



**ADDIS ABABA UNIVERSITY
SCHOOL OF COMMERCE**

**Effect of Conflict Management on Projects Success:
The Case of Ethiopian Highway Construction Projects**

By:
Nahom Workneh Kelile

Advisor:
Fisseha A. (PhD)

**In Partial Fulfillment of the Course Requirements in Graduate
Studies of Project Management**

**June, 2021
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By:
Nahom Workneh Kelile

**A Research Paper Submitted to:
Project Management**

**Presented In Partial Fulfillment for Master of Arts Degree in
Project Management**

Advisor:
Fisseha A. (PhD)

Addis Ababa University
School of Commerce
Addis Ababa, Ethiopia
June, 2021

Statement of Declaration

I, Nahom Workneh Kelile, hereby declare that the work contained in this thesis, **“Effect of Conflict Management on Projects Success: The Case of Ethiopian Highway Construction Projects”** is my own original work and that I have not previously in its entirety or in part submitted at any university for a degree.

Signature: _____ Date: _____

Addis Ababa University
School of Commerce
Graduate Studies
Certification

This is to certify that the thesis prepared by Nahom Workneh Kelile, entitled: “**Effect of Conflict Management on Projects Success: The Case of Ethiopian Highway Construction Projects**” submitted in partial fulfillment of the requirements for the Degree of Master of Arts in Project Management complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Signed by the Examining Committee

Fisseha Afework (PhD)

Advisor

Signature

Date

Seifu M. (PhD)

Internal Examiner

Signature

Date

Hailemichael (PhD)

External Examiner

Signature

Date

Chair of Department or Graduate Program Coordinator

Glossary

The following are definitions of major terminology identified in the study, with references to the Oxford Dictionary.

- ❖ **Avoidance:** the action of keeping away from or not doing something.
- ❖ **Bestowed:** confer or present (an honor, right, or gift).
- ❖ **Cogency:** the quality of being clear, logical, and convincing; lucidity.
- ❖ **Collaboration:** the action of working with someone to produce something.
- ❖ **Comprehend:** grasp mentally; understand.
- ❖ **Compromise:** an agreement or settlement of a dispute that is reached by each side making concessions.
- ❖ **Confrontation:** a hostile or argumentative situation or meeting between opposing parties.
- ❖ **Cooperation:** the action or process of working together to the same end.
- ❖ **Efficacy:** the ability to produce a desired or intended result.
- ❖ **Peroration:** the concluding part of a speech, typically intended to inspire enthusiasm in the audience.
- ❖ **Philanthropy:** the desire to promote the welfare of others, expressed especially by the generous donation of money to good causes.
- ❖ **Prevalent:** widespread in a particular area or at a particular time.
- ❖ **Silo:** isolate (one system, process, department, etc.) from others.
- ❖ **Strategy:** a plan of action designed to achieve a long-term or overall aim.

Abstract

This paper is prepared with the aim of addressing the impact of conflict management on the success of construction projects, with particular focus given to highway projects of Ethiopia. Conflicts arise on a regular basis in our daily lives. Conflict in project management is inevitable. Construction projects have a high risk of conflict because they include people with various backgrounds and orientations working together to accomplish a complex mission. Differences in beliefs, attitudes, needs, priorities, perceptions, resources, and personalities can lead to conflict in project teams. Conflict resolution is a key issue to manage when dealing with diverse stakeholders. By analyzing in depth the most relevant and implicit aspects of conflict, this study focuses on examining how the five main strategies of - avoid, confront, collaborate, compromise and cooperate, in solving common disagreements are adopted by considering different conflict sources. The general consensus that conflict has negative impact on projects success would be assessed in relation to the different causes, cultural implications and the common approaches of conflict resolutions used in construction projects within our country, Ethiopia. To this cause, both primary and secondary data collections sources would be used in order to get a better understanding of the same. Different project stakeholder inputs would be statistically analyzed to see the impact conflicts have in determination of highway construction projects success.

Acknowledgement

First and foremost, all my credit goes to the Almighty God for his guidance and for making the seemingly impossible challenges in life possible. Next, I would like to express my deepest gratitude to my advisor, Fisseha Afework (PhD), for his timely, informed, and comprehensive feedback and ideas for the preparation of this paper during these trying circumstances of COVID.

