that most of the project managers are very busy to take time to learn and apply the modern SHM software. Some of them use Ms Project software for this purpose (due to lack of awareness for using recent app).

According to the findings about Stakeholder Identification, client organizations are rated the most important stakeholders by the respondents followed by contractors, consultants, government & suppliers respectively. The least rated stakeholders were competitors & the media. The media might not have an outright stake in construction projects but can significantly influence legitimate stakeholders. The outcome on methods for identifying PSH (project stakeholders) shows personal past experience, guidelines in the organization and stakeholder forums were rated the most effective methods respectively. There was strong agreement amongst respondents that stakeholder's need, interests, constraints & commitment should all be addressed. This is especially implemented in practice, if an international company is involved in the construction project.

As per the results of this study, the respondents identify project stakeholders throughout the project life cycle. 49% of the respondents answered that they identify stakeholders throughout the project life. This finding is an indication of a problem since stakeholder identification needs to be performed beginning from the conception of the project instead of identifying all through the projects life. Furthermore, 97.14% of the respondents agreed the importance of stakeholder management to enhance the tendency of realizing successful project execution.

From the study analysis, it was found that conducting meetings, Stakeholder workshops and personal past experience were ranked as most agreed and used stakeholder analysis approaches while questionnaires were the least rated approach for analysis by project managers. Stakeholder analysis involves Identifying PSH, assessing PSH's influence and analyzing the relationship amongst project stakeholders. The most widely accepted stakeholder analysis model prioritizes stakeholders based on power, proximity, legitimacy, urgency, knowledge and position. Accordingly, Stakeholder knowledge and legitimacy were found to be the most important of these attributes by the project managers.

Typical stakeholder engagement strategies include holding, defense, compromise and concession. From the study analysis, it was found that the respondents showed strong preference for the compromise strategy, which emphasizes a cooperative relationship between

the project team and stakeholders. But as discussed on the analysis part of this study, depending on the situation at hand, project managers also use concession (yielding to stakeholder demand) and defense (doing only the minimum legally required to address stakeholder's issues). The respondents as well as the interviewees, were generally against using holding strategy (either fighting against addressing stakeholder's issue or completely withdrawing and ignoring the stakeholder) strategies. Strategies that encourage stakeholder engagement and empowerment are more likely to lead to project success than strategies that advocate ignoring or limiting communication with stakeholders. A combination of several stakeholder analysis and engagement methods is considered to be the most effective way of managing stakeholders.

The results to the survey show that most respondents strongly agree or agree that effective stakeholder management is a critical factor in the achievement of both hard (e.g. cost, schedule, quality) and soft (e.g. long-term stakeholder satisfaction, effective communication among stakeholders) project success criteria. By adopting a formal stakeholder management methodology, project managers increase the likelihood of delivering their project successfully. According to the results, 77.14% of the respondents wholly agree that deprived PSM practice most likely causes project overrun both cost and schedule wise. The use of poor project stakeholder management is very costly hence causing projects to compromise its performance.

Finally, the findings of the survey of project managers in the construction industry in Ethiopia, particularly in the selected four companies, considered the majority of analysis and engagement methods as effective. But as seen from the results, 42.86% of the respondents did not document the stakeholder information in Stakeholder Register meaning almost half of the respondents DO NOT use Stakeholder Register. The results suggest construction project managers in Ethiopia lack the implementation to undertake stakeholder management processes in accordance with a standardized methodology.

To conclude, most Project managers in the Ethiopian construction sector are aware of stakeholder management and its significance to project success but their position on project stakeholder management (PSM) is very wavering and unreliable. Since the construction sector usually uses traditional approach to implement endeavors, it is very rare to find companies with a well-structured documentation and system on stakeholder management procedures and practices. In addition to this, project stakeholder management efforts are not being supported by the allocation of adequate funds and other non-financial assistances.

5.2. Recommendations

- ✓ Organizations, whether these selected companies in particular or construction companies in general, are recommended that they should encompass an established formal stakeholder management protocol and assign a responsible body to follow up and monitor the project managers and the project team if they are practicing it accordingly. Of course, stakeholder management is practiced in team but one responsible body to coordinate SHM practice is necessary otherwise it will become “everybody’s responsibility is no body’s responsibility”. Plus, aside from project managers, all project team members should also have adequate awareness on project stakeholder management practices and approaches.
- ✓ To make sure an improved stakeholder management practice prevails, effective stakeholder involvement and management should be given priority right from project conception. All relevant stakeholders should always be identified from project inception so that the maximum possible benefit can be achieved from these stakeholders. Key stakeholders of a project like clients, consultants, contractors, financiers, etc... should involve from the initial stage of the project starting from the planning/design phase till the closeout. Documenting the need, interest, requirement and constraint of the owner or client from the conception stage of the project and seeing it through implementation phase up to the handover stage is necessary for the long-term stakeholder satisfaction and maintaining good relationship among the stakeholders.
- ✓ A project work is teamwork. In teamwork, communication is perhaps one of the most important success factor since there is the need to build stronger cooperative relationship through continuous engagement and information sharing as well as coordination of stakeholder plans at all levels. So as to enable the fulfillment of this strong need well-designed and appropriate communication plan should always be in place. Furthermore, it should be prepared in the earliest possible development stage of every project.
- ✓ This study was undertaken focusing on only four construction companies out of which one is from Client Company, two from Consulting firms and one from Contactors firm which is not proportional and it’s not possible to assess if the role of the project manager’s company impacts on their perceptions of stakeholder management based on the results of this survey. Therefore, further research involving larger sample sizes from these types of organizations will help increase the generalizability of the findings.

