**ADDIS ABABA UNIVERSITY**

**COLLEGE OF TECHNOLOGY AND BUILT ENVIRONMENT**

**SCHOOL OF BUILT ENVIRONMENT**

**DEPARTMENT OF INFRASTRUCTURE AND CONSTRUCTION MANAGEMENT**




# FACTORS OF HOUSING CONSTRUCTION PROJECT TERMINATION: THE CASE OF ETHIOPIAN SUGAR INDUSTRY GROUP

A Thesis submitted to the School of Built Environment Infrastructure and Construction Management in partial fulfillment of the requirement for the award of the degree of Master of Science in Construction Management

**By**

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**ADDIS ABABA UNIVERSITY**

**SCHOOL OF BUILT ENVIRONMENT**

**INFRASTRUCTURE AND CONSTRUCTION MANAGEMENT**

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# DECLARATION

I hereby declare that this thesis entitled "Factors of Housing Construction Project Termination: the case of Ethiopian Sugar Industry Group" is my original work except for citations and quotations; which have been duly acknowledged. I also declare that this study has not been presented for the award of a degree program in any other university.

| Seife Tadesse | _____ | _____ |
|---|---|---|
| Author's Name | Signature | Date |

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# ABBREVIATIONS

| | |
|---|---|
| BOQ | Bill of Quantities |
| CCD | Contract Completion Date |
| CSD | Contract Signing Date |
| DB | Design Build |
| DBB | Design Bid Build |
| EOT | Extension of Time |
| EPC | Engineering, Procurement and Construction |
| ESIG | Ethiopian Sugar Industry Group |
| FIDIC | International Federation of Consulting Engineers |
| GDP | Gross Domestic Product |
| IPC | Interim Payment Certificate |
| LDs | Liquidated Damages |
| MOP | Material Onsite Payment |
| OCA | Original contract amount |
| PPA | Public Procurement and Property Administration |
| RCA | Revised contract amount |
| TOR | Terms of Reference |
| VO | Variation Order |

# ABSTRACT

Despite playing a significant role in the economic development of a country, the construction industry is still facing challenges. As one of the undertakings in the construction industry, construction project is facing challenges. Construction project termination is one of the critical challenges affecting the construction industry efficiency and sustainability, often resulting in significant losses. Construction Project Termination is a serious challenge in developing economies, leading to significant financial losses, project delays and reduced organizational performance. However, there is little empirical evidence on the underlying factors of contract termination and its organizational impacts in the Ethiopian context. This study fills this gap by examining the factors of housing construction project termination and its implications on stakeholders. The research adopts a qualitative research methodology employing a case study type of qualitative research design. Primary data was gathered through semi-structured interviews with clients, contractors and consultant's representative involved in selected terminated projects. Secondary data was obtained through review of six terminated construction project cases. Qualitative data is examined through thematic analysis using software atlas.ti. Triangulation of findings is made to ensure validity and reliability. The finding of the study reveal that contract termination is a multidimensional issue resulting from the cumulative effect of various interconnected factors, rather than being caused by a single isolated problem. The most dominant factors as per the finding of interview and case study was the delayed payments by the employer. Case study identified poor performance of the contractor as a major contributing factor, but stakeholder interviews prioritized it lower, highlighting differences in stakeholder perspectives. Also, escalation of construction material prices is recognized in both sources as a major financial pressure contributing to disputes and termination. Decision making problem of the employer and refusal for price adjustment by the employer is identified as a critical factor by the interviewee. The major impacts of termination on the client are delay of the public service and financial loss, whereas the identified major impacts of termination on the contractor are financial losses and reputational damage. While the application of qualitative approach as a beginner researcher presented challenges in terms of data analysis and interpretation, the study serves as an initial exploration of the issue and provides a foundational understanding for experienced researcher to further explore the findings of this research and refine the conclusions. To reduce the frequency of contract terminations, the study recommends improving financial management process, contractor selection processes, contract administration and decision-making processes, and mechanisms for institutional learning.

***Keywords: Contract termination; Factors; Organizational Impacts; Financial management; Contract administration***

# Table of Contents

DECLARATION ..... ii
ACKNOWLEDGEMENT ..... iii
ABBREVIATIONS ..... iv
ABSTRACT ..... v
LIST OF TABLES ..... ix
LIST OF FIGURES ..... x
**CHAPTER ONE** ..... 1
**1. INTRODUCTION** ..... 1
1.1 Background of the Study ..... 1
1.2 Problem Statement ..... 3
1.3 Research Question ..... 5
1.4 Objectives of the Study ..... 5
1.4.1 General Objective ..... 5
1.4.2 Specific Objectives ..... 5
1.5 Scope and Limitation of the Study ..... 5
1.6 Significance of the Study ..... 7
**CHAPTER TWO** ..... 8
**2. LITERATURE REVIEW** ..... 8
2.1 Introduction ..... 8
2.2 The Construction Industry and Economic Significance ..... 8
2.3 Concept of Construction Project Termination ..... 12
2.3.1 Definition and Nature ..... 12
2.3.2 Legal Framework ..... 14
2.3.3 Termination in Practice ..... 16
2.4 Factors of Construction Project Termination ..... 17
2.4.1 Financial Factors ..... 17
2.4.2 Managerial and Organizational Factors ..... 19
2.4.3 Technical and Contractual Factors ..... 20
2.4.4 External and Environmental Factors ..... 21
2.5 Organizational Impacts of Construction Project Termination ..... 23
2.5.1 Financial Impacts ..... 23
2.5.2 Operational Impacts ..... 24
2.5.3 Human Resource and Psychological Impacts ..... 24

2.5.4 Reputational Impacts ..... 24
2.5.5 Strategic and Institutional Impacts ..... 25
2.6 Mitigation Strategies ..... 26
2.7 Summary of Literature and Research Gap ..... 27
2.8 Conceptual Frame Work ..... 28
**CHAPTER THREE** ..... 30
**3. RESEARCH METHODOLOGY** ..... 30
3.1 Introduction ..... 30
3.2 Study Area ..... 30
3.3 Research Approach ..... 31
3.4 Research Design ..... 32
3.5 Data Sources ..... 33
3.6 Population and Sampling ..... 33
3.6.1 Target Population ..... 33
3.6.2 Sampling Frame ..... 34
3.6.3 Sampling Technique ..... 34
3.6.4 Sample Size ..... 34
3.7 Data Collection Instruments ..... 35
3.8 Validity and Reliability of Data ..... 35
3.8.1 Validity of Data ..... 36
3.8.2 Reliability of Data ..... 36
3.9 Data Analysis ..... 36
3.9.1 Qualitative Data Analysis ..... 36
3.9.2 Triangulation of Data ..... 38
**CHAPTER FOUR** ..... 40
**4. RESULT AND DISCUSSION** ..... 40
4.1 Introduction ..... 40
4.2 Contextual Analysis of Housing Construction Projects of ESIG ..... 40
4.2.1 Wolkait Sugar Factory ..... 40
4.2.2 Tana Belles Sugar Factory ..... 41
4.2.3 Kessem Sugar Factory ..... 41
4.2.4 Arjo Didhessa Sugar Factory ..... 42
4.2.5 Omo Kuraz 1 Sugar Factory ..... 42
4.2.6 Omo Kuraz 2 Sugar Factory ..... 42

4.2.7 Omo Kuraz 3 Sugar Factory ..... 43
4.2.8 Omo Kuraz 5 Sugar Factory ..... 43
4.2.9 Summarized Contextual Analysis of Housing Construction Projects at ESIG ..... 44
4.3 Factors of Housing Project Termination ..... 45
4.3.1 Analysis of Case one ..... 47
4.3.2 Analysis of Case two ..... 48
4.3.3 Analysis of Case three ..... 49
4.3.4 Analysis of Case four ..... 50
4.3.5 Analysis of Case five ..... 51
4.3.6 Analysis of Case six ..... 52
4.3.7 Result of the Case Study for Factors of Housing Project Termination ..... 53
4.3.8 Result of Interview for Factors of Termination ..... 56
4.3.9 Discussion of the Case Study Result for Factors of Termination ..... 59
4.3.10 Discussion of the Interview Result for Factors of Project Termination ..... 62
4.4 Organizational Impacts of Termination ..... 64
4.4.1 Result of the Case Study for Organizational Impacts of Termination ..... 64
4.4.2 Result of Interview for Organizational Impacts of Project Termination ..... 67
4.4.3 Discussion of the Case Study Result for Organizational Impacts of Termination ..... 71
4.4.4 Discussion of the Interview Result for Organizational Impacts of Termination ..... 75
4.5 Triangulation of Interview and Case Study Finding ..... 78
4.5.1 Introduction ..... 78
4.5.2 Analysis of Factors of Housing Project Termination ..... 78
4.5.3 Discussion on Factors of Project Termination ..... 80
4.5.4 Analysis of Organizational Impacts of Housing Project Termination ..... 81
4.5.5 Discussion on Organizational Impacts of Project Termination ..... 84
**CHAPTER FIVE** ..... 86
**5. CONCLUSION AND RECOMMENDATION** ..... 86
5.1 Conclusion ..... 86
5.2 Recommendation ..... 88
**6. REFERENCES** ..... 89
Appendix ..... 94

# LIST OF TABLES

Table 4-1: Contextual Analysis of housing construction contracts at Wolkait Sugar Factory ..... 40
Table 4-2: Contextual Analysis of housing construction contracts at Tana Belles ..... 41
Table 4-3: Contextual Analysis of Housing Construction Contract at Kessem Sugar Factory ..... 41
Table 4-4: Contextual Analysis of housing construction contract at Arjo Didhessa ..... 42
Table 4-5: Contextual Analysis of Housing Construction Contract at Omo Kuraz 1 Sugar Factory ..... 42
Table 4-6: Contextual Analysis of Housing Construction Contract at Omo Kuraz 2 Sugar Factory ..... 43
Table 4-7: Contextual Analysis of Housing Construction Contract at Omo Kuraz 3 Sugar Factory ..... 43
Table 4-8: Contextual Analysis of Housing Construction Contract at Omo Kuraz 5 Sugar Factory ..... 43
Table 4-9: Summarized Contextual Analysis of Housing Construction Contracts at ESIG ..... 44
Table 4-10: Document Review Checklist ..... 45
Table 4-11: Overview of six terminated housing projects ..... 46
Table 4-12: Analysis of Case One ..... 47
Table 4-13: Analysis of Case Two ..... 48
Table 4-14: Analysis of Case three ..... 49
Table 4-15: Analysis of Case Four ..... 50
Table 4-16: Analysis of Case five ..... 51
Table 4-17: Analysis of case six ..... 52
Table 4-18: Case Study Result for Factors of Termination ..... 54
Table 4-19: participants of the Interview ..... 56
Table 4-20: Result of Interview for Factors of Termination ..... 58
Table 4-21: Case Study Result of Organizational Impacts ..... 65
Table 4-22: Result of Interview for Organizational Impacts ..... 68
Table 4-23: criteria for level of convergence ..... 78
Table 4-25: Criteria for Level of Convergence ..... 82
Table 4-24: Triangulation of Interview and Case Study for impacts of termination ..... 83

# LIST OF FIGURES

Figure 2-1: Distribution of Operational Investment Capital by Sector in 2023/2024 (Ethiopia Investment Commission, 2024) ..... 11
Figure 2-2: Conceptual Framework Diagram ..... 29
Figure 3-1: Study Area Map ..... 31
Figure 3-2: Research Methodology ..... 39
Figure 4-1: Case Study Analysis for Factors of Termination ..... 55
Figure 4-2: Party Related Factors of Each Case Study ..... 55
Figure 4-4: Result of Interview for Factors of Termination ..... 59
Figure 4-5: Employer, Contractor and Environmental Related Factors of Termination ..... 59
Figure 4-3: Case Study Result for Organizational Impacts of Terminatio ..... 66
Figure 4-6:Interview Result for Organizational Impacts of Termination ..... 69
Figure 4-7: Interview Result on Financial Impacts ..... 69
Figure 4-8: Interview Result for Operational Impacts ..... 70
Figure 4-9:Interview Result for Human Resource and Psychological Impacts ..... 71
Figure 4-10: Triangulation of finding on factors ..... 79

# CHAPTER ONE

# 1. INTRODUCTION

## 1.1 Background of the Study

Ethiopia has invested heavily into developing domestic sugar industry to become more self-sufficient in terms of sugar production and reduce its reliance on imports. The purpose of establishing the sugar industry was to create jobs, generate export revenue, and develop rural areas that are the sites of current and future sugar projects (Zikargie et al., 2022).

The government with the intent of developing a globally competitive sugar industry, was prepared to rank the country among the top-10 global sugar producers by 2023. To work towards that, the Ethiopian Sugar Corporation adopted an approach to first modernizing and expanding existing estates like Wonji Shoa, Metehara and Fincha while also developing new estates and sugarcane processing facilities like Kessem Sugar Development Project, Tendaho Sugar Development Project, Wolkait Sugar Development Project, Tana Belles Sugar Development Project, and Omo 1,2,3 and 5 Sugar Development Projects (Kamski, 2016).

The Ethiopian government launched a number of major sugar factory projects throughout Ethiopia to boost sugar production (Kamski, 2016). The government established the Ethiopian Sugar Corporation, currently called the Ethiopian Sugar Industry Group, to supervise the planning, execution and operation of sugar factory projects in Ethiopia so as to promote sugar production. The primary function of the Ethiopian Sugar Industry Group is to Follow up and monitor the execution of new as well as existing feasible public sugar factory projects and commission such projects as independent. To do so, the Sugar Industry Group allocate resources including plenty of work force and this work force has various needs including housing and related facilities.

Accordingly, housing construction projects have been implemented based on the crushing capacity of each sugar factory. Though, the basis for housing construction planning is various, factory construction completion period is the major as it is necessary to complete housing construction for

the settlement of residents before the factory construction is completed. In addition to this, the crushing capacity of the factory determines the number of houses to be constructed.

To address the need of housing for the workers, Ethiopian Sugar Industry Group uses multiple contractors and consultants for each of the housing construction projects throughout the different areas of Ethiopia, where Ethiopian Sugar industry group has factories. All of these construction projects involve different stakeholders; they also require a substantial financial investment and take place in uncertain environments.

Construction projects involve different parties, spend long timelines, uncertainties and multiple components like civil, mechanical & electrical to be integrated together. Each project also has the need for highly developed design engineering, comprehensive plans and specifications, efficient construction methods, effective project management, skilled supervision and the requisite level of coordination.

Despite playing an important role in the economy sector, the construction industry is still facing challenges related to inefficiency and lack of understanding in contract administration between contracting parties(Norhernani & Mohd, 2024). The challenges include but not limited to increment of original contract amount and delay of completion schedule, contractual disputes, and poor project performance. One of the major challenges to the effectiveness and sustainability of the construction industry is the problem of project termination. The most troublesome factor to cause failure to construction projects is contract termination (El Karriri AA et al., 2011).

Several housing construction projects of Ethiopian Sugar Industry Group were terminated early due to various reasons but not limited to problem of coordination among the various stakeholders involved in these projects, lack of effective communication, limited financial and technical resources, and poor decision-making procedures. As a result of these challenges, the Sugar Industry Group experienced adverse impacts such as financial loss, wastage of resources, decreased productivity, missed opportunities for development, and the possibility of a negative economic impact.

Although the size of public infrastructure investments, especially large state led programs, has been growing, there is little empirical evidence on the underlying factors and organizational

impacts of contract termination in the Ethiopian context. This study fills this gap by examining the factors and impacts of housing construction project termination in Ethiopian Sugar Industry Group.

## 1.2 Problem Statement

Through capital investment, job creation, and infrastructure development, the construction industry can be considered as one of the most dynamic sectors that greatly contributes to the growth of the national economy. The construction industry plays a major role in any country's economy and an increase in the activity of the construction industry can lead to a positive impact on the economy (Gnanothayan & Linda, 2022).

The construction industry is considered the economical backbone in many countries all over the world (El Karriri AA et al., 2011). Construction will contribute for more than 10% of the world's total gross domestic product (GDP) and employ over 7% of the world's total labor force. The construction sector contributes between 40-60% of gross fixed capital formation (GFCF), which has an impact on both productivity and jobs on a national level (Hillebrandt, 2000).

Despite playing a significant role in the economy, the construction sector continues to face difficulties due to various reasons like inefficiencies and a lack of understanding in the administration of contracts between contracting parties (Norhernani & Mohd, 2024).

One of the public administrators' biggest challenges is how to complete public projects within the time, cost, and quality standards (Ajayi OM et al., 2012). Public projects continually face multiple difficulties for their satisfactory completion. Poor project performance, contractual disputes, delay of completion schedule, and increment of original contract amount are some of the challenges. Furthermore, Project termination is still one of the most serious issues affecting the sustainability and efficiency of the industry. One of the most complex challenges is contract termination, which delays social goods delivery and exhausts public resources (Riveros et al., 2022).

As is the contract formation, contract termination is a crucial aspect in the construction industry, affecting various stakeholders involved in a project. Termination of contracts, defined as ending the agreement between the employer and contractor before project completion, can have significant implications (Riveros et al., 2022).

Termination of contract occurs when a valid and enforceable contract is brought to an end, it is either because it became difficult to execute due to unforeseeable circumstances at the time the contract was created, or because one or both parties took acts that made it impossible to perform (Norhernani & Mohd, 2024).

There are several factors that might lead to construction project termination. Factors such as delayed design information and ambiguities in contract documents often contribute to disputes that may lead to contract termination (Ilter, 2012). One significant cause of contract termination is errors in contract documents, which can lead to misunderstandings and disputes (Dosumu et al., 2017). Contract terminations in the construction industry are often caused by factors such as financial difficulties, poor project management, disputes over contract terms, or failure to meet project deadlines and quality standards (Ishana & Kanchana, 2024a).

Termination can have an impact on contracting parties. Operationally, terminations cause project disruptions, which can lead to delays and increased costs as new contractors take over incomplete work (Gould & Nancy, 2009). Construction project termination will negatively affect the sustainability of the construction projects and is expected to cause loss in time, cost and efforts for all parties operating in the construction projects (Alaa et al., 2011). Contract terminations in the construction industry can lead to significant financial losses, project delays, legal disputes, and damage to the reputations of the parties involved (Ishana & Kanchana, 2024b).

Over the past five years, Ethiopia Sugar Industry Group has terminated over six housing construction contracts for various reasons. Significant organizational impacts have also resulted from those housing construction project contracts being terminated, including financial loss, wastage of resource, decreased productivity, delays and failure to deliver service, eroded stakeholder trust, lost development opportunities, and possible adverse economic effects.

In order to provide useful observations and recommendations for reducing and avoiding project termination in future projects, this study aims to explore the factors that lead to construction project termination and their impacts, using the Ethiopia Sugar Industry Group's housing construction project as a case study.

## 1.3 Research Question

This research is expected to answer the following questions:

- What are the key factors that led to construction project termination of housing construction project at Ethiopian Sugar Industry Group?
- What are the major organizational impacts of housing construction project termination?

## 1.4 Objectives of the Study

### 1.4.1 General Objective

The general objective of this research is to explore the factors of housing construction project termination at Ethiopian Sugar Industry Group.

### 1.4.2 Specific Objectives

Specific objectives of this research include:

- To identify the key factors that lead to construction project termination of housing construction at Ethiopia Sugar Industry Group.
- To assess the organizational impacts resulting from housing construction project termination.

## 1.5 Scope and Limitation of the Study

The study focused on terminated housing construction projects of Ethiopia sugar industry group. To achieve the objectives, the study employed a case study of six housing construction projects that have been terminated within the last 5 years (2020-2025).

The projects that were delayed and suspended but not terminated are also excluded from consideration for the study; therefore, this study will examine the working environment, contracting parties correspondences and contract documentations of these terminated construction projects using case specific analysis, as well as review current literature that discusses about factors of termination, organizational impacts of termination and implemented practices for improving the management of construction projects and decreasing the risk of project terminations.

The findings of this research should not be considered definitive or applicable to all construction businesses, as it was conducted with a case of single organization. However, they could be beneficial in providing a possible comparison to businesses in similar settings. The findings are interpreted with caution given the focus on a single sector which could limit the generalizability of the results.

While the application of qualitative approach as a beginner researcher presented challenges in terms of data analysis and interpretation, the study serves as an initial exploration of the issue and provides a foundational understanding for experienced researcher to further explore the findings of this research and refine the conclusions.

Even though the factors and organizational impacts of construction project termination is determined, the research did not explore the mitigation strategies as an objective. Therefore, a researcher taking the finding of this study as a foundation may explore the mitigation strategies.

By clearly defining the scope and acknowledging the limitations, this research provides valuable understandings that can help improve project planning, monitoring, and management, ultimately reducing the risk of construction project termination at Ethiopia sugar industry group.

Additionally, the recommendations provided in the research may be subjected to the willingness and capacity of Ethiopian Sugar Industry Group and other relevant authorities to implement suggested changes.

## 1.6 Significance of the Study

The study aims to provide construction project stakeholders, understandings regarding the reasons that contribute to termination, and impacts from terminating construction projects.

This study will enable stakeholders to take a practical approach in managing construction projects, which in turn will help create a focus on specific effective project management strategies to improve efficiency, and increase the success rates of construction projects.

Upon identifying and addressing the root causes of construction termination, this research has the capacity to reduce the financial losses and other related impacts due to termination of construction project at the Ethiopian Sugar Industry Group, and will also help to improve the construction project performance of the Ethiopian Sugar Industry Group.

In summary, this study is significant as it explores the factors that cause termination of housing construction projects and impacts to the construction project stakeholders after a project has been terminated by examining selected terminated housing construction projects within the Ethiopian Sugar Industry Group. The findings of this research will provide empirical data to the construction project stakeholders to support it in reducing its financial losses and other related impacts due to termination, improving its project planning, contract administration and risk management, and improving communication and collaboration among the stakeholders. This will ultimately allow for better project performance, create an atmosphere favorable to institutional learning and facilitate the sustainable growth of the construction industry in Ethiopia.

# CHAPTER TWO

# 2. LITERATURE REVIEW

## 2.1 Introduction

In this chapter, both theoretical and empirical works of literature related to the study have been reviewed. Upon referring different journals, articles, thesis, manuals, guidelines and books, concepts and theories are generated which provide a theoretical basis for the current study.

This chapter systematically reviews relevant literature regarding construction project termination, its factors and organizational impacts of construction project termination, in order to determine both theoretical and empirical bases for this study. In addition to this, the status of housing construction projects implemented at different sugar factory is presented in this chapter.

The review initially provides concepts on the topic as per different researcher insights. The literature review then continues with an empirical examination of the factors leading to project termination and the organizational impacts associated with project termination. Then a contextual analysis of housing construction projects which critically discusses regarding the housing construction projects implemented at different sugar factory is presented.

Finally, this literature review section concludes by identifying the gaps and discusses how this thesis will help fill those gaps, with a major focus on filling gaps specific to the Ethiopian Sugar Industry Group context.

## 2.2 The Construction Industry and Economic Significance

Construction refers to the activity of building physical infrastructure such as roads, buildings and other structures, as well as any related facilities. This includes civil engineering construction projects including residential construction, and the maintenance & repair of existing buildings/structures and other types of civil engineering projects(G. Ofori, 2015).

Construction represents both an art and science by way of creating structures, systems or organizations. Construction involves all activities starting from concept through maintenance to demolition of assets. Construction encompasses a multidisciplinary approach that includes

planning, design, construction, and management of various structures such as residential houses, schools, and public works like roads and bridges.

The construction industry is a sector of the economy that transforms various resources into constructed physical, economic and social infrastructure necessary for socio-economic development which includes building, transportation systems and facilities which are airports, highways, subways, bridges, railways and others. The construction industry encompasses a vast range of activities, processes, and areas of specialization, including the building of structures, highways, railways and repairing these structures to name a few (Wilson, 2023).

The extent that the construction industry contributes to the socio-economic development is measured in terms of gross domestic product (GDP) of the national economy and capital assets or gross capital formation. Construction will contribute for more than 10% of the world's total gross domestic product (GDP) and employ over 7% of the world's total labor force (Nishantan). Construction contributes to the development of infrastructure of countries. The construction industry contributes to the benefit of the world economy and is an international business with a workforce of millions. It also contributes to the growth of GDP of many countries and, in turn, the world economy (Anil et al., 2020).

