ADDIS COLLEGE

DEPARTMENT OF CONSTRUCTION TECHNOLOGY AND MANAGEMENT

Assessment of Factor Affecting Stakeholder Management In Addis Ababa Building Construction Projects

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DECLARATION

I the undersigned, declare this thesis is my original work and all sources of materials used for the thesis have been fully acknowledged. Also I confirm that the thesis has not been submitted partially or in full to any other higher learning institutions for the purpose of awarding any degree.

Full Name ----------

Signature----------

Date----------

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LIST OF ACRONYMS

II-	Information Inputs
SE-	Stakeholder Estimation
DM-	Decision Making
SS-	Sustainable Support
PPCP-	Public and Private Construction Project
ESM-	Effective Stakeholder Management
ANOVA -	Analysis of Variance
SPSS -	Statistical Package for Social Sciences
SD -	Standard Deviations

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Abstract

Construction industry is an essential contributor to the economic growth of many countries. In line with this, in any of construction projects there are many stakeholder involvements from startup up to the end of the project.

Ethiopia is one of the developing countries in the horn of Africa which construction sector plays a key role for the development of the country. However , most of the current research study in construction industry show that, private to public medium projects have high failure rate and exceed the original cost and agreed time and get cancelled prior to completion while others fail to satisfy stakeholders due to one of the basic factors stakeholder management for cost overrun and time overrun.

Accordingly, this research paper investigated to identify factors affecting stakeholder's management in building construction project in Addis Ababa. Primary data was collected through close ended questioner distributed for purposively selected 108 private and public building construction employers. Among the total 102 returned and 6 respondents were eliminated because of incompleteness.

On this research study J. Yang research model used based on its performance and other researchers recommendation. For data analysis part to determine the relationship and the effect of variables descriptive and inferential survey SPSS tool where used.

The empirical findings of the study confirm the relationships between the identified latent variables and their impact on the affecting stakeholder's management. In line with this, 23 important factors were identified based on thus criteria's; precondition, information input, stakeholders' estimation, decision making and sustainable support. Furthermore, among those 23 factors 10 most important factors were identified based on participants' responses which are key factor that influences the affecting stakeholder's management in building construction project. Based on research findings, recommendations for future research were discussed and highlighted.

Key words: Stakeholder Management, Stakeholder Estimation, Decision Making Sustainable Support

CHAPTER ONE

INTRODUCTION

1. Introduction

1.1. Background of the study

Construction activities especially in the built environment are one of the oldest human activities in the world. In recent times, the scope as well as the number of construction projects has increased tremendously in response to of each developing economy (Tengan, 2014).

The construction industry involves a large number infrastructural needs and development and an essential segment of stakeholders who have various interests (Mok K Y, Shen G Q and Yang J, 2015). (Ibrahim and Nissen, 2003; Bourne, 2005; Olander, 2006).

According to (PMI, 2013) , stakeholders are individuals and organization's actively involved in the project or whose interest may be affected as a result of the project execution or completion. (Li, 2012) defined stakeholders as those who can influence the project process and final results, whose living environments are positively or negatively affected by the project and who receive associated direct and indirect benefits and or losses. The lengthy process of design and execution of construction projects constitutes a complex system which involves collaboration and negotiations among many stakeholders (Cleland, 2002).

Winch (2010) classify construction project stakeholders into two categories according to their relationship with the client: (1) internal stakeholders which are those who are in legal contract with the client and (2) external stakeholders which also have direct interest in the project though not necessarily having direct contracts with the client. He further broke them down as follows: internal stakeholders into those (stakeholders) clustered around the client on the demand side and those on the supply side, while external stakeholders are broken down into private and public actors. Therefore, Stakeholder management has been recognized as an important strategy for achieving. Project success in construction projects (Leung and Olomolaiye, 2010).

Now day's construction projects are everywhere for several proposes such as business wise or countries development, this situation generates the need of highly experienced management teams in these projects through all the stages to achieve success. (Chandrayan,

2017) discovered that achievement of a project's desired goal depends upon the skill-set of project managers and their human management traits.

Stakeholder management is the process of managing the expectation of anyone that has an interest in a project or will be effected by its deliverables or outputs. (Retfalvi 2014) discovered that ability to effectively identify and manage project stakeholders improves chances of successful project execution and organizational success significantly. Several studies were conducted on relationship between Stakeholder Management (SM) and project success. Eyiah-Botwe1 et al (2015) discovered that Effective Stakeholder Management (ESM) is essential in achieving stakeholder satisfaction and project success targets while Chinyio and Olomolaiye (2015) discovered that ineffective stakeholder management will reduce probability of successful project delivery due to conflicts between stakeholders and dissatisfaction with project outcomes. Another study by Eskerod and Jespen (2013) discovered that carrying out a project as planned was not a guarantee for success as the project may still fail if stakeholders are not sufficiently managed.

In Ethiopia, the construction sector plays a key role for the development of the country. It is creating job opportunities to the wide unskilled work force labour intensive creating market opportunities for supplier, facilitating the growth of other sector and generating income for the government (EEA, 2008). Ethiopia is one of the developing countries in the horn of Africa. The country is the second populous country in Africa next to Nigeria, with over 90 million inhabitants, it occupies a total area of 1,100,000 square kilometers (420,000 sq mi), and its capital and largest city is Addis Ababa (Z. T. Zewdu and G. T. Aregaw, 2015)and (P. Mo, R. J. Orr, and J. Lu,2008).

According to the Ethiopian GTP-I evaluation report (2014), the construction sector averagely grows by 28.7% per annum by pushing its share to GDP to rise from 4% (2009/10) in to 8.5% (2014/15). In addition, in the last three years (2014/15-2016/17) the number of operational investment projects were raised from 50 in to 199 and their investment capital also raised from birr 132.8 million in to birr 1,081.9 billion (NBE Report, 2016/17).

1.2. Statement of the Problem

An increasing number of studies (Newcombe 2003; Olander and Landin 2005; El-Gohary et al.2006) have identified the importance of stakeholder management in construction projects.

However, the construction industry has a poor record of stakeholder management during the past decades (Loosemore 2006) owing to the complexity and uncertainty of projects. Many problems of stakeholder management in construction projects proposed by previous scholars

include inadequate engagement of stakeholders, project managers having unclear objectives of stakeholder management, difficulty to identify the "invisible" stakeholder, and inadequate communication with stakeholders (Pouloudi and Whitley 1997; Loosemore 2006; Bourne and Walker 2006; Rowlinson and Cheung 2008). In order to solve these problems, project teams need to know what the essentials are for managing stakeholders (Cleland and Ireland 2002).

Eskerod and Jepsen (2013) opined that management of stakeholders is a major requirement in order to actualize the much- needed improvement in the delivery of construction projects, especially in relation to project quality, completion to stipulated time, completion to budgeted cost and participant satisfaction.

Ineffective stakeholder management can lead to project dissatisfaction and a negative impact on the project's financial plan and schedule (Olomolaiye &C hiniyo, 2010). Failures in construction projects have been attributed to either a lack of or insufficient stakeholder management during the project (Black, 1995; Akintoye et al. 2003; Bourne, 2005; Olander and Landin, 2008).

As a result, stakeholder management has been promoted as a critical strategy for achieving project success in construction projects. Poor stakeholder management is one of the most common causes of serious problems in construction projects such as: Poor communication among construction stakeholders, poor changes in the scope of work, and insufficient or excess resources assigned to the project in terms of quantity and quality, all of which may be a major source of delays and cost overruns, are examples (Yang, 2009).

Historical Ethiopian construction industry experiences show that, private to public medium projects have high failure rate and exceed the original cost and agreed time and get cancelled prior to completion while others fail to satisfy stakeholders. In line with this, the study conducted by (Abera and Fikadu, 2016) conclude that 100% of the construction projects suffered both time and cost overrun problems and the actual rate of cost performance range from a minimum 12% to the maximum 60%, and time performance range from a minimum 7% to the maximum 170% of the contractual agreement.

From the past study stakeholder management is one of the factors for cost overrun and time overrun. If this problem is not confine or not identified, may incur loss productivity and extension of project time and give rise to dissatisfaction to all involved stakeholder. Now days it's becoming a major obstruction for developing countries like Ethiopia. In the long run, it negatively influences overall economic activity of the country.

Some researchers have been done on factors affecting stakeholder management in construction project. In Nigeria a research was done by (Owolabi and Afolabi, 2019) that

examining the factors inhibiting stakeholder management of mega construction projects. The study found out that ineffective communication, incomplete identification of stakeholders, complexity of the project and changes in stakeholder's interest are the most significant inhibiting factors affecting stakeholder's management of building construction projects.

In Ethiopia, a research was done by Martha (2011) assess the current stakeholder management practice and factors affecting in DCE road construction projects, Demitu Kelbessa (2016) on the role of project stakeholder management performance of public projects in Ethiopia, Aklile Tesfaye (2018) on the practices & challenges of stakeholder management: The case of Addis Ababa Housing Construction Project at "Akaki-Kality" Project Site, those researchers haven't seen the major factors affecting the stakeholder management in public and private building construction projects.

However, this study focuses on under and recent completed construction project done by the selected building construction company in Addis Ababa. The finding of the study is used to fill those factors not addressing in past study of Ethiopian.

1.3. Objective

1.3.1. General objectives

The general objective of this study is to investigate the factors affecting stakeholder's management in building construction projects of Addis Ababa.

1.3.2. Specific objectives

In order to achieve the general objective of this study, the following specific objectives are attempted:

- ✓ To investigate factors affecting precondition on the stakeholder's management in building construction projects.
- ✓ To explore factors affecting information input on the stakeholder's management in Building construction projects.
- ✓ To examine factors affecting stakeholder estimation on the stakeholder's management in building construction projects.
- ✓ To study factors affecting decision making on the stakeholder's management in building construction projects.
- ✓ To assess factors affecting sustainable on the stakeholder's management in building construction projects.

1.4. Research Question

1. What are factors affecting pre-condition on the stakeholder's management in building construction projects?
2. What are factors affecting information input on the stakeholder's management in building construction projects?
3. What are factors affecting stakeholder estimation on the stakeholder's management in building construction projects?
4. What are factors affecting decision making on the stakeholder's management in building construction projects?
5. What are factors affecting sustainable support on the stakeholder's management in building construction projects?

1.5. Scope of the Research

The study will be carried out on building construction projects that are found in Addis Ababa, Ethiopia. This study will focus on both public and private building construction projects and examine factors affecting stakeholder management in building construction projects.

1.6. Significance of the Study

The aim of this study preventing or minimizing incidences of the projects' failure due to the selected factors have not been identified and ineffective stakeholder management.

This research paper finding will give project managers an idea of which factors to address/focus on in order to achieve stakeholder management in construction projects; can also help project managers to enhance their chances of managing their projects successfully.

1.7. Limitation of the study

In carrying out the study, time and budget limitation encountered, and limited the researcher from doing an in-depth study. With these factors the researcher was unable to include all grades of contractors rather the study obliged to conduct the research on building construction projects in which grades above 6 of general and building contractors involves only.

In addition there have been problems faced by the author. There were a problem to investigate some of the completed public projects, project documents and information system of most of the project offices was not possible to researcher to go further into the core of the issue, in some cases, data on some issues are in the hands of individual experts were already reassigned together with the data.

Furthermore, there was limitation in obtaining information due to there was no documented, accessible and extractable data in web pages. This research highly depended on the perception of employees under the study which was very limited in number.

1.8. Organization of the Paper

The study was comprised with five chapters. Chapter one is introduction to the study. It contains background of the study, problem statement, research questions, and objective of the study, significance of the study, scope of the study, limitation and organization of the paper. Chapter two contains related literature review. Chapter three presents the methodology of the study. This includes research design, population, sampling method and size, sampling technique, source data, and data collection instruments, method of data collection, variable measurement, reliability test, data analysis and ethical consideration. Chapter four covers data analysis and interpretation; whiles Chapter five contain conclusions, recommendations of the study and future researcher.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

The main objective of this study was to determine the factors affecting stakeholder's management in building Construction Company. Accordingly, on this chapter we focus on definition, conceptualization of the factors affecting stakeholder management in both public and private building construction projects, it also highlights the literature and previous studies on the link between studies. The information was searched according to the scope of the project and literature was gathered to establish theoretical framework.

2.2. Theoretical literature review

2.2.1. Stakeholders Definition

Different authors have defined stakeholders differently. Olander (2007) defined project's stakeholders as a person or group of people who has a vested interest in the success of the project and the environment within which the project operates. Walker et al. (2008) defined stakeholders as individuals or groups who have an interest or some aspect of rights or ownership in the project, and can contribute to or be impacted by, either the work or the outcomes of the project.

(Yang,2009) defined the stakeholder "as being those who can influence the activities/final results of the project, whose lives or environment are positively or negatively affected by the project, and who receive direct and indirect benefit from it".

Winch (2010) defined it as those actors which will incur or perceive they will incur a direct benefit or loss as a result of the project.

The term "stakeholder" is defined as "any group or individual who can affect or is affected by the achievement of the project's objectives" (Hammad, 2013).

