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**ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE**

**THE ROLE OF STAKEHOLDER MANAGEMENT  
IN ENHANCING PROJECT SUCCESS:**

**A CASE STUDY ON ETHIOPIAN  
CONSTRUCTION WORKS CORPORATION**

BY

ABDURAZAK JEMAL /GSE9794/13

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**JUNE 2023**

**ADDIS ABABA, ETHIOPIA**

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**SCHOOL OF COMMERCE GRADUATE STUDIES**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENT OF**

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## Declaration

I declare that this thesis is my original work and has not been presented for degree or other purposes in any university or places. I further confirm that all the sources of materials used for this thesis are dully acknowledged.

Signature \_\_\_\_\_

**ABDURAZAK JEMAL**

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## Contents

LIST OF TABLES.....	9
ABBREVIATIONS AND ACRONYMS .....	10
ABSTRACT.....	11
CHAPTER ONE .....	12
1 Introduction.....	12
1.1 Background of the study .....	12
1.2 Statement of the Problem.....	13
1.3 Research Questions.....	14
1.4 Research objectives.....	15
1.5.1 General objective .....	15
1.5.2 Specific objective .....	15
1.5 Significance of the Study .....	15
1.6 Scope and Limitation of the Study.....	16
Background of the study organization .....	16
CHAPTER TWO .....	18
2 LITERATURE REVIEW .....	18
2.1 Introduction.....	18
2.2 Theoretical Review .....	18
2.2.1 Stakeholder definitions.....	18
2.2.2 Stakeholders in construction.....	19
2.2.3 Types of stakeholders .....	19
2.2.4 Stakeholder management.....	20
2.2.5 Critical success factors (CSFs) for stakeholder management. ....	21
2.4 Conceptual Framework.....	22
2.5 Review of Study Variables .....	22
2.5.1 Stakeholder Identification.....	22
2.5.2 Plan Stakeholder engagement.....	23
2.5.3 Stakeholder analysis .....	23
2.5.4 Stakeholder communication .....	24
2.5.5 Monitoring Stakeholder Engagement.....	25

---

2.5.6 Construction Project Success.....	26
2.6 Empirical Review.....	27
2.7 Research Gap.....	28
CHAPTER THREE .....	29
3 RESEARCH METHODOLOGY.....	29
3.1 Introduction.....	29
3.2 Description of the study area .....	29
3.3 Research Design and Approach.....	30
3.3.1 Research Design .....	30
3.3.2 Research Approach.....	30
3.4 Type and source of Data .....	30
3.5 Target Population, Sampling Technique and Sample Size .....	30
3.5.2 Target Population and Sampling techniques .....	30
3.5.2.1 Target population.....	30
3.5.1 Sample size.....	31
3.5.2.2 Sampling Technique .....	32
3.6 Data collection instruments and Procedure.....	32
3.6.1 Data collection instruments .....	32
3.6.2 Piloting the research instruments.....	33
3.6.3 Data quality control .....	33
3.6.4 Validity and Reliability .....	33
3.6.5 Data analysis Method .....	34
3.6.6 Ethical Consideration .....	34
CHAPTER FOUR.....	35
4. DATA ANALYSIS, PRESENTATION AND INERPRETATION.....	35
4.1 Introduction.....	35
4.2 Response Rate.....	35
Own computation from survey data 2023.....	36
4.3 Demographic Characteristics of the Respondents.....	36
4.5 Stakeholder Management Practice in ECWC Road Projects .....	37
4.6Analysis, presentation and Interpretation.....	38

4.6.1 Descriptive Statistics of the Variables .....	38
4.6.1.2 Plan Stakeholder Engagement .....	39
4.6.1.3 Stakeholder Analysis .....	39
4.6.1.4 Stakeholder Communication .....	39
4.6.1.5 Monitor Stakeholder Engagement .....	39
4.6.1.6 Project Success/ Enhancement of Projects .....	39
4.6.2 Correlation Analysis of the Variables .....	40
4.6.3 Regression Analyses of variables .....	42
4.6.3.1 Data Normality .....	42
4.6.3.2 Test of Significance .....	43
4.6.3.3 Multiple Regression Analysis Results .....	43
4.6.3.4 T-Test Analysis Result .....	44
4.6.3.5 Hypothesis Testing .....	44
<b>CHAPTER FIVE .....</b>	<b>46</b>
<b>5. SUMMARY, CONCLUSION AND RECCOMENDATIONS.....</b>	<b>46</b>
5.1 Summary of major finding.....	46
5.2 Conclusion .....	47
5.3 Recommendation .....	48
5.4. Suggestions for Further Studies .....	49
<b>REFERENCES .....</b>	<b>50</b>
Appendix A-Questionnaire .....	56
Appendix B- Coding.....	62
<b>Appendix C- completed Road Construction Projects by ECWC.....</b>	<b>65</b>
LIST OF FIGURES .....	66
Figure 1: Identify stakeholder partial Regression plot.....	67
Figure 2: Plan stakeholder engagement Regression plot .....	67
Figure 3: Stakeholder analysis Regression plot .....	68
Figure 5: Monitor stakeholder engagement Regression plot .....	69
Figure 6: Homoscedacity .....	69
Figure 7: Normal P-P plot of Regression standardized Residual.....	69
Appendix: Frequency bar Chart.....	70

DECLARATION.....74

**LIST OF TABLES**

Table 3.1 Distribution of Sample

Table 4.2 Response Rate of the Respondents

Table 4.3 Demographic Characteristics of the Respondents

Table 4.6.1.1 Descriptive Statistics of Identify Stakeholder

Table 4.6.1.2 Descriptive Statistics of Plan Stakeholder Engagement

Table 4.6.1.3 Descriptive Statistics of Stakeholder Analysis

Table 4.6.1.4 Descriptive Statistics of Stakeholder Communication

Table 4.6.1.5 Descriptive Statistics of Monitor Stakeholder Engagement

Table 4.6.1.6 Descriptive Statistics of Project success in Terms of Stakeholder Satisfaction

Table 4.6.2 Correlation Analysis Result

Table 4.6.3.2 Significance Test Result

Table 4.6.3.3 Multiple Regression Analysis Result

Table 4.6.3.4 T- Test Analysis Result

Table 4.6.3.5 Hypothesis Test

**ABBREVIATIONS AND ACRONYMS**

PMBOK	Project Management Body of Knowledge
CSF	Critical Success Factors
PMI	Project Management Institute
ECWC	Ethiopian Construction Works Corporation
ERA	Ethiopian Roads Authority
KPI	Key Performance Indicator
SPSS	Statistical Package for Social Science

## ABSTRACT

The study aimed to assess the role of stakeholder management in enhancing project success: a case study on Ethiopian construction works corporation. Specifically, the study aimed to establish the effect of identify stakeholder, plan stakeholder engagement, stakeholder analysis, stakeholder communication and monitor stakeholder engagement on in enhancing project success in road construction projects constructed by ECWC. This study adopted descriptive research design that enables collection of data to answer the research questions. The study adopted a survey questionnaire design with a target sample of 83 that include division managers, project managers, team leader's, site engineers, office engineers and other related staffs who are involved in the projects. Quantitative data were analyzed using SPSS version 24 where relationships between the variables were assessed using correlation and regression analysis. The study found out that there was a positive and significant relationship between identify stakeholder, plan stakeholder engagement, stakeholder analysis, stakeholder communication and monitor stakeholder engagements and in enhancing project success in road construction projects of ECWC. Based on the findings, the study concluded that identify stakeholder, plan stakeholder engagement, stakeholder analysis, stakeholder communication and monitor stakeholder engagement have a positive and significant effect on enhancing project success in road construction projects constructed by ECWC. Based on the finding the study recommends ECWC to train its professional in identifying stakeholders at early stages of the project in considering proper identification of stakeholder in enhancing project success and also recommends ECWC to deploy proper mechanism in properly planning stakeholder engagement to fill the observed gap in the study. Lastly the study recommends, there should be a periodic meeting, training's, seminar and workshops on stakeholder management to increase level of awareness in the stakeholder's community aiming to bring all the stakeholders in to common platform and fill the observed gap in identification of stakeholder and planning stakeholder engagement.

Keywords: stakeholder management, project success, stakeholder satisfaction

## CHAPTER ONE

### 1 Introduction

#### 1.1 Background of the study

Stakeholder management is one of the areas in construction industry that has significant effect in projects success. As construction projects involve many stakeholders ranging from its employees to government bodies effective stakeholder management is one of the factor that determines project success. According to (PMBOK 7<sup>Th</sup> edition) '*Stakeholder is an individual, group, or organization that may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project, program, or portfolio*'. Stakeholder of a project in general can be defined as anyone who is invested or incentive in the ventures of success or failure of an organization or particular projects ( PMBOK 6<sup>th</sup> edition). This interest could be large or in small amount but anyone who is affected by the activities, decisions and outcome of the project can be viewed to be a stakeholder.

Stakeholder can be a wide variety of people and personnel's with different stakes on the project or an Organization. They can range from employee to vendors, subcontractors, customers, board of directors and government bodies. Stakeholders can be of different kind. They can be internal stakeholders or external stakeholders. Internal stakeholders are stakeholders who are directly affected by the outcome of the projects success or failure. These stakeholders are the people or personnel who have a direct interact with the project through complement. External stakeholders are those who are out of the organization but have potential to negatively or positively affect the activities or outcomes of the projects.

Managing external stakeholders in construction projects are one of the clear demarcations between project success and failure. Numerous academics have identified "the ignorance or poor stakeholder management" as one of the major factors contributing to project failure. The study focuses in external stakeholder management in enhancing project success in ECWC. Stakeholder management is concerned with maintaining open lines of communication with all relevant parties in order to comprehend their requirements and expectations, deal with

problems as they arise, resolve conflicts of interest, and promote the right level of stakeholder participation in project decisions and activities. *‘Stakeholder satisfaction should be identified and managed as a project objective’* (PMBOK 6<sup>th</sup> Edition)

Therefore, it is essential to implement stakeholder management from the project's inception stage onward in order to decrease issues with complaints, protests, and delays in construction projects as well as to achieve projects successfully. In order to ensure consistency in the process and the achievement of its strategic goals, it is necessary to evaluate external stakeholder management in construction projects and to research the factors affecting external stakeholder management in construction projects, particularly in road construction projects under ECWC.

## 1.2 Statement of the Problem

Construction project success is determined by whether it is completed on schedule, on budget, with the requisite quality, and to the satisfaction of the client. Project success has been linked to the effective and continuous engagement of all the project's stakeholders (Bourne and Walker, 2005; Olander, 2007; Aaltonen *et al.*, 2008; Ward and Chapman, 2008; Chinyio and Akintoye, 2008). Construction projects involve a significant number of stakeholders because of their complexity, and these stakeholders all have a stake in the project's actions and results.

Findings of (Fraz *et al.*, 2016; Tero, 2014; Macahria, 2013; 2016; Bourne and Walker, 2005; Aaltonen *et al.*, 2008; Ward and Chapman, 2008, and Olander, 2007) showed that there is a positive correlation between stakeholder management and project success.

The aforementioned research, however, failed to take into account how a contractor firm manages its internal stakeholders and external stakeholders, such as the owner, suppliers, and subcontractors through its stakeholder management practice. Most of the research conducted in Ethiopia also focused on the assessment of stakeholder management practices rather than to see the relationship between stakeholder's management and project success. In addition to this, even if the issue of stakeholder management is a growing current phenomenon, there are no substantial studies in the country, particularly on the construction sector.

In ECWC, therefore, stakeholders are the key players in achieving its short term and long term strategic objectives. Currently due to obsolete in its construction machinery and requirements of large capital for replacement, ECWC shifts its strategy merely working by its own resource to working with its collaborators like vendors and sub-contractors. Presently the Organization is managing different construction projects in buildings, roads and dams with a capital of more than 40 billion birr from this; more than 10 billion birr sub-contracting works are given to different subcontractors. Consequently, as a giant construction company without effectively managing its stakeholders the company will be in trouble to be successful in its endeavor. ECWC categorize its stakeholder in to two major categories collaborators and stakeholders. This includes Clients, Consultants, Ethiopian Road Administration, Federal Government Bodies, Regional Government Bodies and Members of parliament Etc.

However, as construction projects are full of complex array of activities, construction organizations and professionals overlooked stakeholder management skills in their profession and due to inappropriate stakeholder management projects encounter, delay, cost overrun and stakeholder dissatisfaction. Furthermore, due to lack of proper stakeholder management, construction projects have seen failed to meet their intended purpose.

Therefore, the objective of the study was to assess the effect of stakeholder management in enhancing project success in ECWC. The study attempted to fill the gap in what degree stakeholder's management enhanced project success in ECWC.

### **1.3 Research Questions**

The study aimed to assess the role of stakeholder management in enhancing project success: a case study on Ethiopian construction works corporation.

The role of stakeholder management in enhancing project success in ECWC was the target of this study. In order to achieve its objective, the research work had derived the following questions:

- How did identify stakeholder affected project success in ECWC?
- How did plan stakeholder engagement enhanced project success in ECWC?

- What was the contribution of stakeholder analysis towards project success in ECWC?
- To what degree stakeholder communication affected project success in ECWC?
- Did monitoring stakeholder's engagement have influenced on project success in ECWC?

## **1.4 Research objectives**

### **1.5.1 General objective**

The general objective of the research was to assess stakeholder management in enhancing project success in ECWC.

### **1.5.2 Specific objective**

- To assess the effect of identify stakeholder in enhancing project success in ECWC
- To assess the role of plan stakeholder engagement in enhancing project success in ECWC
- To identify the of effect of stakeholder analysis in enhancing project success in ECWC
- To evaluate the impact of stakeholder communication in enhancing project success in ECWC
- To examine the contribution of monitoring stakeholder engagement in enhancing project success in ECWC

## **1.5 Significance of the Study**

Projects are performed by people for people. Stakeholder management is increasingly becoming a part of practice in delivering successful project outcomes. However, there is a limitation of studies on how stakeholder Management approaches are being implemented towards project success in terms of stakeholder satisfaction.

The objective of the study is to understand the contribution of effective stakeholder management in enhancing project success. This paper intended to fill the gap by assessing the relationship between the identified stakeholder management construct on project outcome success. Generally, the study examined stakeholder management and its contribution on project success, focusing on

identify stakeholder, plan stakeholder engagement, stakeholder analysis, stakeholder communication and monitoring stakeholder engagement in enhancing project success. The study will help project managers and top managements by giving an insight in managing stakeholder that will help in attaining project objectives and organizational business reputation.

### **1.6 Scope and Limitation of the Study**

The scope of the study was only in one of project performance domain that is Stakeholder management on project performance success. Therefore, the study only assessed stakeholder management and its contributions in enhancing project success in road construction projects in ECWC.