The construction industry plays a major role in any country's economy and an increase in the activity of the construction industry can lead to a positive impact on the economy (J. Gaberial & Linda, 2022). The construction industry is viewed as the economic backbone of most countries throughout the world (Alaa et al., 2011).

The construction sector has become essential in promoting economic growth globally as a leading contributor to infrastructure development and job creation. In addition to advancing national development through the provision of buildings, roads, hospitals, and power generation facilities, the construction industry contributes directly to various sectors, including housing, transport, health, and energy (Charles et al., 2025a).

The construction sector is an important part of all economies, it has an impact on and is influenced by the gross domestic product (GDP) of each country (J. & Abu Mosa, 2008). The construction sector contributes between 40-60% of gross fixed capital formation (GFCF), which has an impact

on both productivity and jobs on a national level (Hillebrandt & Patricia M., 2000). Due to the significance of the construction industry to their national economies, many countries have conducted research to determine what are the difficulties and possibilities within this particular industry (Anil et al., 2020).

The construction sector in many developing countries, such as Ethiopia, is essential for economic growth and development. It creates jobs, raises industrial linkages and promotes technological innovations; however, due to problems such as poor management practices, limited resources, interruptions to project continuity and others, the sector continues to be very vulnerable and inefficient.

Small and medium-sized contractors (SMCs) are important to developing nations such as Ethiopia by providing a solid foundation for economic growth. they play an important role in creating jobs and contributing to infrastructure development and building strong links between sectors of the economy, making them one of the most significant drivers of development in society (Ahiawodzi & Adade, 2012).

In Ethiopia, the construction industry has emerged as one of the fastest growing sectors, contributing approximately 21% to the national GDP (ENA, 2024).

In the context of Ethiopia, the sectors that contributed to the Gross Domestic Product (GDP) include Agriculture, Industry and Services. According to the annual report of the National Bank of Ethiopia for the year 2023/2024, the construction sector contributed around 23 percent to GDP and 70.1 percent to industrial sector. Specifically, of the total capital investment of the projects, construction sector alone constituted 79 percent whereas manufacturing accounted for 19.4 percent and real estate, renting & business activities 1.1 percent.

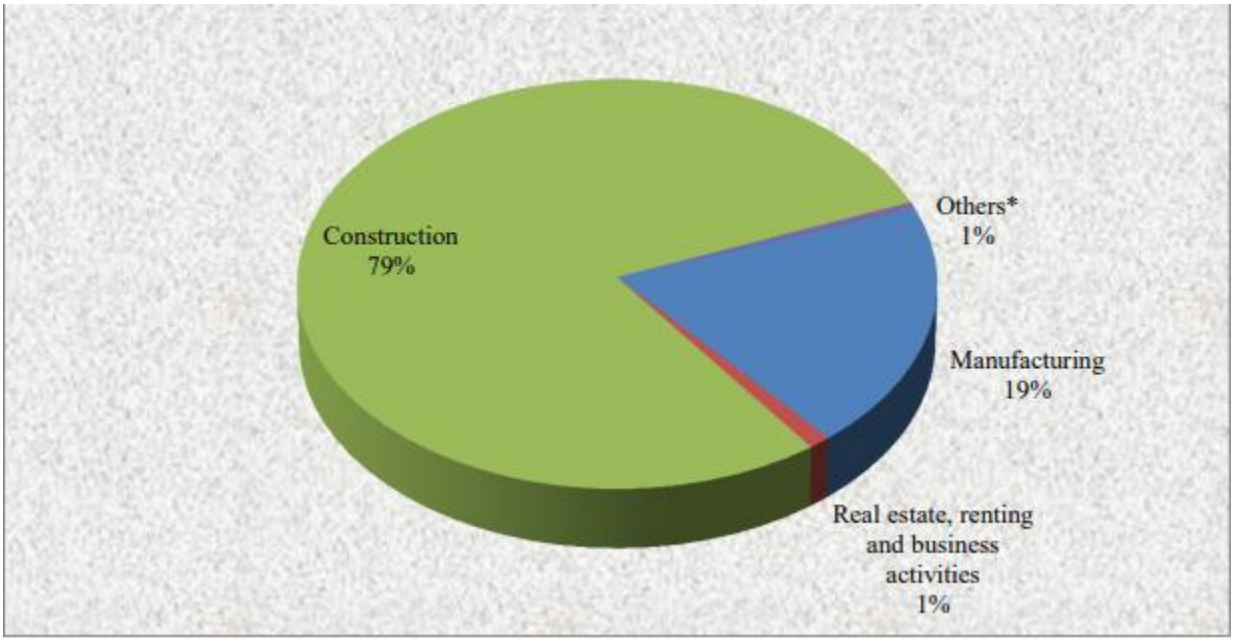



Figure 2-1: Distribution of Operational Investment Capital by Sector in 2023/2024 (Ethiopia Investment Commission, 2024)

The sector's expansion has generated employment and accelerated urbanization; however, challenges such as cost overruns, delays, and project terminations remain widespread. More than 90% of the construction projects faced challenges to achieve their objectives and the construction parties lose a significant amount of capital due to improper handling of the situations (Simachew & Mulusew, 2023).

Of the challenges affecting the industry, the main one is termination. One of the ongoing issues affecting the construction sector is the termination of public construction projects; this is particularly prevalent in developing nations, where it stems from various issues and has many negative impacts (Anteneh et al., 2025). Terminations can not only waste public funds, but can negatively affect both short- and long-term economic stability and sustainability of the organization; therefore, understanding what causes and what happens as a result of a project's termination is necessary to the continued success of both the project itself and the construction sector in general.

## 2.3 Concept of Construction Project Termination

### 2.3.1 Definition and Nature

Contract termination is a natural phenomenon in the construction industry. Termination refers to contract work that will be ended or concluded before the project scope has been adequately covered with no intention of resuming in the foreseeable future. It requires written procedures to protect the interests of the client and the contractor (Phillips, 1999).

In the construction industry, contract termination occurs often since it is a very complicated business that uses a high number of resources and has a lot of manpower involved. During termination a signed contract is ended and all obligations are ceased before the works are completed and there are no plans to resume any of the works in the near future. A contract may be terminated for many reasons including contractor or employer default, going with convenience, force majeure, and a long suspension of the work. The termination of a contract is going to greatly affect the cost of the project, the time it will take to finish it, and the legal rights of parties involved with in the project. It is very important for termination to be done exactly as stated in the contract to protect the interests of the contracting parties (Pellicer et al., 2013).

Termination procedures are clearly laid out under standard conditions which are developed in the FIDIC and PPA forms of contract. Notification in writing needs to be given as established in these Conditions, and methods for calculating executed items of work and settling payments are also defined as well as determining rights and liabilities (FIDIC, 1999). Proper use of the said procedures can assist both parties in minimizing disputes and avoiding further financial losses.

Termination refers to officially ending of the contract so that the remaining work stops, from a stated “effective date”. Termination does not remove obligations that already stated and it doesn’t prevent the non-terminating party from exercising other rights under the contract. The Public Body may terminate the contract by giving written notice to the Contractor, stating the reason and effective date. In most cases the minimum notice is thirty (30) days, except where the Public Body terminates “for convenience” in which case the minimum notice is sixty (60) days (FPPA, 2011).

Termination refers to the formal ending of the contract by one party (Employer or Contractor) in accordance with the contract’s termination clauses, thereby bringing to an end the obligation to

continue performance of the Works (FIDIC, 1999). Termination is the contractual mechanism by which either the Employer or, in limited circumstances, the Contractor brings the contract to an end prior to the normal completion of the Works. This cessation is practiced in accordance with the contract's termination clauses and is subject to rights, liabilities and obligations accounted up to the date of termination.

A contract is terminated at a moment when a legally binding contract period is ended before it has been fulfilled by performance as a result of one or both parties' actions. Once a contract has been terminated, none of the parties involved is obligated to perform the duties mentioned in the contract (Bakey, 2018).

Termination of contract occurs when a valid and enforceable contract is brought to an end, it is either because it became difficult to execute due to unforeseeable circumstances at the time the contract was created, or because one or both parties took acts that made it impossible to perform (Norhernani & Mohd, 2024).

Construction project termination refers to the premature or final cessation of contractual obligations between the client and contractor, resulting in the discontinuation of a project before completion.

Three basic conditions may exist in dealing with project termination. Positive termination occurs when a project is completed successfully with satisfactory outcomes. Negative termination occurs when completion occurs but outcomes fall short of expectations. Premature termination occurs when a project is halted before completion due to financial, managerial, or environmental factors. In some organizations, a fourth condition, anti-termination, can also surface, which is the failure to terminate at all (Cleland & David I., 2004).

Early termination means to end the contract between the owner and the general contractor without concluding the design or construction activities of the project under development before the contract deadline (Riveros et al., 2022).

In the construction context, termination is a contractual act that ends the legal relationship between client and contractor, often arising from breach, non-performance, or strategic decisions. Contract

terminations in particular undermine project delivery efficiency, reduce productivity, and impose financial burdens on both public and private organizations (Charles et al., 2025b).

Termination in construction is typically an action exercised by one contracting party. The employer may terminate for default when the contractor fails to perform, or for convenience, based on strategic or economic considerations (MIA Dief et al., 2016). Similarly, contractors may terminate contracts when clients fail to meet contractual obligations.

Termination can thus be classified broadly as Termination for Convenience, initiated when it is in the client's or government's interest to halt the project; and Termination for Default, initiated due to a party's failure to perform contractual duties (KM Manuel et al., 2015).

### 2.3.2 Legal Framework

Standardized contracts are extensively used in the construction sector because they effectively handle typical concerns about contract termination and ensure equitable treatment of parties and enhance project governance (Gagula & Zlatan, 2020).

Standard contract conditions such as FIDIC (The Fédération Internationale des Ingénieurs Counsels), NEC (New Engineering Contract) and Public Procurement Directives provide detailed procedures for contract termination. They define grounds for termination, notice requirements, rights to payment, and post termination obligations (Rameezdeen & Raveendranathan, 2004). These frameworks provide structured provisions for termination, outlining procedures, liabilities, and entitlements to minimize disputes and protect the interests of both parties.

According to FPPA, (2011), the grounds for termination of a contract under Clause 21.1 include, but not limited to: 1) contractor has not completed work by the contract's deadlines (or extensions); 2) contractor has not cured a performance default within the time stated after suspension; 3) contractor's bankruptcy ; 4) contractor's assignment or sub-contractor without consent; 5) contractor's corrupt/fraudulent activities; 6) contractor's organizational changes that change the contractor's entity; and/or (7) contractor's completion of work beyond the number of days for which the maximum liquidated damages would apply. Upon termination due to any of these reasons (unless terminated for Convenience), the Public Body may continue to perform or replace

the contractor with another third-party contractor at the contractor's expense, with the contractor remaining responsible for performance of work on the remaining contract items (FPPA, 2011).

According to FPPA Clause 21.3, the contractor may terminate the contract agreement by giving 30 days' written notification to the public body after the occurrence of events like the public body fails to pay a payment for the contractor 45 days after receiving written notice from that contractor that payment is due; there is a breach of contract by the public body; the contractor has been prevented by force majeure for not less than 60 days from completing a significant portion of the work; and the contractor has had a work stoppage due to failure of the public body for over 180 days.

As per conditions of contract specified in FIDIC - conditions of contract for PLANT and Design-Build 1999 (Yellow Book) Clause 15 allows an Employer to terminate the Contract where Contractor fails to carry out work, suspend works unjustifiably or becomes insolvent. On the other hand, Clause 16 states that the contractor can terminate if employer is in default related to failure to pay or by any breach of a fundamental obligation. These clauses will ensure that there are fairness, transparency, and accountability in the administration of projects.

Pursuant to the Standard Bidding Document (SBD) (NCB) prepared by the FPPA, (August 2011), The Public Body can terminate the contract agreement giving 30 days written notice of termination; or, in certain limited cases, 60 days' written notice. The following are events which may result in termination of the Contract by The Public Body: (a) Contractor fails to complete or perform the Works in accordance with the Contract; (b) Contractor becomes bankrupt; (c) contractor commits unlawful acts of dishonesty; (d) Contractor assigns the contract without the public body's consent and/or; (e) Contractor becomes incapable of performing the Contract. the contractor can terminate the contract by giving the public body 30 days written notice where the public body fails to make payments in accordance with the contract, the public body breaches provision of the contract, the public body suspends work under the contract for more than 180 days without cause, an event of force majeure occurs, and/or, the public body fails to comply with the requirements of a final resolution of a dispute under this Agreement. These issues provide accountability and protections to both the public body and the contractor for non-performance or breach of contract.

### 2.3.3 Termination in Practice

Construction project termination means that no longer do any contractual obligations exist between the contracting parties for that terminated project, however the results of terminating a project may affect a larger area than just the boundaries of that project (Coleman et al., 2024). The process requires careful application to contractual provisions, transparent communication, and compliance with legal and procedural requirements to protect the interests of all parties and to minimize potential losses.

Many construction contracts give both the contractor and client the right to terminate. The employer generally terminates the contractor if he does not perform in accordance with specification, does not complete his work on time or is subject to a substantial change in his financial condition. The contractor can also terminate the contract if the employer fails to pay in accordance with the contract, makes changes to the work without the contractor's agreement or has breached other basic terms of the contract. The termination of either party shall be subject to proper procedures in accordance with construction contract standards. All termination activities require written documentation of all required notices and supporting evidence.

In practice, however, especially in developing countries, adherence to these procedures is often weak due to limited institutional capacity, poor record keeping, and lack of contractual literacy among stakeholders (G. Ofori, 2015). As a result, terminations are frequently executed in an ad hoc or reactive manner, often escalating to prolonged disputes, arbitration, or litigation. Weak governance systems and inadequate financial management practices aggravate these challenges (Flyvbjerg, 2014). Public sector projects, in particular, are vulnerable to premature termination due to funding shortages, bureaucratic delays, and political interference.

The effects of premature termination can be serious. Terminating contracts results in significant losses to both public and private investment because unfinished projects generally do not produce a return. Projects that are terminated prior to completion can lead to financial inefficiency, budgetary stress, and other issues for companies due to having idle machines, non-paid employees, and incomplete claims (Flyvbjerg, 2014). The social impact of the termination of a public infrastructure project (i.e. road, school or water infrastructure) is significant and has implications

for service delivery and the relationship of trust between the community and the government institution.

The termination of a project is a contractual and a management activity which is undertaken for the purpose of protecting the contractual interests of the parties and at the same time reducing the risk of any further losses to one or all of the parties.

In spite of the availability of various contractual protections, there is still a high rate of project termination. This occurs primarily in developing nations, where there are often weak standards of governance and financial management. Termination typically will cause severe economic and social impacts such as wasteful use of public resources; extended disputes between parties involved; and low levels of trust among investors looking at the project (G. Ofori, 2015).

Hence, examining termination within an organizational and national context provides valuable insights into institutional weaknesses and opportunities for improvement.

## 2.4 Factors of Construction Project Termination

factors of construction project termination can be grouped into financial and economic, managerial and organizational, technical and contractual, and external/environmental categories.

### 2.4.1 Financial Factors

Financial insecurity represents one of the most frequent and impactful factors of project termination. Poor cash flow management, delayed payments, inadequate funding, and cost inflation are major contributors for termination of a project (Ade-Ojo OC et al., 2017); (Anteneh et al., 2025). Payment provisions and liquidated damages are also crucial causes in construction contracts that, if not properly managed, can lead to termination (Rosli NM et al., 2022). The rapid escalation in the cost of construction materials, labor, equipment and tools and late payment for work done by the clients have been a major factor in the termination of many construction projects (Simachew & Mulusew, 2023).

Financial issues on the client side, such as budget shortfalls and late payments, are a major cause of termination. Some of the most common contractor causes of performance failure and/or contract

breach are weak financial standing, poor cash flow management, and little to no profit margins (Anteneh et al., 2025).

Payment for the project has not been paid on time by the Project Owner, causing the Contractor to suffer financial pressure. Due to these delays, the Contractor's performance has been affected and thus the Contractor has been unable to continue work on the project or to significantly delay or totally abandon the project (Simachew & Mulusew, 2023).

One of the main sources of termination of construction projects is delay of interim payments (S. Laxsana, 2023). The majority of terminations are by employers, rather than contractors, due to financial difficulties and/or instability of their business (Laxsana S et al., 2023).

It's widely thought that project owners are confronted with several financial challenges that can lead to increased numbers of project terminations (Tufaa, 2024). When they face liquidity problems, it is hard for contractors to continue to make progress and meet obligations such as paying their employees or suppliers. Insolvency is most often caused by poor management of cash flow and the extension of credit lines, especially for smaller and medium sized contractors (Johantri et al., 2024).

The construction industry experiences many contract terminations due to financial bankruptcy, which interrupts the construction process (Ishana & Kanchana, 2024b). The theme causing contract termination is related to poor management of cash flow practices. The lowest evaluated bid selection for suppliers in participating in tenders can result in them taking on high projects than their financial capacity allows (Johantri et al., 2024).

The construction cost of four public building projects in Addis Ababa increased by 18.12%, 17.72%, 16.51% and 13.94% because of the price escalation of construction materials tied to the currency devaluation of the Birr (Mengistu, 2022). Negative response from public bodies for the contractor’s requests of adjusting contract price would result to dispute and contract termination. Thus, Economic conditions such as currency devaluation, inflation, and interest rate fluctuations also exacerbate financial risks (Famubode & Hafidh Ali, 2024). In Ethiopia, for example, frequent price escalations for fuel, cement, and steel have resulted in contract disputes and eventual terminations (Admasu, 2023).

### 2.4.2 Managerial and Organizational Factors

Major managerial factors that have an effect on the termination of a project include poor governance, inadequate planning of the project, poor risk management and communications. Weak leadership, a lack of experience by contractors or consultants, and unqualified teams will often lead to mistakes in resource allocation, scheduling, and making decisions (Kerzner, 2023).

The failure of a project can often be attributed to inadequate governance of the project, ineffective communication, poor transparency on decisions that are being made and so forth. There is also evidence that poor allocation of resources for a project, scheduling issues and lack of adequate coordination amongst those involved in the project restrict progress and decrease efficiency (Charles et al., 2025b).

The development of management practices in relation to the project can also contribute to contract termination in local government projects through issues such as the loss of continuity in the project, failure to make timely decisions and turnover in executive leadership (Ade-Ojo OC et al., 2017).

The ultimate result of poor project governance, ineffective leadership, and inadequate communication among stakeholders often leads to project termination. The ability of the management team to effectively coordinate activities, allocate resources efficiently and resolve conflict in a timely manner is critical to ensuring continuity for the project. When these functions are not performed properly, the project is at risk for being terminated as a result of delays and/or budget overruns (Kerzner, 2023).

Project termination is often a direct outcome of poor project governance, lack of effective leadership, and inadequate communication among stakeholders. The management team's ability to coordinate activities, allocate resources efficiently, and resolve conflicts promptly is vital for maintaining project continuity (Kerzner, 2023). When these managerial functions fail, projects become vulnerable to time and cost overruns, leading ultimately to termination.

Unclear roles and responsibilities, bureaucratic procedures, and lack of accountability create inefficiencies that hinder project progress (Muller & J. Rodney Turner, 2017). Similarly, organizations lacking robust project management systems or standardized procedures often

struggle to manage risks and contractual obligations effectively, increasing the likelihood of termination (D. F. Ofori, 2013).

Ineffective contract administration has been found to be an important organizational factor contributing to terminations of contracts due to poor documentation, supervision and delayed decision making. Inadequate cash flow management and weak financial planning are major causes of project discontinuities especially in public organizations in Ethiopia (Bekele & Gangadhar, 2024).

Additionally, poor coordination between departments, lack of development of performance monitoring systems, and limited use of technology for controlling projects create many inefficiencies. A lack of management experience and governance in contract administration raises the risks of projects being terminated early, particularly within environments with limited oversight mechanisms (Riveros et al., 2022).

Ineffective supervision and poor stakeholder coordination exacerbate these issues; clients and contractors frequently do not develop proper lines of authority and reporting between each other leading to confusion and distrust and ultimately resulting in contract termination (Riveros et al., 2022).

### 2.4.3 Technical and Contractual Factors

Design errors, incomplete specifications, and inaccurate prices are a few examples of technical problems that lead to disputes and termination (Dosumu et al., 2017). This type of shortcoming demonstrates itself in a design phase of the project, insufficient work, and inadequate supervision (Ade-Ojo OC et al., 2017). It was noted that design flaws and incomplete or inaccurate design documentation are among the most frequently noted reasons why parties terminate a contract.

Delay in performance, breach of contract, communication gaps are crucial causes in construction contracts that, if not properly managed, can lead to termination (Rosli NM et al., 2022).

Termination of a construction project can also happen due to the contractor’s inability to perform the work. Disputes over how the contract is interpreted can frequently lead to terms being violated

or a construction scope being changed by either party without authorization. Parties of a construction contract are frequently involved in disputes due to payments, performance issues, and interpretation of the terms of the construction agreement, which leads to termination of the agreement (Charles et al., 2025b).

Contract administration inefficiency and related issues such as lack of documentation, confusion in defining scopes of work, and poor management of change orders can create conditions where disagreement prevails which ultimately leads to the termination of the contract between parties (Ilter, 2012). Timeliness of design and project information, as well as lack of clarity in wording or intent within contract documents, have also created conditions that lead to disagreements potentially resulting in the termination of contracts (Ilter, 2012).

Error on the part of the contractor in properly executing work required by the contract creates opportunity for a misunderstanding between the parties that could become a dispute, resulting to termination of the contract (Dosumu et al., 2017).

In addition to incomplete and/or inaccurate contract documents produced by the contractor, a lack of good procedure for choosing contractors and a lack of analysis of bidders during the bidding process have been named as a cause that result to contract termination (Riveros et al., 2022). One primary factor in the termination of construction projects was the type of contractor procurement method used, as low bid has been shown to produce a greater number of terminated projects than other methods (Simachew & Mulusew, 2023).

Contract terminations are an ongoing problem in the global construction industry, commonly occurring as a impacts of project delays, budget overruns, poor quality work, and disputes between contractors and clients. Contract terminations in countries such as the United States, United Kingdom, and Australia have typically occurred due to project scope changes, contractor insolvency and/or non-performance of the contractor (Raj & Singh, 2019).

### 2.4.4 External and Environmental Factors

External factors beyond the control of contracting parties also contribute significantly to project termination. Political instability, policy changes, Natural disasters, pandemics, and social unrest

can also halt construction activities unexpectedly (Anteneh et al., 2025). Inflation and fluctuations in material prices further aggravate project risk, particularly in developing countries with volatile markets. Inflationary pressure reduces the real value of contract sums, and lack of adjustment mechanisms in contracts often results in disputes.

Whenever any external factors affect the contract, they can severely impact the outcome of any particular contract. For example, political instability, government changes, and poor regulation have delayed payment or stopped projects completely (Ade-Ojo OC et al., 2017).

In many developing countries, inflation and price volatility lead to further uncertainty; as inflation erodes the real value of the contract amount over time, the potential for conflicts between the parties grows due to a lack of mechanisms to adjust for price changes. Most of the terminated projects were government building projects, and the rejection of adjusting the price is the leading cause of terminated projects (Laxsana S et al., 2023).

Instabilities associated with Natural disasters and pandemics contribute significantly to project termination(Anteneh et al., 2025). Political interference, bureaucratic delays and fluctuation of material prices create additional risks for projects located in developing countries which experience high market fluctuation presented risks associated with Inflation.

Many times, project execution outside of what is otherwise manifestly impossible, will be terminated lawfully due to Force Majeure events such as civil disturbances or Natural disasters (Norhernani & Mohd, 2024). External risks such as Natural disasters, civil disturbances, and similar Force Majeure events, may be aggravated by governance weaknesses related to contractor evaluation processes (Riveros et al., 2022). These weaknesses pose an increased risk associated with the failure of the organizations that created them, and necessitate institutional reform and improvements in contractor evaluations, in order to minimize the risk associated with premature termination of projects.