2.2.2. Stakeholders' Classification

The specific groups of stakeholders involved in construction and their interests may differ with some projects. However, Leung and Olomolaiye, (2010) considered construction projects stakeholders under five main groups and interests as follows:

1. Clients: - these include public and private clients. The interests of the public clients include: to ensure the project will support the organization's strategy; to ensure the effective and economic use of resources; provide financial support and to ensure the construction product is successfully and profitably procured. The interests of the clients include: to ensure public funds is properly used; to allocate funds to the project; to serve the public interest in

line with the organization's objectives; ensure it can be financed and there will be return on investment; and ensure the construction product is successfully procured.

2. Consultants (project professionals):- these could either be in-house or out of house and they include: Architect, Quantity surveyor, Engineer, construction manager and other consultants relevant to the requirements of the project. Their primary interest is carrying out their respective professional duties to their employers.

3. Contractors: - these usually include the main and sub-contractors and their employees; and the suppliers. The primary interest of the main contractor is to carry out the work successfully as designed and perform other contractual duties assigned to them in the contracts. The sub-contractors carry out work assigned by the main contractor and or the client depending on the contract terms and conditions. Similar to the sub-contractor, the suppliers' primary interest is to supply and install all materials and equipment as required of them. In the end, the main interest of the contractors is to get the job done, get paid and move on to the next job.

4. External public parties: - these include Government authorities, consultation bodies such as district board, labor union (employers' association), General public, the media, and institutional forces/nationalized industries (professional bodies). Government authorities ensures that the project complies with established laws and regulations; consultation bodies ensure that the project reflects the local communities' requirements; labor union protect the rights and influence the conducts of its members; general public contribute to the governance process by participating directly or indirectly; the media inform and influence the perception of people about the reputation of the project; and institutional forces influence professional bodies and the activities of their members through education, rules of conduct, conditions of engagement and scales of fees.

5. External private parties: - these include local residents'/neighboring communities, local landowners, archaeologists, environmentalist's/conservationists competitors, the media, and others. The primary interest of local residents is how the project affects their amenity and immediate environment; local land owners are interested in making sure that their interest will not be hurt by the project; the environmentalists are interested in protecting the environment from pollution and or destruction; the competitors try to gain competitive advantage by their actions; the media influence the perception of people about the reputation of the project; and others include those whose connection to the project is not immediately clear but whose support may be helpful to the success of the project.

These five groups of interests which are similar to the classification of Winch, (2010) are also divided into internal and external stakeholders: the clients, consultants and contractors are considered as the internal stakeholders whereas the external public and external private parties are considered as the external stakeholders in construction projects. Internal stakeholders are those who have legal contractual relationship with the project owner and those assembled around the client on the demand side (e.g employees, customers, end-users and financiers) and on the supply side (architect, engineers, contractors, trade contractors and material suppliers). External stakeholders do not have any contractual relationship with the project owner, but have some rights and interests in the project and are grouped into private and public sides' stakeholders. Stakeholders can be divided into internal and external, internal stakeholders being those directly involved in an organization's decision-making process (e.g. contractor, client, consultant, employees) and external stakeholders being those affected by the organization's activities in a significant way (e.g. neighbors, local community, general public, local authorities).

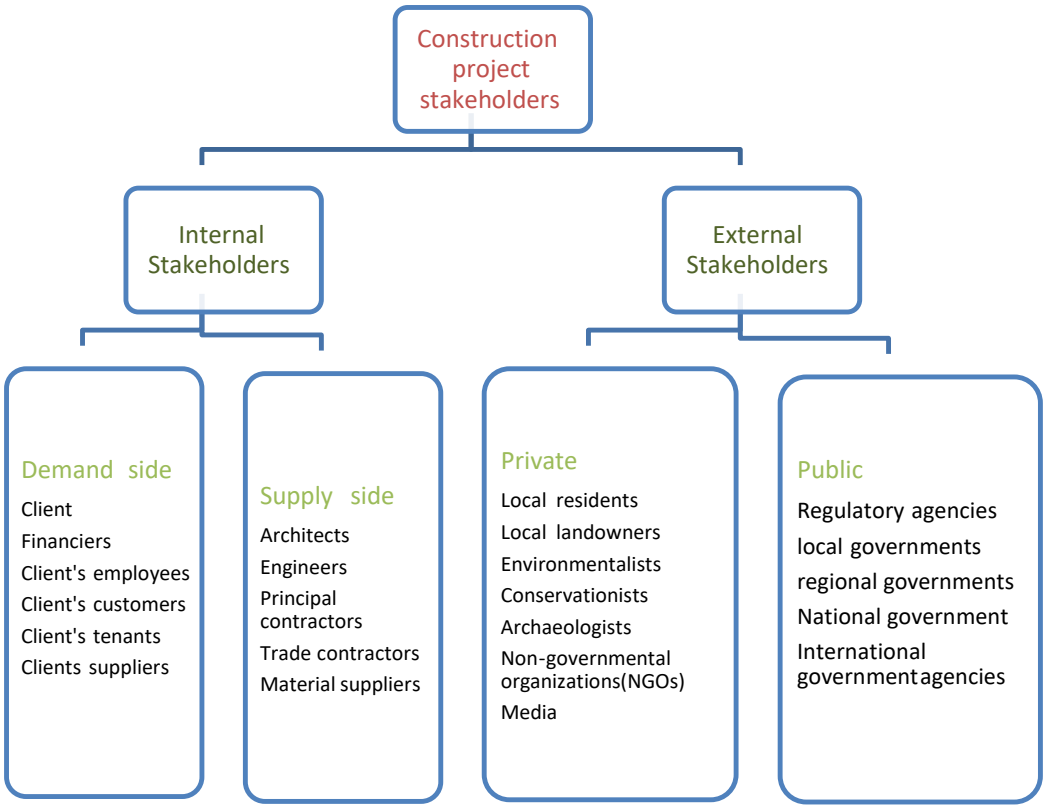


Figure 2.1 Categorization of stockholders (Winch, 2010)

2.2.3. Stakeholder Management

Stakeholder management is an important issue in project management as a project can be seen as a temporary coalition of stakeholders to create something together. Tasmanian Government Project Management Guidelines (2011) provide an overview of the essential components of project management methodology and identify eleven key elements that should be applied throughout the project Lifecycle, and the stakeholder management is one of the key elements in the project management process, in order to ensure the success of the project.

(Lim,2005) defined the stakeholder management as "Effective management of relationships with stakeholders" in terms of 'stakeholder management', while (Karlsen, 2002) used different statements and focused on the management activities related to stakeholders. These activities include, but are not limited to: identifying stakeholders, gathering information on stakeholders, analyzing the influence of stakeholders, communicating with stakeholders and developing strategies. According to (Shena, 2009) stakeholder management can be defined as the process of identification, analysis, communication, decision making and all other kinds of activities in terms of managing stakeholders.

2.2.4. Need to Manage Stakeholders in Construction Projects

The aim of stakeholder management in projects is to attain the desired and successful implementation of the project and avoid unnecessary conflicts and controversies with the project stakeholders (Olander and Landin, 2008). The PMI (2004) defines project stakeholder management as "*the systematic identification, analysis and planning of actions to communicate with and influence stakeholders*".

The main participants in a construction project coalition are the client, the architect or consultant and the contractor (Cleland, 2007). The interactions and interrelationships between these participants largely determine the overall performance of a construction project, and have the crucial responsibility for delivering a project to successful completion. The fact that stakeholders are dynamic and their influences on the project change over time depending on the issues being considered, can lead to uncertainties in any project if the stakeholders and their needs and potential influence are not carefully identified and managed (Freeman, 1984; Newcombe, 2003; Chinyio, 2010).

Project managers need to identify and interact with key institutions and individuals in the project systems environment. An important part of the management of the project systems environment is an organized process to identify and manage the probable stakeholders in that environment, and determine how they will react to the project decisions (Cleland, 2007).

On the other hand, (Jepsen, 2008) clarified the premises underlying project stakeholder management, which includes making deliberate efforts to exert influence on project stakeholders in order to gain their contributions to the project, allocating limited resources in such a way that they achieve the best possible results, and expanding efforts spread across a range of stakeholders than concentrated on a few. Therefore, project stakeholder management is indispensable to control the negative impacts of stakeholders, maximize the perceived benefits, and achieves the preset mission (Karlsen, 2002).

2.2.5. Stakeholder cycle

Bourne (2005) developed a tool referred to as the stakeholder management cycle for identifying, visualizing and mapping stakeholder influence on projects. The stakeholder cycle is made up of five steps:

- ✓ Step 1 – Identification of stakeholders;
- ✓ Step 2 – Prioritize the stakeholders;
- ✓ Step 3 – Visualize the stakeholders;
- ✓ Step 4 – Engage the stakeholders; and
- ✓ Step 5 – Monitor the outcome.

The stakeholder cycle can be used for stakeholder identification and engagement in construction.

2.2.6. Factors for Stakeholder Management in Construction Projects

Over the past few decades, numerous lists and models have been proposed in the literature regarding critical success factors. Rockart (1982) was the first person to define the concept of critical success factors. He defined the critical success factors as "the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization".

There are a great number of researchers interested in studying the factors which influence project success, and in criteria to measure project success.

Jergeas et al. (2000) identified 2 aspects of improvements for managing stakeholders, which are: "communication with stakeholders and setting common goals, objectives and project priorities". Landin (2000) considers "the long term performance of any construction and its ability to satisfy stakeholders" depends on decisions made and the care taken by decision-makers in stakeholder communication.

Chan et al. (2004) developed a conceptual framework of factors affecting project success after identifying and grouping the factors into five: project management actions, project related factors, external environment, project procedures and human related factors. Variables in each group are interrelated and interrelated such that variables in one group influence themselves and can influence variables in the other groups. Aaltonen et al. (2008) state that the key issue in project stakeholder management is managing the relationship between the project and its stakeholders.

Yang et al. (2011), proposed a framework for successful stakeholder management in construction projects based on the grouping of critical success factors for stakeholder management into 5: precondition factor, information inputs, stakeholder estimation, decision making and sustainable support. It is suggested in the framework that, information should be obtained first based on which stakeholders could be estimated to enable decisions to be made about the appropriate strategies for stakeholder management and sustainable support (from top management) is needed throughout the stakeholder management process. And Yang et al. (2012) assessed impacts of information technology on project success through knowledge management practice. The results showed that team relationship and team size have a moderating effect on the relationship between knowledge management and project success.

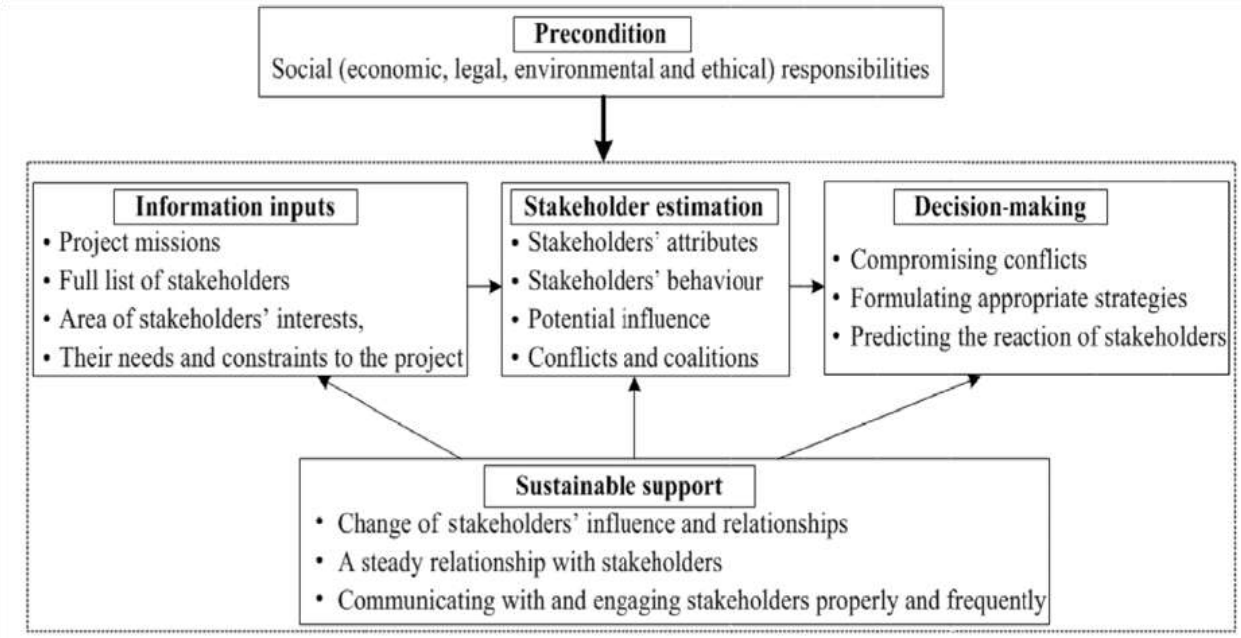


Figure 2.2 frameworks for successful stakeholder management in construction projects

2.2.6.1. Precondition factor

One of pre-condition factors is undertaking social responsibilities in line with this, according to Wood, Gray (1991) believes the stakeholder theory is the theory most often associated with corporate social responsibility, as stakeholders are central to the very concept of corporate social performance. Project managers have been implored to always try to manage stakeholders with corporate social responsibilities covering economic, environmental, legal and ethical issues (Mathur et al., 2008; Yang et al., 2009). It was recommended by Smyth (2008) for stakeholder management theory to move away from the approaches of power based analysis towards recognition of responsibilities for ethical care employing proactive management.