Due to the limitations of resource and time the research was conducted the study on the ECWC staffs and professionals. Other stakeholders who have direct interest in organizations performance which include consultants and clients were not included.

Besides that the scope delimitation of the study was only with regard to one project management performance domain which is stakeholder management. This study did not cover other project management performance domains; therefore, the findings of the study only discuss about the stakeholder management performance domain and its contributions towards enhancing project success and could not be generalized to the overall project management practice of the organization.

### **Background of the study organization**

Ethiopian Construction Works Corporation (ECWC), which was recently established as a public corporation in accordance with Council of Ministers Regulation Numbers 336/2015 and 390/2016, was found to have authorized capital of more than 20.3 billion ETB, of which more than 7.7 billion is paid up in cash and in kind. The public enterprise proclamation number 25/1992 governs ECWC. The Ethiopian Road Construction Corporation, the Ethiopian Water Works Construction Enterprise, and the Ethiopian prefabricated Building Parts Production Enterprise were three autonomous public corporations that came together to become ECWC. ECWC was founded with the goal of initiating comparable development projects, owning and

operating dams constructed by the government, charging those who benefit from them, and carrying out excellent building projects both domestically and abroad. The company has served as a contractor on various significant projects, including those involving the construction of buildings, water and irrigation systems, and highways. Currently, more than 15,000 permanent and contract employees are working in the corporation's head office and on its projects.

## CHAPTER TWO

### 2 LITERATURE REVIEW

This chapter discusses the definition of stakeholder, stakeholder management, and type of stakeholder, stakeholder management theory, stakeholder management process, and critical success factor for stakeholder management in construction projects, Stakeholder engagement, Stakeholder identification, stakeholder analysis, Stakeholder communication, monitoring stakeholder Engagements, project success and stakeholder satisfactions.

#### 2.1 Introduction

The objective of this research is to assess of stakeholder management in relation to meeting construction project Success in terms of stakeholder satisfactions. This chapter intends to present a critical review of the existing theories and body of knowledge on construction stakeholder management and construction project success.

The chapter will begin with stakeholder definition and overview of construction stakeholder management practice. This leads on to a discussion of the literature regarding the concept of construction project success. This will be followed by literature regarding current thoughts on the concepts of stakeholder management. This section also includes the introduction of the different stakeholder management processes identified from the prior literature, with attention being drawn to identify stakeholder, plan stakeholder engagement, stakeholder analysis, Stakeholder communication and monitoring stakeholder engagement.

#### 2.2 Theoretical Review

##### 2.2.1 Stakeholder definitions

*‘Stakeholder is an individual, group, or organization that may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project, program, or portfolio. Projects are performed by people and for people (PMBOK 7<sup>th</sup> edition).* Effective stakeholder identification, analysis, communications, planning and monitoring their engagement include stakeholders who are internal and external to the organization, those who are supportive of the project, and those who may not be supportive or are neutral. While having relevant technical project management skills is an important aspect of successful projects, having the interpersonal

and leadership skills to work effectively with stakeholder is just as important, if not more so' (PMBOK 7<sup>th</sup> edition).

### **2.2.2 Stakeholders in construction**

Construction projects have numerous stakeholders with diverse occupational, professional backgrounds, different levels, and types of interests in the project (Mok, et-al 2015). Meeting stakeholder satisfaction and effective stakeholder management is, therefore, a success criterion (Yang J., et al, 2009). Stakeholder management is thus a positive approach of bringing to surface concerns of stakeholders and developing healthy relationships in complex environments (Hasan & Jha, 2015). As failure to address these has resulted in countless project failures (Bourne and Walker 2005). primarily because construction stakeholders tend to have the resources and capability to stop construction projects (Lim et al. 2005).

The process of design and execution of construction projects constitutes a complex system which involves collaboration and negotiations among many stakeholders which may include the clients, designers, contractors, local authorities and the general project environment etc (Yogita M.W, Nikhil B. S.V Wagh, 2016).

As a result, a robust construction management literature has developed on how to identify and manage stakeholder interests and relationships in construction industries.

### **2.2.3 Types of stakeholders**

#### **Who are the Project Stakeholders?**

The most formal sources, like Project Management Institute (PMBOK 7<sup>th</sup> edition) defines the stakeholders as: *“Stakeholder is an individual, group, or organization that may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project, program, or portfolio.”* A more concise definition of the stakeholders would be: “those groups or individuals with whom the organization interacts or has inter-dependencies.

The stakeholders in a project can be divided into Internal Stakeholders to the organization, who is the team members of the project or those who provide for the financing of it and External Stakeholders like the people affected by the project in some significant way (Winch, 2002).

There will be several stakeholders in the vast majority of construction projects, and the variety of their needs and demands will result in conflicts of interest. The checklist of stakeholders in a construction project is often big and includes the owners and facility users, project management, team members, facilities managers, designers, shareholders, public administration, workers, subcontractors, services suppliers, competitors, banks, insurance companies, media, community, neighbors, general public, clients, board of director's, members of parliament, regional development agencies.

Therefore, each one of these could influence in the course of the project at some time. Even though some could influence in the project more than often, the majority will do so at a set time. If we are able to identify all of the interested parties in a construction project, the sector should be able to manage their expectations from the project's genesis through completion.

### **2.2.4 Stakeholder management**

The processes necessary to identify the individuals, groups, or organizations that could affect or be affected by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate management strategies for successfully involving stakeholders in project decisions and executions are all included in project stakeholder management.

Stakeholder management is the process of identifying, analyzing, communicating with, making decisions about, and carrying out all other sorts of activities related to managing stakeholders, according to (Shen et al, 2009). Relationships between an organization and its interested parties or stakeholders are the focus of stakeholder management. These relationships impact on the individuals and their organizations that could be positive, or have a negative influence on any successful project. In order to avoid negative effects and ensure that there are no barriers standing in the way of a successful project, organizations should manage the stakeholders of all projects.

Stakeholder management has variety of advantages or benefits for the success of project in many different ways:

- ❖ Develop a better understanding of projects needs

- ❖ Understand the stance of stakeholder to the project
- ❖ Develop a more valuable engagement with stakeholders
- ❖ Creates a good communication with stakeholders
- ❖ Used as a tool to make stakeholders happier and more satisfied

### **2.2.5 Critical success factors (CSFs) for stakeholder management.**

Researchers have increased the management process performance by utilizing the essential components of success. CSFs are defined as Areas, in which results, if they are satisfactory, will ensure successful competitive performance for the organization. Some researchers viewed them as “those critical areas of managerial planning and action that must be practiced in order to achieve effectiveness”. CSFs are thought of as the practices and actions that need to be handled to guarantee good stakeholder management in a construction project.

Numerous parties with varying levels of involvement, professional backgrounds, and types of interests are involved in construction projects (Mok et al. 2015). Additionally, stakeholders can have a negative or beneficial impact on a project in a variety of ways, thus it is important to manage them (Eyiah-Botwe, E., et al., 2015).

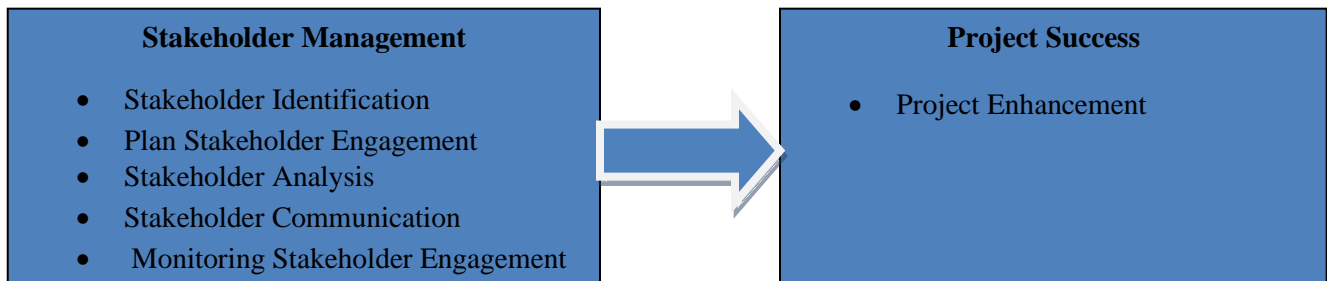
Nevertheless, despite continuous efforts aimed at improving project success in the construction industry, it has seldom been a common occurrence for construction projects to be successfully delivered.

The effective completion of projects is therefore, the main goal of stakeholder management in construction projects. However, the idea of project success cannot be as straightforward as it first appears. Success can mean different things to different people, as well as to the same people under various conditions or at various points in time (Toor and Ogunlana, 2009).

According to different literature's all the aspect of critical success factors of stakeholder in 30 factors contributing to the success of stakeholder management are grouped in to six main groups (include management support, identification of stakeholder information, stakeholder assessment, decision making, action & evaluation, and a continuous support group).

## 2.4 Conceptual Framework

The conceptual framework gives a view of the interactions and relationship between the independent and the dependent variables. Stakeholder management, as operationalized in terms of stakeholder identification, planning stakeholder engagement, stakeholder analysis, stakeholder communication, and monitoring stakeholder engagement, serves as the study's independent variable. The dependent variable for the study is enhancement of project success.



**Independent Variables**

**Dependent Variables**

## 2.5 Review of Study Variables

### 2.5.1 Stakeholder Identification

The practice of periodically identifying project stakeholders and assessing and documenting pertinent information about their interests, involvement, interdependencies, influence, and potential impact on project success is known as “stakeholder’s identification (PMBOK 6th edition). According to (Davis, 2014), there are several ways to distinguish between distinct stakeholder classes. These include the stakeholder's capacity to affect the project, the veracity of their connection to the project, and the weight of their claim regarding the project.

The majority of scholars who have studied stakeholder management (Olander, 2006) have emphasized the crucial role that stakeholder identification plays in this area. Once such stakeholder identities are known, the project's stakeholders can be categorized and hence organized into separate groups based on a variety of criteria in order to bring all stakeholders in that have an impact in enhancing project success.

### **2.5.2 Plan Stakeholder engagement**

Plan Stakeholder Engagement is the process of creating strategies to involve project stakeholders based on their requirements, expectations, areas of interest, and potential effects on the project. The main advantage is that it offers a practical strategy for engaging stakeholders in productive dialogue. According to (Rahman and Alzubi, 2015), insufficient stakeholder involvement significantly increased construction project cost overruns, which resulted in project failure. According to (Sindhu and Karthiyayini, 2016), the main factor contributing to rising cost overruns in construction projects in India was poor stakeholder involvement. In addition, Kivitis, 2013) noted that enhanced stakeholder involvement in project decision-making eliminates conflicts and lowers costs, which improves project performance. The study by (Mwanaumo and Mambwe, 2019) also made note of the fact that if stakeholders are involved in a project, the danger of mishaps, incidents, and fatalities on site is lowered, mitigating the possibility of bad scheduling caused by lost time. Project Scheduling is influenced by a number of factors as cited by a study conducted in India of which one notable factor was poor stakeholder engagement (Rajeev & Kothai, 2014). According to (Chilongo and Mbetwa, 2017), the main cause of poor project scheduling was a lack of stakeholder involvement. According to (Rajeev and Kothai, 2014), who also added that the specifications of project products were primarily determined by stakeholder needs and interests, there was a sufficient need to effectively incorporate stakeholders in projects.

It was further studied that good stakeholder participation in strategic planning is crucial for ensuring that decisions made are of the highest caliber and satisfy customer wants and expectations (Kivitis, 2013). As a result, an efficient plan that takes in to account the various information demands of the project's stakeholders should be created early on and periodically evaluated and updated as the stakeholder community evolves to enhance project success.

### **2.5.3 Stakeholder analysis**

Stakeholder analysis typically refers to the range of techniques or tools to identify and understand the needs and expectations of major interests inside and outside the project environment. Understanding the attributes, interrelationships, interfaces among and between

project advocates and opponents, assists organizations in strategically planning their projects and helps project managers and organization top management to increase project success rate.

Stakeholder analysis has become an established framework to identify and examine the interactions between organizations and constituents in an external environment. Stakeholder analysis is a method for detecting various stakeholder claims in the context of project performance management and mediating between them (Simmons and Lovegrove, 2005). (Heidrich et al. ,2009) proposed a multidimensional scoring mechanism that allows the different roles of stakeholders to be considered and then rated on power, legitimacy, urgency, as proposed by (Harvey, 2011) and additionally on importance and the time-span of influence. (Harvey, 2011) stated that the first stage of the stakeholder analysis generates the list of stakeholders, the second stage is to build the roles and effects table and the third stage is to rate the stakeholders on specified dimensions.

#### **2.5.4 Stakeholder communication**

Effective communication is about the availability of relevant information to the right stakeholder at the right time and in cost effective manner (Kerzner, 2013). Communication is essential for human interaction but effective communication ensures that the message received and perceived correctly between the sender and receiver. Project success is tied to effectively communicate and managing relationships with the various stakeholders of the project. Generally the most important works of project managers is communication. Based on Paper presented at PMI Research Conference by (Rajkumar, S., 2010) about 90% of the time in a project is spent on communication by the project managers. This makes stakeholder Communication an important issue in project management. The study of communication management's impact on project success is growing on a global scale. A study in Malaysia encourages more understanding and more practice of good communication in the construction industry (Perumal, 2011). Researchers pointed out that formal and clear communication channels are needed to warrant an efficient information transfer.

Communication is an essential process in the world of project management. Therefore, communication is often listed as one of the most needed areas for improvement. Expectations,

goals, needs, resources, progress updates, budgets, and purchase requests must all be regularly communicated to all significant stakeholders in order to assure a project's success. Strong negotiation and communication abilities, the capacity to manage the expectations of numerous stakeholders, and the capacity to favorably affect the project's culture are all necessary for project managers to assure project success. Communication is important between the organization and the stakeholder. Stakeholder Communication is one of the major factors in construction that made projects succeed.

### **2.5.5 Monitoring Stakeholder Engagement**

Monitor Stakeholder Engagement is the process of monitoring project stakeholder relationships and tailoring strategies for engaging stakeholders through modification of engagement strategies and plans. Monitoring is a process and not a single action and therefore, should occur at different stages of the engagement process. Stages in monitoring can be summarized as monitoring of inputs, process, outputs, outcomes, trends and monitoring of unexpected consequences (Bond et al. 2006). Everyone agrees that any monitoring system, including engagement monitoring, must be accurate, pertinent, precise, timely, dependable, sensitive, practicable, and cost-effective (UNDP nd ). The fundamental advantage of this method is that it keeps or improves stakeholder engagement activities, efficiency and effectiveness as the project develops and its surroundings change (PMBOK 6th edition).