In the Ethiopian context, four dominant factors of termination has been identified: client related such as delays in decision making, funding shortages, and bureaucratic bottlenecks; contractor related such as limited capacity, weak management systems, and poor financial control; project

input related such as shortages of materials, equipment, and skilled labor, and external factors such as political, legal, and economic instability(Anteneh et al., 2025).

## 2.5 Organizational Impacts of Construction Project Termination

Construction project termination brings substantial organizational impacts in terms of financial, operational, and reputational impacts that extend beyond the terminated project itself.

### 2.5.1 Financial Impacts

The financial loss which occurs due to project termination is possibly one of the most immediate and measurable impacts of terminating a project. Both contractors and clients will suffer significant financial losses as a result of the financial damage caused by sunk costs, delayed payments and unrecoverable investment costs (Anteneh et al., 2025). Project terminations can cause many financial problems including the loss of mobilization expenses, equipment idleness and carrying costs associated with termination.

Clients might return to the bidding stage and incur additional administrative costs to return the project back to the beginning stage, while contractors often have suffered from cash flow problems, liquidated damages, profit loss and in some instances may even be insolvent as a result of negative circumstances created by project termination (Charles et al., 2025b). In addition, widespread project terminations hinder the construction industries overall productivity, thus further decreasing the contribution of the construction industry to national gross domestic product (GDP) (Charles et al., 2025b).

The financial losses associated with project termination are severe as a result of irreversible mobilization costs, idle resources, demobilization costs and potential litigation costs (Ade-Ojo OC et al., 2017). Clients also incur significant expenses due to sunk costs and increased re-tendering costs. The continued frequency of project terminations erodes the profitability of organizations, decreases liquidity and adversely affects organizations' credit ratings (Kerzner, 2023).

The termination of a project can result in long-term financial instability for organizations as the continued frequency of projects that terminate will reduce profitability and negatively impact cash flow limiting the organization’s ability to finance future projects.

### 2.5.2 Operational Impacts

The termination of contracts is an operational disruption because it has an effect on the flow of work, allocated resources and continuity of the project. The immediate stop of work creates inefficiencies due to underutilization of equipment and loss of productivity (Riveros et al., 2022). Repeated allocation of resources and engaging contractors creates additional problems of administration and coordination. The idle equipment, reassignment or stoppage of work causes reduction in organizational productivity and efficiency.

Operationally, contracted terminations can result in construction firms losing operational effectiveness and having their performance records impacted, resulting in disqualification from future bidding opportunities. Additionally, impacted performance records due to terminations have a negative impact on the performance records of all construction firms, and they will be less likely to be considered for future public tender (Ade-Ojo OC et al., 2017).

### 2.5.3 Human Resource and Psychological Impacts

The termination of projects has a negative impact on human resources resulting in demotivating and stressing employees and creating job insecurity (Abate et al., 2024). When skilled workers leave the organization because of frequent project terminations, there is knowledge loss in addition to a decrease in overall institutional capability. Frequent disruptions also reduce teamwork and trust between team members resulting in the long-term negative effects of not learning as an organization.

From a management standpoint, repeated project terminations highlight systemic deficiencies in the effectiveness of leaders' communication and decision-making processes (Kerzner, 2023). As a result, frequent project terminations lead to a loss of confidence in management's ability to manage projects within budget and schedule timelines, thereby creating tension and lack of accountability within an organization.

### 2.5.4 Reputational Impacts

Reputation is a vital asset for construction related businesses/organizations. If a project is terminated, it is common for the credibility of that organization to be affected, which not only

damages the organization's reputation but also results in a lack of confidence from clients, and creates tension with other stakeholders (Charles et al., 2025b).

Project termination adversely impacts both the reputation of the contractor and the client, and greatly reduce public confidence in the ability of both parties to deliver on their commitments (MIA Dief et al., 2016). Contractors that have previously worked on a terminated project will be placed on a blacklist or struggle to obtain future contracts due to the damaged reputation of the contractor. This damaged reputation frequently prevents the contractor from obtaining new contracts, new partnerships and/or financing for future work.

Contract termination creates severe damage to the reputations of both a contractor and the client organization. When a project is terminated, the resulting damage to the contractor's and client's reputation has a negative impact on stakeholder confidence and, therefore, will reduce the probability of future collaboration (Anteneh et al., 2025). Contractors that have been listed as having terminated projects will likely have poor eligibility for tender applications and lose the ability to build trust with potential financers and suppliers. Clients, particularly those agencies that participate in the public sector will be subject to public inspection regarding poor project delivery and failures to administer projects properly.

### 2.5.5 Strategic and Institutional Impacts

Project terminations disrupt organizational plans and create disconnections between institutional goals and project portfolios (Kerzner, 2023).

In addition to representing failures in decision making and risk management, repeated contract termination indicate poor risk management and decision-making capability leading to decreased institutional credibility. Moreover, repeated project termination at the institutional level indicates that the governance structure, administration of contracts, and risk management systems are seriously deficient(Anteneh et al., 2025).

For public organizations, project terminations result in delayed delivery of much needed public services and infrastructure. For private contractors, project terminations can weaken market position and competitiveness overall.

## 2.6 Mitigation Strategies

Prevention strategies play a crucial role in mitigating contract termination pitfalls in construction projects, ensuring smooth project execution and stakeholder relationships. Various Strategies was suggested by different researcher to mitigate the risk of construction project termination.

The potential mitigation strategies are effective contract management, risk management and collaborative project management (Anteneh et al., 2025).

To mitigate the risks of construction project termination, it is recommended to work on enhancing training in contract management practices, improving administrative processes, and fostering stakeholder collaboration to ensure transparency and accountability (Charles et al., 2025b).

The research by Charles et al, (2025) also highlights the need for further investigation into the role of administrative factors in contract termination and provides practical recommendations to enhance contract delivery and project success. These recommendations include suggesting providing comprehensive training in contract management practices to reduce unlawful terminations; implementing robust contract management protocols for clear communications; and developing financial planning strategies to mitigate budget deficits.

Effective communication is paramount throughout the project lifecycle to prevent contract termination. Maintaining open and transparent communication channels among stakeholders through regular project meetings, progress reports, and proactive issue resolution mechanisms can significantly mitigate conflicts (Ansah, 2011).

The adoption of sound risk management practices is the key to early identification and mitigation of potential threats to project success (Poku Osei, 2013). This encompasses comprehensive risk assessments, risk mitigation plans and continuous risk monitoring during the life cycle of the project. Taking proactive steps to address risks like financial instability, supply chain or regulatory changes can greatly reduce the chances that a contract will be terminated due to unforeseen challenges.

To Implement robust risk assessment strategies early in projects to identify and mitigate potential challenges, to Provide ongoing training and development programs for construction industry professionals, to Foster open communication channels and collaborative relationships among project participants, including contractors, clients, engineers, and regulatory bodies and to Conduct periodic reviews of project specifications, milestones, and performance metrics are the identified mitigation strategies (Coleman et al., 2024).

Another important mechanism to avoid contract termination is the inclusion of formal dispute resolution mechanisms within contracts (Kley HM et al., 2019). The use of mediation or arbitration clauses provides a structured process for resolving disputes in an amicable and expeditious manner, encouraging fairness, keeping the project on track and maintaining positive relationships with stakeholders. These mechanisms also reduce the reliance on legal proceedings thus saving the time and costs of litigation.

## 2.7 Summary of Literature and Research Gap

Reviewed literatures show that multiple factors including financial, managerial, and technical aspects, as well as external factors result to project termination. At the same time, project termination also resulted to financial, human resource, operational, reputational and institutional impacts to contracting parties.

Despite the growing awareness concerning the issue of project termination, particularly in Ethiopia, most previous studies have focused primarily on identifying the causes of project terminations and have not assessed the organizational impact of project terminations. Additionally, empirical evidence related to the impact of project terminations within construction firms is limited.

Existing studies depends on perception-based data like questionnaires and surveys, with limited use of actual project documents such as contracts, payment certificates, and correspondence. This study fills this gap by employing a detailed review of project documents.

There is a lack of context specific empirical studies focusing on housing construction project termination in Ethiopia. The study fills this gap by analyzing real context specific six cases.

Studies by (Coleman et al., (2024) and others also focus either on contractor or employer, with limited analysis of the interactions between employer, contractor, and consultant. This study, upon evaluating the contractual and related correspondence between the employer, contractor and consultant, determines the party responsible in each factor of termination.

Various studies rely on a single data source, reducing the reliability of findings. This study employs data triangulation to strengthen the validity of findings.

Therefore, this research aims to fill these gaps in the literature through an in-depth case study of the housing construction project at Ethiopian Sugar Industry Group, focusing on both the factors and organizational impacts of project termination.

## 2.8 Conceptual Frame Work

The literature review reveal that termination of construction projects is caused by interrelated financial, technical and contractual, managerial and organizational, and external factors. This termination subsequently led to different types of organizational impact both for the employers and contractors.

The review also revealed in the contextual analysis section that several housing construction projects were terminated.

Therefore, the conceptual framework of the study was developed to show the relationship among the identified factors, project termination and organizational impacts. The framework demonstrates that project termination is a impacts of financial, technical and contractual, managerial and organizational, and external factors. Project termination, in turn, has financial, operational, human resource and psychological, reputational, and strategic impacts for project stakeholders.

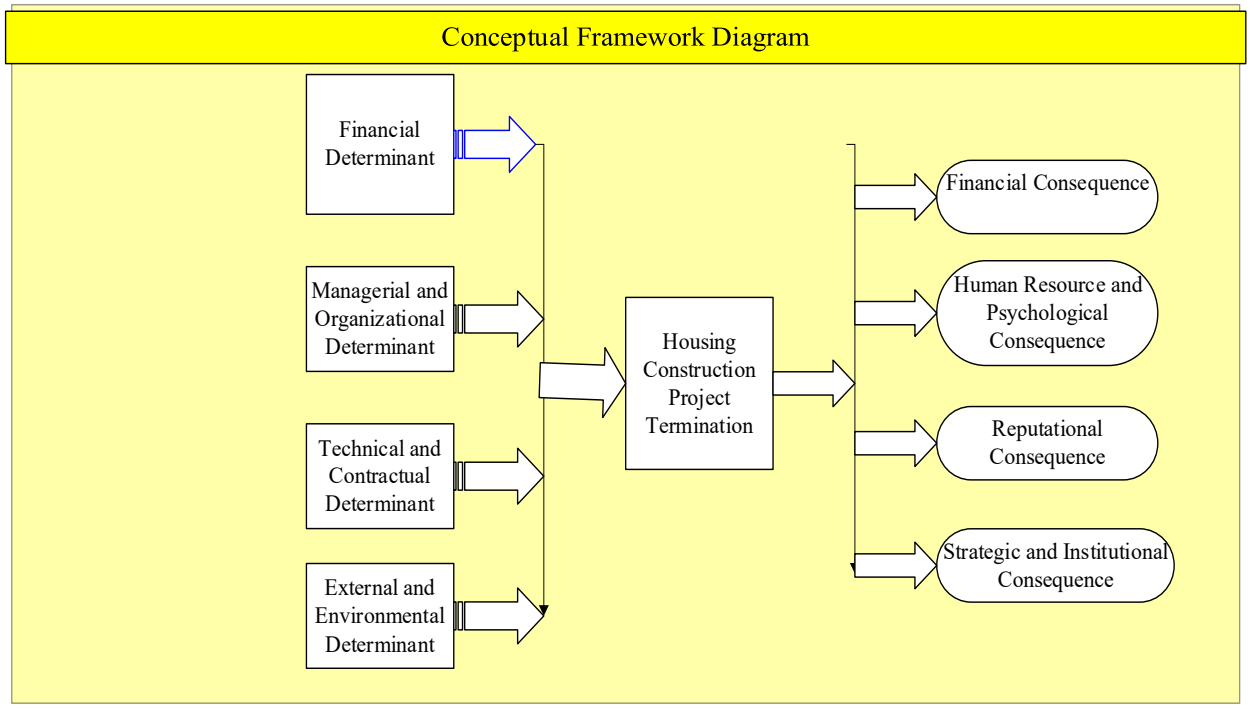



*Figure 2-2: Conceptual Framework Diagram*

# CHAPTER THREE

# 3. RESEARCH METHODOLOGY

## 3.1 Introduction

Research is a structured enquiry that utilizes acceptable scientific methodology to solve problems and create new knowledge that is generally applicable. Research is a process of collecting, analyzing and interpreting information to answer questions (Goundar, 2012).

There are basically two basic methodological traditions of research, namely positivism and post positivism. Positivism is based on the natural science model of dealing with facts, is more closely associated with quantitative method of analysis. On the other hand, post-positivism that deals with understanding the subjectivity of social phenomena, requires a qualitative approach. (Noor, 2008). Because of the exploratory nature of this study and the limited knowledge of the factors and organizational impacts of the termination of housing construction projects in the context of this study, a qualitative case study research design was considered appropriate. The methodology enabled a deep understanding into the terminated housing construction projects by utilizing document review and key informant interviews.

The research methodology used for achieving the objectives of this study is explained in this chapter. It discusses the research approach and design, the study area and case selection, the data sources, the sampling techniques, the data collection methods and the data analysis procedures.

## 3.2 Study Area

The study first analyzed twenty-nine housing construction projects to understand the general status and patterns of project execution. Then six terminated projects of housing construction were purposely selected for detailed case study analysis on the basis of their relevance, data availability and termination status.

The study area is selected based on its relatively high number of terminated and discontinued housing construction projects, and thus, the study area provides a suitable context to investigate the factors and organizational impacts of project termination. In addition, due to the existence of project records, contractual documents, progress reports and experienced stakeholders, a detailed investigation of the phenomenon was possible.




*Figure 3-1: Study Area Map*

## 3.3 Research Approach

Qualitative approach will enable to gain in depth knowledge of a specific context or culture, to explore under researched problems and generate new ideas, whereas quantitative approach should be employed to measure different types of variables and describe frequencies, averages, and correlations (Mccombes, 2023).

Qualitative approaches have the advantage of allowing for more diversity in responses and the capacity to adapt to new developments or issues during the research process itself (Jörg & Neringa, n.d.). as this research uses data obtained through interview of different party with variety of responses expected from interviewee, qualitative approach could comfortably respond for the research question.

Qualitative research focuses on reports of experience or on data which cannot be adequately expressed numerically (Beverley et al., 2009). This research utilizes experts view of the project issues combining it with their experience and review of project data to achieve the objectives.

Accordingly, a qualitative approach is employed to explore the factors and organizational impacts of construction project termination, as well as to capture best practices and strategies to be adopted by organizations to mitigate such risks. This involves gathering detailed insights from stakeholders such as clients, contractors, and consultants, using interviews and document analysis.

Therefore, this study adopts a qualitative research approach to provide a more comprehensive understanding of the causes and impacts of project termination. The qualitative method will help to find an in-depth stakeholder perspectives and contextual factors.

## 3.4 Research Design

To answer the research questions, it is required to have an in-depth knowledge and assessment on each of the project events related to the termination. As a qualitative approach is preferable to gain an in-depth knowledge of a specific context or culture (Mccombes, 2019), it is employed to achieve the objective of this research.

The common types of qualitative research design include Case Study, Ethnography, Grounded theory and Phenomenology (Mccombes, 2019). Of the listed, a case study research design is selected and employed to answer the research questions.

Case study research is not about simply conducting research on a single individual or situation. It has the capacity to study with simple through complex situations. A case study will enable to gain understanding into a case. It lets the researcher to collect data from a variety of sources and to check convergence of the data to illuminate the case (Baxter & Susan, 2008).

A case study is used to generate a detailed understanding of an issue or phenomenon in a bounded system. Case study research requires a detailed investigation to be conducted into an individual, group, or event to gain an understanding of a phenomenon(Hancock et al., 2021).

A case study method allows researchers to retain the holistic and meaningful characteristics of an event practiced through specific organizational and managerial process (Yin, 2009). Accordingly,

a case study research strategy is used to focus on terminated contracts of housing construction sector of Ethiopian sugar industry group, as it provides a contextualized understanding on the factors and organizational impacts of project termination in depth.

As a Qualitative approaches, Interviews facilitate a detailed exploration of individual perceptions of an event, and document reviews provides access to institutional experiences on something (Chand, 2025), both of them is conducted to capture stakeholder experiences and organizational practices.

## 3.5 Data Sources

methods of qualitative research data collection include interviews, focus groups, observation, collection of documented material such as letters, diaries, photographs, collection of narrative, open ended questions in questionnaires(Beverley et al., 2009).

This study used both primary and secondary data to achieve its objectives. Primary data like Perceptions on the causes of project termination, Stakeholder experiences and insights and organizational impacts was collected directly from individuals involved in the execution of terminated projects of housing construction through semi-structured interviews.

Secondary data like Terminated contract files and project reports, Financial and performance records, contract administration guidelines are collected from organizational documents, such as terminated project reports, contract agreements, financial statements, performance evaluations, and progress reports through document review. In addition, relevant literature on project termination and mitigation practices is reviewed to provide a comparative perspective.

## 3.6 Population and Sampling

### 3.6.1 Target Population

The study identified an overall 29 housing construction projects managed by the Ethiopian sugar industry group with in the year 2010 to 2025. The population refers to the entire set of projects that were terminated. The target population for this study comprises all stakeholders who have been directly involved in housing construction projects of Ethiopia sugar industry group that were

terminated within the last five years. These stakeholders include client representatives, contractors and consultant who initiated, participated or approved contract termination.

### 3.6.2 Sampling Frame

The sampling frame is consisted of six terminated projects of housing construction within the Year 2020 to 2025 at Ethiopian sugar industry group, related documents and their associated stakeholders. From this list, participants are selected to represent various roles and experiences.

### 3.6.3 Sampling Technique

The study has used a combination of purposive sampling and stratified sampling to achieve its objectives.

Purposive sampling is particularly useful to find information rich cases and to identify cases best suited to answer research question (Nikolopoulo, 2022). As Purposive sampling is suitable to deliberately select participants who have direct involvement and experience in terminated projects, it is a suitable sampling technique for this study. Accordingly, Purposive sampling was used to select the six terminated projects with only those project managers, consultant, and contractors who worked on terminated projects was included.

On the other hand, the stratified random sampling provides us with a sample that is highly representative of the population being studied (Sharma, 2017). So, to ensure representation from each stakeholder group (client, consultant and contractor), stratified sampling was applied to select respondents from employer, contractor, and consultant groups. This prevents bias toward one perspective.

### 3.6.4 Sample Size

The sample size will balance the need for sufficient data with the constraints of time and resources. 7 participants were engaged in the in-depth interviews. These participants were selected based on their direct involvement in project planning, contract administration, and decision making related to terminated projects. The interviews provide qualitative insights into the underlying causes, impacts, and institutional responses to project termination.

A total of six terminated contract files is reviewed to provide objective and verifiable evidence of the factors, and associated impacts of project termination. The document reviewed includes contract agreements, progress reports, correspondence records, and termination notices.

## 3.7 Data Collection Instruments

Following the categorization of the study population and determination of sampling, appropriate data collection instruments were designed to obtain valid and reliable information corresponding to the study objectives. The instruments were selected to accommodate qualitative data requirements, ensuring comprehensive coverage of the research variables.

As the interview was the primary data gathering instrument for the research a semi-structured interview was chosen where questions were carefully designed to provide adequate coverage for the purpose of the research. A semi structured interview guide is used to collect qualitative data from selected participants such as project managers, consultants, and client representatives. The guide will consist of open-ended questions intended to explore stakeholder perspectives on the underlying causes, effects, and management responses to project termination. This instrument allows participants to provide in-depth clarifications and contextual understandings.

A structured document review method was used to systematically extract information from terminated contract files, project records, and financial reports. This help identify factual evidence concerning the reasons for termination, legal and financial implications, and outcomes of contract closure processes. This instrument ensured objectivity by relying on verifiable records and supports triangulation with data obtained through interviews.

## 3.8 Validity and Reliability of Data

In qualitative case study research, for the credibility and trustworthiness of findings, it is crucial to maintain reliability and validity. Whereas in quantitative research, statistical reliability and validity are established, qualitative studies seek for credibility, transferability, dependability and confirmability (Lincoln, 1985).

### 3.8.1 Validity of Data

To ensure validity in the results, this study used several strategies. First, triangulation of data was used with evidence drawn from a variety of sources (from participants on all sides: clients, contractors and consultants in terminated construction contracts). Moreover, there were several sources of data including semi-structured interviews, project documents and termination notices as well as clauses related to the contracts. The use of multiple sources of evidence strengthens the validity in case study research (Yin, 2018).

Secondly, member checking was carried out through interviewing and feedback for verifying responses of chosen participants to make sure whether the collected data reflected what they actually expressed. This reduces misunderstanding and increase credibility.

### 3.8.2 Reliability of Data

To enhance reliability, the study adhered to a case study protocol as guidance outlining how data should be collected and analyzed. A semi-structured interview guide was consistently followed for all participants to maintain consistency and to provide flexibility for further exploration.

Furthermore, good records and organized storage of interview transcripts, and project documents are kept. This helped create an audit trail, which promotes transparency in the research process. Having a case study database can boost reliability because it allows outside reviewers to trace the evidence (Yin, 2018).

Thematic analysis is also applied in a systematic way, coding the data, recognizing patterns, and organizing themes that relate to the causes and impacts of project termination. This structured method of analysis really helps in making the findings more dependable and consistent.

## 3.9 Data Analysis

### 3.9.1 Qualitative Data Analysis

Analysis of data in a research project involves summarizing the mass of data collected and presenting the results in a way that communicates the most important features. In qualitative research, we are interested in using the data to describe a phenomenon, to articulate what it means

and to understand it. Qualitative data analysis is a process that systematically investigates and interprets non-numerical data to produce results from raw data. This involves systematic coding of raw data and developing themes or patterns based on the coded information.

Different approaches require different types of analysis (Beverley et al., 2009). whatever qualitative approach is involved, it is very important to be organized when keeping records of data or reflexive notes or memos, or documents. Accordingly, the data obtained through interview and document analysis has been organized and transcribed. Transcribing is the procedure for producing a written version of an interview or conversation. Qualitative data transcription holds a key role in research, acting as the building blocks from which findings are derived and conclusions are drawn. They are the textual representation of verbal data gathered through interviews, focus groups, and observational studies(Jörg & Neringa, n.d.).

Qualitative coding is almost always a necessary part of the qualitative data analysis process. Coding provides a way to make the meaning of the data clear to you and to your research audience. After transcribing the data obtained through interview and document review, a summary of a larger segment of text called coding is done before analyzing the data.

Through the use of qualitative data analysis software, researchers may analyze textual, audio, and/or video information in a systematic manner. Qualitative data analysis software provides a means for systematically organizing, coding, and analyzing large amounts of unstructured data, thus aiding researchers in finding patterns or repeating themes. Functions of qualitative data analysis software vary, ranging from simple coding to advanced analyses, including visual representations of relationships between data (Jörg & Neringa, n.d.). In this research, data analysis was conducted using a qualitative data analysis software package called Atlas.ti.

Qualitative data is obtained from semi-structured interviews, and reviews of contract document files and termination reports. The analysis follows a thematic analysis approach, which is appropriate for identifying, analyzing, and interpreting patterns of meaning within qualitative data. This approach allows for a detailed understanding of the factors and organizational impacts of construction project termination.

### 3.9.2 Triangulation of Data

To increase validity and reliability, findings from different data sources were compared and integrated.

Insights obtained from document review is compared with semi structured interviews to either confirm or challenge observed patterns. Divergences between the two data sets is analyzed to identify possible contextual or stakeholder related explanations.

Best practices and mitigation strategies identified through literature review is contrasted with lessons learned from the case organization’s contract management techniques. This comparison provides a broader understanding of how the organization’s practices align with or deviate from established international standards.

To enhance its validity and reliability, the research compared and combined findings from multiple sources of information and evidence.

The data from document review was compared with the data from Semi Structured Interviews to determine whether the documented patterns observed were either confirmed or denied. Any differences between the two data sets were analyzed to determine if there were valid contextual or stakeholder explanations.