2.2.6.2. Information Inputs

Under information input there are several factors which will affect the result thus are,

A. Project Missions The identification of a clear mission for projects at different stages is widely considered to be essential for the effective management of stakeholders (Winch, 2000). Before every activity of stakeholder management, the project manager should have a good understanding of the tasks and objectives at each particular stage of the project lifecycle, Jergeas et al. (2000) further proved that setting common goals, objectives and project priorities is significant for improving stakeholder management

B. Full List of Stockholder Most of scholars studying stakeholder management (Karlsen 2002; Olander 2006; Walker et al. 2008; Jepsen and Eskerod 2008) have pointed out the

significant importance of identifying stakeholders. Though the project stakeholders can be divided into different types according to various criteria (Pinto 1998), the question of "who are stakeholders?" (Frooman 1999) should be answered first before classifying and managing stakeholders.

The number of stakeholders in a construction project can be large presenting numerous interfaces that have to be managed. The significant importance of identifying project stakeholders at the beginning (initiation) of the project have been pointed out in studies relating to stakeholder management/engagement (Mathur et al., 2008; Faniran et al., 1999). A conceptual scheme for identifying stakeholders should have recognition for a player's power to influence the legitimacy of relationship between players, and the urgency of a stakeholder's claim such that a detailed identification of project stakeholders is achieved (Mitchell et al., 1997; Jepsen and Eskerod, 2009).

C. **Areas of Stakeholder interest** Identifying and understanding stakeholders' areas of interests in the project: Due to the various and divergent stakeholders' interests in a typical construction project arising from the fragmented and complex nature of construction it is important to identify and assess stakeholders' areas of interests (Jepsen and Eskerod, 2009; Karlsen, 2002; Freeman et al. 2007; Reed et al., 2009).

   For example, the interest of the project contractor may be to complete the project as quickly as possible and the construction method they adopt may be a noisy one which will attract the attention of members of the immediate community of the project who otherwise may have very low or no interest in the project.

D. **stakeholders' needs in the project** Exploring stakeholders' needs and constraints in projects means to anatomize stakeholders' area of interests and list the detailed issues stakeholders' concerns (Freeman et al. 2007). During the project process, all stakeholders' needs should be assessed "so that a satisfactory and realistic solution to the problem being addressed is obtained" (Love et al. 2004). Homoplastically, Kocak (2003) clarifies that stakeholders' needs can provide an indication of the stakeholder groups' concerns, the problems the project team faces, and stakeholders' requirements of the projects. Furthermore, Olander and Landin (2008) also proved the importance of "analysis of stakeholder concerns and needs" by case studies in Sweden.

2.2.6.3. Stockholder Estimation

Among Stockholder Estimation there are several factors which will affect the result thus are,

A. **Stakeholders Attributes:** Stakeholders have been said to possess the attributes of 'power', 'urgency' and 'legitimacy' which they rely on and use to control resources, gain

attention and impact the project (Mitchell et al., 1997). Power is the capacity to influence the actions of other stakeholders; urgency is the degree to which stakeholders' claims require urgent attention; and legitimacy is the perceived validity of stakeholders' claims. 'Proximity' to the project is also an important attribute of stakeholders which could be rated based on stakeholders' proximity in terms of either working directly in the project or remote from the project (Bourne, 2005; Kujala, 2010).

B. Assessing stakeholders' behavior: The capacity and willingness of stakeholders to threaten or cooperate with project teams should be measured (Savage et al. 1991) during stakeholder management process. Stakeholders' behavior can be sorted into 3 categories observed behavior, cooperative potential, and competitive threat (Freeman 1984). Freeman et al. (2007) state that project managers need to clearly understand the range of stakeholder reactions and behaviors. By studying a pulp mill construction project in Uruguay.

The need for project managers or whoever is responsible for stakeholder management to clearly understand the different ways stakeholders behave and how they react in the process of project execution has been emphasized (Freeman et al., 2007). Aaltonen et al. (2008) identified 8 different stakeholders' behaviors/strategies employed to shape salience attributes. This study further demonstrates the significance of assessing stakeholders' behaviors.

C. Potential Influence: in this case there are predicting stake holders potential influence on each other and potential influence on the project:

- ✓ *Predicting stakeholders' potential influence on each other:* The fact that the different individuals and groups of stakeholders can influence the outcome of projects is no longer in doubt and scholars have pointed out the need to recognize the different stakeholders' base of influence so as to plan and execute a successful stakeholder management (Karlsen, 2002; Olander and Landin, 2005; Chinyio and Akintoye, 2008).
- ✓ *Predicting stakeholders': potential influence on the project:* Since stakeholders' base of influence is not static, there is need to conduct and update stakeholder analysis during the entire life cycle of the project, with the purpose of among other things, gaining knowledge about the potential influence various stakeholders have at different stages of the project (Pajunen, 2006; Jepsen and Eskerod, 2009). Furthermore, an evaluation of stakeholder demands and influence on the project should be considered as a necessary and important step in the planning,

implementation, and completion of any construction project (Olander and Landin, 2005). This further supports the need for project managers to predict stakeholders influence base in order to evolve appropriate measures to handle them.

D. **Conflicts and coalitions:** Identifying and analyzing possible conflicts and coalitions among stakeholders: According to Freeman (1984) analyzing the conflicts and coalitions that exist or are likely to occur among the project stakeholders is a very important step in stakeholder management process. Different types of conflicts have been acknowledged in literature which range from conflicts among stakeholders to conflicts between the stakeholders' and the project's objectives (Awakul and Ogunlana, 2002; Jepsen and Eskerod, 2009). According to Newcombe (2003) a powerful individual stakeholder may have a significant influence on project decisions but it is usually groups of stakeholders, who combine to form temporary coalitions, who are the most influential in shaping the strategy of the project. These groups have expectations which the project is under pressure to fulfil; and these often conflict with the expectations of different groups of stakeholders (Yang et al., 2009).

2.2.6.4. Decision Making

Under Decision Making there are several factors which will affect the result thus are,

A. **Resolving Conflicts:** Resolving conflicts among stakeholders effectively:- It is very necessary in stakeholder management to strive to strike a balance between conflict resolution and stakeholder satisfaction of the overall outcome thereof at the same time compromising conflicts among stakeholders is important for project managers to achieve (Freeman 1984). The use of incentives, trade-off and the institution of a no blame culture has been advocated by (Yang at al., 2009; Chinyio and Akintoye, 2008) in recognition of this factor.

B. **Formulating appropriate strategies:** Formulating appropriate strategies to manage/engage stakeholders: The PMI (2004) defines project stakeholder management as "the systematic identification, analysis and planning of actions to communicate with and influence stakeholders". The importance of formulating appropriate strategies to manage/engage stakeholders has been emphasized by different scholars (Karlsen, 2002; Chinyio and Akintoye, 2008; Aaltonen and Sivonen, 2009; Yang et al., 2009). Mathur et al., (2008) observed that stakeholder engagement process, if designed appropriately, can deliver a wide range of outcomes ranging from the capture of different forms of knowledge to social learning in addition to enhancing project success.

C. **Predicting The Reactions of Stakeholders:** Predicting stakeholders' likely reactions for implementing project decisions: As it is the case with every human endeavor, stakeholders are likely to react in protest to the so formulated stakeholder management/engagement strategies, it is therefore necessary for project managers to be able to predict stakeholders' likely reactions in this respect (Yang et al., 2009). This would enable stakeholder management to minimize stakeholders' negative impacts and ensure that they do not hinder the successful completion of the project (Chinyio and Akintoye, 2008; Chinyio and Olomolaiye, 2010).

2.2.6.5. Sustainable Support

Under sustainable Support there are several factors which will affect the result thus are,

A. **Changes of Stakeholders Influence and Relationship:** Managing the change of stakeholders' influence as the interests of stakeholders change during the project, their influence on one another and on the project is likely to change so also their relationship with one another and with the project (Jergeas et al., 2000). Since stakeholders' base of influence is not static, there is the need to conduct and update stakeholder analysis during the entire life cycle of the project (Olander and Landin, 2005, Olander, 2006). For instance, some project stakeholders can be in the supporting side of the project at the beginning and then become either indifferent or in the opposing side as the project progresses.

B. **A steady Relationship with Stakeholder:** Successful relationships between the project and its stakeholders are vital for successful delivery of projects and meeting stakeholder expectations (Cleland 1986; Savage et al. 1991; Jergeas et al. 2000; Hartmann 2002). Trust and commitment among stakeholders can be built and maintained by an efficient relationships management (Pinto 1998; Bourne 2005; Karlsen et al. 2008**).**

C. **Communication with Stakeholders properly and frequently:** Communication is essential for maintaining the support and commitment of all stakeholders (Briner et al. 1996). Effective, regular, and planned communication with all members of the project community is necessary for project success (Briner et al. 1996; Cleland 1995). In addition, Weaver (2007) believes project managers should be highly skilled negotiators and communicators capable of managing individual stakeholder's expectations and creating a positive culture change within the overall organization

2.3. Empirical Review

Based on a study of effective management to the stakeholders of construction projects in Egypt. Ibrahim(2015). (30 factors were elected for conducting the research) those factors were included into 6 groups (Precondition, Stakeholder Identification, Stakeholder Assessment, Decision making, Continuous support & a General factor group). The result of this survey indicates that the most effective ten factors that has a great influence on proper and effective stakeholders management include: Managing Stakeholders with social responsibilities, Defining & formulating a clear statement of Project Missions, Formulating appropriate strategies to manage stakeholders, Build trust between project top management and the most engaged stakeholders in the project, Exploring stakeholders needs and constraints in projects, Ensuring effective communication for all project stakeholders, Identifying stakeholders, Promoting a good relationship with stakeholder, Understanding the areas of stakeholders interests & Prioritize Stakeholders by their power and influence on the project.

Nabil El sawalhi (2015) on his thesis on factor affecting stakeholder managment in construction project in the Gaza Stripidentify the most critical sucess factors that affect stakeholder managmentaliterature was conducted on topics related to stakeholder managment a quuestionnarie survey was carried out among professionals in the construction industry ninety eight questionnaris were distributed to experts from government, municipality and non government organizations sixty seven questionnaries were received with a 68% response rate. The mean and relative importance indexes were used to analyse the questionnare results. From the study he found out that main factors affecting the stakeholder managment process are hiring a project manager with high competency, transparent evaluation of the alternative solution, ensuring effective communication beteween the project and its stakeholder, setting common goals and objectives for the project and exploring the needs and expectations.

In Nigeria a research was done by (Gali A. Zarewa, 2019) that examining Barriers to Effective Stakeholder Management in the Delivery of Multifarious Infrastructure Projects (MIPs). This study, aimed at improving the chances of achieving successful Multifarious Infrastructure Projects' (MIPs) delivery in Nigeria, the study identified 39 barriers to ESM in the delivery of MIPs in Nigeria, Failure to understand stakeholders' needs and expectations, uncooperative attitude of stakeholders, failure to identify key stakeholders, failure to identify potential conflict areas, project manager's poor knowledge of stakeholder management (SM), late identification of stakeholders, issuance of incorrect information to stakeholders, lack of

stakeholder engagement/involvement, conflicts between stakeholders, misunderstanding of roles by stakeholders, lack of fairness and equity for all stakeholders and lack of continuity in SM process were ranked as the ten top barriers, in descending order, with highest levels of impact against ESM in MIPs delivery.

Asma P (2018) on his thesis on factor affecting stakeholder managment process in construction project in the india. The study used to identify and evaluate critical sucess factors affecting stakeholder managmennt in construction projects by using a questionnaire survey among construction professionals for validate 30 critical sucess factors identified from the literature reviewed annd relative important index and SPSS for analysis. From the study the researcher found out that the main factors affecting the stakeholder managment process are setting common goal and objectives of the project, transparent evaluation of the alternative solution, stakeholder involvement in decision making, formulae appreciate strategy to deal with stakeholder and communication with the engageing stakeholder properly and frequently.

2.4. Construction in Ethiopian

Based on(W. J. Mengesha,2004) the Ethiopian construction industry can be viewed in six distinct periods for its evolution. The following table summarizes these distinct periods and their feature.

Table2.1 Summary of Ethiopian construction industry six district periods(.W. J. Mengesha,2004)

Period	Designation	The Feature of Each Periods
Pre 1968	Foreign Company Domination	This was a period where almost all construction activities in the country were undertaken by international construction companies.
1968-1982	Emergence of small scale domestic construction companies	A period that encourages private sector development, which results in establishment of small-scale domestic construction companies in the country.
1982-1987	Parastatal Companies domination	This period was known as parastatal company domination period since the government has taken the private construction company that was established earlier and those state owned construction firms undertook almost all construction activities.