We can manage and track stakeholder's engagement once we've identified the stakeholders, analyzed their positions in terms of interests, power, influence, involvement, interdependencies, and potential impact on the project's success, and developed strategies to include them in the project in order to get their support (or at least keep them from opposing it). The specifics of this involvement should be included in a stakeholder engagement strategy, which is a section of the project management plan that defines the strategies and actions necessary to encourage the beneficial involvement of stakeholders in decision-making and execution. This plan was made to direct the project team as they identified the tactics and approaches for involving stakeholders throughout the project. It includes the stakeholder power/interest grid, stakeholder register, and other data gathering and analysis tools.

Organization management and project managers should interact with stakeholders to meet their requirements and expectations, resolve problems, and promote proper stakeholder involvement based on the stakeholder engagement plan and its components. This plan aids us in gathering the requirements, expectations, concerns of stakeholders, conducting meetings, interviews, and workshops with them, sending regular newsletters to keep them informed about our project's progress, carrying out the tasks necessary to produce deliverables that can meet their needs, and concluding the project after receiving the client's approval.

It needs a focused, structured project manager who can work with a dedicated team and win the support of all stakeholders to accomplish a project's goals. The success or failure of a project can be determined by how well relationships with relevant parties are established early on. Monitoring stakeholder involvement ensures that participants are aware of the project's objectives, advantages, dangers, and how their participation will contribute to its success.

### **2.5.6 Construction Project Success**

A widely accepted criterion for success is to reach an acceptable level of achievement with respect to time, cost, and quality. Nevertheless, Project success has different meanings to the different Stakeholder. The word success also can mean different things to different individuals and to the same people in different circumstances or at different times ( Toor and Ogunlana, 2009).

The success of construction projects and the construction industry as a whole depends on comprehending and satisfying the diverse needs of clients and other stakeholders (Seaden and Manseau, 2001). (Albert and Ada, 2004) mentioned that the criteria of project success are constantly enriched. They also mentioned that a systematic critique of the existing literature is needed to develop the framework for measuring construction success both quantitatively and qualitatively. According to (Zewdu and Aregaw, 2015) competitive advantage can be achieved by strengthened stakeholder relationships emanating from the trust, reputation and innovation which translate to better performance of the projects.

According to (Haponava and Al-Jibouri, 2009), argued that other factors such as, for example, the quality of relationship between the stakeholders involved and their flexibility have a great effect on the project's success.

## 2.6 Empirical Review

Among different related published books, research papers, articles and journals which are similar to the topic under study area, the researcher has tried to review some of them for the purpose of empirical review. Stakeholder involvement positively and significantly affects discharge and completion of road construction projects in the Uasin Gishu County, Kenya (Maureen O. & Jacob O., 2019). In their study in road construction projects in the Uasin Gishu county, Kenya. They found that Information dissemination, Consultative meetings and Monitoring and evaluation have strong and positive correlation on Cost performance, Time performance and Quality performance. The study adopted survey research method where semi-structured types of questionnaires were used as origins of data from study respondents and Census sampling method was adopted where all members in the strata totaling to 101 were involved in the study.

(Yogita M. et.al, 2016) in their study, "Analysis of the Factors Affecting the Stakeholder Management Process in Building Construction Project", they found among total of 30 factors affecting the stakeholder management process were categorized in six groups in the survey. The findings from the study show that 22 factors are regarded as critical for the success of the stakeholder management process in construction projects by most respondents. The most top three factors that affect the stakeholder management process in construction project were ranked based on their Relative Importance Index are: hiring a project manager with high competencies, transparent evaluation of the alternative solution based on stakeholder concern and ensuring effective communication between the project and its stakeholder.

(Omar El-Naway et.al, 2015) in their study found 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.

In order for projects to be successful, their stakeholders must be managed effectively, and meeting their demands is crucial to getting the results we wanted (Bourne, 2005). What makes the concept of project success difficult and complicated in practice is because stakeholders have conflicting interests and goals (Hillman and Klein, 2001).

Traditionally, projects' success was tied to the three criteria of meeting the cost, schedule and quality of projects. In construction today, successful projects cannot only be viewed from the angle of meeting the three criteria but also in meeting stakeholders' satisfaction.

## **2.7 Research Gap**

On stakeholder management and the various aspects of stakeholder management that contribute to project success, numerous publications and research have been published both nationally and globally. However, project professionals overlook stakeholder management in their project management skills and both project managers and project professionals lack the required management and interpersonal skills in managing stakeholders. In this regard, it becomes one of the major reasons for the failure of projects. Considering its effect on project success PMI in its PMBOK 6<sup>th</sup> edition identified Stakeholder management as one of the project management knowledge area among the ten project management knowledge areas.

Therefore, despite extensive national and international research, there is still a significant knowledge gap in the field of construction project management among academics and practitioners in the industry. As projects are done by people for people, without managing stakeholder's expectation and perception, it is very difficult to become successful in our projects. In line with this, numerous study articles and workshops ought to be held to raise awareness, especially among Industry practitioners. Hereafter, to alleviate this critical project problem, conducting this research is demanding and necessary.

## CHAPTER THREE

### 3 RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter covers the methods used to carry out the study, with particular attention paid to the research design, data type and source, data collection tools, population, sample size, method of data analysis and presentation, validity and reliability of the data, and ethical considerations for the work.

#### 3.2 Description of the study area

Ethiopian Construction Works Corporation (ECWC) is a public enterprise which is established on December 18/2015 based on Council of Ministers Regulation No. 366/2015 with the authorized capital of Birr **20,313,608,143.90**. The Ethiopian Road Construction Corporation, the Ethiopian Water Works Construction Enterprise, and the Ethiopian Prefabricated Building Parts Production Enterprise were three autonomous public firms that were combined to form the corporation. The Public Enterprises Proclamation No. 25/1992 governs ECWC. The Board of the Corporation, whose members are appointed by the government and chosen from various organizations, serves as its policy-making body. It is currently overseen by the Ministry of Public Enterprises, which served in that capacity previously. Ethiopian Construction Works Corporation has six different sectors which take different operational activities and responsibilities. The corporation's head office is situated near Gurd-shola in Addis Ababa, and its projects are spread out over Ethiopia. A Chief Executive Officer (CEO) and six Deputy Chief Executive Officers, as well as department and project heads are in charge of it. The corporation primarily carries out various construction projects in various parts of the nation, namely in the areas of deep water well construction, transportation infrastructure construction, and building infrastructure construction. Its Core Services are further elaborated as Surface and subsurface water supply development, Clean water supply and sewerage infrastructure, Sewage and effluent treatment, Dam and irrigation construction, River diversions, Deep water wells, Reclamations, Dry port construction and other civil works , Road construction, upgrading and maintenance, Bridges

construction and maintenance, Rail ways construction and maintenance, Construction of air fields and other civil works, Conventional building construction, and finishing works, Pre-fabricated building construction works, Production of Pre-fabricated building parts, PVC frames, precast beams, and stone and other wood products and the Sample projects are selected from the road construction sector completed in the last five years.

### **3.3 Research Design and Approach**

#### **3.3.1 Research Design**

In this study, a descriptive research design was used; the major purpose of descriptive research is description of the state of affairs as it exists at present. Then this study described and critically assessed the factor affecting stakeholder management towards enhancement of projects in the case of Ethiopian construction Works Corporation.

#### **3.3.2 Research Approach**

In this study a quantitative research approach were used.

### **3.4 Type and source of Data**

Data for this study was come from primary sources. The primary data was collected from 76 individuals who have been directly involved in the projects using formal sample survey.

This primary data was collected through a questionnaire survey from the 76 individuals who were considered as the study subject.

A questionnaire has been designed from literature review of various factors affecting stakeholder management.

### **3.5 Target Population, Sampling Technique and Sample Size**

#### **3.5.2 Target Population and Sampling techniques**

##### **3.5.2.1 Target population**

The population of the study comprised Division Managers, Project managers, team leaders, site engineers, office engineers and other staffs involved in ten road construction projects completed in the last five years in ECWC who had exposure in stakeholder management.

**Table 3.1 Population Size and Determination of Sample size based on the Organizational Structure**

Name of professions	Total Population size	Sample size(n= $\frac{N}{1+(e)^2}$ )	Assumptions for Population
Division Managers	10	7	Based on the organizational structure, a population of ten division managers who have direct contact with different stakeholders assumed and Seven is randomly selected.
Project Managers	10	10	A population of ten Project managers from the completed ten projects were selected. All the project managers were taken.
Team Leaders	30	24	A population of three team leaders from each completed ten projects and twenty four were randomly selected.
Site Engineers	20	13	A population of two site Engineers from each completed ten projects and thirteen were Randomly selected.
Office Engineers	30	26	based on the organizational structure a total of thirty office Engineers two at project office and one at head office counterpart and 26 were randomly selected
Other supportive Staffs	5	3	others supportive staffs who works with the project
<b>Total</b>	<b>105</b>	<b>83</b>	

Source: Own computation from survey data 2023

### 3.5.1 Sample size

In the case of the research population, it did not mean that all members are possible respondents for the questionnaire. Rather the questionnaire was distributed to engineers & other professionals who know the concerned construction projects during the specified time.

The sample size was determined based on the following simplified formula (T.Yemane, 1967).

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

Where,  $n$  is the sample size

$N$  is the total population size

$e$  is level of precision or sampling of error which is  $\pm 5\%$

The total sample size of respondents based on the above sample size determination was 83. Then considering the total numbers of respondents in each sample projects of Ethiopian Construction Works Corporation a total of 83 sample respondents were selected based on random sampling technique.

### **3.5.2.2 Sampling Technique**

The primary data required for this study was generated from the sample project professionals by conducting formal survey using a pre-tested questionnaire. Before starting the actual formal survey, reconnaissance survey was conducted and some general information has been collected about the study. Among Projects which have a total of 105 key professionals who have awareness and work experience in ECWC stakeholder management 83 were selected randomly for the completed projects.

## **3.6 Data collection instruments and Procedure**

### **3.6.1 Data collection instruments**

According to (Zikmund, 2000) good questionnaire design is a key to obtaining good survey results and warranting a high rate of return. The questionnaire was designed for this study utilizes the information sourced from the extensive literature review, the global nature of the construction industry and relevance to Ethiopian construction project context. The questionnaires were divided into two sections: Part A which seeks to establish general details of the respondent, Part B which contained factors related to stakeholder management which considered by the researcher have impact towards enhancement of project success. Which Included stakeholder identification, plan stakeholder engagement, stakeholder analysis, stakeholder communication and monitoring Stakeholder engagement and enhancement of project success. The questionnaire was administered electronically using Google forms which made the data collection process safe, easy, manageable and saved significant amount of researcher's time.

### **3.6.2 Piloting the research instruments**

Taking into consideration the significance and need to identify and establish weaknesses in the instrument that was used in the research study, the self-administered questionnaire could be pretested before distributed to the respondents. The questionnaires was reviewed and then tested on a small (12%) pilot sample of respondents with similar characteristics as the study respondents.

### **3.6.3 Data quality control**

Standard questionnaire was adopted from different literature and pilot test was done to check reliability. After checking reliability on pilot testing then, the questionnaire translated from English language to Amharic language. A Google translator used to translate the original English language questionnaire in to Amharic. Comparison was made on the consistency of the two versions. The pilot questionnaires were tested for reliability test using Cronbaches alpha. Prior to the actual data collection, pilot-testing was done on ten respondents (12% of the sample size).The participants for pre-testing was excluded in the final study participants. The collected data was cleaned, coded and explored before analysis.

Mugenda (2003) suggested that the piloting sample ought to represent 10% of study sample based on the study sample size. Piloting helps in revealing questions that could be vague which facilitates their examination until they communicated the same sense to all the subjects (Mugenda, 2003). Based on the inputs obtained from the pilot test the researcher was made the necessary adjustment on the questionnaire.

### **3.6.4 Validity and Reliability**

Validity is the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure. Validity is the degree to which differences detected by a measuring tool accurately represent those under test. On the other hand, the test of reliability is another important test of sound measurement. A measuring instrument is reliable if it provides consistent results.

To maintain the quality of the research and made it reliable to all concerned, the researcher gave due consideration to the Validity and Reliability issues of overall the research process which includes the data as well as research contribution. As a result, the researcher had used a combination of data gathering techniques that included questionnaire and ethical perspective, so

as to confirm the validity of all the process involved. Furthermore, the researcher conducted Cronbach's Alpha test to examine the reliability of the questionnaire Presented in the table 3.2 below.

**Table 3.2 Validity and Reliability**

<b>Variables Name</b>	<b>Code</b>	<b>N</b>	<b>Valid N</b>	<b>Cronbach's Alpha</b>
<b>Stakeholder Identification</b>	A	76	76	0.883
<b>Plan Stakeholder Engagement</b>	B	76	76	0.83
<b>Stakeholder Analysis</b>	C	76	76	0.912
<b>Stakeholder Communication</b>	D	76	76	0.939
<b>Monitor Stakeholder Engagement</b>	E	76	76	0.941
<b>Project Success/Enhancement</b>	F	76	76	0.951

Source: Own computation from survey data 2023

### **3.6.5 Data analysis Method**

Transforming the raw data into information that can be useful and meaningful for the purpose of the study is required, as a result the data's was presented in a manageable form, thus creating summaries and categories and applying Statistical inferences. As a result the data collected was coded, classified and categorized into manageable and analyzable form.

The researcher adopted the questions from another research work by (Menoka Bal, 2014[]) and Linkert scale data's were also collected using a questionnaire adopted.

### **3.6.6 Ethical Consideration**

Ethical standards were adhered in so as to prevent against the fabrication or falsifying of data and therefore, promote the pursuit of knowledge and truth which is the primary goal of the research.

Thus, before gathering data, all study participants were told of the study's goal and given the opportunity to give their consent. At any point during the data collection, the respondent had the option to decline or stop. Concerning the right to anonymity and confidentiality, the participants were not required to write their names on the questionnaire and assured that their responses was not in any way be linked to them. In any case, the aim of the study, confidentiality issue, and informed consent was explained and ensured to the study subjects.

## CHAPTER FOUR

### 4. DATA ANALYSIS, PRESENTATION AND INTERPRETATION

#### 4.1 Introduction

This chapter will discuss about the data gathered from respondents, and the analysis and interpretations and the results that have been identified based on a total of 76 questionnaires collected from respondents. It will have different sections where Section one will be dealing about demographic characteristics of the respondents, section two will be about the analysis, presentation and interpretation of data's.

The goal of this study is to evaluate Ethiopian Construction Works Corporation's approach to stakeholder management and determine how it affects project success in terms of stakeholder satisfaction. The study used a descriptive research methodology, and 83 respondents were the intended audience for the questionnaire. The study's findings are additionally supported by pertinent project and other documentation. This provides the researcher a comprehensive look at the different aspects of the research under study from the point of view of addressing the research objectives.