Best practices and mitigation strategies identified through literature review was compared against the case organization's contract management techniques and the lessons learned from the organization. Such comparison provides a more in-depth understanding of how the organization's practices correspond with, or vary from, internationally accepted Standards.

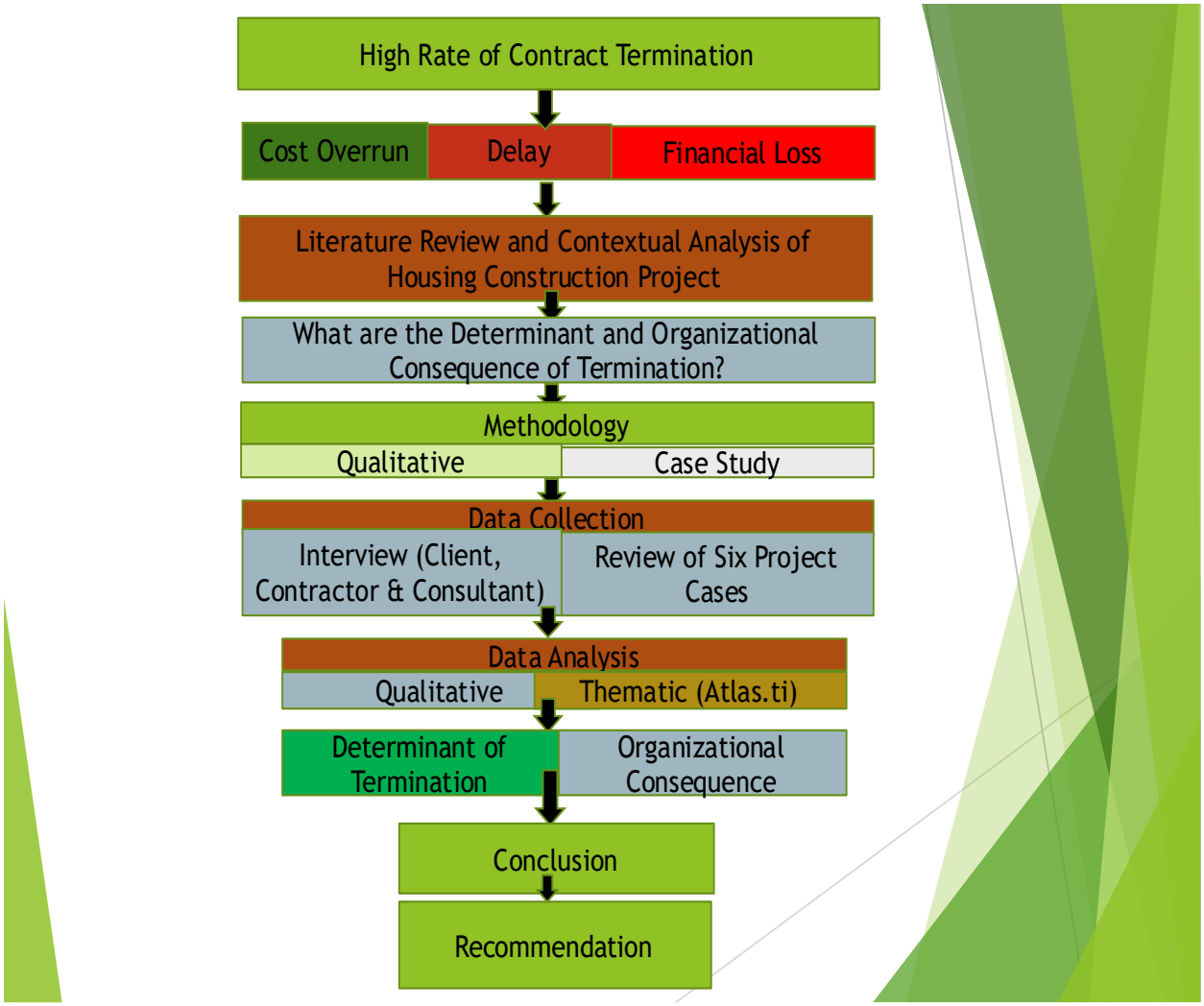



*Figure 3-2: Research Methodology*

# CHAPTER FOUR

# 4. RESULT AND DISCUSSION

## 4.1 Introduction

Contract termination is a major challenge impacting contracting parties in different dimensions. By systematically identifying the root cause, the impact of termination on an organization can be eased. In this chapter, acontextual analysis of housing construction projects, result and discussion on factors and organizational impacts of termination identified by both case study and interview source of data is presented. Additionally, triangulation of finding from sources is presented.

## 4.2 Contextual Analysis of Housing Construction Projects of ESIG

In this part, the status of housing and infrastructure construction projects implemented at different sugar factories namely Wolkait, Tana Beles, Kessem, Tendaho, Arjo Didhessa and Omo Kuraz 1,2,3 &5 is analyzed and presented below.

### 4.2.1 Wolkait Sugar Factory

The Ethiopian Sugar Industry Group, formerly the Sugar Corporation, has entered into multiple agreements with contractors to build residential and non-residential housing across various towns and villages within the Wolkait Sugar Factory area. A construction supervision and contract administration consultant for the projects was also hired. As shown below, all three contracts showed constant movements of delayed schedules and escalating costs, which mainly required formal amendments to finalize the project. Every project has ultimately achieved substantial completion, adhering to the updated contractual terms and fulfilling the planned functional goals.

| No | Contract Name | Status |
|---|---|---|
| 1 | The construction of residential and non-residential houses | Completed after amendment |
| 2 | The construction of residential and non-residential houses at Village 6 | Completed after amendment |
| 3 | The construction of residential and non-residential houses at Village 5,7 and main town | Completed after amendment |

Table 4-1: Contextual Analysis of housing construction contracts at Wolkait Sugar Factory

### 4.2.2 Tana Belles Sugar Factory

The Ethiopian Sugar Industry Group signed a contract agreement On September 8, 2011 and on October 31, 2018 with a contractor to build residential and non-residential housing units in the main town and villages 1 through 5 of the Tana Belles sugar factory subheads. A construction supervision and contract administration consultant for the projects was also hired. Although the contract faced delays on schedule and costs increment, the first project was eventually completed after essential contractual amendments were made. In contrary, the other agreement was terminated before completion due to different problems.

*Table 4-2: Contextual Analysis of housing construction contracts at Tana Belles*

| No | Contract Name | Status |
|---|---|---|
| 1 | The construction of residential and non-residential houses at ma town, subhead, village 1,2,3,4 and 5 | Completed after amendment |
| 2 | The construction of non-residential house | Terminated |

### 4.2.3 Kessem Sugar Factory

The Ethiopian Sugar Industry Group, formerly the Sugar Corporation, has signed a contract agreement with contractor in January 3, 2013, March 7, 2014 and November 23, 2015 to build residential and non-residential houses across various towns and villages of the Kessem Sugar Factory. Two different construction supervision and contract administration consultant were interchangeably serving the projects.

The first two contracts though delay of schedule and costs overrun happened, the first two project was completed after contractual amendments is signed. In contrary, the third agreement was terminated due to challenges.

*Table 4-3: Contextual Analysis of Housing Construction Contract at Kessem Sugar Factory*

| No | Contract Name | Status |
|---|---|---|
| 1 | The construction of residential and non-residential houses at kessem Alibete and Deho villages | Completed after amendment |
| 2 | The construction of residential and non-residential houses at main town | Completed after amendment |
| 3 | The construction of residential and non-residential houses | Terminated |

### 4.2.4 Arjo Didhessa Sugar Factory

The Ethiopian Sugar Industry Group has signed a contract agreement on January 11, 2016 to build residential and non-residential houses at the Arjo Didhessa Sugar Factory. The construction supervision and contract administration consultant were on the project to supervise the construction.

However, due to several issues the project was delayed which creates a room for contract amendment but could not protect the contract from termination.

*Table 4-4: Contextual Analysis of housing construction contract at Arjo Didhessa*

| No | Contract Name | Status |
|---|---|---|
| 1 | The construction of residential and non-residential houses | Terminated after amendment |

### 4.2.5 Omo Kuraz 1 Sugar Factory

The Ethiopian Sugar Industry Group has signed multiple contract agreements on October 10, 2011, February 1, 2013, March 12, 2014, November 16, 2015, October 28, 2016, March 15, 2018 and on April 18, 2018 with contractors for construction of residential and non-residential houses at this factory. Despite the projects progressed a minor achievement, the work could not be completed, resulting in the contracts being terminated.

*Table 4-5: Contextual Analysis of Housing Construction Contract at Omo Kuraz 1 Sugar Factory*

| No | Contract Name | Status |
|---|---|---|
| 1 | The construction of residential and non-residential houses | Terminated |
| 2 | The construction of residential and non-residential houses | Terminated |
| 3 | The construction of residential and non-residential houses | Terminated |
| 4 | The construction of residential and non-residential houses | Terminated |
| 5 | The construction of residential and non-residential houses | Terminated |
| 6 | The construction of residential and non-residential houses | Terminated |
| 7 | The construction of Hospital | Terminated |

### 4.2.6 Omo Kuraz 2 Sugar Factory

The Ethiopian Sugar Industry Group has signed contract agreements on November 16, 2015, October 28, 2016, March 31 2017, March 15, 2018, October 31, 2019, October 27, 2020 and June 18, 2020 with contractors for construction of residential and non-residential houses at this factory.

Though the projects achieved a minor progress, the works of the first six contracts could not be finalized, leading to the termination of the contracts. The final contract but comparatively finalized as per the contract agreement.

*Table 4-6: Contextual Analysis of Housing Construction Contract at Omo Kuraz 2 Sugar Factory*

| No | Contract Name | Status |
|---|---|---|
| 1 | The construction of residential and non-residential houses at main town | Terminated |
| 2 | The construction of residential and non-residential houses at main town | Terminated |
| 3 | The construction of residential and non-residential houses at main town | Terminated |
| 4 | The construction of prefabricated Houses | Terminated |
| 5 | The construction of residential houses | Terminated |
| 6 | The construction of Residential and Nonresidential Houses | Terminated |
| 7 | The construction of Residential and Nonresidential Houses | Completed |

### 4.2.7 Omo Kuraz 3 Sugar Factory

The Ethiopian Sugar Industry Group has signed contract agreements on January 1, 2015, March 23, 2018, April 4, 2018, and July 23 2020 with contractors for construction of residential and non-residential houses at this factory. Unlike the last contract, the first three Contract agreement was terminated.

*Table 4-7: Contextual Analysis of Housing Construction Contract at Omo Kuraz 3 Sugar Factory*

| No | Contract Name | Status |
|---|---|---|
| 1 | The construction of residential and non-residential houses | Terminated |
| 2 | The construction of residential and non-residential houses | Terminated |
| 3 | The construction of non-residential houses | Terminated |
| 4 | The construction of Residential and Nonresidential Houses | Completed |

### 4.2.8 Omo Kuraz 5 Sugar Factory

The Ethiopian sugar industry group has concluded two contract agreements, one on June 27, 2018 and the other on March 17, 2020 for construction of houses at this factory. However, both of them terminated after a slight progress.

*Table 4-8: Contextual Analysis of Housing Construction Contract at Omo Kuraz 5 Sugar Factory*

| No | Contract Name | Status |
|---|---|---|
| 1 | The construction of residential houses | Terminated |
| 2 | The construction of residential houses | Amicably Terminated |

### 4.2.9 Summarized Contextual Analysis of Housing Construction Projects at ESIG

As shown above, the Ethiopian sugar industry group has signed a total of 29 contract agreements for construction of residential and non-residential houses with contractors in 7 different sugar factories. Of these, 21 were terminated due various reasons, 6 were finalized after contract amendment, and the 2 were completed comparatively in accordance with the contract agreement.

*Table 4-9: Summarized Contextual Analysis of Housing Construction Contracts at ESIG*

| No | Contract Name | Sugar Factory | Status |
|---|---|---|---|
| 1 | The construction of residential and non-residential houses | Wolkait | Completed |
| 2 | The construction of residential and non-residential houses | Wolkait | Completed |
| 3 | The construction of residential and non-residential houses | Wolkait | Completed |
| 4 | The construction of residential and non-residential houses | Tana Belles | Completed |
| 5 | The construction of non-residential house | Tana Belles | Terminated |
| 6 | The construction of residential and non-residential houses | Kessem | Completed |
| 7 | The construction of residential and non-residential houses | Kessem | Completed |
| 8 | The construction of residential and non-residential houses | Kessem | Terminated |
| 9 | The construction of residential and non-residential houses | Arjo Didessa | Terminated |
| 10 | The construction of residential and non-residential houses | Omo Kuraz 1 | Terminated |
| 11 | The construction of residential and non-residential houses | Omo Kuraz 1 | Terminated |
| 12 | The construction of residential and non-residential houses | Omo Kuraz 1 | Terminated |
| 13 | The construction of residential and non-residential houses | Omo Kuraz 1 | Terminated |
| 14 | The construction of residential and non-residential houses | Omo Kuraz 1 | Terminated |
| 15 | The construction of residential and non-residential houses | Omo Kuraz 1 | Terminated |
| 16 | The construction of Hospital | Omo Kuraz 1 | Terminated |
| 17 | The construction of residential and non-residential houses | Omo Kuraz 2 | Terminated |
| 18 | The construction of residential and non-residential houses | Omo Kuraz 2 | Terminated |
| 19 | The construction of residential and non-residential houses | Omo Kuraz 2 | Terminated |
| 20 | The construction of prefabricated Houses | Omo Kuraz 2 | Terminated |
| 21 | The construction of residential houses | Omo Kuraz 2 | Terminated |
| 22 | The construction of Residential and Nonresidential Houses | Omo Kuraz 2 | Terminated |
| 23 | The construction of Residential and Nonresidential Houses | Omo Kuraz 2 | Completed |
| 24 | The construction of residential and non-residential houses | Omo Kuraz 3 | Terminated |
| 25 | The construction of residential and non-residential houses | Omo Kuraz 3 | Terminated |
| 26 | The construction of non-residential houses | Omo Kuraz 3 | Terminated |
| 27 | The construction of residential and non-residential houses | Omo Kuraz 3 | Completed |
| 28 | The construction of residential houses | Omo Kuraz 5 | Terminated |
| 29 | The construction of residential houses | Omo Kuraz 5 | terminated |

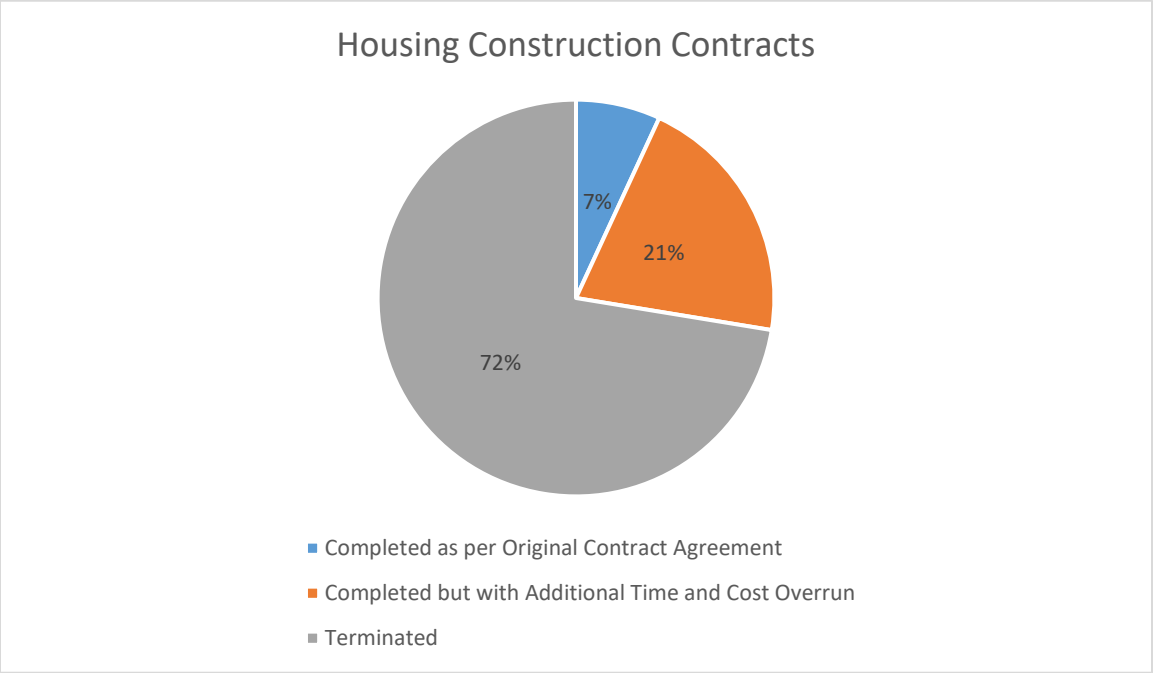



*Figure 2: Summarized Contextual Analysis of Housing Construction Contract*

## 4.3 Factors of Housing Project Termination

As the first objective of this study, Factors of termination of the housing construction project is identified using both the document review and interview source of data and presented here in this section. 29 housing construction projects has been analyzed in the contextual analysis section and here of this 29 housing construction projects, six selected housing terminated projects is reviewed based on the checklist below. Accordingly, the analysis result presented in this subsection.

*Table 4-10: Document Review Checklist*

**Project Code:**
**Project Name:**
**Contract Amount:**

| Number | Document Type | Purpose of Review | Remark |
|---|---|---|---|
| 1 | Contract Agreements | Identify contractual obligations and termination provisions | |
| 2 | Progress Reports | Assess project performance and progress status | |
| 3 | Meeting Minutes | Identify project challenges and decisions | |
| 4 | Correspondence Letters | Examine disputes, notices, and communication records | |
| 5 | Payment Records | Assess payment-related issues | |

*Table 4-11: Overview of six terminated housing projects*

| No | Name of the Project | CSD | CCD | OCA including VAT (ETB) | Advance including VAT(ETB) | MOP including VAT(ETB) | Executed Works (%) | Date of Termination |
|---|---|---|---|---|---|---|---|---|
| **1** | Construction of 3D Block at Omo Kuraz Sugar Factory 5 Main Town | 27-Jun-18 | 4-Nov-18 | 13,119,618.60 | 2,623,923.72 | | 40% | 22-Aug-23 |
| 2 | Construction of Residential and Non-Residential Houses at Omo Kuraz Factory 3 Village 2 | 4-Apr-18 | 8-Feb-19 | 99,692,100.07 | 29,907,630.02 | | 48% | 26-July-23 |
| 3 | Construction of Non-Residential Houses at Kuraz Sugar Factory 3 Main | 1-Oct-17 | 28-Jul-18 | 26,575,853.94 | 7,972,756.18 | | 25% | 22-Aug-23 |
| 4 | Construction of 9D and 6C Typology Blocks Residential Houses at Omo 2 Sugar Factory | 31-Oct-19 | 19-May-20 | 87,812,886.12 | | 12,766,860.88 | 17% | 7-Jul-21 |
| 5 | Construction of 10D Typology Residential Houses at Omo Kuraz 5 Sugar Factory | 17-Mar-20 | 23-Sep-20 | 68,133,562.40 | 13,626,712.48 | | 23% | 12-Jul-23 |
| 6 | Construction of 5 Residential Houses at Omo 2 Sugar Factory | 27-Oct-20 | 6-Mar-21 | 37,007,477.35 | 11,102,243.21 | | 35% | 18-Aug-23 |

**OCA**- Original contract amount **RCA**- Revised contract amount **CCD**- Contract Completion Date **CSD**- Contract Signing Date

**MOP**- Material Onsite Payment

### 4.3.1 Analysis of Case one

The Ethiopian Sugar Industry Group has signed a contract agreement on June 27, 2018 for the construction of residential and non-residential houses at the Omo Kuraz 3 Sugar factory village 2.

After so many delay and correspondences among the parties, the employer in its letter dated 22 August 2023 terminates the contract pursuant to conditions of contract GCC 21.2(a) of standard bidding document for procurement of works (NCB) prepared by FPPA version 1 August 2011.

*Table 4-12: Analysis of Case One*

| Date | Activity | Reference |
|---|---|---|
| 27-Jun-18 | signing of contract agreement | agreement |
| After 120 days | contract completion Date | agreement |
| 14-Nov-18 | site handover | contractor letter |
| 27-Dec-18 | advance payment guarantee renewal due to delay to handover | contractor letter |
| 7-Mar-19 | consultant warning of the contractor on slow progress. | consultant letter |
| 15-Mar-19 | consultant notification for the commencement of liquidated damages | consultant letter |
| 10-Jul-19 | contractor requested removal of liquidated damage period and 90 days additional time for completion. | contractor letter |
| 13-Jul-19 | 35-day extension (EOT2) granted | employer letter |
| 24-Jul-19 | contractor notified the delay of remaining 10% advance payment. | contractor letter |
| 4-Sep-19 | contractor refused to proceed until payment released. | contractor letter |
| 13-Oct-19 | contractor requested release of outstanding payments. | contractor letter |
| 24-Sep-19 | Contractor renewed the advance payment guarantee as required. | bank guarantee |
| 25-Feb-20 | deduction of IPC 1 due to court decision | payment certificate |
| 21-Jul-20 | contractor requested employer facilitation on cement shortage | contractor letter |
| Post-2020 | contractor request for price adjustment or termination. | contractor letter |
| 10-Jun-21 | employer rejected the price adjustment request | employer letter |
| 21-Sep-21 | the consultant advised the employer to take appropriate action against the contractor. | consultant letter |
| 7-Nov-22 | tripartite meeting was arranged but contractor was absent. | minutes of meeting |
| 25-Nov-22 | employer requested advice from consultant | employer letter |
| 23-Jan-23 | contract termination recommended by consultant | consultant letter |
| 22-Aug-23 | employer terminated the contract | employer letter |

### 4.3.2 Analysis of Case two

The Ethiopian Sugar Industry Group has signed a contract agreement for the construction of residential houses at the Omo Kuraz 5 Sugar factory on April 4, 2018.

After so many delay and correspondences among the parties, the employer in its letter dated July 26, 2023 terminates the contract pursuant to conditions of contract GCC 21.2(a) of standard bidding document for procurement of works (NCB) prepared by FPPA version 1 August 2011.

*Table 4-13: Analysis of Case Two*

| **Date** | **Activity** | **Reference** |
|---|---|---|
| April 4, 2018 | signing of contract agreement | contract agreement |
| February 8, 2019 | completion date | contract agreement |
| May 15 & June 1, 2018 | notification of delay of advance payment | contractor letter |
| July 10, 2018 | commencement date postponed | project record |
| Aug 30, 2018 | approval of variation orders | employer letters |
| July 16, 2019 | contract amendment No. 1 signed | amendment document |
| Oct 2019 – May 2020 | EOT approvals (EOT 1–5) | EOT approval letter |
| Sept 2019 – Jan 2021 | contractor notified delay of IPC-2 and IPC-3 | contractor letters |
| July 30, 2020 | poor performance notification | consultant letter |
| May 14, 2021 | EOT approvals Nos. 6–8 | employer/consultant letter |
| July 2, 2021 | warning to remobilize | consultant letter |
| Dec 31, 2021 | contractor exits site | consultant letter |
| Feb 28, 2023 | negotiation meeting | meeting minutes |
| July 26, 2023 | contract termination under GCC 21.2(a) | termination Letter |
| Nov–Dec 2023 | guarantee forfeiture and amicable termination request | correspondence |

### 4.3.3 Analysis of Case three

The Ethiopian Sugar Industry Group has signed a contract agreement for the construction of non-residential houses at the Omo Kuraz 3 Sugar factory on October 1, 2017.

Following frequent warnings by the consultant and continued underperformance by the Contractor, the consultant formally advised the employer to terminate the contract. Finally, the employer in its letter dated 22 August 2023 terminates the contract pursuant to conditions of contract GCC 21.2(a) of standard bidding document for procurement of works (NCB) prepared by FPPA version 1 August 2011.