1987-1991	Fragmentation of Phases	this period design services and construction phases was introduced as a separate phase to Ethiopian construction industry.
1991-2001	Era for Re-emergency of privatization	The year 1989 brings another change in government with completely different policies that re-emerge private sector development. As a result of this a number of private construction companies were established in the country and started taking parts in many construction activities.
Since 2001	Emergency of Integration and capacity building	Realizing the performance and capacity limitation of domestic firms, which begins to be involved in some projects, the government has introduced the concept of integration and capacity building in 2001.

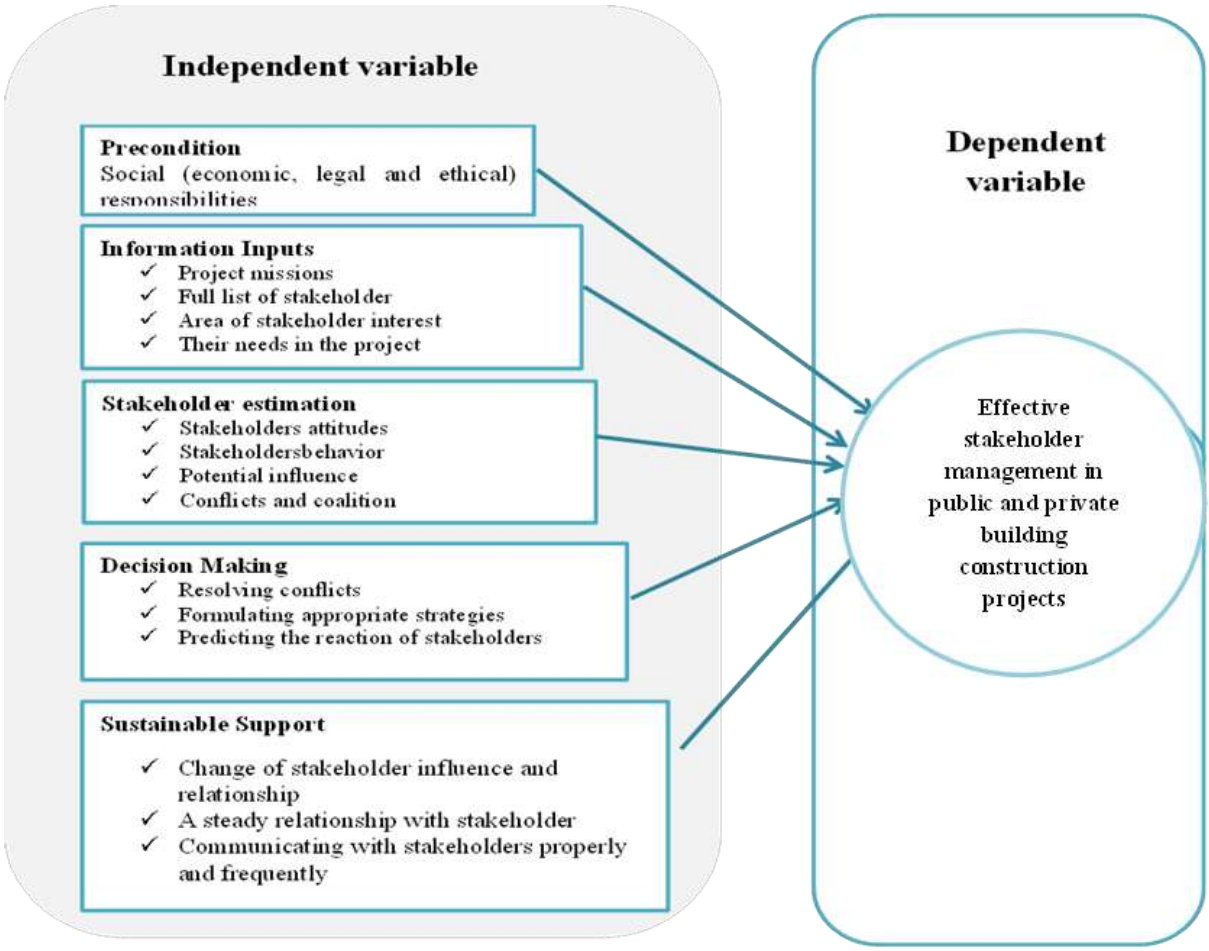
The construction industry in Ethiopia has been developing tremendously since 2001. Recent studies by (Zewdu & Aregaw 2015) indicated that the GDP contribution of the industry has been raised to 5.6% and approaches to the sub Saharan average (6%). Meanwhile, the Gross Domestic Capital Formation (GDCF), which was about 60 percent in 1996/97, has reached nearly 75% in 2002/03. Beyond its contribution to the nation, the industry is also the 6th major contributor of the content infrastructure stock following South Africa, Egypt, Morocco, Algeria and Nigeria (S. Report, "Construction in Africa)

Since then, the country has been implementing significant number of programs/projects, which include the University Capacity Building Program (UCBP), the housing development program and the road sector programs among others.

2.5. Conceptual Framework

The conceptual framework is the relation between the theoretical and empirical literature review and develop based on both. The research model proposed based on J. Yang et al, (2009). Exploring critical success factors for stakeholder management in construction projects.

Figure 2.3 proposed stakeholder management framework model



2.6. Literature Review Summary

To investigate this research study related research works are reviewed and here is the summery of most important reviewed papers for this study.

Table2.2 Summary of Literature Review

No.	Title	Author	Year
1	Exploring Critical Success Factors for Stakeholder Management in Construction Projects	Jing Yang	2009
2	A comparative studies of factors affecting the external stakeholder management process, Construction Management and Economics,	Olander, S. and Landin, A.	2008
3	Investigating Causes of Construction Delay in Ethiopian Construction Industries	Werku Koshe	2016
4	Construction Projects Delay and Their Antidotes: The Case of Ethiopian Construction Sector	Zinabu Tebeje Zewdu	2016

5	Construction stakeholder management. Blackwell Publishing limited, UK.	Chinyio, E. and Olomolaiye, P.	2010
6	Stakeholder impact analysis in construction project management, Construction Management and Economics	Olander, S.	2007

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

The methodology focuses on research approach, research design, variables, target population, sampling technique, sample size, data collection instrument, method of data collection and data analysis and presentation tools to report the study results.

3.2. Research design

A research design is defined as a set of advance decisions that makes up the master plan specifying the methods and procedures for collecting and analyzing the needed information (Burns & Bush 2002). There are many frameworks of research designs, this study categorized as explanatory type. The emphasis of explanatory researches on study in a problem or phenomena in order to establish explanatory relationship among independent variables (precondition, information inputs, stakeholder estimation, decision making and sustainable support) and dependent variable stakeholder management and the study adopt quantitative data collection method.

3.3. Sampling Technique

The study use purposive sampling to collect data from the target population (150) of the study. This research data was collected from public and private construction projects key stakeholders who have high interest and influence on projects. Similarly, from the total population (150) of the study, 108 of them where used for this research study.

3.4. Population and Sample Size

3.4.1. Population

Population refers to the entire group of people, events, or things of interest that the researcher wishes to investigate (Sekaran, 2003). The study population on 50 under and recent completed constructions projects in Ethiopia but the selected 50 contractors must have head office in Addis Ababa. 50 contractors, 50 consultants, and 50 Client Representatives with at least five years of relevant professional experience working on building construction projects with multiple stakeholder issues targeted to participate in the survey. Total population of the study becomes 150.

3.4.2. Sampling Size

The study sample size is computed based on a simplified formula that is developed by Yamane (1967:886).

$n=N/ (1 + N*(e^2))$

Where, n= Sample size required

N= Number of population

e= the level of precision taken 5%

$n=150/ (1+150*(.05)^2)$

n=108

3.5. Source of data and data collection instruments

The aim of this study explore and identify factor affecting stakeholder management in public and private building construction projects, for this study it is important to collect primary data in addition to secondary data. Primary data is referred to the information gathered firsthand by the researcher, specifically for achieving the study purpose; primary data was collected in questionnaire surveys and secondary data collected from multiple sources such as journal articles, books, magazines, brochures, websites, policies, announcements or from any other communication media through literature reviewing (Sekaran, 2003).

3.5.1. Data Collecting Instrument

There are five main research strategies to use when collecting and analyzing empirical evidences; experiment, survey, archival analysis, history and case study. Surveys allow for gathering large quantity of data from a sample of population in an economical and efficient way (Saunders et al, 2003). The study use survey research to gather data by the use of questionnaire and interview.

3.5.2. Procedures of Data Collection

Questionnaire survey was used due to the study's large population and scattered location of the respondents which made it difficult and expensive to use other methods such as interview. Kumar (2011) argued that a researcher has no option but to use questionnaire survey if respondents are scattered over a wide geographical area. The author also argued that the method provides greater anonymity and increase the likelihood of obtaining accurate information in some situations where sensitive questions are asked. The questionnaire is structured into two sections. The first section collected background information of the respondents in order to ensure that they have the required background and years of professional experience to take part in this survey and the respondents asked to respond the questions in the questionnaire based on their experience, on a recently completed project in which they were involved and the second section collected data on selected factors affecting stakeholder management in public and private building construction project of Addis Ababa. The questionnaire comprising closed ended questions.

3.6. Methods of Data Analysis

According to Cooper and Schindler, (2008) describe data analysis as the process where collected data is reduced to a more controllable and convenient size. The respondent demographic variables data analysis done by descriptive statistics by using statistical package for social sciences (SPSS 24). Then used multiple regression analysis to find the relationship formulated in a model. The regression coefficients used to test the magnitude of the relationship between dependent and independent variables and it applied f and t-significance from ANOVA to establish the significances of such relationship.

3.6.1. Specification of the Model

To test the hypotheses used, regression equation, to perform this test that calculates a t-statistic by dividing the estimated coefficient by its standard error. The resulting ratio tells us how many standard-error units the coefficient is away from zero. The t statistic is the coefficient divided by its standard error. It can be thought of as a measure of the precision with which the regression coefficient is measured. If a coefficient is large compared to its standard error, then it is probably different from 0. Hypotheses are tested using step process: first that analyst to state the two hypotheses so that only one can be right, and formulate an analysis plan, to carry out the plan and physically analyze the sample data and finally to analyze the results and either reject the null hypothesis, or state that the null hypothesis is plausible, given the data

3.6.2. Description of variable Measurement

The questionnaire items are adapted from different Authors.

Table 3.1. Factors for Stakeholder Management in Building Construction Projects

NO	Variables	Source
	Precondition	
1	Social (economic, legal and ethical) responsibilities	Mathur et al., (2008); Yang et al., (2009
	Information Inputs	
2	Clearly formulating the project mission	Jerges et al., (2000); Akintoye et al. (2003) Thomson et al., (2003); Chinyio and Akintoye, (2008); Yang et al., (2009)
3	Carefully identifying and listing the project stakeholders	Mathur et al., (2008); Jepsen and Eskerod, (2009)

4	Area of stakeholder interest	Jepsen and Eskerod, (2009); Olander and Landin, (2008); Yang et al., (2009)
5	Their needs in the project	Yang et al., (2009)
	Stakeholder Estimation	
6	Stakeholders attitudes	Karlsen, (2002); Mitchell et al., (1997); Yang et al., (2009) Mitchell, et al., (1997) Olander (2006)
7	Stakeholders behavior	Freeman (1984)Yang et al., (2009); Aaltonen and Kujala, (2010) ; Yang et al., (2009)
8	Potential influence	Pajunen, (2006); Jepsen and Eskerod, (2009) Yang et al., (2009)
9	Conflicts and coalition	Jepsen and Eskerod, (2009); Yang et al., (2009)
	Decision Making	
10	Resolving conflicts	Yang et al., (2009) Chinyio and Akintoye, (2008)
11	Formulating appropriate strategies	Chinyio and Akintoye, (2008); Yang et al., (2009)
12	Predicting the reaction of stakeholders	Jepsen and Eskerod, (2009)
NO	Variables	Source
	Sustainable Support	
14	A steady relationship with stakeholder	Olander and Landin, (2008); Yang et al., (2009); Aaltonen and Kujala, (2010)
15	Communicating with stakeholders properly and frequently	Jergeas et al., (2000); Olander and Landin, (2008); Chinyio and Akintoye, (2008); Yang et al., (2009)

Researchers indicate that a five-point scale is just as good as any other (Malhotra 1999; Parasuraman 1991; Sekaran 2000). Thus, Likert scale from 1 to 5 has been used to measure the constructed variables (where 5=very high, 4=high, 3=moderate, 2=low, 1=very low)

3.7. Ethical considerations

In order to keep the confidentiality of the data given by respondents, the respondents were not required to write their name and assured that their responses will be treated in strict confidentiality. The purpose of the study was disclosed in the introductory part of the questionnaire. Furthermore, the researcher tried to avoid misleading or deceptive statements in the questionnaire. Lastly, the questionnaires will be distributed only to voluntary participants.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1. Introduction

This chapter describes the analysis and interpretation of the collected data about the factors affecting stakeholders 'management in public and private building construction project by using Statistical Package for the Social Sciences (SPSS).The chapter is consisting of different topics such as: reliability test, General Profile of the selected public and private company**,** demographic characteristics of respondents, precondition, stakeholder estimation, information inputs, decision-making, sustainable support and affecting stakeholder's management in public and private building construction Finally, the chapter presents the most ten factors of stakeholder's management by using the descriptive analysis mean score.