#### 4.2 Response Rate

As shown in the table 4.1 below total of 83 questionnaires were sent to the six groups of respondents based the organizational structure. Out of the 83 questionnaires administered electronically via Google forms 76 were returned which accounts 91.57% of the total administered questionnaire. Based on the returned questionnaire SPSS version 24 is used for descriptive analysis of the data to present frequency and percentage.

**Table 4.2 Response Rate of the respondents**

S/No	Sample Group	Questionnaire distributed	Questionnaire Returned	Percentage of Return
1	Division Managers	7	7	100%
2	Project Managers	10	9	100%
3	Team Leaders	24	24	92%

4	Site Engineers	13	9	69%
5	Office Engineers	26	25	100%
6	Employee and Other supportive Staffs	3	2	67%

Own computation from survey data 2023

### 4.3 Demographic Characteristics of the Respondents

Out of the total respondents, 58(76.3%) were male and 18(23.7%) were female. Sixty respondents (78.9%) were under the age category of between 26 and 35 and fifteen respondents (19.7%) were between 36 and 45. Regarding educational level, 53 (69.7%) of respondents were degree holders, and 23(30.3%) have attended Masters Program. Concerning the work experience of the respondent 41(53.9%) has work experience between 5-10 years and 23(30.3) respondents have experience between 10-15 years. Regarding the professions of the respondent 25(32.9%) were office Engineers, 24(31.6%) respondents were team leaders, 9(11.8%) were project Managers, 9(11.8) site engineers and 7(9.2%) were division managers.

**Table 4.3 Summary of Demographic Characteristics of the Respondents**

S/N	Demography	Category	Frequency	Percent
1	Gender	Female	18	23.7
		Male	58	76.3
2	Age	less than 25	1	1.3
		between 26-35	60	78.9
		between 36-45	15	19.7
3	Educational background	Degree	53	69.7
		Masters	23	30.3
4	Professional experience in construction	Less than 5 years	7	9.2
		Between 5-10	41	53.9
		Between 10-15	23	30.3
		More than 15	5	6.6
5	Job Position	Staff	1	1.3
		Site Engineer	9	11.8
		Office Engineer	25	32.9

	Team Leader	24	31.6
	Project Manager	9	11.8
	Division Manager	7	9.2
	Others	1	1.3

Own computation from survey data 2023

#### 4.4 ECWCs Perspectives of Stakeholders

In ECWC there is some developed way of stakeholder management based on the construction industry trend and ECWC divide the stakeholder in to two major categories based on their characteristics and nature. ECWC engage and prioritize stakeholders based on their influence.

This are:-

**Collaborators:** - these are stakeholders ECWCs recognized them as supporter and without their involvement it's very difficult to achieve its short term and long term strategic objectives. These include employee, Sub-Contractors, Suppliers, Leaser, Utility providers, Universities, Professional Associations etc.

**Stakeholder:** - these are those stakeholders that have general characteristics of expecting final deliverables and result from ECWC. This includes Clients, Consultants, ERA, Federal Government Bodies, Regional Government Bodies and Members of parliaments etc.

#### 4.5 Stakeholder Management Practice in ECWC Road Projects

Assessing the stakeholder management practice of ECWC is the objective of this study. This section presents the analysis of survey results on the current practice of stakeholder management in ECWCs Road construction projects. Based on the data obtained from electronically administered questionnaires about identify stakeholders, plan stakeholder engagement, stakeholder analysis, stakeholder communication and monitor stakeholder engagement are analyzed and presented.

ECWC will evaluate its stakeholder engagement and management based on its customer satisfaction collected within a period specified by top management by using tools which include stakeholder satisfaction survey, frequent stakeholder meeting, stakeholder interview and focus

group discussion and based on the feedback ECWC will improve its Stakeholder engagement and management process.

#### **4.6 Analysis, presentation and Interpretation**

The data obtained from the respondents are arranged, coded, organized, analyzed and interpreted as follows.

##### **4.6.1 Descriptive Statistics of the Variables**

The descriptive statistics of the stakeholder variable are presented in the table below.

**Table 4.4 Descriptive Statistics of the Variable**

<b>Variables Name</b>	<b>Code</b>	<b>N</b>	<b>Valid N</b>	<b>Average Mean</b>	<b>Overall Standard Deviation</b>	<b>Cronbach's Alpha</b>
<b>Stakeholder Identification</b>	<b>A</b>	76	76	3.416	0.887	0.883
<b>Plan Stakeholder Engagement</b>	<b>B</b>	76	76	3.463	0.810	0.830
<b>Stakeholder Analysis</b>	<b>C</b>	76	76	3.543	0.926	0.912
<b>Stakeholder Communication</b>	<b>D</b>	76	76	3.625	0.980	0.939
<b>Monitor Stakeholder Engagement</b>	<b>E</b>	76	76	3.671	0.940	0.941

<b>Project Success/Enhancement</b>	<b>F</b>	76	76	3.197	1.249	0.951
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Own computation from survey data 2023

#### 4.6.1.1 Stakeholder Identification

From **table 4.4** we can summarize that with average mean value of **3.416** and overall standard deviation of **0.887** somehow a moderate practice of identify stakeholder in ECWC projects.

#### 4.6.1.2 Plan Stakeholder Engagement

From **table 4.4** we can summarize that with average mean value of **3.463** and overall standard deviation of **0.810** somehow a moderate practice of Plan Stakeholder Engagement process in ECWC projects.

#### 4.6.1.3 Stakeholder Analysis

Based on the study finding (presented in the table 4.4 above) it can be summarized with average mean value of **3.543** and overall standard deviation of **0.926** there is a good knowhow about stakeholder analysis among ECWC professionals.

#### 4.6.1.4 Stakeholder Communication

In general, based on the study finding, it can be summarized with average mean value of **3.625** and overall standard deviation of **0.980** there is a better understanding about stakeholder communication process among ECWC professionals.

#### 4.6.1.5 Monitor Stakeholder Engagement

In general, based on the study finding, it can be summarized with average mean value of **3.671** and overall standard deviation of **0.940** there is a better understanding about Monitor Stakeholder Engagement process among ECWC professionals.

#### 4.6.1.6 Project Success/ Enhancement of Projects

In general, based on the study finding, it can be summarized with average mean value of **3.197** and overall standard deviation of **1.249** with dispersed response there was some gap in stakeholders management in ECWC which intern affects project enhancement.

### 4.6.2 Correlation Analysis of the Variables

Correlation coefficients are used to assess the strength and direction of the linear relationships between pairs of variables (M.M Mukaka, 2012)

**Table 4.6.2 correlation analysis result**

		Correlations					
		A	B	C	D	E	F
A	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	76					
B	Pearson Correlation	.575**	1				
	Sig. (2-tailed)	0.000					
	N	76	76				
C	Pearson Correlation	.506**	.756**	1			
	Sig. (2-tailed)	0.000	0.000				
	N	76	76	76			
D	Pearson Correlation	.570**	.591**	.635**	1		
	Sig. (2-tailed)	0.000	0.000	0.000			
	N	76	76	76	76		
E	Pearson Correlation	.686**	.726**	.750**	.906**	1	
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		
	N	76	76	76	76	76	
F	Pearson Correlation	.627**	.591**	.602**	.711**	.827**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	
	N	76	76	76	76	76	76

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: Own computation from survey data 2023

From the above correlation analysis we can infer that there is a significant positive correlation between the independent variables of identifies stakeholder, plan stakeholder engagement, stakeholder analysis, stakeholder communications, monitor stakeholder engagement and project success interims of stakeholder satisfactions.

From the above table we can also infer that identify stakeholder have a significant positive Pearson correlation with value ( $r=0.627$ ,  $N=76$ ,  $P< 0.01$ ) with project success in terms of stakeholder satisfaction, plan stakeholder engagement have significant positive Pearson correlation with value ( $r=0.591$ ,  $N=76$  and  $P< 0.01$ ) with project success in terms of stakeholder satisfaction, stakeholder analysis have significant positive Pearson correlation with value ( $r=6.02$ ,  $N=76$  and  $P< 0.01$ ) with project success in terms of stakeholder satisfaction, stakeholder communication also have strong positive Pearson correlation with value ( $r=0.711$ ,  $N=76$ ,  $P< 0.01$ ) with project success in terms of stakeholder satisfaction and monitoring stakeholder engagement have strong positive Pearson correlation with value ( $r=0.827$ ,  $N=76$  and  $P< 0.01$ ) with project success in terms of stakeholder satisfaction.

According to (Bruce Ratner, 2009), a correlation coefficient of

1. 0 indicates no linear relationship,
2. + 1 indicates a perfect positive linear relationship –as one variable increases in its values, the other variable also increases in its values through an exact linear rule.
3. – 1 indicates a perfect negative linear relationship –as one variable increases in its values, the other variable decreases in its values through an exact linear rule.
4. 4. Values between 0 and 0.3 (0 and – 0.3) indicate a weak positive (negative) linear relationship through a shaky linear rule
5. Values between 0.3 and 0.7 (0.3 and – 0.7) indicate a moderate positive (negative) linear relationship through a fuzzy-firm linear rule
6. Values between 0.7 and 1.0 (– 0.7 and – 1.0) indicate a strong positive (negative) linear relationship through a firm linear rule.

As seen above in the table a Pearson correlation coefficient lays in the range from 0.506 to 0.906 which is considered to be strong positive correlation. Therefore, there is a strong correlation between stakeholder management and project success in terms of stakeholder satisfaction. In this case precondition is met to check the assumptions of regression.

### 4.6.3 Regression Analyses of variables

According to (Parveen Ali, Ahtisham Younas, 2021) regression analysis has four primary purposes: description, estimation, prediction and control. By description, regression can explain the relationship between dependent and independent variables. Estimation means that by using the observed values of independent variables, the value of dependent variable can be estimated. Regression analysis can be useful for predicting the outcomes and changes in dependent variables based on the relationships of dependent and independent variables. Finally, regression enables in controlling the effect of one or more independent variables while investigating the relationship of one independent variable with the dependent variable. The aim of the study is to determine the effect of stakeholder management on project success in terms of stakeholder satisfaction. Normality test ANOVA test is conducted and linear regression analysis.

#### 4.6.3.1 Data Normality

The researcher conducted a data normality test to understand the distribution of any value of a dependent variable in relation to the independent variables in the model. As per the below histogram figure, the assumption of normality is not completely violated and it is a bell-shaped.

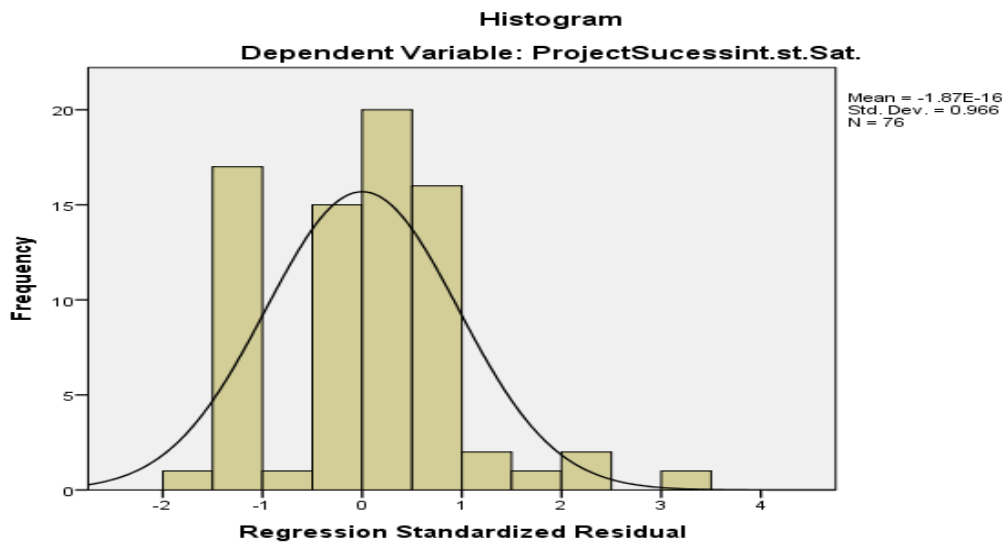


Fig 4.1 Histogram of data normality

#### 4.6.3.2 Test of Significance

The researcher also analyzed the fit of the multiple regression models for the data collected using regression analysis of variance (ANOVA). The relevant results of ANOVA are depicted in Table below.

**Table 4.6.3.2 test of significance result**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	81.886	5	16.377	52.612	.000 <sup>b</sup>
	Residual	35.153	70	0.502		
	Total	117.039	75			

Source: Own computation from survey data 2023

#### 4.6.3.3 Multiple Regression Analysis Results

The study analyzed the combined effect of stakeholder management variables on project enhancement success. The results are presented in Tables

**Table 4.6.3.3 multiple regression analysis result**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.836 <sup>a</sup>	0.346	0.325	0.40865	1.756

Source: Own computation from survey data 2023

It was found out that there is a positive and strong relationship between stakeholder management independent variables and project enhancement in ECWC ( $R = 0.836$ ). The finding indicate that **32.5%** ( $R^2 = 0.325$ ) of the change in project success enhancement in ECWC could be attributed to the combined effect of the predictors or independent variables with a prediction error of the model 0.40865. However, **67.5%** of the variance is explained by other factors not considered in the study.

It was found out that there is a statistically significant relationship between stakeholder management variables considered in the study and project success enhancement in ECWC ( $F = 52.612$ ;  $P < 0.05$ ). Hence, the regression model was a good fit for the data. Furthermore, attention should be given on stakeholder management as it positively affects project success enhancement.

#### 4.6.3.4 T-Test Analysis Result

**Table 4.6.3.4 t-test analysis result**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.813	0.400		2.034	0.005
	Identify Stakeholder	0.139	0.013	0.099	3.065	0.029
	Plan Stakeholder Engagement	0.175	0.017	0.049	2.439	0.007
	Stakeholder Analysis	0.151	0.015	0.037	1.332	0.007
	Stakeholder Communication	0.127	0.020	0.213	2.323	0.002
	Monitor Stakeholder Engagement	0.550	0.028	1.016	4.816	0.000

Source: Own computation from survey data 2023

The findings indicate that identify stakeholder involvement has a significant positive effect on project success enhancement ( $\beta_1 = 0.139$ ;  $p < 0.05$ ), plan stakeholder engagement has a significant positive effect on project success enhancement ( $\beta_2 = 0.175$ ;  $p < 0.05$ ), stakeholder analysis has a significant positive effect on project success enhancement ( $\beta_3 = 0.151$ ;  $p < 0.05$ ), stakeholder communication has a significant positive effect on project success enhancement ( $\beta_4 = 0.127$ ;  $p < 0.05$ ) and monitor stakeholder engagement has a significant positive effect on project success enhancement ( $\beta_5 = 0.55$ ;  $p < 0.05$ ).