*Table 4-14: Analysis of Case three*

| Date | Activity | Reference |
|---|---|---|
| October1, 2017 | signing of contract agreement | agreement |
| July 28,2018 | completion date | agreement |
| 23 March 2018 | site handover (173 days late) | contractor letter |
| Throughout the project period | frequent time extensions granted due to several issues. | employer letter |
| During execution | consultant notified poor performance of the contractor | consultant letter |
| Upon execution | delay of IPC 1 | contractor letter |
| Later stage | contractor request of either price adjustment or termination | contractor letter |
| 10-Jun-21 | price adjustment rejected by the employer | employer letter |
| 7-Nov-22 | A tripartite meeting was arranged but the contractor did not attend. | minutes of meeting |
| After the meeting | consultant advised the employer to terminate the contract | consultant letter |
| 22 August 2023 | employer terminated the contract | employer letter |

### 4.3.4 Analysis of Case four

The Ethiopian Sugar Industry Group has signed a contract agreement for the construction of non-residential houses at the Omo Kuraz 2 Sugar factory on October 31, 2019. Following frequent warnings by the consultant and continued underperformance by the Contractor, the consultant formally advised the Employer to terminate the contract. Finally, the employer in its letter dated 7 July 2021 terminates the contract pursuant to conditions of contract GCC 21.2(a) of standard bidding document for procurement of works (NCB) prepared by FPPA version 1 August 2011.

*Table 4-15: Analysis of Case Four*

| Date | Activity | Reference |
|---|---|---|
| 31 Oct 2019 | signing of contract agreement | contract agreement |
| 23 Nov 2019 | site handover | employer Letter |
| 10 Dec 2019 | delegation of project office as interim consultant | employer letter |
| 15 Dec 2019 | contract commencement date | contractor letter |
| 12 Jun 2020 | original completion date | contract agreement |
| 04 Feb 2020 | contractor request advance payment | contractor letter |
| Feb 2020 | advance payment rejected (SCC 60.1); material-on-site payment approved | employer letter |
| 11 May 2020 | consultant notified slow progress | consultant letter |
| Apr 2020 | extension of time (EOT-1) granted | employer letter |
| 17 Jun 2020 | IPC-2 requested | contractor letter |
| Jul 2020 | request of EOT-2 | contractor letter |
| Jul–Aug 2020 | warnings for slow progress | consultant letters |
| Sep–Oct 2020 | EOT-3 partially rejected | consultant letters |
| Dec 2020 | employer instructed consultant to reexamine EOT | employer letter |
| 28 Dec 2020 | IPC-2 payment released after delay | payment certificate |
| Mar 2021 | approval of EOT-3 | EOT approval letter |
| 29 Mar 2021 | request of price adjustment | contractor letter |
| Apr–May 2021 | liquidated damage notification | employer letters |
| 21 May 2021 | EOT-4 requested | contractor letter |
| 07 Jul 2021 | contract termination due to slow progress | termination letter |
| Mar 2022 | payment upon termination finalized | financial statement |

### 4.3.5 Analysis of Case five

The Ethiopian Sugar Industry Group has signed a contract agreement for the construction of residential houses at Omo Kuraz 5 Sugar Factory on March 17, 2020.

Following frequent correspondence among different stakeholders, the consultant in a letter dated March 15, 2023 advice the employer for a contract termination as per GCC21.2 (a) of the contract agreement. Having the advice from the legal department and the contractor request of an amicable termination, the employer notified the consultant in a letter dated July 12, 2023 to terminate the contract amicably with a carbon copy to the contractor.

*Table 4-16: Analysis of Case five*

| Date | Activity | Reference |
|---|---|---|
| 17 Mar 2020 | signing of contract | agreement |
| 27 Sept 2020 | completion date | agreement |
| 04 Jun 2020 | release of advance payment | payment records |
| 08 Jun 2020 | extension of time requests due to payment delay. | contractor letter |
| 10 Jun & 7 Jul 2020 | contract commencement on 10 Jun 2020. | consultant letter |
| 20 Nov 2020 | warning for slow progress. | consultant letter |
| 14 Dec 2020 | approval of EOT1. | employer letter |
| 03 Jan 2021 | warning for slow progress. | consultant letter |
| 26 to 31 Jan 2021 | approval of EOT2 | employer letter |
| 8 Feb 2021 | delegation of project office as interim consultant | employer letter |
| 04 Mar 2021 | approval of EOT2. | employer letter |
| 13 Mar 2021 | project office approves EOT3. | approval letter |
| 23 Aug 2021 | approval of EOT4. | approval letter |
| 13 Apr 2022 | consultant refusal to approve IPC2 payment due to contract expiration issue. | consultant letter |
| 05 Jul 2022 | contractor notified payment delays | contractor letter |
| 07 Nov 2022 | tripartite meeting held | minutes of meeting |
| 16 Jan 2023 | Contractor submits proposal regarding the project | Proposal letter |
| 14 Feb 2023 | Consultant issues final warning to remobilize. | Consultant letter |
| 15 Mar 2023 | Consultant recommends contract termination. | Consultant letter |
| 12 Jul 2023 | Employer instructs amicable termination of contract. | Employer letter |

### 4.3.6 Analysis of Case six

The Ethiopian Sugar Industry Group has signed a contract agreement for the construction of residential houses at Omo Kuraz 2 Sugar Factory on October 27, 2020. Following frequent correspondence among different stakeholders, the consultant finally recommends the employer to terminate the contract as per GCC 73 in a letter dated May 17, 2023. Accordingly, the employer terminates the contract in a letter dated July 18, 2023.

*Table 4-17: Analysis of case six*

| Date | Activity | Reference |
|---|---|---|
| 27 Oct 2020 | signing of contract | agreement |
| 30 March 2021 | completion date | agreement |
| 21 Nov 2020 | site hand over | site handover letter |
| 1 Mar 2021 | first advance payment (20%) released, though delayed. | payment record |
| 5 Apr 2021 | contractor requested second advance payment (10%). | contractor letter |
| 14 Jul 2021 | second advance payment released though delayed. | payment record |
| 24 Nov 2020 to 11 Feb 2021 | notification of advance payment delays | contractor letters |
| 18 Jan 2021 | project office delegated employer's Project | project office letter |
| 12 March 2021 | contractor requested EOT1 | contractor letter |
| 10 May 2021 | approval of EOT1 | employer letter |
| 5 Jul 2021 | contractor requested EOT2 | contractor letter |
| 1 Sep 2021 | approval of EOT2 | employer letter |
| 25 Jul 2021 | material delivery problems due to lack of foreign currency and security issues. | contractor letter |
| 30 Sep 2021 | contractor requested EOT3 | contractor letter |
| 3 Nov 2021 | approval of EOT 3 | employer letter |
| 5 Nov 2021– 27 Jan 2022 | contractor notified delay of IPC 1. | contractor letter |
| Dec 2021 | contractor claimed various delay causes EOT 4 | contractor letters |
| Mar 2022 | employer approved EOT4 partially | employer letter |
| 25 Feb & 19 May 2022 | contractor requested cement facilitation; | contractor letters |
| 6 May 2022 | contractor request of EOT 7 | contractor letter |
| 4 Jul 2022 | EOT approved. | employer letters |
| 28 Jul 2022 | approval of variation order | employer letters |
| 15 Jul 2022 | request of price adjustment | contractor letter |
| 7 Nov 2022 | tripartite meeting held | minutes of meeting |
| 5 Dec 2022 | contractor submitted proposal | contractor proposal |
| 3 Jan 2023 | rejection of contractor's proposal due to compensation claim. | consultant letter |
| 9 Jan 2023 | contractor request for meeting and EOT. | contractor letter |
| 18 Jan 2023 | project office notified work suspension of contractor | project office letter |
| 14 Feb 2023 | consultant warned contractor to remobilize | consultant letter |

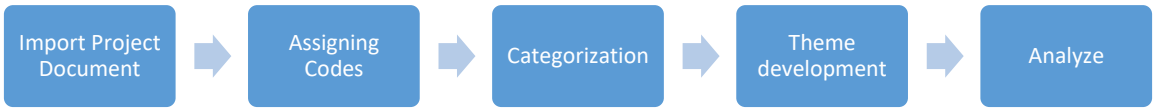
| | | |
|---|---|---|
| 15 Mar 2023 | consultant warned contractor to remobilize | consultant letter |
| 17 May 2023 | consultant advised contract termination as per GCC 73. | consultant letter |
| 18 Jul 2023 | termination of the contract. | employer letter |

### 4.3.7 Result of the Case Study for Factors of Housing Project Termination

The case study as discussed on the methodology part is a qualitative approach. This study utilizes case study to achieve the objectives. Having a thorough study on six sample cases of housing terminated projects, factors of termination are identified. In this part, result for factors of termination identified by using the case study is presented.

The analysis of each case revealed different types of factors across the six project files which might lead to termination. These factors are classified into financial, managerial, technical and contractual, and external factors.

The contract and other related document files of all the six-project case is analyzed in a qualitative data analysis software Atlas.ti in a procedure shown below.




The result of the analysis is presented in a tabular form generated from the software.

*Table 4-18：Case Study Result for Factors of Termination*

CODES-PRIMARY-DOCUMENTS-TABLE
Report created by Super - 12/28/2025 06:08:33 PM
Code-Filter: All [41]
PD-Filter: All [6]
Quotation-Filter: All [203]

| Category | Party | Factors | P 1 | P 2 | P 3 | P 4 | P 5 | P 6 | TOTALS | Rank |
|---|---|---|---|---|---|---|---|---|---|---|
| **Financial and Economic** | **Employer** | Delayed Payments | 4 | 11 | 2 | 2 | 13 | 12 | 44 | **1st** |
| | | Shortage of budget | 1 | 1 | 0 | 0 | 1 | 0 | 3 | **14th** |
| | **Contractor** | Financial distress | 1 | 1 | 1 | 0 | 0 | 0 | 3 | **14th** |
| | | Market price escalation | 1 | 6 | 1 | 1 | 3 | 4 | 16 | **4th** |
| **Managerial and Organizational** | **Employer** | Poor Project planning | 3 | 1 | 3 | 2 | 1 | 2 | 12 | **8th** |
| | | Rejection of price adjustment request | 2 | 5 | 1 | 0 | 0 | 0 | 8 | **10th** |
| | **Contractor** | Weak Organizational Discipline | 1 | 0 | 1 | 0 | 0 | 0 | 2 | **17th** |
| | | Poor project planning and control | 0 | 5 | 1 | 0 | 3 | 4 | 13 | **6th** |
| | | Work suspension by contractor | 0 | 1 | 0 | 0 | 0 | 3 | 4 | **13th** |
| **Technical and Contractual** | **Employer** | Technical deficiencies | 0 | 5 | 1 | 0 | 1 | 1 | 8 | **10th** |
| | | Contract Administration Weakness | 0 | 0 | 0 | 5 | 7 | 2 | 14 | **5th** |
| | **Contractor** | Poor contractor performance | 4 | 3 | 2 | 6 | 5 | 3 | 23 | **2nd** |
| **External and Environmental** | **Environmental** | Adverse weather condition | 1 | 3 | 2 | 1 | 3 | 3 | 13 | **6th** |
| | | Shortage of water | 0 | 0 | 0 | 0 | 2 | 0 | 2 | **17th** |
| | **External** | Covid19 Pandemics | 0 | 3 | 0 | 2 | 2 | 0 | 7 | **12th** |
| | | Security issue | 0 | 1 | 2 | 0 | 3 | 6 | 12 | **8th** |
| | | Shortage of cement | 1 | 3 | 0 | 5 | 3 | 5 | 17 | **3rd** |
| | | Shortage of foreign currency | 0 | 0 | 0 | 0 | 0 | 3 | 3 | **14th** |
| | | **TOTALS:** | **19** | **49** | **17** | **24** | **47** | **48** | **204** | |

**P1**-Project one; **P2**- Project 2; **P3**-Project 3; **P4**-Project 4; **P5**-Project 5; **P6**-Project 6

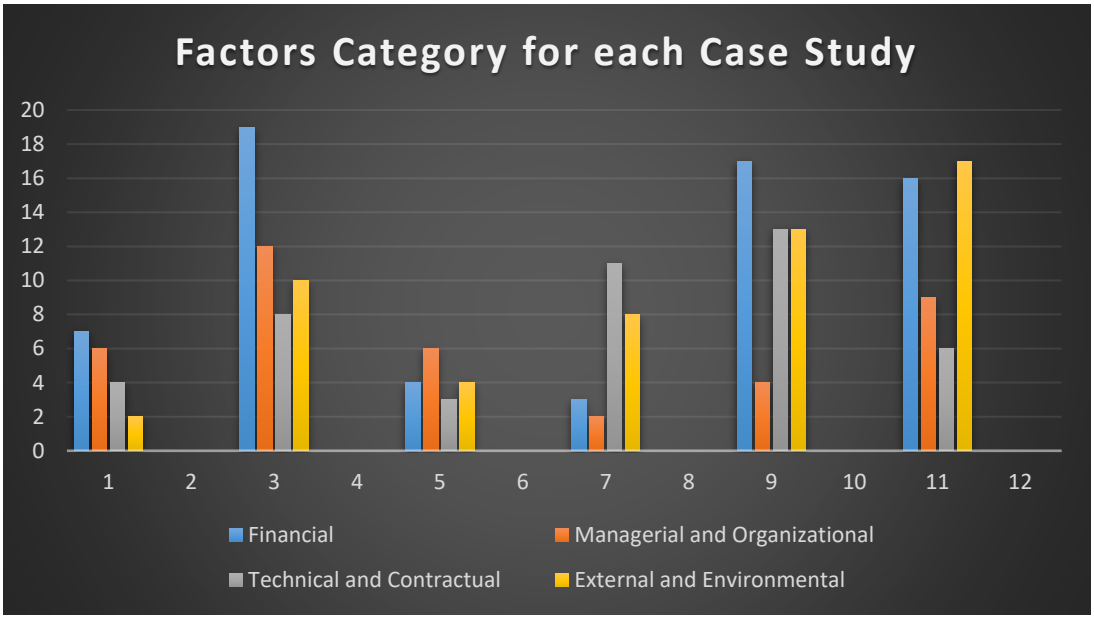



*Figure 4-1: Case Study Analysis for Factors of Termination*

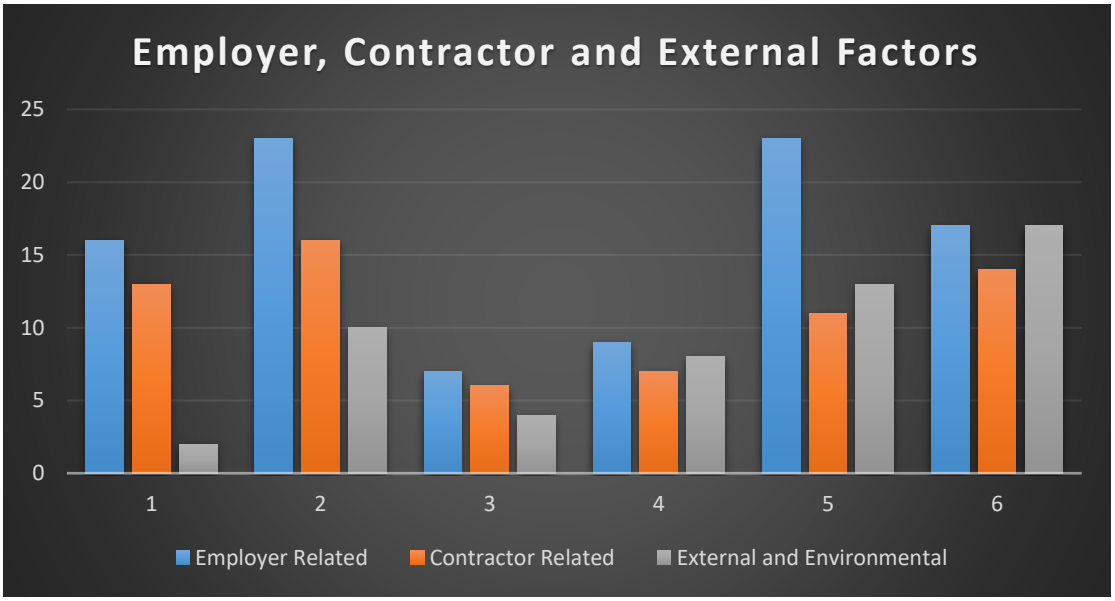



*Figure 4-2: Party Related Factors of Each Case Study*

### 4.3.8 Result of Interview for Factors of Termination

The interview participants represented the three key stakeholder groups involved in the terminated housing construction projects. Their roles provided complementary insights into financial, managerial, technical, and external factors of project termination, as well as the resulting organizational impacts.

The case study as discussed on the methodology part is a qualitative approach. This study utilizes case study to achieve the objectives. Having interviewed participants on six sample cases of housing terminated projects, factors of termination is identified.

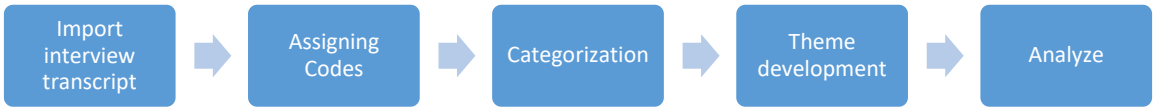
The analysis of interview finding revealed different types of factors across the six project files which might lead to termination. These factors are classified into financial, managerial, technical and contractual, and external factors.

A total of 7 in-depth interviews were conducted with the employer senior engineers, contractors and consultant.

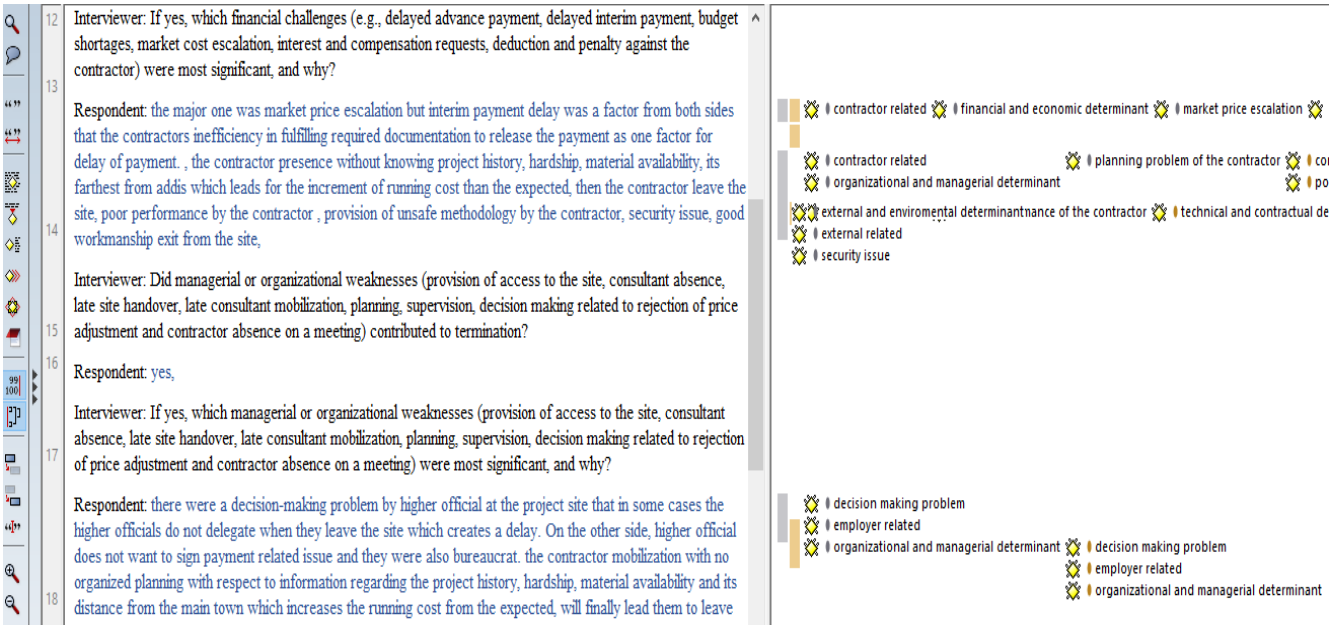
*Table 4-19: participants of the Interview*

| No | Representative Party | Number of Participant |
|---|---|---|
| 1 | Employer | 2 |
| 2 | Contractor | 4 |
| 3 | Consultant | 1 |

The participant of the interview has given their own insight as per the developed template regarding the factors of construction project termination. Their response is analyzed in a qualitative data analysis software Atlas.ti in a procedure shown below.




The result of the analysis is presented in a tabular form generated from the software.



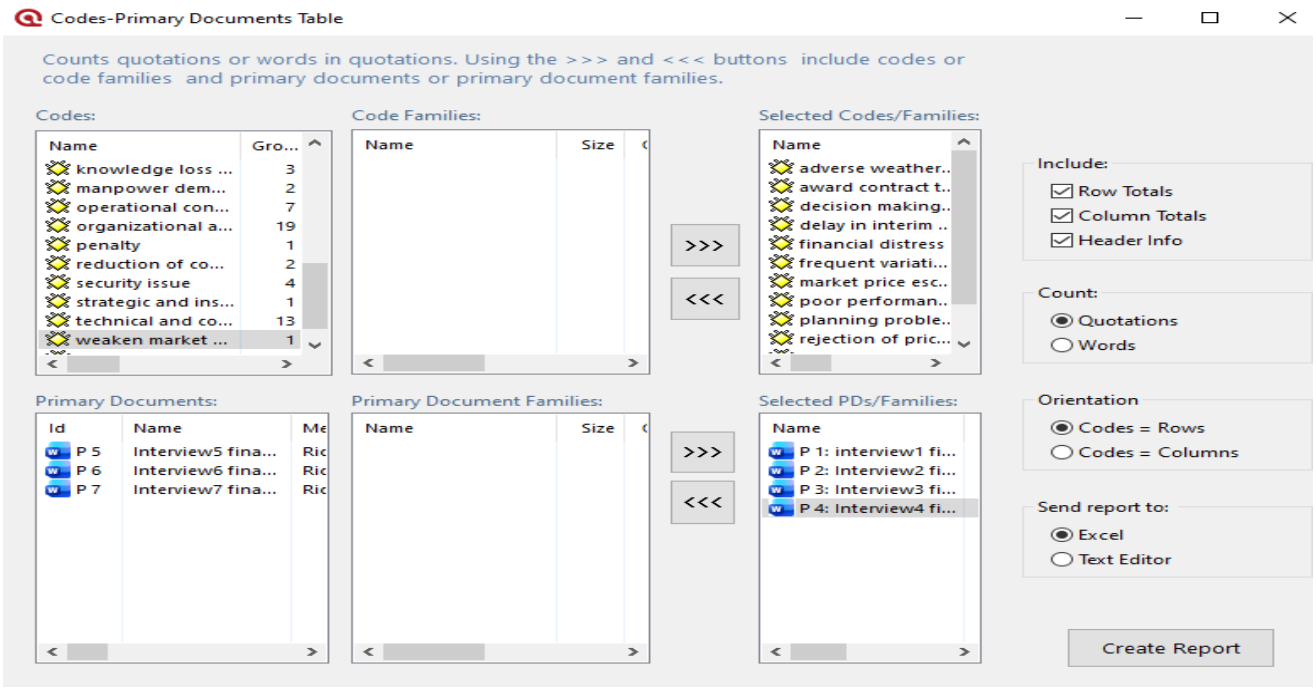



*Table 4-20: Result of Interview for Factors of Termination*

CODES-PRIMARY-DOCUMENTS-TABLE
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Code-Filter: All [40]
PD-Filter: All [7]
Quotation-Filter: All [98]

| Category | Party | Factors | P 1 | P 2 | P 3 | P 4 | P 5 | P 6 | P 7 | TOTALS | Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Financial** | **Employer** | Delayed Payments | 0 | 1 | 4 | 0 | 3 | 1 | 2 | **11** | **1st** |
| | | Shortage of Budget | 0 | 0 | 1 | 2 | 0 | 0 | 0 | **3** | **9th** |
| | **Contractor** | Financial Distress | 0 | 0 | 1 | 0 | 0 | 0 | 0 | **1** | **13th** |
| | | Market Price Escalation | 4 | 1 | 1 | 1 | 1 | 1 | 1 | **10** | **2nd** |
| **Managerial and Organizational** | **Employer** | Decision Making Problem | 0 | 0 | 3 | 0 | 3 | 2 | 1 | **9** | **3rd** |
| | | Rejection of Price Adjustment | 2 | 0 | 2 | 0 | 2 | 0 | 2 | **8** | **4th** |
| | **Contractor** | poor project planning and control | 1 | 0 | 0 | 0 | 0 | 1 | 0 | **2** | **11th** |
| **Technical and Contractual** | **Employer** | The lowest bidder bidding system of contractor selection | 3 | 2 | 0 | 0 | 0 | 1 | 0 | **6** | **6th** |
| | | Contract Administration weakness | 0 | 1 | 1 | 0 | 0 | 0 | 0 | **2** | **11th** |
| | | Technical deficiencies | 0 | 0 | 0 | 1 | 0 | 0 | 0 | **1** | **15th** |
| | **Contractor** | Poor performance of the contractor | 1 | 0 | 0 | 0 | 0 | 3 | 0 | **4** | **7th** |
| **External and environmental** | **Environmental** | Adverse weather condition | 1 | 0 | 0 | 1 | 0 | 0 | 1 | **3** | **9th** |
| | **External** | Security Issue | 0 | 1 | 0 | 1 | 0 | 2 | 0 | **4** | **7th** |
| | | Covid 19 Pandemics | 1 | 2 | 1 | 1 | 0 | 1 | 1 | **7** | **5th** |
| | | Shortage of Material | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **1** | **13th** |
| | | **TOTALS:** | **13** | **8** | **14** | **7** | **9** | **13** | **8** | **72** | |