4.2. Descriptive Statistics analysis

To answer the research questions several statistical techniques were used. Descriptive statistics is the quantification of data in a way that helps patterns to emerge. The shortcoming of descriptive statistics is that the data may not be useful in making conclusions. (Loo, Salmiah &Nor, 2015).

4.2.1. General Profile of the company

The general profile of the selected fifty public and private contractors, the company name, year of experience and the grade of the firm explained on appendix 2.

4.2.2. Demographic Profile of Respondents

To find out general profile of the respondent, the respondents were asked their, educational qualification, years of service at Construction Company and their professional callings. The results obtained from the structured questionnaires are presented on the table 4.1 the questionnaires were distributed to 108 stakeholders and 102 returned among these 6 respondents were eliminated because of incomplete answer and 102 were filled effectively that makes the response rate 0.94%.

Table 4: 1 Demographic Profiles of Respondents

Variable	Classification of Variables	Frequency	Percentage (%)
Education Level	College/University Degree	67	66.68
	Master's Degree	34	33.3
	PHD and above	1	0.98
years of experience	5-15	86	84.3
	15-25	11	10.8
	above 25	5	4.9
Basis of them Professional callings	Project/ Construction manager	20	19.6
	Site manager	10	9.8
	Designer/consultant	18	17.64
	Contract administrator Assistant manager	13	12.7
	Project engineer	26	25.4
	Client Representatives	15	14.7
	N	102	

Among the total participants of 102 based on their education level, 66.68 % of the total population where university degree completed 33.3% with master degree and the reaming 0.98 % where PHD and above. Whereas on their work experience among the total participants 84.3 % of them have between 5-15 years of experience 4.9% with above 25 years of experience and the rest 10.8 % where range between 15-25 years of work experience.

Among the total participants on the base of their professional callings there are project/construction manager, site manager, designer/consultant, contract administrator /manger. Project engineer and client representative where participated and where take 19.6, 9.8, 17.64, 12.7, 25.4 and 14.7 % of the total respectively.

4.2.3. Reliability Test

Estimates of reliability based on the average correlation among items within test, concern internal consistency (Lee, 2001). Cronbach ‘s Coefficient Alpha is the most popular indicator of internal consistency was utilized in this study to evaluate the reliabilities of measurement scales adopted after coding and entry of data into SPSS (Hair et al, 2006; Lee, 2001).

Cronbach's alpha coefficient can range from 0.0 to 1.0. A′ Cronbach's alpha close to 1.0 indicates that the item is considered to have a high internal consistency reliability, above 0.8 is considered good, 0.7 is considered acceptable and less than 0.6 is considered to be poor (Sekaran, 2003).The reliability analysis for stakeholder management, precondition, Information Input, stakeholder estimation, Decision making and Sustainable Support are presented in Table

Table 4:2 Reliability test

Variables	Cronbach's Alpha	No of Items
stakeholder management	0.813	4
precondition	0.712	3
Information Input	0.715	5
Stakeholder estimation	0.724	4
Decision making	0.760	3
Sustainable Support	0.892	8
Total		**27**

Based on the reliability test, the internal consistency of variables score filed from 0.712 to 0.89. According to (Sekaran, 2003)0.7 is considered acceptable. Among the variables of this study has moderate internal consistency.

4.2.4. Precondition Affecting Stakeholders management

This section discusses about the precondition factors that affecting stakeholder management in public and private construction company's The result of the analysis is depicted under table 4.3 below.

Table 4.3 Respondents' evaluation for the factors affecting Precondition

Respondents' evaluation	N Respondents	Mean	Std. Deviation
Lack of considering corporate social responsibilities	102	4.9551	0.2084
Language barrier between stakeholders	102	3.1573	0.6197
Cultural differences between stakeholders	102	2.5618	0.7531
Precondition Average		3.56	0.53

From above Table it is shown that the "Lack of considering corporate social responsibilities" was ranked in the first position by the respondent's s with mean score (=4.9551), followed by Language barrier between stakeholders and Cultural differences between stakeholders.

4.2.5. Information Inputs Affecting Stakeholders management

This section discusses about the Information Input factors that affecting stakeholder management in public and private construction companies. The result of the analysis is depicted under table 4.4 below.

Table 4.4 Respondents' evaluation factors affecting Information Input

Evaluation factors affecting Information Input	N Respondents	Mean	Std. Deviation
Failure for clearly formulating the project mission	102	4.8652	0.3751
Incomplete Stakeholder Identification	102	4.6742	0.4713
Late identification of stakeholders	102	4.5843	0.5395
Failure to identify key stakeholders interest areas	102	4.4831	0.5663
Failure to understand Stakeholders' needs and expectations	102	4.7416	0.5119

From the above table "Failure for clearly formulating the project mission" was ranked in the first position by the respondents under information group with mean score (=4.8652), followed by Failure to understand Stakeholders' needs and expectations, Incomplete Stakeholder Identification, Late identification of stakeholders and Failure to identify key stakeholders interest areas was ranked by the respondent.

4.2.6. Stakeholder Estimation Affecting Stakeholders management

This section discusses about the Stakeholder Estimation factors affecting stakeholder management in public and private construction companies. The result of the analysis is depicted under table 4.5 below.

Table 4. 5 Respondents' evaluation factors affecting Stakeholder Estimation

evaluation factors affecting Stakeholder Estimation	N Respondents	Mean	Std. Deviation
Uncooperative Attitude of Stakeholders	102	4.7303	0.4946

Failure to Predicting and mapping stakeholders' behaviors	102	4.0449	0.3963
Failure to assess levels of influence of various stakeholders	102	3.8876	0.4871
Failure to Identify potential conflict areas	102	4.0674	0.421

From Table 4.5, it is shown that the "Uncooperative Attitude of Stakeholders." was ranked in the first position by the respondents under the group stakeholder Estimation with mean score (=4.7303), Failure to Identify potential conflict areas was ranked in second position follow by Failure to Predicting and mapping stakeholders' behaviors and Failure to assess levels of influence of various stakeholders was ranked by the respondent.

4.2.7. Decision Making Affecting Stakeholders management

This section discusses about the Stakeholder Estimation factors affecting stakeholder management in public and private construction companies. The result of the analysis is depicted under table 4.6 below.

Table 4.6 Respondents' evaluation factors affecting Decision Making

evaluation factors affecting Decision Making	N Respondents	Mean	Std. Deviation
Lack of Resolving conflicts among stakeholders effectively	102	3.6629	0.6562
Lack of Formulating appropriate strategies to manage/engage different stakeholders	102	3.8315	0.4055
Lack of Predicting stakeholders' likely reactions for implementing project decisions	102	3.6517	0.6049

From Table 4.6 it is shown that the "Lack of Formulating appropriate strategies to manage/engage different stakeholders." was ranked in the first position by the respondents under Decision Making group factor affecting stakeholder management in public and private construction project with a mean score (=4.4831), Lack of Resolving conflicts among stakeholders effectively was ranked in second position and Lack of Predicting stakeholders' likely reactions for implementing project decisions was ranked in third position by the respondent.

4.2.8. Sustainable Support Affecting Stakeholders Management

This section discusses about the sustainable support factors affecting stakeholder management in public and private construction companies. The result of the analysis is depicted under table 4.7 below.

Table 4.7 Respondents' evaluation factors affecting sustainable support

evaluation factors affecting sustainable support	N Respondents	Mean	Std. Deviation
Failure to Keeping and promoting positive relationships among the stakeholders	102	4.3933	0.5563
Failure to understand the relationship between among stakeholders	102	2.8764	0.8767
Failure to Managing the change of stakeholders' interests	102	3.5506	0.5841
Lack of Managing the change of relationship among stakeholders	102	2.7303	0.5793
Lack of constant communication with stakeholders	102	3.0562	0.409
Lack of open and ongoing communication process	102	3.3708	0.6285
Issuance of the same information to all stakeholders	102	3.3371	0.6733
Issuance of incorrect information to stakeholders	102	4.1011	0.6579

From Table 4.7, it is shown that the "Failure to Keeping and promoting positive relationships among the stakeholders" was ranked in the first position by the respondents under this group as a critical factor influencing the Stakeholder Assessment in the stakeholder management process with mean score (4.3933), Issuance of incorrect information to stakeholders, Failure to Managing the change of stakeholders' interests, Lack of open and ongoing communication process, Issuance of the same information to all stakeholders, Lack of constant communication with stakeholders, Failure to understand the relationship between among stakeholders, Lack of Managing the change of relationship among stakeholders was ranked in next position by the respondent

4.2.9. Descriptive Analysis Affecting Stakeholder's Management

In this section factors affecting stakeholder's management is assessed using public and private construction company.

Table 4.8 Factors Affecting Stakeholder's Management at PPBCC

Factors Affecting Stakeholder's Management at PPBCC	N Respondents	Mean	Std. Deviation
All relevant stakeholders are not clearly identified and listed in the this project	102	4.1011	0.5679
All relevant Strategies to manage/engage different stakeholder are not appropriately formulated and applied in this project	102	4.3933	0.5563
All stakeholders' areas of interest and need in this project are not clearly Identifying	102	4.0674	0.421
All Stakeholders of the this project are not properly and frequently Communicating	102	3.8963	0.4711

From Table 4.8, it is shown that the "All relevant Strategies to manage/engage different stakeholder are not appropriately formulated and applied in this project." was ranked in the first position by the respondents with mean score (4.3933). All relevant stakeholders are not clearly identified and listed in this project was ranked in second position, follow by all stakeholders' areas of interest and need in this project are not clearly identifying and all Stakeholders of this project are not properly and frequently Communicating was ranked in next position by the respondent.

4.2.10. The Top Ten Important Factors

From this study 23 factors are identified as factors affecting stakeholder's management in public and private building construction project and grouped into five precondition, information inputs, stakeholder estimation, decision-making and sustainable support from each this 10 factors are selected as the most influencing factors affecting stakeholder's management in public and private building construction company. Based on the participant responded. The rankings implied that ESM cannot be achieved unless each factors is given the attention it.

Table 4.9 The Top Ten Important Factors

Important Factors	N Respondents	Mean	Std. Deviation	Rank
Lack of considering corporate social responsibilities	102	4.9551	0.2084	1
Failure for clearly formulating the project mission	102	4.8652	0.3751	2
Failure to understand Stakeholders' needs and expectations	102	4.7416	0.5119	3
Uncooperative Attitude of Stakeholders	102	4.7303	0.4946	4
Incomplete Stakeholder Identification	102	4.6742	0.4713	5
Late identification of stakeholders	102	4.5843	0.5395	6
Failure to identify key stakeholders interest areas	102	4.4831	0.5663	7
Failure to Keeping and promoting positive relationships among the stakeholders	102	4.3933	0.5563	8
Issuance of incorrect information to stakeholders	102	4.1011	0.6579	9
Failure to Identify potential conflict areas	102	4.0674	0.421	10

A. Precondition

Considering corporate social responsibilities: Project managers have been urged to always strive to manage stakeholders with corporate social obligations that include economic, environmental, legal, and ethical concerns (Mathur et al., 2008; Yang et al., 2009). Smyth (2008) advocated for stakeholder management theory to shift away from power-based methods and toward acknowledgment of duties for ethical care through proactive management. El-Naway et al. (2015) found 30 variables in 6 groups while designing a technique for SM to achieve project success. The study discovered that managing stakeholders with social responsibilities, defining and formulating a clear statement of project missions, formulating adequate strategies to manage stakeholders, and building trust between

project top management and the most engaged stakeholders on the project are the factors that most influence SM on construction projects.

B. information inputs

Clearly formulating the project mission: Many academics have demonstrated the significance of developing suitable techniques for dealing with stakeholders. The development of a clear mission for the projects at various phases is often regarded as critical for efficient stakeholder management (Winch 2000). Before engaging in any stakeholder management activity, the project manager should have a better grasp of the duties and objectives at each step of the project lifecycle, including concerns such as cost, schedule, and budget. Jergeas et al. (2000) demonstrated further, through interviews, that "establishing shared goals, objectives, and project priorities" is important for better stakeholder management.