#### 4.6.3.5 Hypothesis Testing

The researcher tested the hypotheses in line with the objectives of the study.

Ha1: identify Stakeholder has significant positive effect on the enhancement of project success in ECWC has accepted.

Ha2: plan stakeholder engagement has significant positive effect on the enhancement of project success in ECWC has accepted.

Ha3: Stakeholder Analysis has significant positive effect on the enhancement of project success in ECWC has accepted.

Ha4: Stakeholder communication has significant positive effect on the enhancement of project success in ECWC has accepted.

Ha5: Monitor Stakeholder Engagement has significant positive effect on the enhancement of project success in ECWC has accepted

The findings indicate that identify stakeholder ( $t=3.065; p < 0.05$ ), plan stakeholder engagement ( $t=2.439; p < 0.05$ ), stakeholder analysis ( $t=1.332; P < 0.05$ ), stakeholder communication ( $t=2.323; P < 0.05$ ) and monitor stakeholder engagement ( $t=4.816; P < 0.05$ ) significantly predicts project success enhancement in ECWC.

The results of the t-test of individual regression coefficients clearly depict that the five independent variables would be included in the regression equation as they were significant ( $p < 0.05$ ). The regression function shown in Equation 1 was used to explain the results of multiple regression analysis.

$$Y = 0.139A + 0.175B + 0.151C + 0.127D + 0.55E + \mu \dots \dots \dots \text{Equation 1}$$

Where:

Y - Project success in terms of stakeholder satisfaction

A – Identify stakeholder

B- Plan stakeholder engagement

C- Stakeholder analysis

D- Stakeholder communication

E- Monitor stakeholder engagement

$\mu$ - Error term

## CHAPTER FIVE

### 5. SUMMARY, CONCLUSION AND RECCOMENDATIONS

#### 5.1 Summary of major finding

In summarizing the major findings of the study, the study's data collecting instruments were mainly questionnaire with five point linkert scale. The study was made focusing on the assessment of stakeholder management practice in the construction industry with the case of Ethiopian construction works corporations with the attentions being drawn to the roads, Airfields and bridge construction projects completed within the last five years (2018-2022G.C). Generally the scope of the study is assessing how the respondents recognize the general stakeholder management practice in their organization. As indicated above the general profile of the respondents was analyzed and with regard to gender majority of the respondents are male(76.3%), in terms of the age group of respondent's majorities of them are within 26-35(78.9%) ranges, with regard to educational status and experience in working under construction projects majority of the respondents has BA degree(69.7%) and MA/Msc(30.3%). And all of respondent are participated in different level of the project managements.

When we summarize organization general stakeholder management practices, with average mean value of 3.416 and overall standard deviation of 0.887, the organization has somehow a moderate practice of identify stakeholder practice with a consistency of response 0.883Cronbach's alpha, with average mean value of 3.463 and overall standard deviation of 0.81 the organization has somehow a moderate practice of Plan Stakeholder Engagement process with a consistency of responses 0.830 Cronbach's alpha, with average mean value of 3.543 and overall standard deviation of 0.926 there is a good knowhow about stakeholder analysis in the organization with a consistency of responses 0.912 Cronbach's alpha, with average mean value of 3.625and overall standard deviation of 0.98 there is a better understanding about stakeholder communication process in the organization with a consistency of responses 0.939 Cronbach's alpha, with average mean value of 3.671 and overall standard deviation of 0.94 there is a better understanding about Monitor Stakeholder Engagement process in the organization with a consistency of responses 0.939 Cronbach's alpha, with average mean value of 3.197 and overall

standard deviation of 0.926 there is some gap in satisfying stakeholders in the organization with a consistency of responses 0.951Cronbach's alpha which intern affects project enhancement success.

Based on the study findings, there were strong correlations between the independent variables; identify stakeholder, plan stakeholder engagement, stakeholder analysis, stakeholder communication and monitor stakeholder engagement on the dependent variable; project success enhancement.

## **5.2 Conclusion**

As study objective is to investigate the relationship between stakeholders Management and project success in terms of stakeholder satisfaction. In the study, the construct of stakeholder management which include identify stakeholder, plan stakeholder engagement, stakeholder analysis, stakeholder communication and monitor stakeholder engagement taken and their contributions to project success were investigated in the case of Ethiopian construction works corporations.

As it is done in the analysis section above average mean is done for all of the five variables considered and the value shows there is a good practice of stakeholder management in ECWC, identify stakeholder being the minimum aggregate mean value while monitor stakeholder engagement being the maximum. This indicate that among the considered variables there is some gap in identifying stakeholder in ECWCs projects compared to other stakeholder management practices and monitor stakeholder engagement being considered properly practiced among the variables in ECWC projects.

Therefore, based on the study findings, it is possible to conclude that project success in terms of stakeholder satisfaction and identify stakeholder, plan stakeholder engagement, stakeholder analysis, stakeholder communication and monitor stakeholder engagement has strong positive relationship with project success in terms of stakeholder satisfaction.

### 5.3 Recommendation

Based on the findings of the study, the researcher would like to recommend the following. As the results of the study shows there is a good understanding and practice of stakeholder management among professionals in ECWC and the organization. Though there is a good practice in the organization, there are also some gaps in stakeholder management in ECWC especially in identifying stakeholder and planning stakeholder engagement as indicated above their average mean is less than 3.5 compared to other stakeholder management constructs.

Stakeholders are dynamic in their nature, those stakeholders considered to be having less interest and influence at the initiation of the project may have major interest and influence in the middle or end of the project. Therefore, properly identifying and planning their engagement have vital role succeeding in the projects in case of ECWC. In this regard, ECWC has a lot to do to make the entire stakeholder on board and to properly identify their interest and influence on its projects. Furthermore, as ECWC is a giant government construction organization that mobilize big public investment, administered by public body, it manages a lot of stakeholders ranging from its employee to government bodies, so properly managing its stakeholder have a major significance in its business reputations and survival. Hence, ECWC should give due attention to its stakeholder management strategies and methodology to involve all its stakeholder who have interest or ECWC may assume have interest. In doing so the researcher recommend the following

- ❖ From the study finding ECWC has a gap in identifying stakeholder at the early stages of projects especially in the initiation stages so ECWC should a lot to do in training its professional in identifying stakeholders at early stages of the project because stakeholders have dynamic nature and they may affect the success of projects constructed by ECWC.
- ❖ From the study finding ECWC also has a gap in properly planning stakeholder engagement so ECWC has to deploy a mechanism to properly plan its stakeholder engagement and proper training for its professional in planning its stakeholder engagement for ECWC to be successful in its projects.

- ❖ Conducting a periodic formal meeting with its stakeholders, creating awareness, training, seminar and workshops that will create a common platform between ECWC and its stakeholders.

#### **5.4. Suggestions for Further Studies**

As the construction industry involves different stakeholders with a variety of interest and involvements', conducting a research on stakeholder management in enhancing project success only on the side of the contractor was by no means satisfactory and difficult to draw conclusions. The researcher encourage any future study in subject area from the perspective of the client, the consulting Engineers, the community and other government and non government organization side about their satisfaction about ECWC projects. Furthermore, for the interest of time the research used a data collecting instruments of only sample survey questionnaire with linkert scale which is one of the limitations of the study. In this regard, the researcher recommends further study deploying other data collection instruments including, interview and focused group discussions.

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# APPENDICES

**Appendix A-Questionnaire**

**ውድ የተከበራችሁ ተሳታፊዎች**

የሚከተለው መጠይቅ በአዲስ አበባዩኒቨርሲቲ ንግድ ሥራ ትምህርት ቤት በፕሮጀክት ማኔጅመንት የማስተርስ ድግሪ የመመሪያ ፅሁፍ ማሟያ ለማዘጋጀት **The Role of Stakeholder Management IN enhancing Project Success: A Case Study on Ethiopian Construction Works Corporation** በሚል ርዕስ የተዘጋጀ መጠይቅ ነው።

ይህ የጥናት ጥያቄ ሁለት ክፍሎች ያሉት ሲሆን የመጀመሪያው የተሳታፊዎችን እድሜ፣ፆታ የትምህርት ደረጃ፣የስራ ልምድ ....ወዘተ የሚጠይቅ ሲሆን ሁለተኛው ደግሞ ከጥናቱ ጉዳይ ጋር የተያያዘ ነው። ስለዚህ ሁሉንም ጥያቄዎች በትኩረት አንብቦ በመረዳት ለቀረቡት ጥያቄዎች በአስተያየት ላይ በመጨማሪያ ምልክት እንድታደረጉ በአክብሮት እጠይቃለሁ።

**ኢሜይል:** [abdurazakjemal120@gmail.com](mailto:abdurazakjemal120@gmail.com)

**ሞባይል:** 0912068279

**አመሰግናለሁ  
አብዱራዘቅ ጀማል**

**Dear Distinguished Respondents,**

The following questionnaire is for partial fulfillment of Master’s Degree in Project Management at Addis Ababa University School of Commerce with the research title “**Assessment of Stakeholder Management in Construction industry: The Case of Ethiopian Construction Works Corporation**”

This research question have two parts, the first one is general information on the respondents academic level, work experience and current working organizations .... Etc. and the second one is related to the subject matter.

Therefore, I kindly request you, to go through all the questions and check the box in your opinion.

**Please be sure that this information is confidential and for academic purpose only.**

**Email:** [abdurazakjemal120@gmail.com](mailto:abdurazakjemal120@gmail.com)

**Mobile:** 0912068279 Thank you for your kind cooperation’s.

**Abdurazak Jemal**

**General Instructions**

- Please answer this questionnaire with reference to your experience about Stakeholder management at your Organization, company or project.
- Please tick click for your answers in the given box

- እባክዎ በድርጅትዎ ወይም በፕሮጀክትዎ ውስጥ ስለሌሎች ግለሰቦች አካላት አስተዳደር ያለዎትን ልምድ በማጣቀስ ይህንን መጠይቅ ይመልሱ
- እባክዎን በተጠቀሰው ሰጥን ውስጥ ለሚሰጡት መልሶች ምልክት/ ክሊክ ያድርጉ

➤ **Section A- Demographic Information / አጠቃላይ መረጃ**

**1.ጾታ Gender of respondent**

ወንድ Male  ሴት Female

**2. ዕድሜ Age of Respondent**

ከ 25 ዓመት በታች	Below 25	<input type="checkbox"/>
በ 26-35 መካከል	35 Between 26	<input type="checkbox"/>
በ 36-45 መካከል	Between 36-45	<input type="checkbox"/>
ከ 45 በላይ	Above 45	<input type="checkbox"/>

**3. የትምህርት ደረጃ Educational background**

ዲፕሎማ	Diploma	<input type="checkbox"/>
ዲግሪ	Degree	<input type="checkbox"/>
ሁለተኛዲግሪ	Master’s degree	<input type="checkbox"/>
ሌላ	Others	<input type="checkbox"/>

**4. እባክዎ በግንባታው ዘርፍ ላይ ያለዎትን የሥራ ልምድ ያመልክቱ/please indicate your years of professional experience in construction**

ከ5 ዓመት በታች	Less than 5 years	<input type="checkbox"/>
በ5-10 ዓመት መካከል	Between 5 and 10	<input type="checkbox"/>
በ10- 15 ዓመት መካከል	Between 10 and 15	<input type="checkbox"/>

ከ15 ዓመት በላይ

More than 15 years

**5. እባክዎ የስራ ድርጅታዎ ላይ ምልክት ያድረጉ please indicate your position (Job title)**

ሰራተኛ	Staff	<input type="checkbox"/>
የሳይት መሃንዲስ	Site Engineer	<input type="checkbox"/>
የቢሮ መሃንዲስ	Office Engineer	<input type="checkbox"/>
ቡድን መሪ	Team Leader	<input type="checkbox"/>
ሥራ አስኪያጅ	Project manager	<input type="checkbox"/>
መምሪያ ሥራ አስኪያጅ	Division Manager	<input type="checkbox"/>
ሌላ	Others	<input type="checkbox"/>

**Section B–Project Stakeholder Management/ የባለ ድርጅት አካላት አሰተዳደር**

Please indicate by clicking the extent to which you agree with the following statements.

እባክዎን በሚከተለው መግለጫ ዎች የሚስማሙበትን መጠን በመጨረሻ ምልክተብዎቹን ያረግጡ

Key:

1. Strongly Disagree/ በጣም አልስማማም
2. Disagree/ አልስማማም
3. Neutral/ ገለልተኛ
4. Agree/ እስማማለሁ
5. Strongly Agree/ በጣም እስማማለሁ

Indicators	አመላካች	በጣም እስከ መግለጫ/Strongly Agree(5)	እስከ መግለጫ/Agree(4)	ገለልተኛ/Neutral(3)	አልስከ መግለጫ/Disagree(2)	በጣም አልስከ መግለጫ/Strongly disagree(1)	
<b>A. Stakeholder Identification</b>		<b>ሀ. ባለድርሻ አካላትን መለየት</b>					
1	Needs and expectations of stakeholders were explored in Ethiopian Construction Works Corporations	በኢትዮጵያ ኮንስትራክሽን ሥራዎች ኮርፖሬሽን ውስጥ የባለድርሻ አካላት ፍላጎቶች እና ተስፋዎች ተዳሰዋል					
2	Stakeholders area of interest was identified at the beginning of the projects in Ethiopian Construction Works Corporation	በኢትዮጵያ ኮንስትራክሽን ሥራዎች ኮርፖሬሽን ውስጥ በፕሮጀክቶች መጀመሪያ ላይ የባለድርሻ አካላት ፍላጎት ተለይቷል					
3	Stakeholders influences were predicted at the beginning of the projects in Ethiopian Construction Works Corporation	በኢትዮጵያ ኮንስትራክሽን ሥራዎች ኮርፖሬሽን ውስጥ በፕሮጀክቶች መጀመሪያ ላይ የባለድርሻ አካላት ተጽእኖዎች ተንብደዋል					
4	Key stakeholders were properly identified	በኮርፖሬሽኑ ፕሮጀክቶች ቁልፍ ባለድርሻ አካላት በትክክል ተለይተዋል					
5	Identification of stakeholders at the beginning of the project will lay the foundation for the project success	በፕሮጀክት መጀመሪያ ላይ ባለድርሻ አካላትን መለየት ለፕሮጀክቱ ስኬት መሰረት ይጥላል					
<b>B. Plan Stakeholder Engagement</b>		<b>ለ. የባለድርሻ አካላት ተሳትፎ</b>					
1	Stakeholders engagement plan provides an actionable plan to interact effectively with stakeholders in Ethiopian Construction Works Corporation	የባለድርሻ አካላት የተሳትፎ እቅድ በኮርፖሬሽኑ ውስጥ ከባለድርሻ አካላት ጋር ውጤታማ ግንኙነት ለመፍጠር የሚያስችል ተግባራዊ እቅድ ያቀርባል					
2	There is a developed strategy that answers any stakeholders interests and constraints in Ethiopian Construction Works Corporation	በኢትዮጵያ ኮንስትራክሽን ሥራዎች ኮርፖሬሽን ውስጥ የባለድርሻ አካላትን ፍላጎቶች እና ገደቦችን የሚመልስ የዳበረ ስልት ወይም መመሪያ አለ					