**P1**: Participant 1; **P2**: Participant 2; **P3**: Participant 3; **P4**: Participant 4; **P5**: Participant 5; **P6**: Participant 6; **P7**: Participant 7

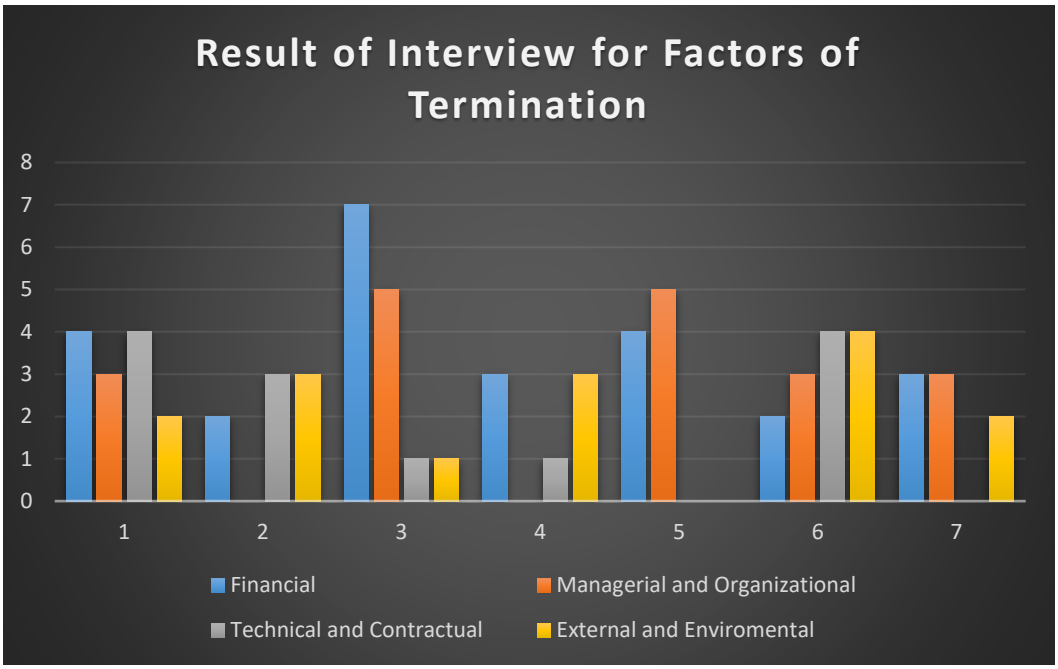



*Figure 4-3: Result of Interview for Factors of Termination*

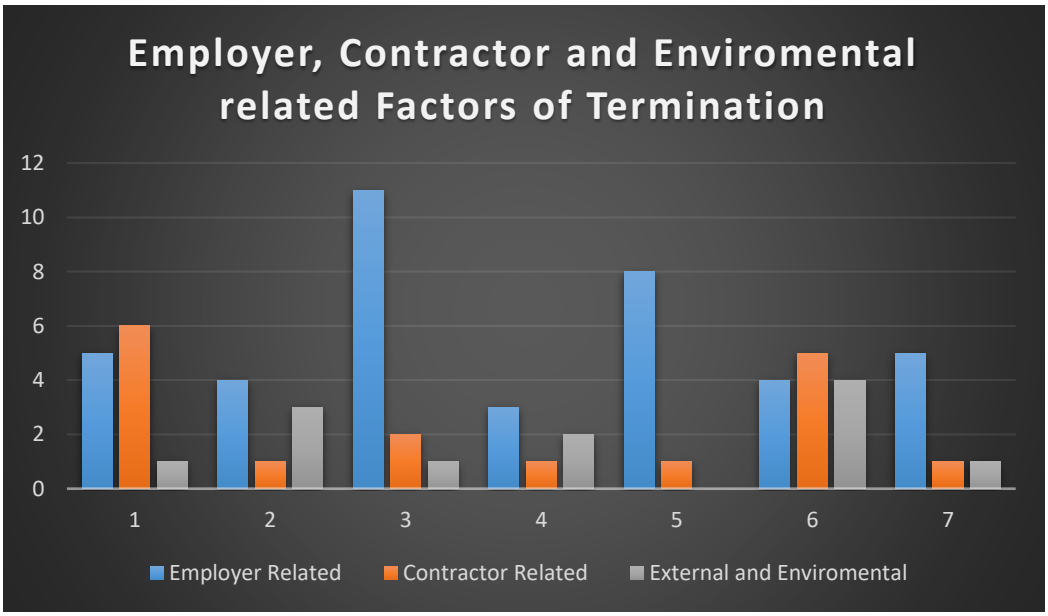



*Figure 4-4: Employer, Contractor and Environmental Related Factors of Termination*

### 4.3.9 Discussion of the Case Study Result for Factors of Termination

The result of the case study analysis indicates that contract termination resulted from shared responsibility between the client and the contractor, with financial and administrative failures on the employer-side compounding performance and capacity challenges on the contractor side.

factors of termination were categorized as financial, managerial and organizational, technical and contractual, and external and environmental.

#### 4.3.9.1 Financial Factors

Financial factors including delayed payment by the employer and financial distress of the contractor was identified in the case study. delayed payment by the employer is ranked as 1st as shown in the result. As stated in the first case analysis, the employer has delayed the effect of advance payment which extends the site handover date far ahead. An interim payment has also been delayed by the employer. This delay was partially due to shortage of budget as the Ministry of finance was unable to release funds as scheduled. This ultimately creates an increase in costs of construction materials, a market price escalation on the contractor. Due to this market price escalation, the Contractor in the 2nd case analysis has claimed 470% increase over bid prices and bankruptcy. Others also claimed a compensation and some of the contractors has also suspended the project.

In the first case, the contractor was on an additional external legal proceeding not related to this contract and the court decision to deduct an amount from the contractor payment has been sent to the employer, which leads the contractor to financial distress, though ranked bottom.

#### 4.3.9.2 Technical and Contractual Factors

Technical and Contractual factors include technical deficiencies and contract administration weaknesses of the employer, and poor performance of the contractor. Of this, poor performance of the contractor was ranked 2nd as shown in the result. In the four cases out of the six, it was stated in the analysis section that the consultant has repeatedly warned the slow progress of the contractors.

The employer, before commencement of the work has to complete the design. But, due to incomplete design during commencement, the start date of the project has been delayed in the second case. This incomplete design has also led to a frequent variation orders and time extension. Additionally, the employer has been granting a time extension frequently instead of giving a solution for the problems. The employer has been experiencing such types of contract administration weaknesses.

#### 4.3.9.3 Organizational and Managerial Factors

Based on the categorization in the literature review section, organizational and managerial factors in the employer's side includes poor project planning, rejection of price adjustment and decision-making problem. The contractor side also includes poor project planning and weak organizational discipline. Accordingly, the findings of the study indicate poor project planning of the contracting parties as the main organizational and managerial factors identified in each case analysis. Additionally, Decision making problem of the employer was also identified in the 2nd case and 6th case as the employer was delaying the approval of variation order and time extensions requiring repeated correspondence. Poor project planning of the employer was also dominant in most cases as the employer was late to mobilize the consultant, to handover the site to the contractor and to provide site access to the contractor, though these has to be finalized prior to the mobilization of the contractor.

As per the finding of the study, Poor project planning of the contractor was ranked 1st among the managerial and organizational factors though ranked 6th in the overall result. Poor project planning of the contractor was reflected in a way that the Contractors was unable to maintain resources and execution strategy leading to repeated performance issues and warnings from the consultant. Furthermore, frequent time extension requests by the contractors also show inability to stick to the schedule as was dominantly noticeable in the 6th case. Additionally, Weak organizational discipline of the contractor was also identified in the 1st and 3rd case as the contractor was absent in problem solving tripartite meeting, though ranked last.

#### 4.3.9.4 External and Environmental Factors

External and environmental factors for this study includes adverse weather condition, shortage of cement, Covid 19 pandemics, shortage of water and security issue. These factors were contributing for the delay of the project. As per the finding of the study, shortage of cement is ranked 3rd following delayed payment by the employer and poor performance of the contractor. The contractors were raising cement supply shortage issue and were requesting the employer to facilitate the supply. Shortage of cement was limiting the progress of the construction activity as stated in each case analysis and frequent time extension was granted considering the cement shortage as not the problem of the contractor. Following cement shortage, adverse weather

condition is the 2nd most dominant external and environmental factors. Most of the projects were experiencing suspension for a limited period of time due to adverse weather condition at the project site.

### 4.3.10 Discussion of the Interview Result for Factors of Project Termination

The result of the interview indicates that contract termination resulted from shared responsibility between the client and the contractor, with financial and managerial failures on the employer-side compounding performance and capacity challenges on the contractor side. factors of termination were categorized as financial, managerial and organizational, technical and contractual, and external and environmental.

The participant of the interview has given their own insight as per the developed template regarding the factors of construction project termination. Their response is analyzed in a qualitative data analysis software Atlas.ti. The discussion regarding the result of the interview for factors of termination is presented below.

#### 4.3.10.1 Financial Factors

Among the factors of termination, financial factors are identified by the participant of the interview as the most dominant one. From the financial factors, delayed payment by the employer is considered as the major factor contributing to the termination of the construction projects. One of the Respondents discuss that the most significant financial challenge was delayed payment by the employer in which the advance payment was delayed for more than 6 months and interim payment delayed for more than one year. Other respondent also states that even though the required period to complete the work as per the contract agreement was 4 months but the advance payment almost delayed for more than 6 months.

The other most dominant factors ranked 2nd following delayed payment by the employer is market price escalation. Due to delay of payment, the contractor has stopped the work and claimed for the release of the payment to finalize the remaining work. During that stoppage time, cost of materials increased high that the contractors could not withstand it and resume works. One of the respondent's states that due to contractor's failure to substantiate required documentation to release the payment have led to delay of payment which ultimately causes market price escalation

in which the paid amount could no longer become as valuable as the expected amount during contract signing.

#### 4.3.10.2 Organizational and Managerial Factors

Based on the categorization in the literature review section, organizational and managerial factors in the employer's side includes poor project planning, rejection of price adjustment and decision-making problem. The contractor side also includes poor project planning and weak organizational discipline. Accordingly, the findings of the interview indicate that decision making problem of the employer is the main organizational and managerial factors ranked 3rd of all the factors as shown in the result section.

One of the respondent states that there was a decision-making problem by higher official of the employer at the project site that in some cases the higher officials do not delegate when they leave the site which creates a delay. On the other side, higher official does not want to sign payment related issue and they were also bureaucrat. The employer was also afraid to adjust the price even though public procurement agency decided to adjust price of construction project by a letter dated April 13,2014 E.C. Rejection of price adjustment by the employer was also the main factors of termination which was ranked 4th as per the participant's response. Regarding this, one of the respondents' states that as per communication with ministry of finance, the employer was able to apply the directives by public procurement agency regarding price adjustment. If the employer were able to apply the price adjustment the project might not be terminated.

#### 4.3.10.3 External and Environmental Factors

External and environmental factors for this study includes adverse weather condition, shortage of cement, Covid 19 pandemics, shortage of water and security issue. Of all the factors, Covid 19 pandemics is ranked 5th following the major financial and managerial factors discussed above. One of the respondent's states that the outbreak of Covid 19 was announced during the mobilization period of the project which leads the suspension the project, then resumed partially by adopting protective protocols of Ministry of Health.

Security issue was also a challenge at the project site that one of the respondents witnessed that a death of contractor personnel was registered at the project site due to the security problem. The respondents also explained that a new dump truck was bought due to the limited capacity of used

trucks to transport materials through the damaged access road to the site. But all the new dump trucks were struggling to arrive the site and has spent more than the expected time on road before reaching the project site. Being that the case, the new dump trucks come out of the project site with significant damage.

#### 4.3.10.4 Technical and Contractual Factors

Technical and Contractual factors include the lowest bidder bidding system of contractor selection, technical deficiencies and contract administration weaknesses of the employer, and poor performance of the contractor. Of this, the lowest bidder bidding system of contract selection is the most dominant factors of termination. The respondents state that the employer when selecting contractors had used a method of lowest bidder bidding system, in which contractors with lowest price will be awarded. Accordingly, contractors only to get the award, were quoting a price which was not representative of the actual market condition. After a few days of commencement, it was observed that the financial capacity of the contractors becomes insufficient to continue with their starting pace and comes low as time goes on.

Additionally, poor performance of the contractor was identified as 7$^{th}$ ranked factors following the lowest bidder bidding system of contractor selection. There were respondents who raised poor performance of the contractor stating that most of the contractors were not committed to execute and finalize the works with in the contract completion schedule.

## 4.4 Organizational Impacts of Termination

The analysis of each case revealed that the project termination has resulted to different Organizational Impacts. These Organizational Impacts are classified into financial, Operational, Reputational, Human Resource and Psychological, Institutional and Strategic as indicated in the literature review section of this study.

### 4.4.1 Result of the Case Study for Organizational Impacts of Termination

The contract and other related document files of all the six-project case is studied and the result corresponding to the Organizational Impacts of project termination is presented in a tabular form. As discussed in the methodology section, a qualitative data analysis software Atlas.ti is used to

analyze the case study data. Accordingly, the result and discussion of the analysis is presented below.

The analysis of the case study revealed several impacts experienced by Ethiopian Sugar Industry Group and the contractors due to the termination of these projects. As shown in the result below, these impacts were grouped into financial, operational, human resource and psychological, strategic and institutional, and reputational categories.

*Table 4-21: Case Study Result of Organizational Impacts*

| Category | Party | Impacts | P1 | P2 | P3 | P4 | P5 | P6 | Frequency | Interpretation |
|---|---|---|---|---|---|---|---|---|---|---|
| Financial | Employer | financial loss due to sunk costs | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 6 | very high |
| | Contractor | reduced cash flow | ✓ | ✓ | ✓ | ✓ | | | 4 | high |
| | | liquidated damage | ✓ | | | | | | 1 | low |
| | | penalty fee | ✓ | ✓ | ✓ | ✓ | | ✓ | 5 | high |
| | | potential litigation fee | ✓ | ✓ | ✓ | ✓ | | ✓ | 5 | high |
| | | overhead expense | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 6 | very high |
| | | lost profit | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 6 | very high |
| Operational | Employer | disruption of workflow | | ✓ | ✓ | ✓ | | ✓ | 4 | high |
| | Contractor | inefficiencies in equipment utilization | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 6 | very high |
| | | administrative and coordination challenges | ✓ | ✓ | ✓ | ✓ | ✓ | | 5 | high |
| | | reduce operational efficiency and affect performance records | ✓ | ✓ | ✓ | ✓ | | ✓ | 5 | high |
| | | idle resource and equipment | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 6 | very high |
| Human Resource and Psychological | Employer | reveal systemic weaknesses in leadership, communication, and decision-making processes | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 6 | very high |
| Reputational | Employer | damaging public trust | ✓ | ✓ | ✓ | ✓ | | ✓ | 5 | high |
| | Contractor | loss of client confidence | ✓ | | ✓ | ✓ | | | 3 | moderate |
| | | challenges securing future contracts | ✓ | | ✓ | ✓ | | ✓ | 4 | high |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Strategic and Institutional | Employer | distort organizational plans | | ✓ | ✓ | ✓ | | ✓ | 4 | high |
| | | delay essential services and infrastructure delivery | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 6 | very high |
| | Contractor | reduce trust among financers and suppliers | ✓ | | ✓ | ✓ | | ✓ | 4 | high |

**P1**: Project One **P2**: Project Two **P3**: Project three **P4**: Project Four **P5**: Project Five **P6**: Project Six

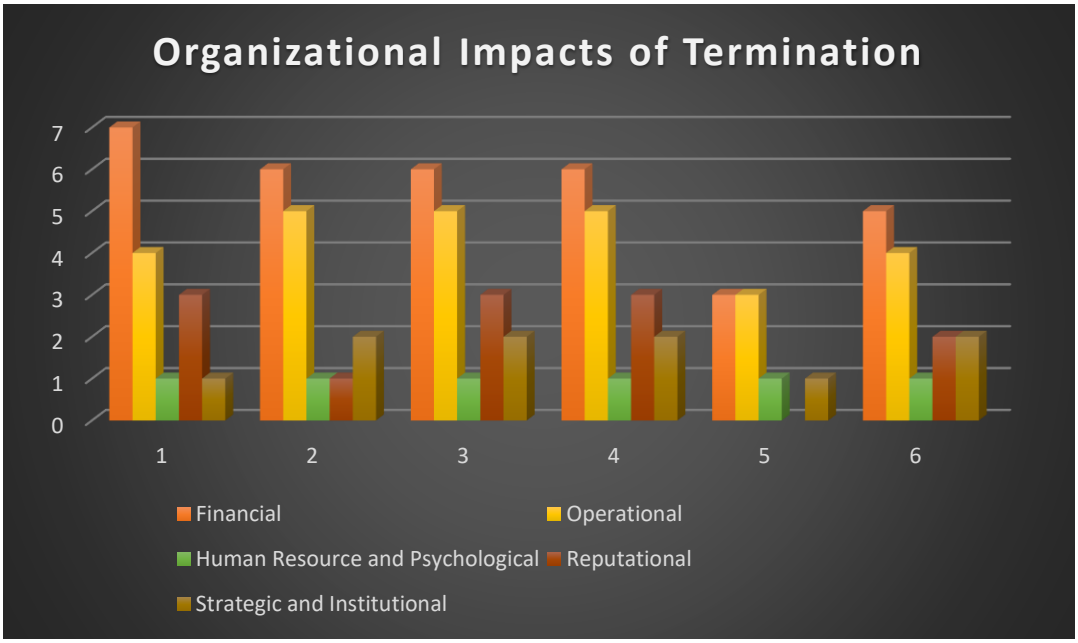
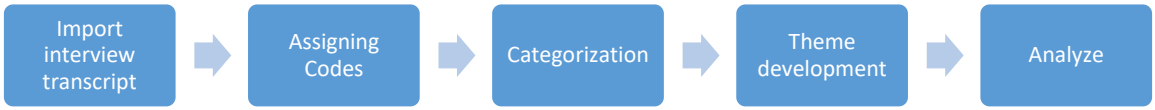



*Figure 4-5: Case Study Result for Organizational Impacts of Termination*

### 4.4.2 Result of Interview for Organizational Impacts of Project Termination

As discussed in the literature review section, the organizational impacts of termination were categorized as Financial, Operational, Human Resource and Psychological, strategic and institutional, and reputational categories. The participant of the interview has given their own insight as per the developed template regarding the organizational impacts of construction project termination. Their response is analyzed in a qualitative data analysis software Atlas.ti in a procedure shown below.




The result of the analysis is presented in a tabular form generated from the software.

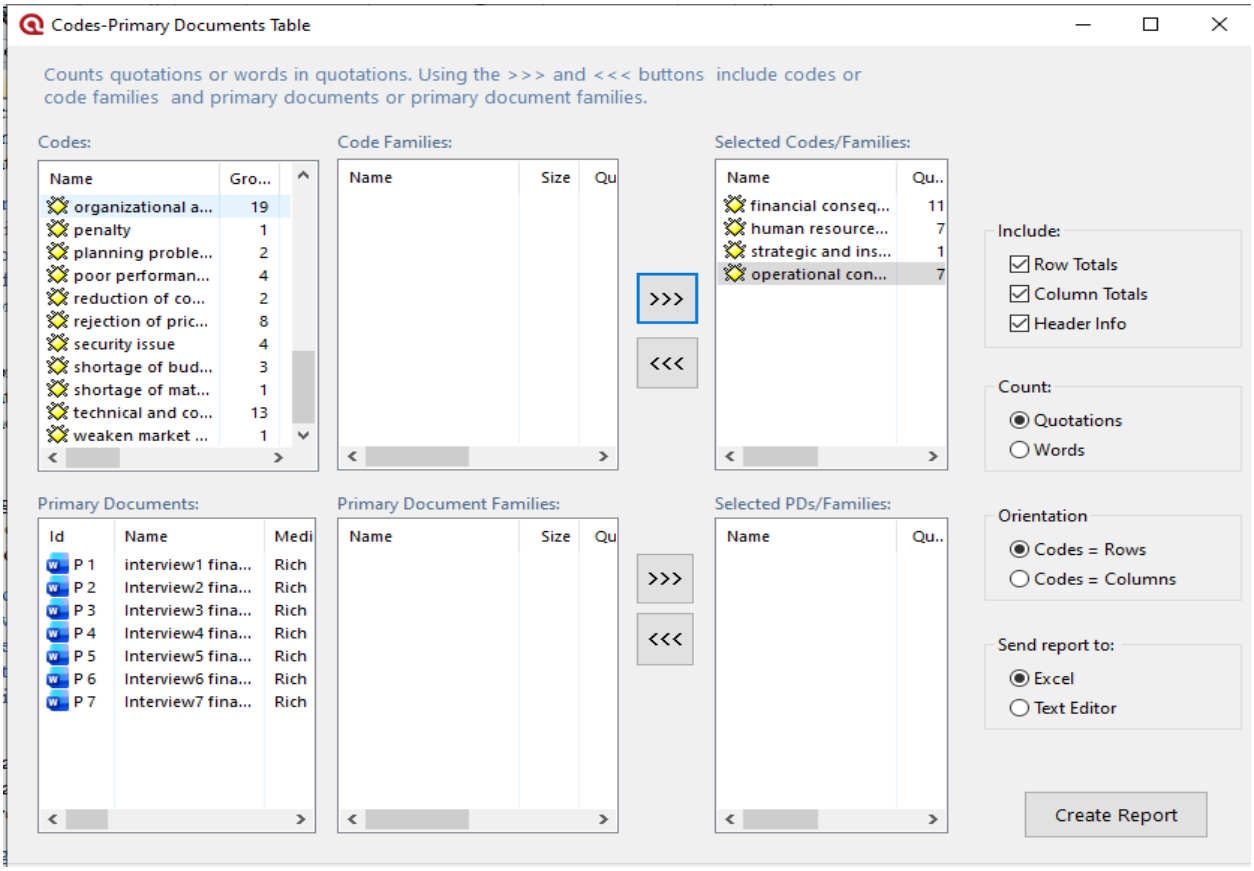


*Table 4-22: Result of Interview for Organizational Impacts*

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**Quotation-Filter: All [98]**

| Category | Party | Impacts | R 1 | R 2 | R 3 | R 4 | R 5 | R 6 | R 7 | TOTAL | Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Financial** | **Employer** | Financial loss due to sunk cost | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 6th |
| | **Contractor** | Financial loss due to delayed payment | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 3 | 3rd |
| | | Financial loss due to ide resource | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 4 | 2nd |
| | | Financial loss due to overhead cost | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 9th |
| | | Financial loss due to Penalty | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 9th |
| **Operational** | **Employer** | Disruption of work flow, resource allocation and project continuity | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 3rd |
| | **Contractor** | Idle resource and equipment | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 5 | 1st |
| **Human Resource and Psychological** | **Employer** | Reduction of confidence to deliver project within budget and schedule | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 6th |
| | **Contractor** | Knowledge loss and reduced institutional capacity | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 3 | 3rd |
| | | Manpower demotivation, Stress and Job insecurity | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 6th |
| **Strategic and Institutional** | **Contractor** | Weaken market position and competitiveness | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 9th |
| | | TOTALS: | 2 | 3 | 4 | 5 | 5 | 5 | 3 | 27 | |