Incomplete Stakeholder Identification was closely related to another factor

Late identification of stakeholders Most of scholars studying stakeholder management (Karlsen 2002; Olander 2006; Walker et al. 2008; Jepsen and Eskerod 2008) have pointed out the significant importance of identifying stakeholders. Despite the fact that project stakeholders may be classified into several kinds based on multiple criteria (Pinto 1998), the issue of "who are stakeholders?" remains unanswered. Prior to categorizing and managing stakeholders, (Frooman 1999) should be addressed. Pacagnella Jnior et al. (2015) discovered the potential impact of these factors on ESM, stating that incomplete stakeholder identification will not allow stakeholder managers to know all persons, groups, or organizations that may impact on or be impacted by a project decision, activity, or result, and analyzing and documenting all relevant information.The same authors claimed that the first step in managing stakeholders in a project should be to identify all individuals, groups, or organizations who may have an influence on or be impacted by a project decision, action, or result.

identify key stakeholders interest areas: Identifying and comprehending project stakeholders' areas of interest: Because construction is fragmented and multifaceted, it is important to identify and evaluate stakeholders' areas of interest in a typical construction project (Jepsen and Eskerod, 2009; Karlsen, 2002; Freeman et al. 2007; Reed et al., 2009)

understand Stakeholders' needs and expectations: comprehend the needs and expectations of stakeholders: According to Teye Buertey et al. (2016), in order to accomplish ESM and effective project delivery, the project team must understand stakeholders' requirements and expectations and manage their influence in respect to their requirements. Exploring

stakeholder requirements and project limitations in relation to the projects is to anatomize areas of stakeholder interest and identify the particular issues of stakeholder concerns (Freeman et al., 2007). All stakeholder needs should be assessed during the project process so that a satisfactory and realistic solution to problems (e.g., need conflicts) can be obtained (Love et al., 2004)

C. stakeholder estimation

uncooperative attitude of stakeholders: Uncooperative stakeholders may prevent ESM from being used in private construction project delivery; lack of collaboration may result in controversy and conflict amongst parties.

Failure to Identify potential conflict areas: Failure to identify potential conflict areas would prohibit stakeholders and management from adopting measures to prevent and/or resolve conflicts as they emerge, preventing and/or resolving ESM in private construction projects. While disputes amongst stakeholders would undoubtedly make ESM difficult, it is a well-known reality that in a conflict scenario, no significant progress can be documented. The collapse of a Large Infrastructure Project (LIP) was attributed to a conflict of authority among several of the project's main players (Zarewa et al., 2018). Because of the potential implications of these factors on ESM, writers such as Jepsen and Eskerod (2009), As CSFs for ESM, Yang et al. (2009) and Chinyio and Akintoye (2008) recommended identifying and assessing likely stakeholder conflicts and coalitions, as well as effective conflict resolution.

D. sustainable support

Keeping and promoting positive relationships among the stakeholders: For the effective execution of projects and satisfying stakeholder expectations, successful relationships between the project management team and its stakeholders are critical (Cleland, 1986); (Savage et al., 1991); (Jergeas et al., 2000). Through consensus decision making, a healthy connection among project stakeholders will ensure the project's smooth functioning (Eriksson and Westerberg, 2011). Maintaining positive connections among stakeholders, as well as between stakeholders and the project, may assist project managers create trust, dedication, and loyalty, allowing them to satisfy stakeholders' expectations (Jergeas et al., 2000; Bourne, 2005; Karlsen et al., 2008).Communicating with stakeholders properly and frequently (instituting feedback mechanisms) has been identified as CSF for ESM by Yang et al. (2009) whereas Peter (2017) claimed that one of the stages to guarantee that stakeholder groups and individuals are successfully managed and engaged inside project is constant consultation and open communication with all stakeholders and groups

Issuance of incorrect information to stakeholders: According to Chinyio and Omolaiye (2015), if information provided to stakeholders is not accurate, timely, or relevant, the ESM will be ineffective and delivery would be difficult. It will be exceedingly difficult to accomplish ESM based on inaccurate data, because actions and/or choices based on such data may turn out to be erroneous or rife with errors. Furthermore, inaccurate information may cause stakeholders to be suspicious of and/or distrust any information provided to them, affecting stakeholder management procedures. The accuracy or incorrectness of information provided to stakeholders has a major impact on SM. According to Chinyio and Omoloyaie (2015), if information provided by project managers cannot be trusted by impacted stakeholders, the stakeholder management process is doomed to fail.

4.3. Multiple Regression Analysis

Multiple regressions are a statistical technique that permits the researcher to examine the relationship between a single dependent variable and several independent variables (Tabachnick & Fidell, 2007; Hair et al., 2006). In this study, multiple linear regression was employed to establish a set of independent variables, which explains a proportion of the variance in a dependent variable of stakeholders' management in construction project at a significant level.

4.3.1. testing the Assumptions OF Multiple Linear Regressions

Before conducting the multiple regression analysis there are some requirements that need to be fulfilled, hence the data that is going to be analyzed should be controlled in order to decide if it is appropriate to conduct a multiple regression analysis or not (Hair et al., 2011).

A: Test of Multicollinearity

Multicollinearity occurs when two or more of the independent variables are highly correlated that certain mathematical operations are impossible (Hair et al. 2006; Cooperand Schindler, 2003). However, Multicollinearity was examined by inspection of the Tolerance and VIF values. Hair et al. (2006), there are two general procedures for assessing collinearity, including tolerance and variance inflation factor (VIF) (Pallant, 2007). The data will be absence of multicollinearity while VIF is less than ten, and tolerance value of greater than 0.10 (Kline, 2005). The tolerance values and VIF of this study pointed out absence of multicollinearity problem as seen in table

Table 4.10 Multicollinearity Test – Tolerance and VIF

Variables	Collinearity Statistics	
	Tolerance	**VIF**
Precondition	0.248	4.037
Information Inputs	0.261	3.826
Stakeholder Estimation	0.283	3.538
Decision Making	0.431	2.318
Sustainable Support	0.957	1.045

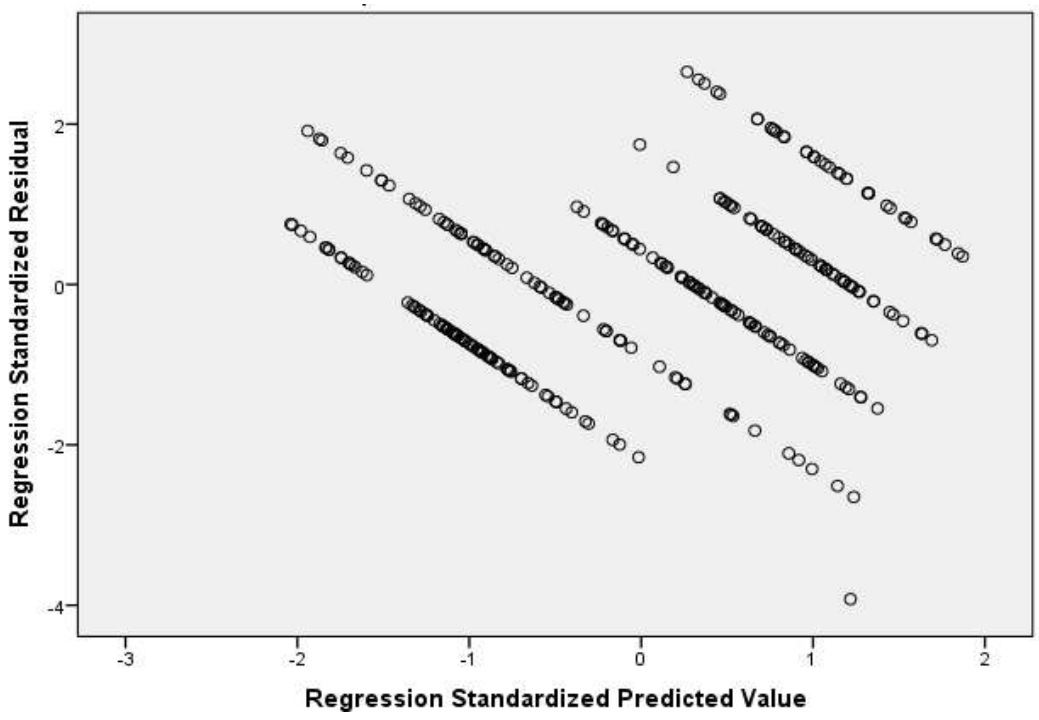
B: Homoscedasticity (Equal Variance)

(Hair et al., 2006) indicated that Homoscedasticity relates to the assumptions that dependent variable explaining equal levels of variance across the range of independent variables. Consistent with (Hair et al., 2006), this study tested the homoscedasticity for metric variables using scatterplot. Scatter plots of standardized residual was conducted for all the variables and the outcomes from the data were shown in the below figure

Scatterplot

Dependent Variable: ESM Total

Figure 4.1 Homoscedasticity



C: Test of Normality

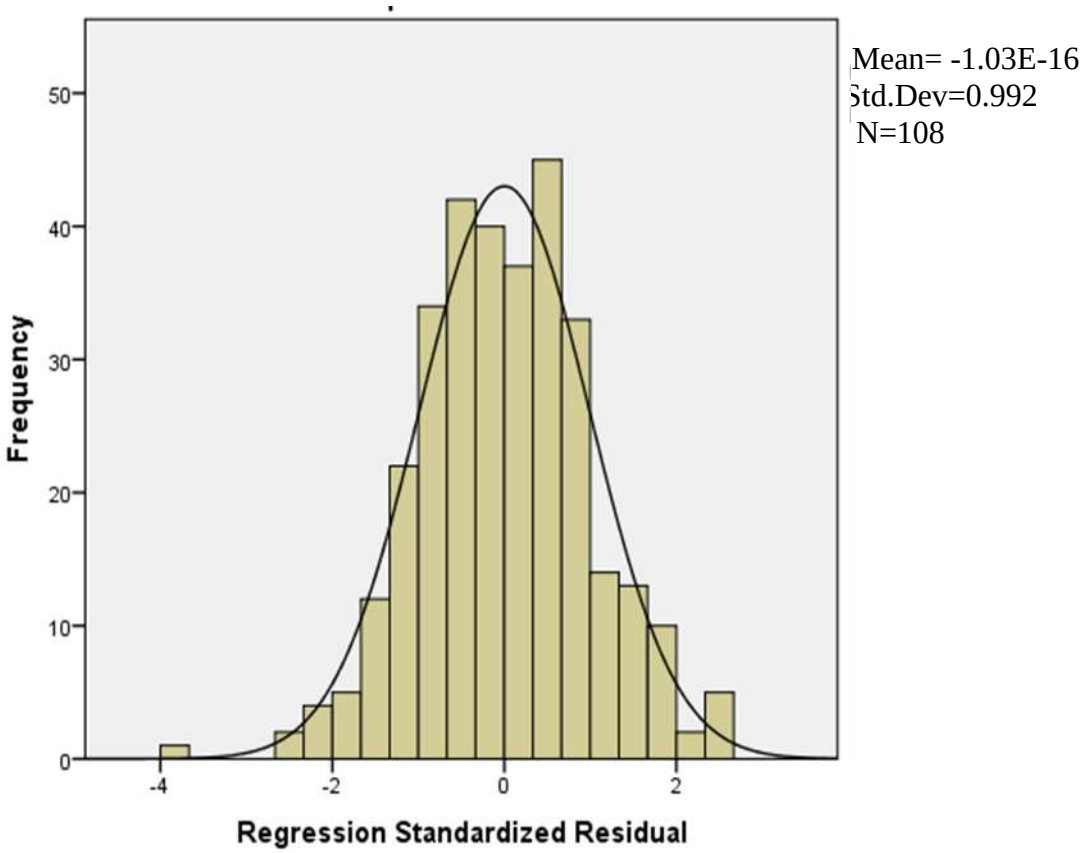
(Hair et al., 2006) noted that normality relates to the shape of the data distribution for an individual metric variable and its relationship to the normal distribution**.**

In a probability histogram, the height of each bar shows the true probability of each outcome if there were a very large number of trials. The most obvious way to tell if a distribution is approximately normal is to look at the histogram itself. If the graph is approximately bell-shaped and symmetric about the mean, hence the data that is going to be analyzed should be assuming normality. The normal probability plot is a graphical technique for normality testing. The data are plotted against a theoretical normal distribution in such a way that the points form an approximate straight line. The result for normality are show in the below figure.

Histogram

Dependent Variable: ESM Total

Figure 4.2 Test of normality



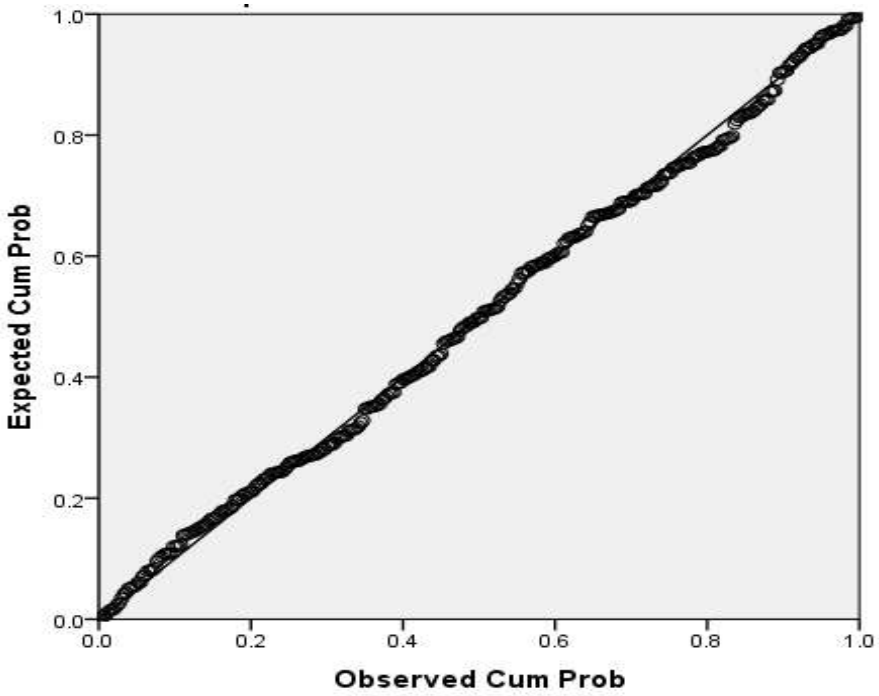
D. Test of Linearity

According to (Hair et al., 2006) this study performed linear regression analysis and the residuals using Normal Probability P-P Plot to examine linearity. Effective stakeholder management in public and private building construction project is assumed to be linearly related with independent variables (PC, II, SE, DM and SS); denotation the dependent variable effective stakeholder management in public and private building construction projects is assumed to be impacted with changes in the independent variables. The results for linearity assumptions are show in the below figure. It was indicated that straight line surrounding the diagonal axis.