3	Plan stakeholders engagement identifies how the project will affect stakeholders in Ethiopian Construction Works Corporation	የኮርፖሬሽኑ ፕላን ባለድርሻ አካላት ተሳትፎ ፕሮጀክቱ ውስጥ ባለድርሻ አካላት እንዴት ተፅእኖ እንደሚያሳርፉ ይለያል					
4	Plan stakeholder engagement enables the project manager to prepare different mechanisms to effectively engage stakeholders in the project and manage their expectations	ፕላን ባለድርሻ አካላት ተሳትፎ የፕሮጀክት ስራ አስኪያጁ ባለድርሻ አካላትን በውጤታማነት በፕሮጀክቱ ለማሳተፍ እና የወደፊት ፍላጎታቸውን ለመለየት የተለያዩ ዘዴዎችን እንዲያዘጋጅ ያስችላል					
5	Plan stakeholders engagement leads to achieving project objectives	.የፕላን ባለድርሻ አካላት ተሳትፎ በኮርፖሬሽኑ ውስጥ የፕሮጀክት አላማዎችን ለማሳካት ያስችላል					
<b>C. Stakeholder Analysis</b>		<b>ሐ. የባለድርሻ አካላት ትንተና</b>					
1	Stakeholder analysis helps to evaluate different stakeholders in Ethiopian Construction works Corporation	በኮርፖሬሽኑ የባለድርሻ አካላት ትንተና የተለያዩ ባለድርሻ አካላትን ለመገምገም ይረዳል					
2	Stakeholder analysis is useful to find innovative solutions to problems	የባለድርሻ አካላት ትንተና ለችግሮች አዳዲስ መፍትሄዎችን ለማግኘት ይጠቅማል					
3	In Ethiopian construction works corporation stakeholders prioritize according to their responsibilities to the project	በኢትዮጵያ የኮንስትራክሽን ሥራዎች ኮርፖሬሽን ባለድርሻ አካላት ለፕሮጀክቱ ባላቸው ኃላፊነት መሰረት ቅድሚያ ይሰጣሉ					
4	Stakeholder analysis is useful to ensure the quality of the decision making processes in Ethiopian Construction Works Corporation	የባለድርሻ አካላት ትንተና በኢትዮጵያ ኮንስትራክሽን ስራዎች ኮርፖሬሽን የውሳኔ አሰጣጥ ሂደቶችን ጥራት ለማረጋገጥ ይጠቅማል					
<b>D. Stakeholder Communication</b>		<b>መ. የባለድርሻ አካላት ግንኙነት</b>					
1	In Ethiopian Construction works corporation Stakeholder communicated through formal meeting	በኢትዮጵያ ኮንስትራክሽን ሥራዎች ኮርፖሬሽን ከባለድርሻ አካላት ጋር በመደበኛ ስብሰባዎች ግንኙነት ይደረጋል					
2	Communicating with stakeholders at the early stages of the design process can provide innovative, high-quality solutions at competitive prices	በዲዛይን ሂደት የመጀመሪያ ደረጃዎች ላይ ከባለድርሻ አካላት ጋር የተሳለጠ ግንኙነት መፍጠር ከፍተኛ ጥራት ያላቸው መፍትሄዎች በተመጣጣኝ ዋጋ ለማግኘት ይረዳል					
3	Communication with different stakeholders helps to prioritize their needs	ከተለያዩ ባለድርሻ አካላት ጋር ግንኙነት መፍጠር ለፍላጎታቸው ቅድሚያ ለመስጠት ይረዳል					

4	Communicating with different stakeholder helps to expose different thoughts and knowledge	ከተለያዩ ባለድርሻ አካላት ጋር ግንኙነት መፍጠር የተለያዩ ሀሳቦችን እና እውቀቶችን ለማግኘት ይረዳል					
<b>E. Monitor Stakeholder Engagement</b>		<b>የባለድርሻ አካላትን ተሳትፎ መከታተል</b>					
1	You have had information about the status of stakeholders engagement	ስለ ባለድርሻ አካላት ተሳትፎ ሁኔታ መረጃ አላችሁ					
2	In Ethiopian Construction Works Corporation stakeholder monitoring included corrective and preventive actions to improve the level of stakeholders engagement	በኮርፖሬሽኑ የባለድርሻ አካላትን ተሳትፎ ደረጃ ለማሻሻል የእርምጃ እና የመከላከያ እርምጃዎችን እንዲካተት ተደረገዋል					
3	Updating of information about stakeholder community is necessary and takes place in Ethiopian construction Works Corporation	የኮርፖሬሽኑ የባለድርሻ አካላትን ተሳትፎ ደረጃ ለማሻሻል የኮርፖሬሽኑ መመሪያ የእርምጃ እና የመከላከያ እርምጃዎችን አካቷል					
4	The stakeholders' register was updated with information as a result of monitoring stakeholders engagement	በኮርፖሬሽኑ የባለድርሻ አካላትን ተሳትፎ በመከታተል ምክንያት የባለድርሻ አካላት መረጃ ምዝገባ ወቅታዊ ሆኖታል					
5	Monitoring stakeholders engagement maintain or increase the effectiveness of stakeholders engagement activities through the life cycle of the projects in Ethiopian Construction Works Corporation	ባለድርሻ አካላት ክትትል ተሳትፎ በኮርፖሬሽኑ ውስጥ ባሉ ፕሮጀክቶች የሕይወት ዑደት ውስጥ የባለድርሻ አካላት የተሳትፎ ተግባራትን ውጤታማነት ይጠብቃል ወይም ያሳድጋል					
<b>F. Project Success in Terms of Stakeholder satisfactions</b>		<b>ሰ. የፕሮጀክት ስኬት ከባለድርሻ አካላት እርካታ አንፃር</b>					
1	Ethiopian Construction Works Corporation have Execution efficiency in its projects	በኮርፖሬሽኑ የሚሰሩ ፕሮጀክቶች ከማስፈጸሚያ ቅልጥፍና አንፃር የተሳኩ ናቸው					
2	Ethiopian Construction Works Corporation projects Fulfill laid requirements	በኮርፖሬሽኑ የሚሰሩ ፕሮጀክቶች የባለድርሻ አካላትን ፍላጎት ያሟላሉ					
3	Ethiopian construction Works Corporation projects Comply to regulations	በኮርፖሬሽኑ የሚሰሩ ፕሮጀክቶች የተቀመጡ ደንቦችን ያሟላሉ					
4	Ethiopian Construction Works Corporation Projects Completed within Schedules	በኮርፖሬሽኑ የሚሰሩ ፕሮጀክቶች በተያዘላቸው የጊዜ መርሃ ግብር ይጠናቀቃሉ					

**Appendix B- Coding**

S/No	Indicators	አመለካች	Item Coded
1	<b>Identification Stakeholder</b>	<b>ሀ. ባለድርሻ አካላትን መለየት</b>	<b>A</b>
1.1	Needs and expectations of stakeholders were explored	በኢትዮጵያ ኮንስትራክሽን ሥራዎች ኮርፖሬሽን ውስጥ የባለድርሻ አካላት ፍላጎቶች እና ተስፋዎች ተዳሰዋል	A1
1.2	Stakeholders area of interest was identified at the beginning of the projects	በኢትዮጵያ ኮንስትራክሽን ሥራዎች ኮርፖሬሽን ውስጥ በፕሮጀክቶቹ መጀመሪያ ላይ የባለድርሻ አካላት ፍላጎት ተለይቷል	A2
1.3	Stakeholders influences were predicted at the beginning of the projects	በኢትዮጵያ ኮንስትራክሽን ሥራዎች ኮርፖሬሽን ውስጥ በፕሮጀክቶቹ መጀመሪያ ላይ የባለድርሻ አካላት ተጽእኖዎች ተንብዩዋል	A3
1.4	Key stakeholders were properly identified	በኮርፖሬሽኑ ፕሮጀክቶች ቁልፍ ባለድርሻ አካላት በትክክል ተለይተዋል	A4
1.5	Identification of stakeholders at the beginning of the project will lay the foundation for the project success	በፕሮጀክት መጀመሪያ ላይ ባለድርሻ አካላትን መለየት ለፕሮጀክቱ ስኬት መሰረት ይጠላል	A5
	<b>Plan Stakeholder Engagement</b>	<b>ለ. የባለድርሻ አካላት ተሳትፎ</b>	<b>B</b>
2.1	Stakeholders engagement plan provides an actionable plan to interact effectively with stakeholders	የባለድርሻ አካላት የተሳትፎ እቅድ በኮርፖሬሽኑ ውስጥ ከባለድርሻ አካላት ጋር ውጤታማ ግንኙነት ለመፍጠር የሚያስችል ተግባራዊ እቅድ ያቀርባል	B1
2.2	There is a developed strategy that answers any stakeholders interests and constraints	በኢትዮጵያ ኮንስትራክሽን ሥራዎች ኮርፖሬሽን ውስጥ የባለድርሻ አካላትን ፍላጎቶች እና ገደቦችን የሚመልስ የዳበረ ስልት ወይም መመሪያ አለ	B2
2.3	Plan stakeholders engagement identifies how the project will affect stakeholders	የኮርፖሬሽኑ ፕላን ባለድርሻ አካላት ተሳትፎ ፕሮጀክቱ ውስጥ ባለድርሻ አካላት እንዴት ተፅእኖ እንደሚያሳርፉ ይለያል	B3
2.4	Plan stakeholder engagement enables the project manager to prepare different mechanisms to effectively engage stakeholders in the project and manage their expectations	ፕላን ባለድርሻ አካላት ተሳትፎ የፕሮጀክት ስራ አስኪያጁ ባለድርሻ አካላትን በውጤታማነት በፕሮጀክቱ ለማሳተፍ እና የወደፊት ፍላጎታቸውን ለመለየት የተለያዩ ዘዴዎችን እንዲያዘጋጅ ያስችላል	B4
2.5	Plan stakeholders engagement leads to achieving project objectives	የፕላን ባለድርሻ አካላት ተሳትፎ በኮርፖሬሽኑ ውስጥ የፕሮጀክት አላማዎችን ለማሳካት ያስችላል	B5
	<b>Stakeholder Analysis</b>	<b>ሐ. የባለድርሻ አካላት ትንተና</b>	<b>C</b>

3.1	Stakeholder analysis helps to evaluate different stakeholders	በኮርፖሬሽኑ የባለድርሻ አካላት ትንተና የተለያዩ ባለድርሻ አካላትን ለመገምገም ይረዳል	C1
3.2	Stakeholder analysis is useful to find innovative solutions to problems	የባለድርሻ አካላት ትንተና ለችግሮች አዳዲስ መፍትሄዎችን ለማግኘት ይጠቅማል	C2
3.3	In Ethiopian construction works corporation stakeholders prioritize according to their responsibilities to the project	በኢትዮጵያ የኮንስትራክሽን ሥራዎች ኮርፖሬሽን ባለድርሻ አካላት ለፕሮጀክቱ ባላቸው ኃላፊነት መሰረት ቅድሚያ ይሰጣሉ	C3
3.4	Stakeholder analysis is useful to ensure the quality of the decision making processes in Ethiopian Construction Works Corporation	የባለድርሻ አካላት ትንተና በኢትዮጵያ ኮንስትራክሽን ስራዎች ኮርፖሬሽን የውሳኔ አሰጣጥ ሂደቶችን ጥራት ለማረጋገጥ ይጠቅማል	C4
	<b>Stakeholder Communication</b>	<b>መ. የባለድርሻ አካላት ግንኙነት</b>	<b>D</b>
4.1	In Ethiopian Construction works corporation Stakeholder communicated through formal meeting	በኢትዮጵያ ኮንስትራክሽን ሥራዎች ኮርፖሬሽን ከባለድርሻ አካላት ጋር በመደበኛ ስብሰባዎች ግንኙነት ይደረጋል	D1
4.2	Communicating with stakeholders at the early stages of the design process can provide innovative, high-quality solutions at competitive prices	በዲዛይን ሂደት የመጀመሪያ ደረጃዎች ላይ ከባለድርሻ አካላት ጋር የተሳለጠ ግንኙነት መፍጠር ከፍተኛ ጥራት ያላቸው መፍትሄዎች በተመጣጣኝ ዋጋ ለማግኘት ይረዳል	D2
4.3	Communication with different stakeholders helps to prioritise their needs	ከተለያዩ ባለድርሻ አካላት ጋር ግንኙነት መፍጠር ለፍላጎታቸው ቅድሚያ ለመስጠት ይረዳል	D3
4.4	Communicating with different stakeholder helps to expose different thoughts and knowledge	ከተለያዩ ባለድርሻ አካላት ጋር ግንኙነት መፍጠር የተለያዩ ሀሳቦችን እና እውቀቶችን ለማግኘት ይረዳል	D4
	<b>Monitor Stakeholder Engagement</b>	<b>ሰ. የባለድርሻ አካላትን ተሳትፎ መከታተል</b>	<b>E</b>
5.1	You have had information about the status of stakeholders engagement	ስለ ባለድርሻ አካላት ተሳትፎ ሁኔታ መረጃ አላችሁ	E1
5.2	You included corrective and preventive actions to improve the level of stakeholders engagement	በኮርፖሬሽኑ የባለድርሻ አካላትን ተሳትፎ ደረጃ ለማሻሻል የእርምት እና የመከላከያ እርምጃዎችን እንዲካተት ተደረገዋል	E2
5.3	Updating of information about stakeholder community is necessary and take place in ECWC	የኮርፖሬሽኑ የባለድርሻ አካላትን ተሳትፎ ደረጃ ለማሻሻል የኮርፖሬሽኑ መመሪያ የእርምት እና የመከላከያ እርምጃዎችን አካቷል	E3