**R1**: Respondent 1; **R2**: Respondent 2; **R3**: Respondent 3; **R4**: Respondent 4; **R5**: Respondent 5, **R6**: Respondent 6; **R7**: Respondent 7

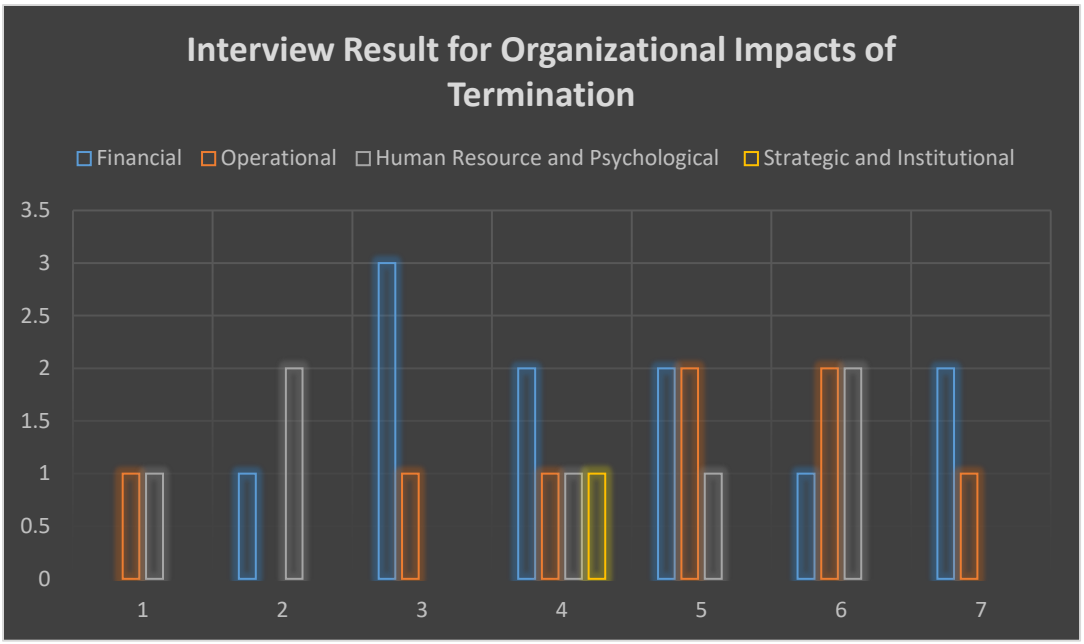



*Figure 4-6:Interview Result for Organizational Impacts of Termination*

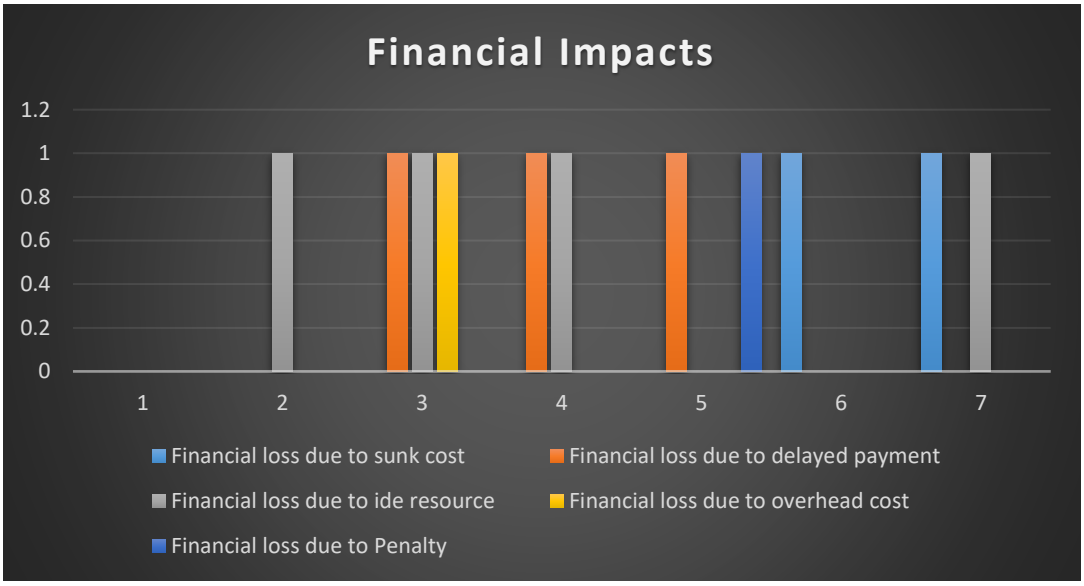
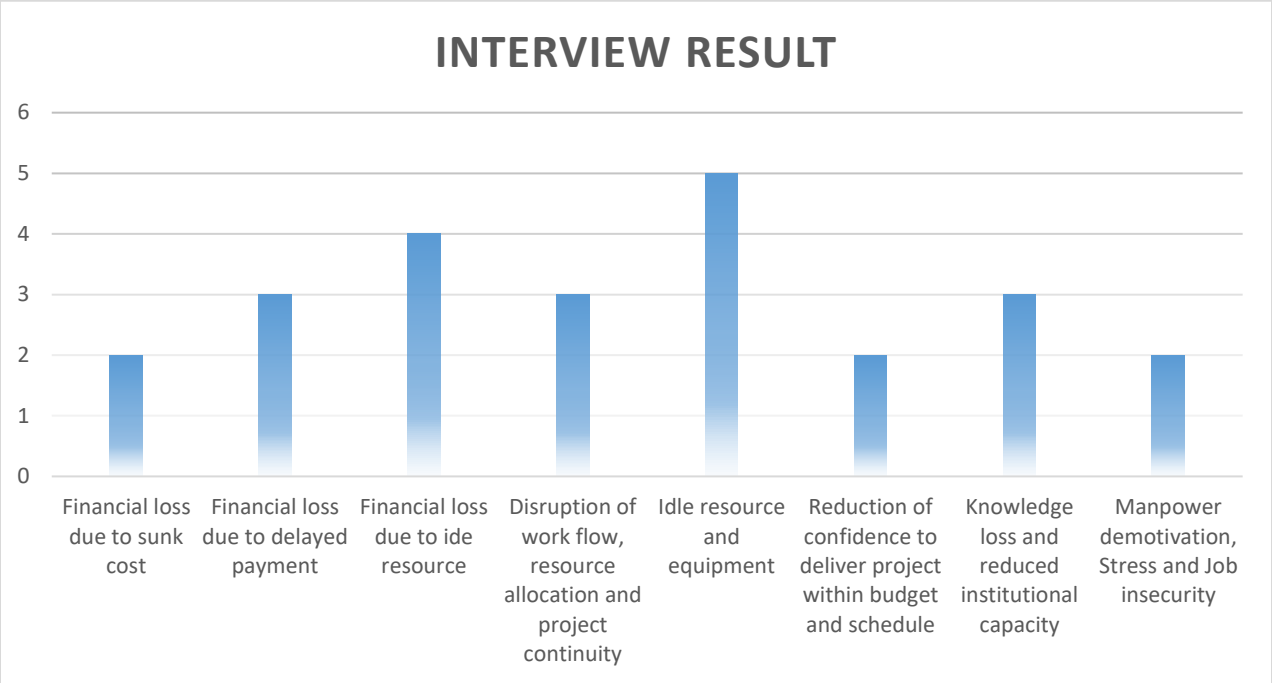



*Figure 4-7: Interview Result on Financial Impacts*



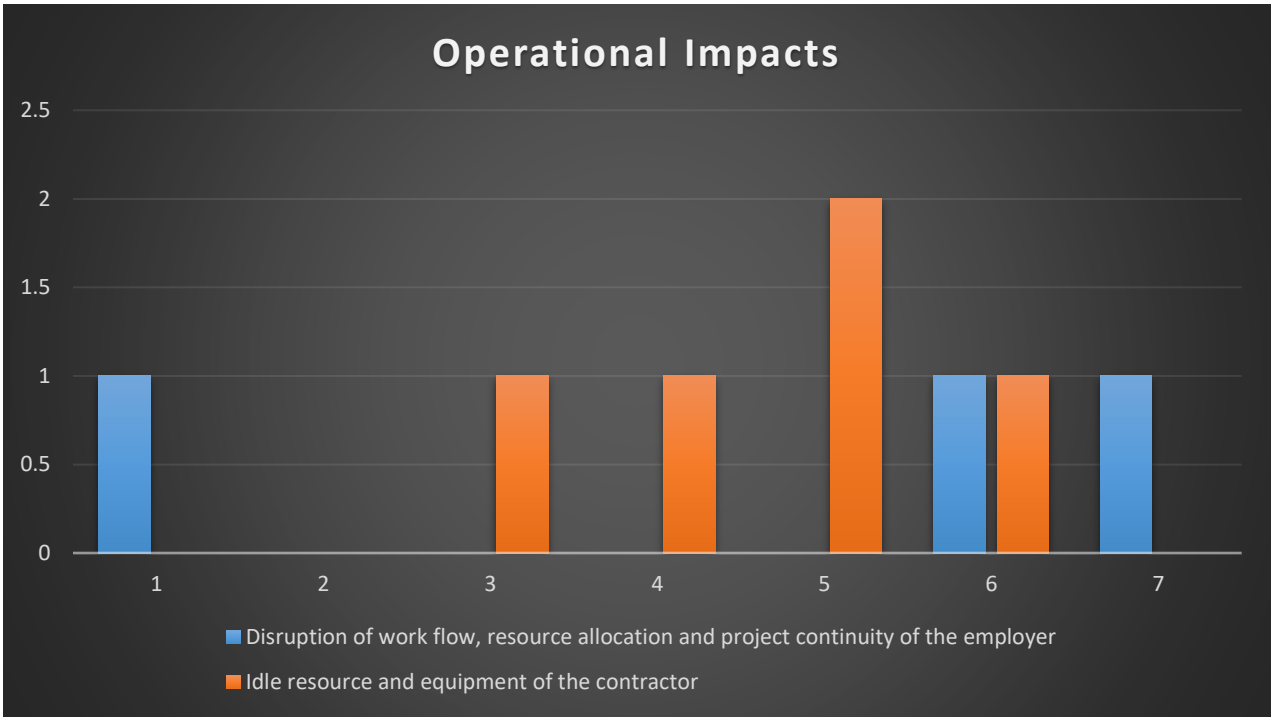
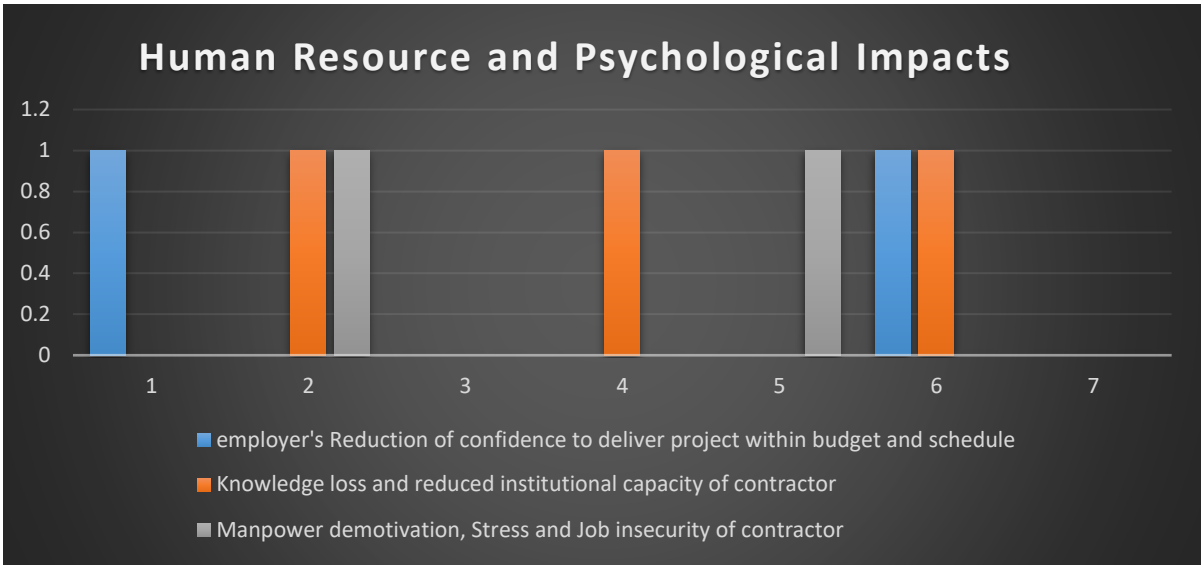




*Figure 4-8: Interview Result for Operational Impacts*

*Figure 4-9:Interview Result for Human Resource and Psychological Impacts*




### 4.4.3 Discussion of the Case Study Result for Organizational Impacts of Termination

The result of the case study analysis indicates that contract termination has caused a significant damage both on the employer and the contractor. impacts of termination were categorized as financial, operational, human resource and psychological, strategic and institutional, and reputational.

In all the cases, termination has more or less produced all types of impacts both on the employer and contractor even though the scale differs.

#### 4.4.3.1 Financial Impacts

The most common organizational impacts were financial losses in which the contractor lost profit and face potential litigation fee and overhead expenses, whereas the employer will be subjected to sunk cost.

The employer faced financial impacts in the form of sunk cost, in which the employer when terminating the project after spending a cost for the project that will not be recovered. The average physical progress of the projects at termination is 31%, which reflects the employer incurred significant sunk cost prior to terminating the projects. Despite delayed in most cases, the employer has paid an advance payment, material onsite payment or interim payment for the contractors of each project for no benefit at the end. The employer, if decided to resume the construction of the

already terminated projects, will incur a new procurement cost in addition to other required project cost.

On the other side, the employer has been delaying payments to the contractor which caused a shortage of cash flow as witnessed from the contractor's correspondence letters. Since every contractor enters into a contract agreement with employer holding a significant profit margin. However, termination of the construction activity has banned the contractors from gaining calculated profit from the operation of the project in addition to the unrecovered overhead expense. In the first case, failure to finalize the construction as per the completion schedule of the contract has led the contractor to be penalized a liquidated damage during the active period of the project. Except the 5$^{th}$ case which is terminated amicably, in all the other cases the contracts were terminated due to default of the contractor which leads the contractor to be penalized and incur future potential litigation fee.

#### 4.4.3.2 Operational Impacts

As discussed in the literature review section, the termination of contracts is an operational disruption because it has an impact on the flow of work, allocated resources and continuity of the project. The finding of the study also revealed that termination of the project has caused an Operational impact both on the employer and the contractor.

The employer with the intention to facilitate the production of sugar has to provide the workers with a required housing facility. Accordingly, the employer has a plan to finalize the housing construction and allocate the facility to the workers. However, the termination of those housing project has disrupted the workflow and resource allocation of the factory. Except only on the two cases that the employer already ignored the factory construction for the time being, disruption of workflow is identified as the main employer financial impacts.

The contractor having allocated the resource and equipment required for the construction, also need to check and allow the efficient utilization of it. However, the temporary stoppage of works due to several reason and extension of intended completion date prevent the contractor from efficiently utilizing the resource and equipment which will ultimately led to become idle. Accordingly, the contractor is impacted by the termination operationally in a way from inefficient utilization of resources which will goes beyond it to become idle ultimately.

#### 4.4.3.3 Reputational Impacts

The employer as a public development enterprise has the responsibility to satisfy the public needs in its own sector. Failure to do so would result to loss of public trust, which is a reputational impact on the employer as stated in the literature review section by (Charles E. Coleman, (2025). The finding of the study also revealed that several projects were terminated which might probably erode the public trust of the employer.

Negative performance record of the contractor due to termination for poor performance have a reputational impact on the contractor. Contractors that have previously worked on a terminated project will be placed on a blacklist or struggle to obtain future contracts due to the damaged reputation of the contractor. This damaged reputation frequently prevents the contractor from obtaining new contracts, new partnerships and/or financing for future work.

#### 4.4.3.4 Strategic and Institutional Impacts

Strategic and institutional impacts was described by Kerzner, (2023), that Project terminations disrupt organizational plans and create disconnections between institutional goals and project portfolios. As an institution, the employer had the plan in fulfilling the housing requirement of the factory resident so that they will become comfortable at the factory. However, due to termination of the project, the employer failed to achieve the organizational plan through delay of service and failure to deliver the housing service.

The contractors also have the plan to become competitive in the construction industry, and to strengthen market position through finalizing construction contracts in a best possible way. But failure to contractually complete construction of public projects will weaken market position of the contractor. Termination of the construction project due to several reason will shift the focus of the contractor from competitiveness to survival and dispute defense against the employer. Furthermore, the termination also led stakeholders like financers to reduce their trust on the contractor regarding provision of guarantee and other form of debts.

#### 4.4.3.5 Human Resource and Psychological Impacts

Human resource and psychological impacts on both the employer and the contractor due to construction project termination were discussed in the literature review section. Concerning the

contractor, the termination of projects has a negative impact on human resources resulting in demotivating and stressing employees and creating job insecurity (Abate et al., 2024). Regarding the employer, repeated project terminations highlight systemic deficiencies in the effectiveness of leaders' communication and decision-making processes (Kerzner, 2023).

But, finding of the study reveals that Human resource and psychological impacts is registered only on the employer. The employer can implement several ways of leadership and decision-making process to protect the construction contract from termination. But failure to protect the contract from termination reveals systemic weaknesses in leadership, communication, and decision-making processes.

### 4.4.4 Discussion of the Interview Result for Organizational Impacts of Termination

The result of the interview indicates that contract termination has caused different types of impacts both on the employer and the contractor. organizational impacts of termination were categorized as financial, operational, human resource and psychological, reputational, and strategic and institutional.

The participant of the interview has given their own insight as per the developed template regarding the organizational impacts of construction project termination. Their response is analyzed in a qualitative data analysis software Atlas.ti. The discussion regarding the result of the interview for organizational impacts of termination is presented below.

#### 4.4.4.1 Financial Impacts

The finding of the interview revealed financial impacts both on the employer and the contractor. Financial loss due to sunk cost is the only identified financial impacts of the employer. However, financial impacts of the employer include financial loss due to overhead cost, idle resource and delayed payment.

All 3 of the employer respondents raised that the employer incurred a sunk cost due to the termination of the construction project. Most of the projects were terminated after a significant progress of the project where the employer almost paid more than 30 percent of the project cost. As per the respondents, all the incurred cost by the employer on the project cannot be recovered as the constructed houses can no longer become useful unless deconstructed.

The major financial impacts of the contractor are financial loss due to idle resource. The contractor's equipment and resource were not effectively utilized for the intended purpose during the active period of the project as there were so many stoppages time. Additionally, the contractor resources were also idle after termination of the project as the employer were not willing for the contractor to demobilize their own equipment before the completion of termination process. One of the respondents explains that equipment's like HCB production machine, concrete mixers, and even materials like sand and finishing materials are still at the project site with no benefit. This has resulted the contractor for a financial loss due to this idle resource and equipment. Financial loss

due to overhead cost was also identified as the respondent states that they are still paying a salary for security guards at the project site.

#### 4.4.4.2 Operational impacts

The finding of the interview revealed operational impacts both on the employer and the contractor. Disruption of workflow, resource allocation and project continuity are the major operational impacts of the employer. The employer having allocated a budget were planning to construct the houses so as to proceed with the planned workflow of the factory. However, termination of the housing construction project has disrupted the workflow, resource allocation and project continuity. The respondents also raised that the delay to avail the facilities for the personnel, the delay to finalize the construction of house and not able to get the required infrastructure have disrupted the work flow.

The contractor's only operational impacts identified by the interview was idle resource and equipment. The contractor's resource and equipment as also stated on the financial impacts were inefficient due to underutilization of equipment and loss of productivity. Due to suspension of works, the contractor equipment's which can generate a better outcome if utilized on other projects, were idle for a significant period of time. The respondents explain that there are several equipment's and resources of contractor like generators with almost current cost of 4-million-birr, 2 concrete mixers, HCB production machine, form work, and reinforcement bar are still collected at the project site with no benefit for anyone else. This is a major operational impact on the contractor that those idle equipment's can serve other projects if demobilized from the terminated project site.

#### 4.4.4.3 Human resource and psychological impacts

The finding of the interview reveals that the high rate of termination by the employer reduces the confidence of the employer staff to deliver project within budget and time. One of the respondent's witnesses that when one project starts, most of the employer staff becomes hesitant about the completion of the project. When contractual issue raised and comes beyond the control of the consultant, stakeholders would become frightened that a problem-solving solution would not be forwarded from the employer.

Termination has resulted to Knowledge loss and reduced institutional capacity of contractor as most of the skilled personnel were leaving the project site due to high idle time at the project. One of the respondent states that after termination of the construction project, the construction company releases almost all his skilled personnel's and even stops to participate in construction works tender by changing sector. The other respondent also explains the frustration created on the skilled personnel of the contractor as they witness the project that they paid a lot for it becomes terminated. Manpower demotivation, stress and job insecurity of contractor was also human resource and psychological impacts on the contractor due to construction project termination.

#### 4.4.4.4 Strategic and institutional impacts

As per some of the respondents of interview, termination has weakened market position and competitiveness of the contractor. Since termination due to default of the contractor is a testimony for the incapability of the contractor, and most of the projects are terminated due to poor performance of the contractor, the termination has weakened market position and competitiveness of the contractor. Some of the contractors are even on pending litigation as the employer started their case to be evaluated by court

## 4.5 Triangulation of Interview and Case Study Finding

### 4.5.1 Introduction

The study identified the factors and organizational impacts of construction project termination using both the case study and interview. To ensure credibility, the findings from interview are compared with findings of the case study. By using this triangulation method, the study strengthens the validity of the findings.

### 4.5.2 Analysis of Factors of Housing Project Termination

Factors of housing construction project termination has been identified using both case study and interview. Accordingly, the results from both sources are analyzed and their level of convergence is identified through the following criteria.

*Table 4-23: criteria for level of convergence*

| Rank Difference | Level of Convergence | Interpretation |
|---|---|---|
| 0 | Very High | Strong agreement between interview and case study findings |
| 1–2 | High | Findings are largely consistent |
| 3–5 | Moderate | Partial agreement exists |
| >5 | Low | Limited agreement between the two data sources |
| Not ranked in one source | Very Low | Identified by only one data source |

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PD-Filter: All [7]
Quotation-Filter: All [98]

| Category | Party | Factors | Interview Rank | Case Study Rank | Level of Convergence |
|---|---|---|---|---|---|
| **Financial** | **Employer** | Delayed Payments | 1st | 1st | very high |
| | | Shortage of Budget | 9th | 14th | moderate |
| | **Contractor** | Financial Distress | 13th | 14th | high |
| | | Market Price Escalation | 2nd | 4th | high |
| **Managerial and Organizational** | **Employer** | Poor Project Planning | not ranked | 8th | very low |
| | | Decision Making Problem | 3rd | not ranked | very low |
| | | Rejection of Price Adjustment | 4th | 10th | low |
| | **Contractor** | Weak Organizational Discipline | not ranked | 17th | very low |
| | | poor project planning and control | 11th | 6th | moderate |
| **Technical and Contractual** | **Employer** | The lowest bidder bidding system of contractor selection | 6th | not ranked | very low |
| | | Contract Administration weakness | 11th | 5th | low |
| | | Technical deficiencies | 15th | 10th | moderate |
| | **Contractor** | Poor performance of the contractor | 7th | 2nd | low |
| **External and Environmental** | **Environmental** | Adverse weather condition | 9th | 6th | moderate |
| | | Shortage of water | not ranked | 17th | very low |
| | **External** | Security Issue | 7th | 8th | high |
| | | Covid 19 Pandemics | 5th | 12th | low |
| | | Shortage of Material/cement | 13th | 3rd | low |

*Figure 4-10: Triangulation of finding on factors*

### 4.5.3 Discussion on Factors of Project Termination

The triangulation reveals that construction project termination was not caused by a single factor but by an interaction of various factors including financial, technical and contractual, managerial and organizational, and external factors.