Normal-P-Plot of Regressions Standardized Residual

Dependent Variable: ESM Total

Figure 4 .3 Test of Linearity



4.3.2. Analysis of Variance (ANOVA)

ANOVA is used to detect the statistical variances between the means of two or more groups (Freund et al., 2006). The F-ratio in the ANOVA table tests whether the regression model is a good fit for the data and it shows if the independent variables statistically significantly predict the dependent variable (Freund et al., 2006).

Table 4.11 ANOVA Precondition on Effective stakeholder management

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	291.798	1	291.798	103.04	.000[b]
	Residual	283.199	100	2.83		
	Total	574.997	101			
a. Dependent Variable: ESM						
b. Predictors: (Constant), PC						

Table 4. 12 ANOVA Information Input on Effective stakeholder management

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	344.168	1	344.168	149.10	.000[b]
	Residual	230.829	100	2.31		
	Total	574.997	101			
a. Dependent Variable: ESM						
b. Predictors: (Constant), II						

Table 4. 13 ANOVA Stakeholder Estimation on Effective stakeholder management

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	194.208	1	194.208	51.00	.000[b]
	Residual	380.789	100	3.81		
	Total	574.997	101			
a. Dependent Variable: ESM						
b. Predictors: (Constant), SE						

Table 4. 14 ANOVA Decision Making on Effective stakeholder management

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	359.188	1	359.188	166.44	.000[b]
	Residual	215.809	100	2.16		
	Total	574.997	101			
a. Dependent Variable: ESM						
b. Predictors: (Constant), DM						

Table 4. 15 ANOVA Sustainable Support on Effective stakeholder management

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	329.868	1	329.868	134.57	.000[b]
	Residual	245.129	100	2.45		
	Total	574.997	101			
a. Dependent Variable: ESM						
b. Predictors: (Constant), SS						

The F-ratio in this study shows that the independent variables statistically significantly predict the dependent variable and that the model is a good fit of the data.

4.3.3. Regression Model Summary

The Model summary table presents the R, R Square and adjusted R Square. The R column represents the value of the multiple correlation coefficients, which measures the prediction of the dependent variable (Freund et al., 2006). The R Square represents the coefficient of determination, which measures the proportion of variance in the dependent variable that can be explained by the independent variables (Freund et al., 2006). The adjusted R Square also indicates to what extend the dependent variable can be explained by the independent variables, but adjust the number in terms of a model (Freund et al., 2006).

Table 4.16 Model Summary of Regression Analysis

Model Summary[b]									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.823[a]	0.677	0.672	0.76786	0.677	132.041	5	315	0
a. Predictors: (Constant), PC, II, SE, DM, SS									
b. Dependent Variable: SM									

Source: *Analysis of data collected (2021)*

Form the table, *R*=.823 shows a positive correlation, coefficient of determination *R2*=.677, while adjusted implies that the independent variables: (Precondition, Information Inputs, Stakeholder Estimation, Decision Making and Sustainable Support) .677% of the variation of the dependent variable stakeholder management in construction project and the other .323% is due to other independent variables not included in the model. Thus the strength of the relationship between dependent and independent variables is moderately,

4.3.4. Regression Coefficients

A multiple regression model is used when there are several independent variables, and it tests how one of the independent variable affects the dependent variable and also the influence each of the independent variables has on the dependent variable (Hair et al., 2011).

Table 4.17 Model Summary of Regression Analysis

Coefficientsa					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.537	0.212		7.245	0
PC	0.04	0.014	0.186	2.883	0.004
II	0.136	0.014	0.318	9.702	0
SE	0.079	0.018	0.208	4.275	0
DM	0.052	0.015	0.208	3.458	0.001
SS	0.049	0.016	0.191	3.056	0.002

From the above table 4.10

- ✓ All the explanatory variables have positive coefficient correction with dependent variable and all independent variables are significant.
- ✓ Each explanatory variable a greater percentage is associated with a higher level of stakeholders' management for construction project.

The beta coefficients reveal which of the independent variables contribute the most to explaining the relationship between the dependent variable. The model indicated that the most influential factor is Information Inputs influence (β = 0.136), followed by Stakeholder Estimation (β =0.079), Decision Making (β =0.052), Sustainable Support (β =0.049), and then Precondition (β =0.040), The Beta value found in the standardized coefficient column, signifies how much the dependent variable varies in relation to an independent variable, when all other independent variables are held constant (Freund et al.5, 2006).

- ✓ Inputs influence (β = 0.136), under information input component
    - o clearly formulating the project mission-II1
    - o understand Stakeholders' needs and expectations -II2
    - o Incomplete Stakeholder Identification-II3
    - o Late identification of stakeholders and -II4
    - o identify key stakeholders interest areas- II5

For successful stakeholder management, a clear identification and characterization of the overall project goal is critical from the start. To that aim, Winch (2010) recommended that the project manager have a thorough grasp of the tasks and objectives at all stages of the project life cycle. The obtained results are in line with the findings of (Hammad, 2013) and (Yang, 2011) Teye Buertey et al. (2016) argued that project team must determine stakeholders' requirements and expectation and manage their influence in relation to their requirements in order to achieve effective stake holder management.

The significant importance of identifying project stakeholders at the beginning (initiation) of the project have been pointed out in studies relating to stakeholder management/engagement (Mathur *et al*., 2008; Faniran *et al*., 1999).

- ✓ Stakeholder Estimation (β =0.079), under Stakeholder Estimation component
    - Uncooperative Attitude of Stakeholders –SE1
    - Failure to Identify potential conflict areas-SE2
    - Failure to Predicting and mapping stakeholders' behaviors-SE3
    - Failure to assess levels of influence of various stakeholders SE4

Different types of conflicts have been acknowledged in literature which range from conflicts among stakeholders to conflicts between the stakeholders' and the project's objectives (Awakul and Ogunlana, 2002; Jepsen and Eskerod, 2009). According to Freeman (1984) analyzing the conflicts and coalitions that exist or are likely to occur among the project stakeholders is a very important step in stakeholder management process.

Stakeholders engage in a variety of ways to voice their concerns and assert their relevance to the project. The need of project managers or whomever is in charge of stakeholder management fully understanding the many ways stakeholders behave and respond during the project execution process has been highlighted (Freeman et al., 2007).

As the interests of stakeholders change during the project, their influence on one another and on the project is likely to change so also their relationship with one another and with the project (Jergeas *et al*., 2000). Since stakeholders' base of influence is not static, there is the need to conduct and update stakeholder analysis during the entire life cycle of the project (Olander and Landin, 2005, Olander, 2006).

- ✓ Decision Making (β =0.052), under Decision Making component
    - Lack of Formulating appropriate strategies to manage/engage different stakeholders DM-1
    - Lack of Resolving conflicts among stakeholders effectively DM-2
    - Lack of Predicting stakeholders' likely reactions for implementing project decisions DM-3

Various researchers have stressed the significance of developing suitable ways to manage/engage stakeholders (Karlsen, 2002; Chinyio and Akintoye, 2008; Aaltonen and Sivonen, 2009; Yang et al., 2009). According to Mathur et al. (2008), an effectively structured stakeholder engagement approach may offer a wide range of results ranging from

the collection of various types of information to social learning, in addition to increasing project performance.

In the literature, several forms of conflicts have been identified, ranging from conflicts among stakeholders to conflicts between the stakeholders' and the project's aims (Awakul and Ogunlana, 2002; Jepsen and Eskerod, 2009). According to Newcombe (2003) a powerful individual stakeholder may have a significant influence on project decisions but it is usually groups of stakeholders, who combine to form temporary coalitions, who are the most influential in shaping the strategy of the project

Project managers to be able to predict stakeholders' likely reactions in this respect (Yang et al., 2009). This would enable stakeholder management to minimize stakeholders' negative impacts and ensure that they do not hinder the successful completion of the project (Chinyio and Akintoye, 2008; Chinyio and Olomolaiye, 2010).

- ✓ Sustainable Support (β =0.049), under Sustainable Support component
    - Failure to Keeping and promoting positive relationships among the stakeholders' SS-1
    - Failure to understand the relationship between among stakeholders' SS-2
    - Failure to Managing the change of stakeholders' interest's SS-3
    - Lack of Managing the change of relationship among stakeholders' SS-4
    - Lack of constant communication with stakeholders' SS-5
    - Lack of open and ongoing communication process SS-6
    - Issuance of the same information to all stakeholders' SS-7
    - Issuance of incorrect information to stakeholder's SS-8

Maintaining positive connections among stakeholders, as well as between stakeholders and the project, may assist project managers create trust, dedication, and loyalty, allowing them to satisfy stakeholders' expectations (Jergeas et al., 2000; Bourne, 2005; Karlsen et al., 2008).

Managing the change of stakeholders' interests previous researches have advocated the need for a continuous stakeholder engagement throughout the project's life cycle (Jergeas *et al*., 2000; Walker *et al*., 2008; Newcombe, 2003; Chinyio and Akintoye, 2008). Due to the fact that stakeholders are dynamic and their interests on the project change over time depending on the issues being considered and how they relate to their powers to influence projects either positively or negatively (Freeman, 1984).

The use of different appropriate means of communication for stakeholders or groups of stakeholders is very important (Chinyio and Akintoye, 2008). It is important for a project

management team to manage their differing demands through good communication in the early stages of a project once the stakeholders have been identified (Olander and landin 2008, Yang *et al*., 2009). This might give substantial opportunity for resolving a number of issues.

it is important to ensure that good relationships are kept not only among the stakeholders but also between the stakeholders and the project (Chinyio and Akintoye, 2008). The introduction of collaborative climate amongst the key stakeholders can help to achieve a cooperative relationship between the stakeholders and the project (Erikson and Westerberg, 2011). Lack of Managing the change of relationship among stakeholders was ranked in next position by the respond

- ✓ Precondition (β =0.040) under Precondition component
    - Lack of considering corporate social responsibilities PC-1
    - Language barrier between stakeholder's PC-2
    - Cultural differences between stakeholder's PC-3

Stakeholder management, according to Bourne (2005), must balance conflicting claims on resources between various sections of the project, between the project and other projects, and between the project and the organization. Economic, environmental, legal, and ethical concerns all have an impact on the conflicting demands of the project's stakeholders.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

Based on the result obtained in the study, conclusion, recommendation for factor affecting stakeholder's management in public and private building construction projects in Addis Ababa, its limitation and future research also will be presented in this chapter

5.2. Conclusion

The construction project involves a large number of participants who have various interests. The participants involved in the project have diversity in terms of profession, culture, education, gender, and spatial distance from the project which causes differences in project interests that must be resolved through the delivery of the project. Findings of the study will enable project managers and other stakeholders associated with the understanding the factors of effective stakeholder's management and develop strategies for overcoming the factors.

Based on the above findings on each research objective, the next section gives the conclusions in relation to each factors component and its impact on factor affecting stakeholder management in public and private building construction project in Addis Ababa.