5.4	The stakeholders’ register was updated with information as a result of monitoring stakeholders engagement	በኮርፖሬሽኑ የባለድርሻ አካላትን ተሳትፎ በመከታተል ምክንያት የባለድርሻ አካላት መረጃ ምዝገባ ወቅታዊ ሆኖዋል	E4
5.5	Monitoring stakeholders engagement maintain or increase the effectiveness of stakeholders engagement activities through the life cycle of the projects in ECWC	ባለድርሻ አካላት ክትትል ተሳትፎ በኮርፖሬሽኑ ውስጥ ባሉ ፕሮጀክቶች የሕይወት ዑደት ውስጥ የባለድርሻ አካላት የተሳትፎ ተግባራትን ውጤታማነት ይጠብቃል ወይም ያሳድጋል	E5
	<b>Project Success /Enhanced Project</b>	<b>ረ. የፕሮጀክት ስኬት ከባለድርሻ አካላት እርካታ አንፃር</b>	<b>F</b>
6.1	Ethiopian Construction Works Corporation have Execution efficiency in its projects	በኮርፖሬሽኑ የሚሰሩ ፕሮጀክቶች ከማስፈጸሚያ ቅልጥፍና አንፃር የተሳኩ ናቸው	F1
6.2	Ethiopian Construction Works Corporation projects Fulfill laid requirements	በኮርፖሬሽኑ የሚሰሩ ፕሮጀክቶች የባለድርሻ አካላትን ፍላጎት ያሟላሉ	F2
6.3	Ethiopian construction Works Corporation projects Comply to regulations	በኮርፖሬሽኑ የሚሰሩ ፕሮጀክቶች የተቀመጡ ደንቦችን ያሟላሉ	F3
6.4	Ethiopian Construction Works Corporation Projects Completed within Schedules	በኮርፖሬሽኑ የሚሰሩ ፕሮጀክቶች በተያዘላቸው የጊዜ መረሃ ግብር ይጠናቀቃሉ	F4

## Appendix C- completed Road Construction Projects by ECWC

## Completed Road Construction projects By ECWC

S/No	Name of the Projects	Contract completion time(days)	Actual Completion time(days)	Contract Completion cost (ETB)	Actual Completion cost (ETB)	Percent of time overrun (%)	Percent of cost overrun (%)
1	Awash-Mile lot I Asphalt Overlay Project	1094	1440	320,115,556.19	336121334	105%	132%
2	Awash-Mile lot III Asphalt Overlay Project	730	1080	458,954,870.77	413,059,383.69	90%	148%
3	Guba-Begondiwembera Road Construction Project	1095	2604	1,578,418,925.73	1,894,102,710.88	120%	238%
4	Dima-Rad Road Construction Project	912	1977	926,796,267.06	945,332,192.40	102%	217%
5	Gewane Bridge and Approach Road Construction Project	365	792	33,320,413.13	34,153,423.46	103%	217%
6	Ambule Bridge and Approach Road Construction Project	365	972	43,251,141.48	42,386,118.65	98%	266%
7	Adama Awash Asphalt Overlay Project	1440	1980	575,818,194.94	838,288,766.33	146%	138%
8	Adama- Asela Road Construction Project	365	900	185,032,661.21	181,332,007.99	98%	247%
9	Dembi Dollo Airfield Construction Project	730	1095	216,796,545.36	281,835,508.50	130%	150%
10	IT Park Internal Road Construction Project	365	1457	91,395,192.58	100,534,711.84	110%	399%