#### 4.5.3.1 Financial Factors

Financial factors mainly delayed payment was dominant across both sources of data. The study found that delayed payment was the most common factors for both interview and case study findings of the study. The occurrence of prolonged delays in payment by the employer was confirmed in financial documents, letters of correspondence and interview respondents. This significant convergence confirmed that delayed payment is a primary factor for construction project termination.

The other critical financial factors identified by the study is market price escalation. Market price escalation is recognized in both sources as a major financial pressure contributing to disputes and termination. Both sources also categorize financial distress as a low-value contributor to contract termination. Low ranks of both sources for financial distress imply that contractor insolvency did not drive contract termination as the predominant cause.

#### 4.5.3.2 Technical and Contractual Factors

Technical and contractual factors, which includes poor contractor performance and contract administrative weakness of the employer were strongly supported by the case study. Poor performance of the contractor is also the critical factors as it is strongly emphasized in the case study; less emphasized in interviews, suggesting perception differences.

Through case study, progress deficit against the schedule and resulting performance warning evidences literally indicates the contractor's inefficiency in performing the project as per the contract agreement. However, most of the interview respondents did not consider performance related inefficiency as a critical factor.

On the other side, contract administration weaknesses were identified as a factor by interview findings considering slow approvals and administrative inefficiency of the employer. Additionally,

the lowest bidder bidding system of contractor selection is identified as a factor by the interview as it is not directly documented when assessed through case study but may relate to poor contractor performance and planning deficiencies.

#### 4.5.3.3 Managerial and Organizational Factors

Managerial and organizational factors, which includes employer poor planning, rejection of price adjustment and employer administrative weakness were also factors. Decision making problem of the employer and rejection of price adjustment by the employer is identified as a critical factor by the interview finding.

Case study identified disputes over price adjustments and that price adjustment disputes contributed directly to termination. But, decision-making problem of the employer is reflected in the case study as an employer contract administration weakness. Case study reveals an employer's problem in frequently granting time extensions and/or approving variations without giving long lasting solution as it relates to the contract, and these were weaknesses in the employer's contract administration. Therefore, both sources imply there are institutional weaknesses of the employer; however, they are presented in two different ways. Poor project planning and control of the contractor is identified as a contributing managerial and organizational factors.

#### 4.5.3.4 External and Environmental Factors

External factors like COVID-19 and material shortage also intensified existing vulnerabilities. Shortage of material specifically cement was delaying project activities as case study reveals that the contractors were repeatedly requesting the employer to facilitate the supply of cement from mugger and other cement factories. Covid 19 was another challenge during the active construction phase of the project, that activities involving group of peoples was restricted.

### 4.5.4 Analysis of Organizational Impacts of Housing Project Termination

Organizational Impacts due to housing construction project termination has been identified using both case study and interview. Accordingly, the results from both sources are analyzed below.

*Table 4-24: Criteria for Level of Convergence*

| Rank Difference | Level of Convergence | Interpretation |
|---|---|---|
| <=5 | Very High | Strong agreement between interview and case study findings |
| Not ranked in one source and ranked > 3rd in another source | High | agreement exists |
| 5-10 | Moderate | partial agreement exists |
| Not ranked in one source and ranked <=2nd in another source | Low | Limited agreement between the two data sources |
| Not ranked in both sources | Very Low | Identified by only one data source |

*Table 4-25: Triangulation of Interview and Case Study for impacts of termination*

| Category | Party | Impacts | Interview finding | | Case study finding | | Level of convergence |
|---|---|---|---|---|---|---|---|
| | | | Total | Rank | Total | Rank | |
| **Financial** | **Employer** | Financial loss due to sunk cost | 2 | 6th | 6 | very high | Very high |
| | **Contractor** | Financial loss due to delayed payment | 3 | 3rd | not ranked | | high |
| | | Financial loss due to idle resource | 4 | 2nd | not ranked | | high |
| | | Financial loss due to overhead cost | 1 | 9th | 6 | very high | Moderate |
| | | Reduced cash flow | not ranked | | 4 | high | high |
| | | Liquidated damage | not ranked | | 1 | low | low |
| | | Lost profit | not ranked | | 6 | very high | high |
| | | Financial loss due to Penalty | 1 | 9th | 5 | high | Moderate |
| **Operational** | **Employer** | Disruption of work flow, resource allocation and project continuity | 3 | 3rd | 4 | high | Very high |
| | **Contractor** | Inefficiencies in equipment utilization | not ranked | | 6 | very high | high |
| | | Administrative and Coordination challenges | not ranked | | 5 | high | high |
| | | Reduce operational efficiency and affect performance records | not ranked | | 5 | high | high |
| | | Idle resource and equipment | 5 | 1st | not ranked | | high |
| **Human Resource and Psychological** | **Employer** | Reduction of confidence to deliver project within budget and schedule | 2 | 6th | not ranked | | low |
| | | Reveal systemic weaknesses in leadership, communication, and decision-making processes | not ranked | | 6 | very high | high |
| | **Contractor** | Knowledge loss and reduced institutional capacity | 3 | 3rd | not ranked | | low |
| | | Manpower demotivation, Stress and Job insecurity | 2 | 6th | not ranked | | low |
| **Reputational** | **Contractor** | loss of client confidence | not ranked | | 3 | moderate | low |
| | | challenges securing future contracts | not ranked | | 4 | high | high |
| **Strategic and Institutional** | **Employer** | Distort Organizational Plans | not ranked | | 4 | high | high |
| | | delay essential services and infrastructure delivery | not ranked | | 6 | very high | high |
| | **Contractor** | Reduce trust among financers and suppliers | not ranked | | 4 | high | high |
| | | Weaken market position and competitiveness | 1 | 9th | not ranked | | low |

### 4.5.5 Discussion on Organizational Impacts of Project Termination

The findings generated through triangulation show that there are interdependent financial, operational, organizational, reputational, and strategic impacts associated with terminating a construction project. In addition, these findings verify that construction project terminations have a strong impact on both the construction contractor and employer organizations.

#### 4.5.5.1 Financial impacts

The financial impact of project termination was displayed to be the main forms of impacts resulting from project termination. Comparatively, high levels of convergence were observed with regard to financial loss due to overhead expenses, penalty, and sunk cost. The findings also showed that contractors' financial capacity was greatly reduced by delayed payment and idle resource also has a major financial impact on the contractor.

#### 4.5.5.2 Operational Impacts

Project interruptions due to termination disrupted workflow, resource allocation, and affected the way projects were coordinated. Contractors were inefficiently utilizing their equipment and that they even had extended periods of time when there were no workers or machines operating. Additionally, the information from project records indicated that there were very frequent interruptions and lengthy delays associated with remobilizing to continue the construction effort. The overall conclusion from these findings is that terminating a project has an effect not only on the terminated project, but will have an overall negative impact to the operating efficiency of the organization.

#### 4.5.5.3 Human Resource and Psychological Impacts

Furthermore, the research discovered that there are viable indications of psychological and human resource impact. Contractors noted that uncertainty around project completion negatively impacted morale and caused stress on job security for the employee and staff working at the project. Employer representatives have also discussed reduced confidence in their respective organizations' ability to deliver a project on time and within budget. Moreover, the results from this case study clearly demonstrate systemic weaknesses in leadership decision-making, communication and

management; thus, indicating that the project termination is an indication of internal and managerial weaknesses in the organization.

#### 4.5.5.4 Reputational Impacts

In addition to this, Project termination has clearly reduced client confidence and negatively impacted the contractor's capability to obtain future contracts. Contractors indicated that termination of a project negatively impacted their perceived credibility with respect to the tendering process and eroded the level of confidence. These findings indicate that project termination impacts more than just a contractor's immediate financial loss and can also negatively affect long-term organizational competitiveness and position within the marketplace.

#### 4.5.5.5 Strategic and Institutional Impacts

Both the case study and interview data highlighted different institutional and strategic impacts of the project termination. The evidence shows that termination of a project has broader organizational impacts than just the individual failure of the project affected by the termination.

# CHAPTER FIVE

# 5. CONCLUSION AND RECOMMENDATION

## 5.1 Conclusion

The study explores the factors and organizational impacts of a housing construction project termination. The findings indicate that several interrelated factors namely financial, managerial and organizational, technical and contractual, and external and environmental factors contribute to the construction project termination.

Delayed payment by the employer was found to be the most significant financial factors, ranking first in both case study and interview findings. The consistent ranking across both data sources reflects strong convergence and confirms that payment delays become the primary factors of the termination. Market price escalation was also identified as a major factor, reflecting the influence of inflation and material cost escalation. In comparison, contractor financial distress and shortage of budget were rated as lower, indicating that termination was more likely related to cash flow management than by a lack of budget or bankruptcy.

The case study mainly points to poor contractor project planning as a significant managerial and organizational factors, while the interview findings have emphasized employer decision-making problem and the rejection of price adjustment requests. These findings indicate that the existence of managerial inefficiencies on both the employer's and contractor's side contributed towards the termination of these projects.

The case study identified the contractor’s poor performance as being the 2$^{nd}$ most common cause of construction project termination. While Contract administration weaknesses of the employer are identified as a contributing factor by the case study, the lowest bidder bidding system of contractor selection is identified as a factors by the interviewee.

External and environmental factors, COVID-19 pandemic and material shortages were also found to aggravate the contract terminations.

The findings of the study show that termination of the construction projects has multidimensional impacts both on the contractor and the employer. The employer suffered primarily from financial loss due to sunk cost. Financial impacts on contractor were much broader in type and amount. Delay in payment from the employer side has produced cash flow disruptions or instability for the contractor. Idle resources and equipment created a non-productive cost. Overhead costs continued even with a project suspension caused an additional financial burden. In some cases, liquidated damages were an additional financial burden on the contractor. Overall, financial impacts represented the most immediate impact of project termination for both parties.

The study reveals an operational impact both on the employer and the contractor. Termination has impacted the capacity of an employer organization to complete projects and to operate efficiently. Due to termination, the employer is constrained to achieve its overall organizational objectives. For the contractor, termination results to lack of productivity and operational inefficiencies. Due to failure to utilize the resources effectively, the overall productivity and operational efficiency of the contractor is reduced.

The study also identified human resources/psychological impacts. Project termination caused a loss of confidence to the employer in delivering projects on time and/or on budget, and therefore, have a negative effect on the morale of the management. To the contractor, project termination caused a loss of knowledge and decreased institutional capacity, as experienced individuals left the organization due to the discontinuation of the project. Additionally, psychological issues including lack of motivation to work, stress, and job insecurity were distinguished as impacts of the termination.

Losing public credibility is the identified reputational impacts on the employer. For the contractor, loss of client confidence and challenges to secure future contract are the main impacts of termination. The finding indicates a strategic and institutional impacts mainly on the employer, as the termination delayed essential services and infrastructure delivery.

The finding suggests that construction termination is more than a contractual termination; it's a systemic organizational setback with multiple impacts in all financial, operational, human resource, strategic, and reputational terms that mutually reinforce one another.

## 5.2 Recommendation

Based on the findings of the study regarding the factors of termination and their organizational impacts, the following recommendations are provided. These recommendations are designed to identify and remedy the underlying causes of construction project terminations while helping to reduce the multidimensional impact of termination.

**For research/Academics:**

- Undertaking multiple studies and advanced analysis technique to further validate and refine the conclusion using the finding of this study as a foundational understanding.

**For Employer in the case study:**

- Launching efficient financial planning and payment administration methods.
- Developing comprehensive project planning process prior to the start of the project as well as improving ongoing monitoring of project progress.
- Strengthening contract administration and decision-making mechanisms.
- Establishing capacity-building programs, including training on professional contract administration and resolving contractual disputes.
- Incorporate price adjustment provision for construction contracts.
- Implement quality and cost-based selection instead of the lowest evaluated bidding system of contractor selection.
- Implement mechanisms for institutional learning.

**For Contractor in the case study:**

- Implementing comprehensive risk management strategies such as contingency budgeting for price fluctuations and supply chain management planning.

**For Regulators/Industry practice:**

- Provide ongoing training and development programs for construction industry professionals.
- Establishing mandatory evaluating program prior to the formal termination of public construction project

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# Appendix

## Semi Structured Interview Guide

### Background Information

- Please describe your role in the organization and your involvement in the terminated construction project(s).

### Factors of Project Termination

#### Financial Factors

- In your experience, how did financial factors (e.g., delayed payment, budget shortages, cost escalation or any other) contribute to project termination?
- Which financial challenges were most significant, and why?

### Managerial and Organizational Factors

- What managerial or organizational weaknesses (planning, supervision, decision-making, contract administration) contributed to termination?
- How did coordination between client, consultant, and contractor influence the project?

### Technical and Contractual Factors

- Were there technical problems (design errors, incomplete drawings, technical changes, quality issues) that contributed to project termination? Can you give examples?
- How did contract terms, variations, and disputes affect the progress and eventual termination of the project?
- Were there gaps or ambiguities in the contract that contributed to disagreements?

### External Factors

- Did external factors (regulatory issues, material shortages, security issue, political/environmental factors, COVID-19) influence the project termination? How?

### Organizational Impacts

- What were the major impacts of the project termination for the organization (Financial, Operational, Human Resource and Psychological, Reputational, Strategic and Institutional)?

- How did the termination affect organization (contractors and client)?
- Did the termination create any long-term operational challenges?

**Lessons Learned and Recommendations**

- What lessons did the organization learn from the terminated project(s)?
- What measures should be taken to prevent future project terminations?
- What improvements would you recommend in contract administration or project planning?

**Closing**

- Is there anything else you would like to add regarding factors and impacts of construction project termination?

## Sample Case Study Project Document

A contract agreement for the construction of residential houses has been signed in October 27, 2020. The contract was based on conditions of contract of the standard bidding document for the procurement of works issued by the PPA; Version 1, August 2011 for national competitive bidding. The commencement date of the contract was 10 days after site handover, which was made on November 21, 2020. The intended completion date was 120 calendar days excluding 9 days for mobilization. Accordingly, original completion date was March 30, 2021.

The project was previously commenced by anther contractor, which was terminated and retendered which resulted the arrival of the new Contractor. Consequently, the construction would include dismantling of the previously commenced construction. The project office was responsible for the tendering and contract signing under the authority delegated by the Ethiopian Sugar Industry Group head office.

The contractor requests an advance payment (30%) in a letter dated October 27, 2020, which was approved by the project office and submitted to the employer head office for further approval in a letter dated October 27, 2020. the employer then approved 20% as per the contract agreement and submitted to finance department in a letter dated 23 November 2020. However, the payment was received on March 1 2021. The remaining second advance payment (10%) which has to be paid after disbursement of the first advance payment, has been requested by the contractor in a letter

dated April 5, 2021 and approved by the consultant in a letter dated April 21, 2021. The employer then approved and submitted to finance department in a letter dated May 12, 2021. However, the payment was received on July 14, 2021.

The contractor in a letter dated November 24, 2020, December 14, 2020 and February 11, 2021 notified the employer about delay of advance payment stating advance payment has to be released no later than 28 days after contract signing. In a letter dated February 11, 2021, the contractor gives warning for contract termination if the payment is not released within 30 days.

To ensure optimal project performance, the Project Office, in a letter dated January 18, 2021, formally delegated full management authority for the project to the employer's Project Management Department. In another letter dated February 16, 2021 the project office requests the employer to modify the way of managing the project through the project office upon his previous delegation by the employer head office to the main project department of employer.

The contractor in a letter dated march 11, 2021 requested for the facilitation of cement.

The employer in a letter dated May 6,2021 notify the consultant that they are not able to approve the second advance payment as the contract time was completed in March 29,2021 without approved time extension claim. The contractor in a letter dated March 12, 2021 requested the consultant to approve an additional 120 days for the delay of advance payment. After review of the submission, the consultant accepted an extension of 103 days and requested the approval of the employer in a letter dated April 28, 2021.the employer then in a letter dated 10 May 2021 approved extension of time claim 1.

The contractor in a letter dated July 5, 2021 requested the consultant to approve an additional 166 days for the delay of advance payment (115 calendar days), demolishing of existing structure (20 calendar days), rainfall (31 calendar days). After review of the submission, the consultant accepted an extension of 86 calendar days and requested the approval by the employer in a letter dated August 4, 2021. The employer in a letter dated 01 September 2021 approved the extension of 86

days as an extension of time claim 2 for which 29 days are due to weather condition, 16 days are due to demolishing of previously existing structure and 39 days are due to advance payment delay.

The contractor notified the consultant about material delivery problem due to lack of foreign currency and security issue in a letter dated July 25, 2021.

The consultant in a letter dated September 30,2021 notified the contractor that the progress reached 35.18%, which indicates the construction cannot be completed till completion date of October 5,2021 and request to submit delay justification if any. Accordingly, the contractor in a letter dated October 7,2021 requested the consultant to approve an additional 181 days for which 61 calendar days are due to the delay of advance payment, 30 calendar days are due to access road problem, 60 calendar days are due to rainfall, 30 calendar days are due to material supply problem. After review of the submission, the consultant accepted an extension of 76 days and requested the approval of the employer in a letter dated October 28, 2021.the employer in a letter dated 03 November 2021 approved extension of 76 days as an extension of time claim 3 as of October 6, 2021 for which 33 days are due to rain case, 34 days are due to material delivery problem and 9 days are due to advance payment delay.

The contractor in a letter dated October 7, 2021 requested Interim payment number one, which was approved by the consultant in a letter dated November 5, 2021 and submitted to the employer. The employer then approved and request the finance department to release the payment in a letter dated November 23, 2021. However, due to delay to release the payment, the contractor notified the employer about delay of Interim payment number one in a letter dated January 22, 2022, which in response the employer in a letter dated January 27, 2022 notified the finance department to release the payment to avoid any impacts. the contractor notified the employer for the second time about delay of the payment in a letter dated February 9, 2022, which in response the employer in a letter dated February 10, 2022 notified the finance department to release the payment, failure to do so might lead the contractor to claim for compensable event in which the project management department would not be accountable.

The contractor notified the consultant about delay of IPC1 in a letter dated December 9, 2021, January 22, 2022 and February 9, 2022. The consultant in a letter dated February 14,2022 notify

the employer about the demobilization of the contractor due to the delay and request the employer to release interim payment number one.

The contractor has requested the consultant for approval of 184 days as Extension of time number 4 due to rainfall, delay in advance and Interim payment number one in a letter dated December 16, 2021. The consultant after reviewing the submission, requests the employer for approval of 45 days in a letter dated February 4, 2022. However, the employer requests the consultant to recheck their submission and resubmit for approval in a letter dated march 8, 2022.

The consultant in a letter dated January 21, 2022 has requested the contractor to submit a justification about suspension of work. In response the contractor claimed for delay of Interim payment number one in a letter dated January 22, 2022. Accordingly, the consultant stating no activities are under execution, recommend for the employer to release the payment in a letter dated February 3, 2022. The consultant in a letter dated February 9, 2022 issue a warning letter to the contractor due to suspension of work.

The contractor notified the security issue to the consultant in a letter dated February 21, 2022, April 4, 2022, November 8, 2021 and May 5, 2022. The contractor also notified the consultant about material delivery problem due to lack of foreign currency and security issue in a letter dated March 20, 2022.

The contractor request for an extension of 57 calendar days and 37 calendar days in a letter dated January 28,2022 and march 20,2022 respectively. The consultant incorporating the missed 21 days from extension of time two, approved 115 calendar days as Extension of time 5 and 6 in a letter dated May 9, 2022. However, the employer approved 94 calendar days of time.

The contractor in a letter dated February 25, 2022 request the employer for the facilitation of cement. However, the employer requests the consultant in a letter dated March 9, 2022 to quantify the required cement so as to facilitate accordingly. Having the quantity from the consultant, the employer request mugger cement factory to avail the required cement in a letter dated march 24, 2022. The contractor in a letter dated May 18, 2022 request the employer for the facilitation of

cement. Accordingly, the employer request mugger cement factory to avail the cement in a letter dated May 19, 2022.

The contractor requested interim payment number two in a letter dated May 16, 2022, in which the consultant in a letter dated June 23, 2022 approved it. Accordingly, the employer approved it in a letter dated July 5, 2022.

The contractor in a letter dated May 6,2022 request for an extension of 90 calendar days as extension of time 7 for which 45 of them was due to increased volume of work and 55 days due to security problem. The consultant approved 67 calendar days as Extension of time 7 in a letter dated June 23, 2022 which would start as of May 29, 2022. The employer then approved 67calendar days in a letter dated July 4, 2022.

The consultant in a letter dated June 23, 2022 request the employer to approve excess in quantity for sub and super structure works and approval was given by the employer in a letter dated July 28, 2022.

The contractor in a letter dated July 15, 2022 request the employer for price adjustment as per the direction of federal procurement and ministry of urban development.

The consultant requests the project office for an extension of 60 calendar days due to security problem and variation work payment 1 in a letter dated august 25, 2022 and approved by project office in a letter dated august 29, 2022 as Extension of time number 9.

The contractor notified the consultant about cement shortage in a letter dated October 13, 2022.

The contractor request for an extension of 60 calendar days as extension of time number 10 in a letter dated October 14, 2022. The project office approved it in a letter dated October 24, 2022. The employer approved 12 calendar days as extension of time number 8 and 60 calendar days as extension of time number 10.

The contractor stating delays of about 411 days (172 due to advance delay,16 due to demolition of constructed site,25 day due to due to delay of IPC1,34 day due to material shortage,82 day due to

security issue,10 day for additional work,12 day due to access to the site problem,60 day due to delay of payment for additional work) solely by the employer have resulted for an additional cost and requests the employer for a compensation in a letter dated October 14,2022. Again, in a letter dated October 27, 2022 the contractor requests for a compensation, which in response the employer notify the contractor to bring the request through the consultant in a letter dated October 28, 2022.

A tripartite meeting has been held on November7, 2022 to discuss on the issue, at which the contractor raised the delay of advance for about 120-day, delay of interim payment number one for about 4-month, delay of Interim payment number two for about 58 days, security problem, price inflation, shortage of cement and foreign currency, request for a price adjustment and compensation payment. On the meeting it was concluded for a proposal to be submitted by the contractor which either enable continuation of execution without price adjustment or announce their decision if they don't want to continue. accordingly, the contractor submitted the proposal in a letter dated December 5, 2022, which the consultant evaluated and rejected it in a letter dated January 3, 2023 stating the contractor incorporates a request for compensation to continue the execution.in response the contractor in a letter dated January 9, 2023 notify the employer that the consultant evaluation is not acceptable and request for another meeting.

The contractor request for an extension of 125 calendar days as Extension of time number 11 in a letter dated January 9,2023 for which 40 days are due to cement shortage, 25 days are due to delay of variation payment, 60 days due to delay for compensation payment.

The project office in a letter dated January 18,2023 notify the consultant about the stoppage of work by the contractor for consecutive two months stating completion date as per EOT 10 was December 15,2022 and the progress is 49.03 %. In the letter, the project office requests the consultant to order the contractor to remobilize and complete the works.

The consultant in a letter dated March 15, 2023 and April 25, 2023 request the contractor to remobilize. However, due to non-response from the contractor, the consultant then issues the first warning letter to the contractor in a letter dated February 14, 2023 and second warning in a letter dated march 15, 2023 and finally recommend the employer to terminate the contract as per GCC

73 in a letter dated May 17, 2023.accordingly, the employer terminates the contract in a letter dated July 18, 2023.