- ✓ **Precondition: -** as shown on Pearson correlation and beta coefficients of Precondition has significant positive correlation to factors affecting stakeholder's management in public and private building construction. The result of this study indicates that, under precondition component, the highest level agreement by all respondents was "failure to managing stakeholders with social responsibilities (economic, legal, environmental and ethical)" which therefore was considered as an extremely influential factor to the success of factors affecting stakeholder management in public and private building construction projects by the study participant.
- ✓ **Information inputs: -** The information input component variables contribute the most to explaining the relationship between the dependent variable for factors affecting stakeholder management in public and private building construction projects. This implies that information input is the major component of factors affecting stakeholder management. As per the outcome of employees perceive the components under information input "clearly formulating the project mission" and understand stakeholders' needs and expectations highest level of impact on affecting stakeholder management in public and private building construction projects. On

Pearson correlation information inputs has significant positive correlation and in beta coefficients information inputs was the most influential factor from other four factors

- ✓ **Stakeholder Estimation: -** The uncooperative attitude to stakeholder's component of Stakeholder Estimation factor also reported to being slightly high impact on affecting stakeholder's management in public and private building construction projects by the respondent of the study, may not allow stakeholders because of lack of cooperation may result in misunderstanding, controversy and conflict between the stakeholders. On Pearson correlation Stakeholder Estimation has significant positive correlation with factors affecting stakeholder's management in public and private building construction projects and in beta coefficients Stakeholder Estimation was the second influential factor from other four factors
- ✓ **Decision making factor: -** The decision-making component of factors influencing ESM in the study area is higher in value compared to sustainable support and Precondition, but lower in value compared to Stakeholder Estimation and information input The decision-making component Lack of Formulating appropriate strategies to manage/engage different stakeholders and is ranked in the first position by the participant. Stakeholders are important elements of any construction project; if key stakeholders are ignored to engage, will definitely lead the project to failure.
- ✓ **Sustainable support factor: -** The sustainable support component of the factors influencing ESM in public and private building construction projects, the respondents for this survey perceived that sustainable support component is the least important component followed by precondition among factors influencing ESM in in public and private building construction projects in this study. "Failure to Keeping and promoting positive relationships among the stakeholders" was ranked in the first position by the respondents under sustainable support Component

In General, the results revealed that information input and stakeholder estimation has a significant influence on factors affecting stakeholder's management public and private building construction projects.

5.3. Recommendation

The study contributed to knowledge by increasing understanding of factors affecting stakeholder's management in public and private building construction projects, and their respective levels of impacts. Based on the previous data and study kindly find recommendations necessary for enhancing factors affecting stakeholder 's management in

public and private building construction projects, mainly the solution for conducting a high level of stakeholder's management will be through the below major ten actions: -

1. **Considering corporate social responsibilities: -** organization should acknowledge the validity of diverse attempt to respond to the with in a mutually supportive framework because it's a moral requirement
2. **Very clearly formulating the project mission:-** the person in charge should have a good understanding of the tasks and objective at each particular stage of the project life cycle, including such as the issues about cost, schedule and budget, using interviews and this could be enhanced by issuing project briefing report contains the scope of works and to be updated gradually after meeting with the project stakeholders.
3. **Very clearly understand Stakeholders' needs and expectations:-** this action must be conducted periodically to avoid scope of work changes at the end of the project which will reflect high cost of change and delay in the completion of the works and this factors also can be overcome by preparing site visits to the most influencing stakeholder to their project site let say on a monthly and hear their future exception from the project.
4. **Cooperative Attitude of Stakeholders:-** uncooperative attitude of stakeholders may not allow effective stakeholders' management in public and private building construction projects because lack of cooperation may result in misunderstanding, controversy and conflict between the stakeholders' mangers need develop cooperative attitude of Stakeholders.
5. **Complete Stakeholder Identification:-** taking into consideration that this factors comes number five in the priority list but it's very essential to applied at the project early stages by maintain stakeholders register include all their details and the power of influence of each on the projects.
6. **Late identification of stakeholders: -** the first process for managing stakeholders in a project should involve identifying all persons, groups or organizations. Late identification stakeholder will not allow stakeholder managers to know all persons, groups or organizations. that may impact on or be impacted by a decision, activity or result of the project, and analyzing and documenting all relevant information regarding their interests, level of engagement, interdependencies, influence, and potential impact on the success of the projects.

7. **Identify key stakeholders interest areas:-** the easiest way to use these factors for the sake of the project is to make a monthly interview with the stakeholders to know their exception form the projects.
8. **Keeping and promoting positive relationships among the stakeholders:-** this could be conducted by good communications plan and to make the stakeholder aware by the progress of works in the project through daily, weekly and monthly reports reflecting the number manpower and equipment's in the project showing the progress of the major project activates.
9. **Issuance of incorrect information to stakeholders: -** Issuance of incorrect information to stakeholders could not only impact against stakeholder management in public and private building construction projects but could also result in stakeholders taking undesired action that will be inimical to the overall objective of the construction projects.
10. **Failure to identify potential conflict areas: -**"failure to identify potential conflict areas" will not allow stakeholders managers to develop measures to prevent and/or address the conflicts when they occur. Identifying and analyzing possible conflicts and coalitions among stakeholders as well as effective resolution of conflicts among stakeholders.

Stakeholder management is one of the major concerns in the construction projects. The interactions and interrelationships between stakeholders largely determine the overall performance of a construction project, for a proper stakeholder management in public and private building construction projects to be accomplished in Addis Ababa, Ethiopia. All the factors influencing stakeholder management construction should be earnestly observed.

5.3.1. Recommendations for future research

This research can be conducted on other groups and samples with different cultures,

- ✓ Exploratory research can be carried out to identify the factors intrude improvement of factors that affect stakeholder's management.
- ✓ Further research will be carried out to identify more factors that may impact stakeholder's managements in public and private building construction projects. Furthermore, further study could be instituted to compare the factors influencing SM on building construction projects by public and private organizations.

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Appendix-1 Questioner

DEPARTMENT OF CONSTRUCTION TECHNOLOGY AND MANAGEMENT
QUESTIONNAIRE FOR RESEARCH WORK

Dear Participant,

I am a graduate student at Addis College, in partial fulfillment of the requirement for the degree of Masters Construction technology and Management (COTM). I am conducting a study to investigate the "Factors Affecting Stakeholder Management in Building construction Project in Addis Ababa"

Your response and participation form a critical part of the success of my research. I request you to respond to the questions frankly and honestly. Your response will be kept strictly confidential and will only be used for the purposes of this academic research. If you have any questions or concerns with regards to the questionnaire, please do not hesitate to contact me at any time through my contact provided below.

Thank you very much for your time and cooperation.

Cordially your'

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Part one: Personal Information of Respondents

Please specify your answer by placing a (√) on the relevant answers provided. The following questions will use only in determining our sample demographics.

1. Your gender

☐ Male ☐ Female

2. State your age in complete years

_____

3. Please indicate your highest academic qualification

☐ College/University Degree ☐ PhD

☐ Master's Degree ☐ Other: please specify

_____

4. How many years of experience do you have in the construction industry

_____

5. Please indicate your Job title.

☐ Project director ☐ Contract administrator

☐ Project manager/ Construction manager ☐ Assistant manager

☐ Site manager ☐ Project engineer

☐ Designer/consultant ☐ other: please specify

6. Please state the nature of your organization

☐ Public Sector ☐ Private Sector

6. 1 Name of the construction project _____

6. 2 Contractor Name_____

6. 3 Contract Amount (Eth. Birr) _____

6.4. Contract Time (days) _____

6.5 Company size (number of employees) _____

7. State the number of project you are currently involved in

_____

8. State the number of project executed in the last five years

_____

Part two: Please indicate your level of agreement with the following statements about stakeholder management.

Direction: -Please answer on a scale of 1 – 5,

Where 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree.

Please specify your answer by placing a (√) on the relevant answers provide

NO	**Dependent Variable**	1	2	3	4	5
	Stakeholder management					
1	Stakeholder management affects timely completion of projects					
2	Stakeholder management affects cost savings on projects					
3	Stakeholder management affects acceptable quality standard					
4	Stakeholder management affects completion of projects to stakeholder satisfaction					
	Independent Variables					
	Precondition					
5	Lack of considering corporate social responsibilities are a factors that affects stakeholder management					
6	Language barrier between stakeholders are a factors that affects stakeholder management					
7	Cultural differences between stakeholders are a factors that affects stakeholder management in building construction					
	Information Inputs					
8	Failure for clearly formulating the project mission are a factor that affects stakeholder management					
9	Incomplete Stakeholder Identification are factor that affects stakeholder management					
10	Late identification of stakeholders are factors that affects stakeholder management					
11	Failure to identify key stakeholders interest areas are a factors that affects stakeholder management					
12	Failure to understand Stakeholders' needs and expectations are factors that affects stakeholder management					
	Stakeholder Estimation					
13	Uncooperative Attitude of Stakeholders are a factors that affects stakeholder management					
14	Failure to Predicting and mapping stakeholders' behaviors are factors that affects stakeholder management					
15	Failure to assess levels of influence of various stakeholders are factors that affects stakeholder management					
16	Failure to Identify potential conflict areas are factors that affects stakeholder management					
	Decision Making					
17	Lack of Resolving conflicts among stakeholders effectively are factors that affects stakeholder management					
18	Lack of Formulating appropriate strategies to manage/engage different stakeholders are factors that affects stakeholder					

	management					
19	Lack of Predicting stakeholders' likely reactions for implementing project decisions area factors that affects stakeholder management					
	Sustainable Support					
20	Failure to Keeping and promoting positive relationships among the stakeholders are factors that affects stakeholder management					
21	Failure to understand the relationship between and among stakeholders are factors that affects stakeholder management					
22	Failure to Managing the change of stakeholders' interests are factors that affects stakeholder management					
23	Lack of Managing the change of relationship among stakeholders are factors that affects stakeholder management					
24	Lack of constant communication with stakeholders are factors that affects stakeholder management					
25	Lack of open and ongoing communication process are factors that affects stakeholder management					
26	Issuance of the same information to all stakeholders are factors that affects stakeholder management					
27	Issuance of incorrect information to stakeholders are factors that affects stakeholder management					

Thank you for your participation!!

Appendiex-2 The general profile of public and private building contractors company

For this study fifty public and private building contractors, which their grade is four selected as the population of the study

No	Contractor Name	Category	Tel.	Address
1	Ethiopia construction work corporation	GC 1	+251 116675473	A/A
2	AB Construction PLC	GC 1	+251911202150	A/A
3	AFRO-TSION Construction PLC	GC 1	+251911216425	A/A
4	BIFACON Engineering PLC	GC 1	0911 519316	A/A
5	DASHEN Construction PLC	GC 1	+251116633755	A/A
6	3 M Engineering & Construction P.L.C	GC 1	+251911211050	A/A
7	Gezahegn Tesfaye Building Contractor	BC-4	0911 049342	A/A
8	Girma Gebre General Contractor	GC-2	0911 206179	A/A
9	Meege Building Contractor	BC-5	0911 242508	A/A
10	Melaku Girma Building Contractor	BC-4	0911 220172	A/A
11	Nunu Construction PLC	GC-4	0911 186178	A/A
12	Samuel Bantu Building Contractor	BC-5	0911 603462	A/A
13	Samuel Endale Building Contractor	BC-2	0911 517820	A/A
14	Abebaw Garde Building Contractor	BC-4	0911 235570	A/A
15	Abera Mekonnen Building Contractor	BC-4	0911 644100	A/A
16	Amene Tadese Building Contractor	BC-5	0911 763102	A/A
17	Anwar Ebrahim Building Contractor	BC-2		A/A
18	Arman Construction PLC	BC-4	0911 522238	A/A
19	Befcon Construction	BC-5	0912 503221/22	A/A
20	Chernet Mulatu Building Contractor	BC-4	0911 641688	A/A
21	CIG International Trading	GC-2	0930 071199	A/A
22	Dagmawe Construction PLC	GC-2	0911 204109	A/A
23	Demerew Teklewolde Building Contractor	BC-5	0911 530647	A/A

24	Derar Tsegaye Haile Construction	BC-5	0928 957690	A/A
25	Endalamaw Alemayehu Building Contractor	BC-5	0911 729756	A/A
26	3D Construction	BC-2	0911 615170	A/A
27	A CON Construction PLC	GC-2	0912 011938	A/A
28	A T Y H Construction PLC	BC-2	0914717671	AA
29	Getachew Girma Building Contractor	BC-4	0911 536157	A/A
30	PLC Gimra Construction	GC-4	0911 241754	A/A
31	Hailemariam Hiluf Building Contractor	BC-4	0911 654753	A/A
32	Hiruy Feseha Building Contractor	BC-5	0911 702344	A/A
33	Hiwot Surafel Building Contractor	BC-5	0911 200920	A/A
34	Jafer Kassim General Contractor	BC-5	911403950	A/A
35	KMTG Construction PLC	GC-2	0914 748128	A/A
36	Lamesgen Haile Building Contractor	BC-3	911219399	A/A
37	M.K.S. Eng. And Construction P.L.C.	GC-2	0911 137152	A/A
38	Misbah Awol Building Contractor	BC-4	0911 408777	A/A
39	Philipfas Construction PLC	BC-4	0911 440116	A/A
40	Semrekal Tinsae Dehano Building Contractor	BC-5	0911 506077	A/A
41	Shimelis Guangul Building Contractor	BC-5	0911 213479	A/A
42	Sofonias Getachew Building Contractor	GC-5	0911 512444	A/A
43	Taye Habte Building Contractor	BC-4	0911 211791	A/A
44	Tekleberhan Tadesse Building Contractor	BC-5	0916-934324	A/A
45	Addis Meseret General Contractor	GC-5	0912 500953	A/A
46	Triangle General Construction PLC	BC-4	0911 612413	A/A
47	Abenet Belay Mengistu	BC-5	0911 420336	A/A
48	Yebeltal Beyene Building Contractor	BC-2	0911 252531	A/A
49	YOAL BUILDING CONTRACTOR (Yohannes Eliyas Yigzaw)	BC-4	0970 414394	A/A
50	Yoy Engineering PLC	BC-3	0911 214222	A/A