## LIST OF FIGURES

Figure 1: Identify stakeholder partial Regression plot

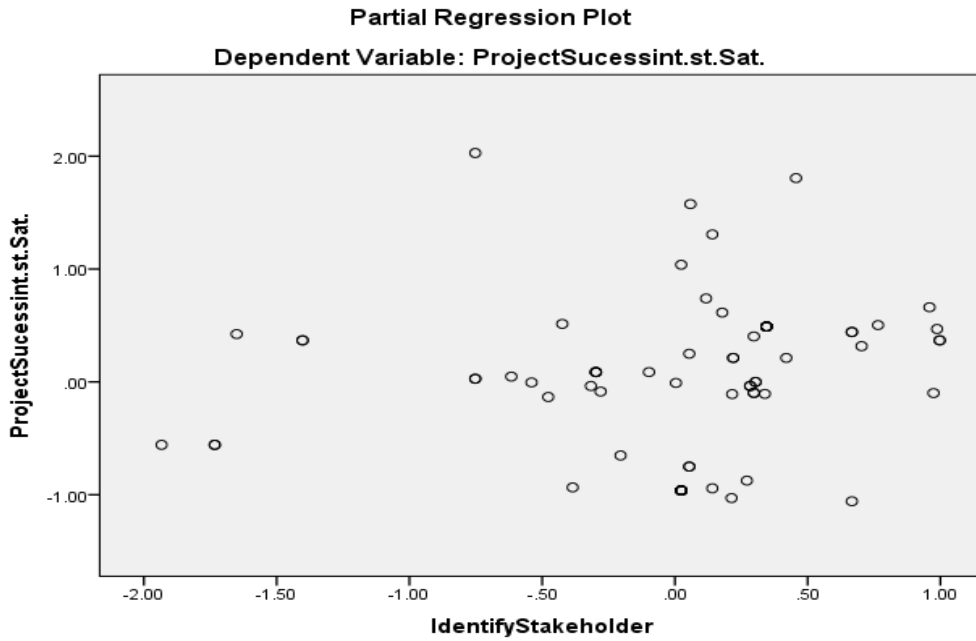


Figure 2: Plan stakeholder engagement Regression plot

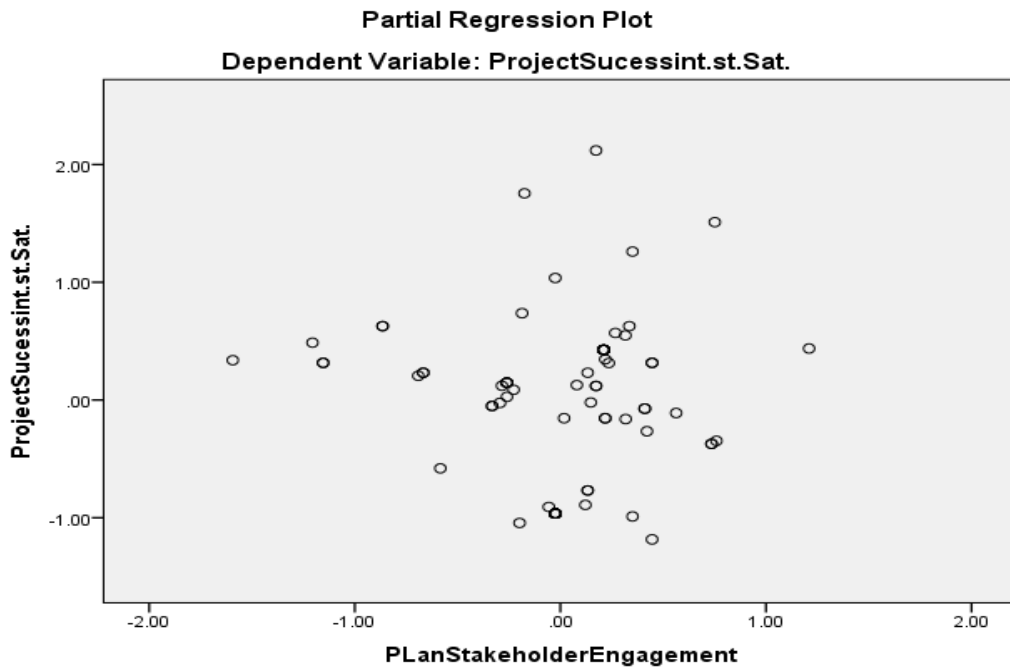


Figure 3: Stakeholder analysis Regression plot

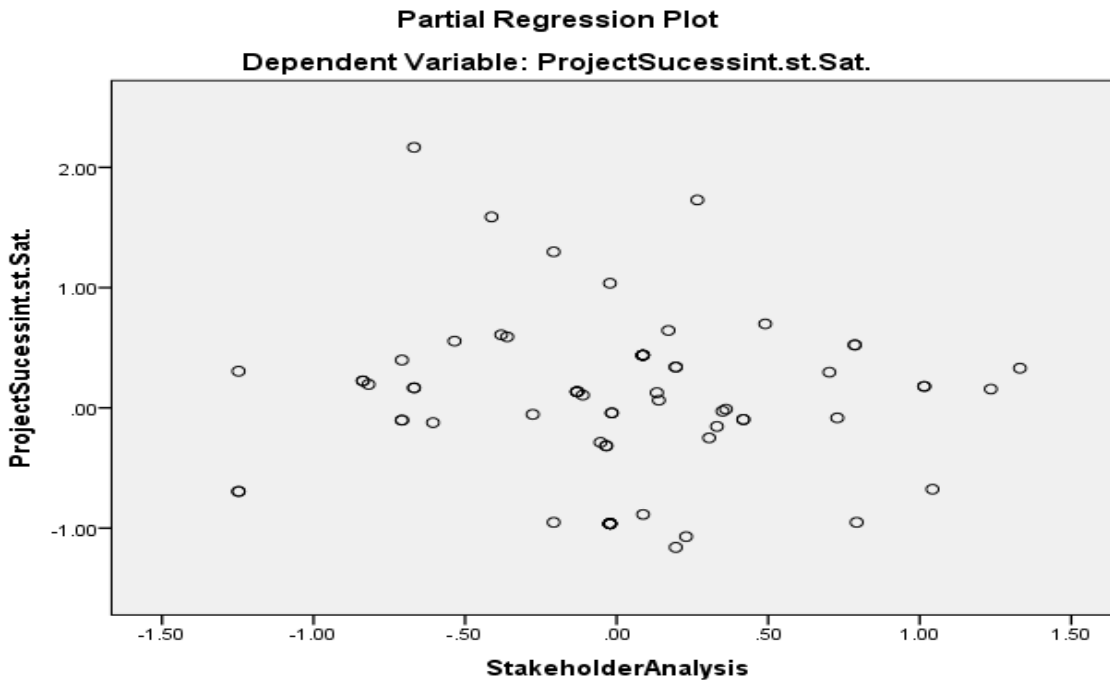


Figure 4: Stakeholder communication Regression Plot

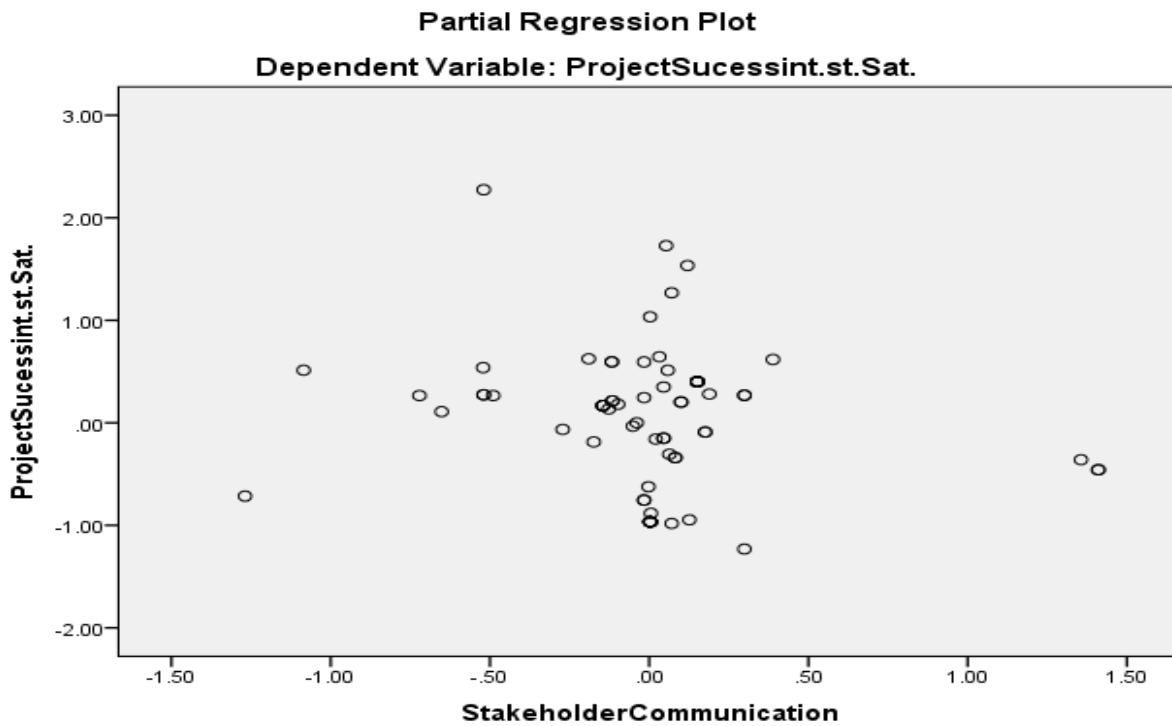


Figure 5: Monitor stakeholder engagement Regression plot

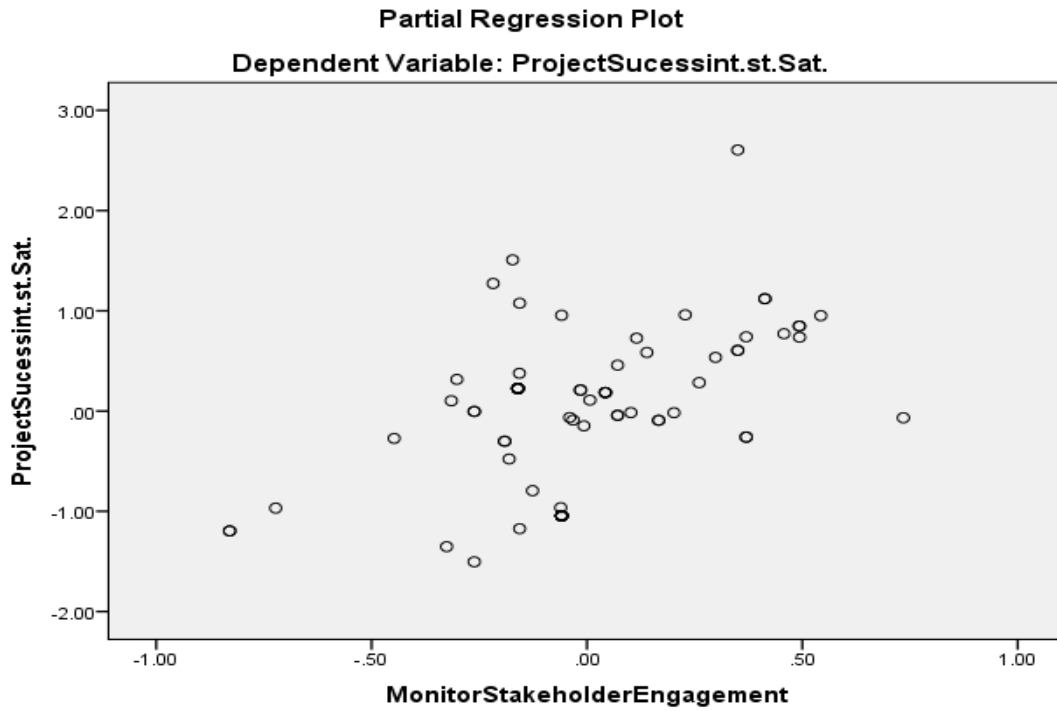


Figure 6: Homoscedacity

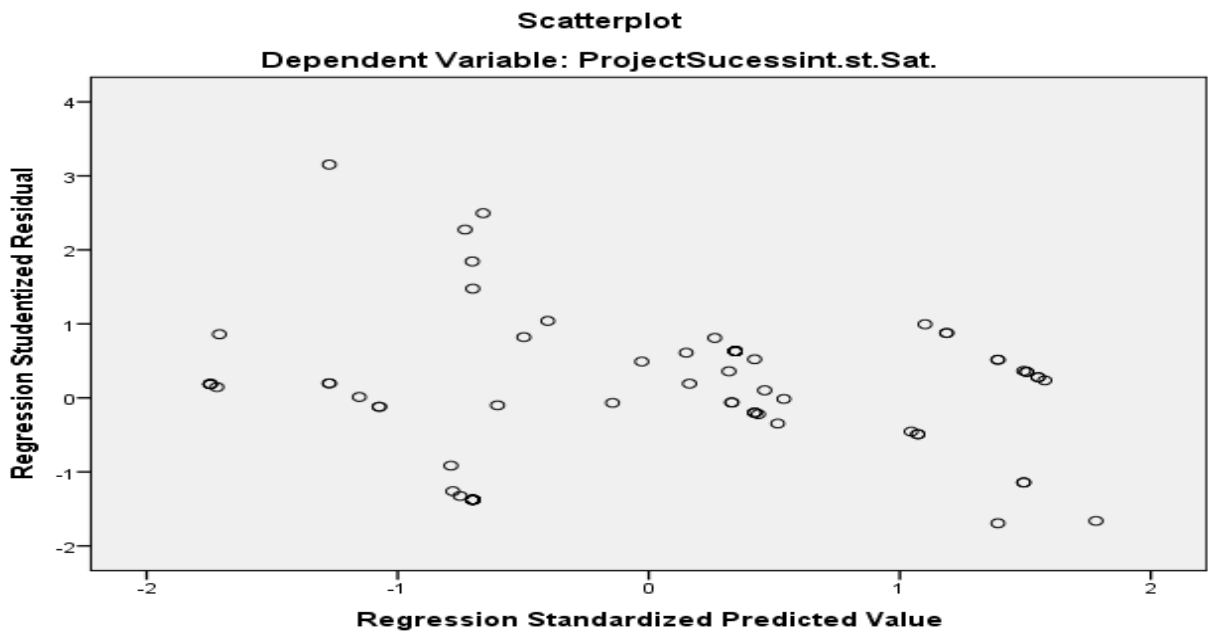
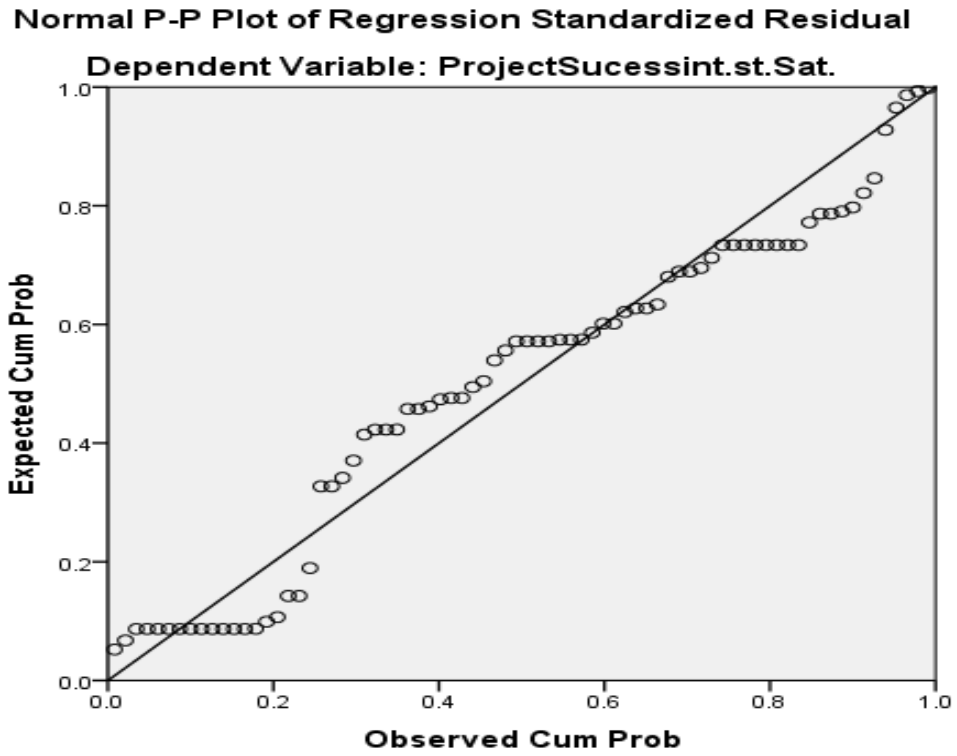
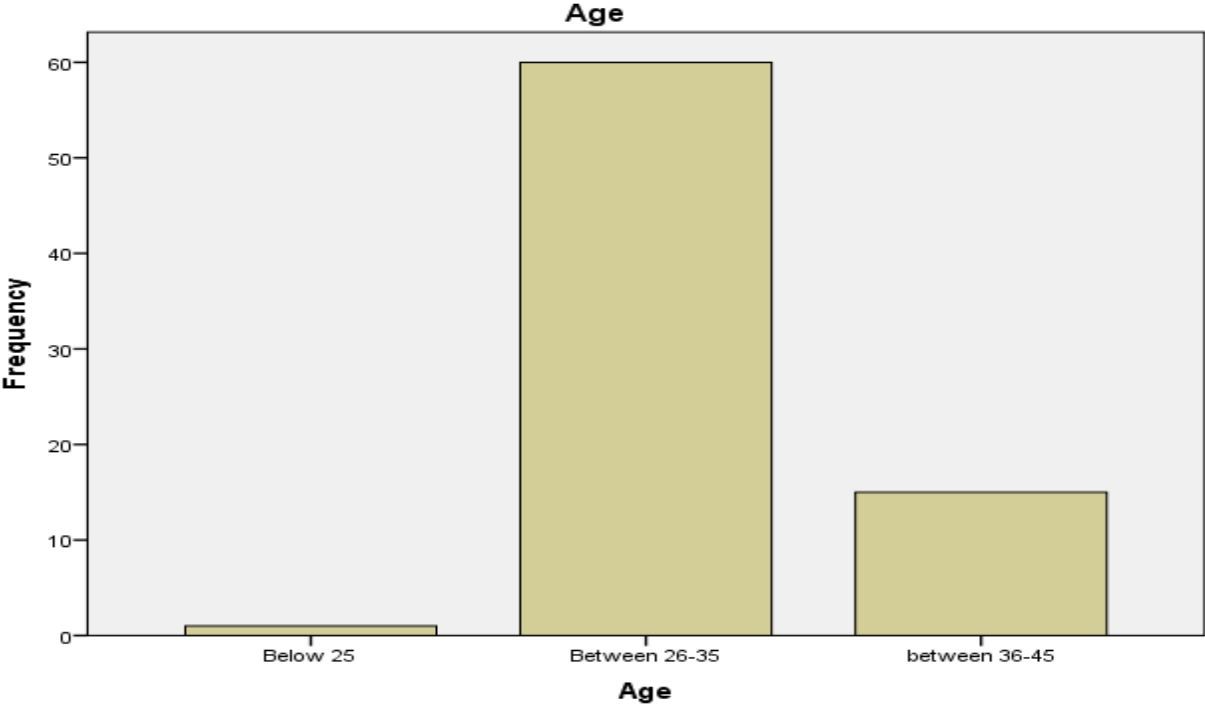


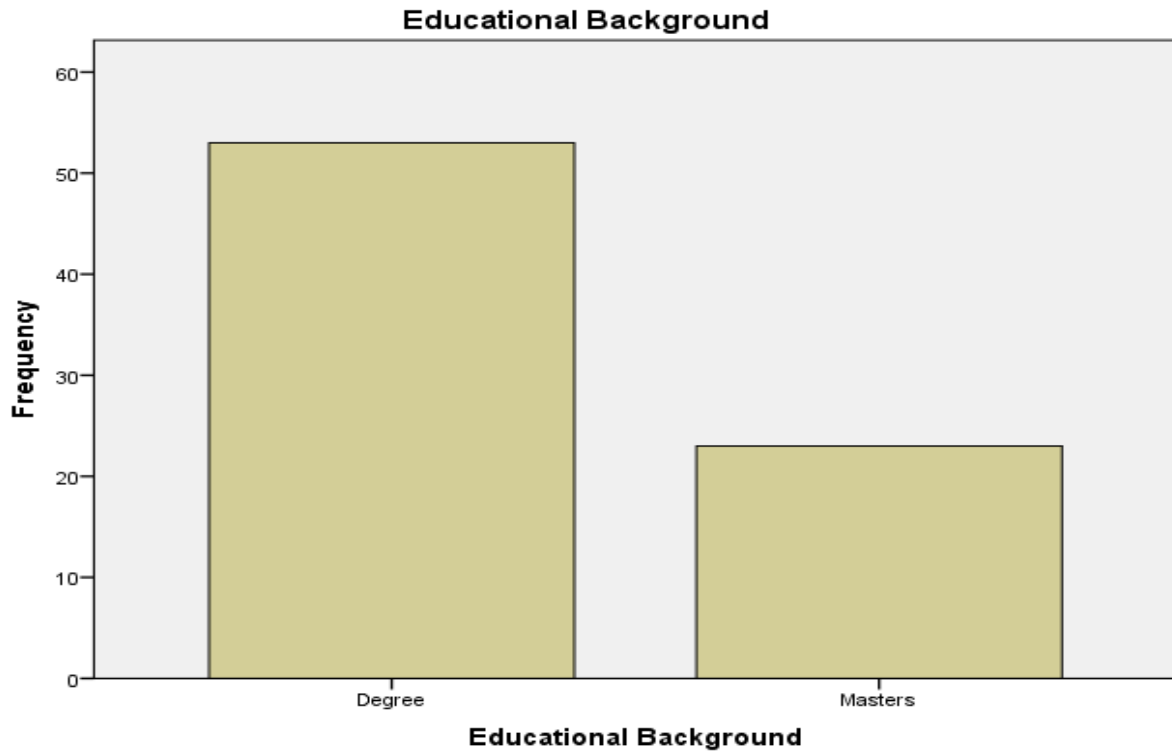
Figure 7: Normal P-P plot of Regression standardized Residual

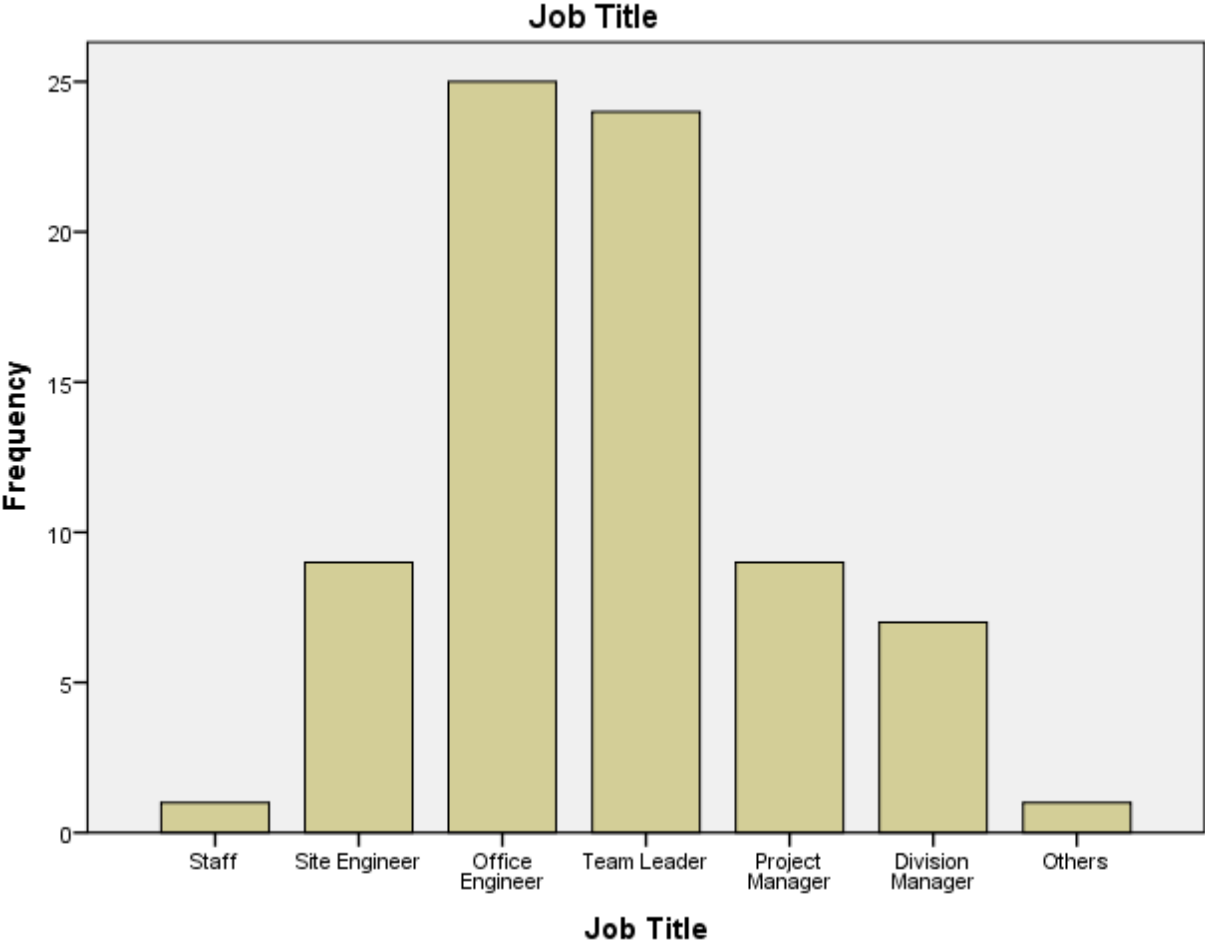


Appendix: Frequency bar Chart









**DECLARATION**

I declare that this thesis is my original work, prepared under the guidance of Mahir J. (PhD). All sources of material used for this thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institutions for the purpose of earning any degree.

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Signature

Abdurazak Jemal

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