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APPENDIX: QUESTIONNAIRE

DEAR PARTICIPANTS,

The researcher, Rediate Mekuria, is a student of Masters of Arts in the department of Project Management at Addis Ababa University, School of commerce.

You are invited to take part in a research study about “***Assessment on practices of Stakeholder management in the Ethiopian Construction Sector.***”

Please be assured that your answers will be treated with confidentiality. Your honest opinions in this questionnaire are sought and the information obtained will be strictly used for academic purposes & statistical analysis only. The identity of respondents will not be revealed.

I would be grateful if you could take a few minutes of your time to fill in this questionnaire. Your cooperation is very much appreciated.

If you have any hesitation or question,

Email: mekuriarediate@yahoo.com

Tel: 0913823455

Thank you!!!

SECTION A. Background Information about respondents

1. Gender : male Female
2. Educational Qualification: PHD Masters First degree Diploma below dip
3. Construction Working experience : 1-5 years 6-10 years 11-15 years above 15
4. Nature of the project: Building works Civil works Mechanical & Electrical other
5. The estimated project cost: <10million br 10-50 million br 50-100million >100m
6. Your organization’s role in the project: Client/owner Consultant contractor othr

SECTION B. stakeholder management approach

7. Which of the following statements best describes your current stakeholder management practice?

- Established procedure in formal ways
- Established procedure in mind (intuitive initiative)
- No established procedure

8. Do you use any stakeholder management software application?

- yes No

9. If your answer is Yes, which stakeholder management software applications do you use (you can select more than one box)

- Stakeholder circle
- Consultation Manager
- Social Network Analysis (SNA) software
- Centralized Stakeholder Communication System (CSCS)
- Custom made database
- Other.....

SECTION C. Identifying project stakeholders

10. To what extent do you think the following individuals or organizations are project stakeholders?

Indicate your opinion by marking (you can put √ or x) to the corresponding appropriate box.

Individuals/ organizations	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Clients					
End users					
Local communities					
Local Authorities					
Sponsors					
Government					
Contractors					
Consultants					

General Public					
Suppliers					
The Media					
Competitors					

11. To what extent do you think the following methods are effective to identify project stakeholders?

Stakeholder identification approaches	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Personal past experience					
Asking other stakeholders					
Public engagement method					
Directed by higher authorities					
Guidelines in the organization					
Professional services					
Social contacts					
Project team brainstorming					
Stakeholder forums					

12. To what extent do you think the following issues about project stakeholders should be addressed?

Issues	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Addressing stakeholder needs					
Addressing stakeholder constraints					
Addressing stakeholder interests					
Addressing stakeholder commitment					

SECTION D. Stakeholder Assessment and Analysis

13. To what extent do you think the following methods are effective to analyze project stakeholder’s information and interest?

Stakeholder analysis approaches	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Meetings					
Workshops					
Public Consultation					
Focus groups					
Interviews					
Personal past experience					
Questionnaires					
Formal memos					

14. To what extent do you think the following factors are important in your decision-making when there are conflicts among stakeholders?

Factors	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Power					
Legitimacy					
Proximity					
Knowledge					
Urgency					
Position					

SECTION E. Stakeholder Engagement

15. To what extent do you think the following types of strategies should be used in dealing with project stakeholders?

Types of strategies	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Compromise					
Concession					
Defense					
Holding					

16. To what extent do you think the following methods are effective to engage project stakeholders?

Methods to engage Stakeholders	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Meetings					
Workshops					
Public Engagement					
Negotiations					
Site tour					
Phone					
Questionnaires					
Media					
Interview					
Social interaction					
Email					

SECTION F. Stakeholder Management & Project Success

17. To what extent do you think effective stakeholder management is a critical factor in the achievement of the following success criteria

Success Criteria	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Long term stakeholder satisfaction					
Maintaining good relationship among stakeholders					
Avoiding delays in schedule					
Effective communication among stakeholders					
Avoiding cost overruns					
Meeting quality requirements					
Meeting environmental sustainability requirements					
Meeting health and safety requirements					

SECTION G. Project Stakeholder Register

18. Were the stakeholders documented in a project stakeholder register?

Yes

No

19. To what extent do you think the following information about project stakeholders should be included in the project stakeholder register?

Stakeholder register contents	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
Stakeholder identification information					
Stakeholder requirement of the project					

Stakeholder classification : internal/external					
Stakeholder expectation of the project					
Stakeholder potential influence in the project					
Stakeholder position					

Please circle the letter that best reflects your answer to each of the following questions

20. At which stage of your project life cycle do you identify stakeholders?

- A. Prefeasibility stage C. Initiation stage E. Others
 B. Implementation stage D. Throughout project life

21. Does project overrun (if any) have anything to do with project stakeholder management?

- Yes No

22. How important is project stakeholder management to the performance of your project?

- A. Priority B. Reasonably important C. Irrelevant

THANK YOU VERY MUCH!!!

APPENDIX- DEFINITION FOR VARIABLE NAMES CODE (spss)

- 7, 8, 9. STMANGAPP Stakeholder management approach
10. IPS..... Identifying project stakeholders
11. SIA..... Stakeholder identification approaches
12. ISSUES... Issues
13. SAA.....Stakeholder analysis approaches
14. FACTORS... Factors
15. TYPESOFSTRATEGIES..... Types of strategies
16. METHODSTOENGAGE.... Methods to engage Stakeholders
17. SUCCESSCRITERIA..... Success Criteria
18. ProjectStakeholderRegister.....Were the stakeholders documented in a project stakeholder register?
19. SRCONTENTS.... Stakeholder register contents
20. IDENTIFYSTAGE....At which stage of your project life cycle do you identify stakeholders?
21. PROJECTOVERRUN
22. IMPOTRTANCY
23. QUESTCODE....QUESTIONNAIRE CODE