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Chapter 1: Introduction

1.1 Background of the Study and Organization

1.1.1 Background of the Study

Project management, as described by the Project Management Institute - PMI, is *"the application of knowledge, skills, resources, and techniques to project activities in order to meet project requirements."* This statement outlines the criteria for completing the project according to plan using project management methods. Further, other criteria for project managers to achieve project goals also include initiating, preparing, implementing, tracing, and managing the project from commencement to finish while satisfying all stakeholder requirements.

The project manager leads the project team to success by encouraging employees and crew members involved to complete the project on schedule, on budget, within the scope and to the satisfaction of the client. The three constraints in project management are scope, cost, and time although other factors are relevant as long as they have a negative impact on projects if not properly handled. Project managers, as the team's chief, are responsible for a number of problems that must be addressed in order for the project to be completed successfully.

From a project's start to finish, the project manager's main focus is on the project's initiation, preparation, implementation, and close down, and any conflict that occurs during these processes is resolved in a reasonable manner to meet the project's goals. The project manager uses the requisite expertise in leadership, management, stakeholder relationships, and conflict management style to achieve project goals by empowering the team to reduce dysfunctional conflicts during the project life cycle.

The project manager should also focus on an appropriate proactive conflict management style, which, when properly handled, allows team members to modify and improve as individuals as a result of the settlement of the issue which had driven the conflict and further for the project to be successful. This, in the modern day of management, is proven to be a key factor in altering crew relations and expediting projects success.

Thus, it is necessary to primarily define conflict management to fully understand the project managers' obligations in avoiding destructive conflicts in a project setting. Conflict management, also known as conflict resolution, involves having a

workplace that precludes conflict and a certified management team that successfully handles and resolves workplace issues.

Professionals' goal in the workplace should not be to prevent confrontation as a whole, but to successfully resolve it. Employees with a good personal conflict solving skills are better able to handle workplace difficulties. Simple disputes may quickly escalate into anger or worse due to a lack of communication or interpersonal stress and affect the work environment.

Conflicts can arise from several sources in a project. Individuals coming from different environments to integrate and form a team that works together for the accomplishment of organizational goals could have several challenges of its own. Cultural and personality differences, lack of communications, different backgrounds, resources scarcity and poor leadership qualities can all be some of the sources of conflicts in a work environment.

There are several types of conflict management skills. Some of these skills project managers are advised to be equipped with are: communications skills, innovative problem solving skills, positivity, calmness, stress management, etcetra. In addition to these skills, conflicts are managed through known five resolution techniques of avoidance, collaboration, compromise, accommodation and competing. In the second chapter of this thesis, each of these resolution techniques will be explored in detail.

There is no one-size-fits-all solution that will help a project manager cope with any type of conflict. It is the responsibility of each project manager to build a situational style that includes a variety of conflict resolution techniques that could be implemented at different project settings. Adaptive project management is the hallmark of successful project management.

Several factors must be considered when deciding on the best strategy for resolving a dispute in any given situation, including:

- ❖ What is the significance of the conflicting parties desires?
- ❖ What are the consequences for the parties if their needs aren't met?
- ❖ What are the consequences of wanting to be more assertive?
- ❖ Whether or not there is a shared or cooperative approach?

Within the scope of this research, it will be determined which of these conflict resolution strategies are most commonly utilized and which are considered the most dependable for various causes of conflict. Conflicts would also be evaluated

in terms of their practical influence on the success of completed and ongoing projects.

Once the ideal conflict resolution methods are identified, their implications on projects success will further be assessed. A project is deemed successful when the key stakeholders' requirements, if not all, are met. A project is considered successful in project management when it is completed within the contract budget, during the project term and without time overrun, within the project scope, with the specified deliverable quality, and meeting the construction company's business needs.

Conflicts can have a good or bad impact on a project's success, depending on how they're handled. Functional conflicts have a beneficial impact on a project's success. Positive effects can result from project crews having a stronger connection and cohesion after resolving a functional dispute, addressing pressing issues that will improve the project work environment, reducing stress, and establishing the basis for organizational growth and change.

On the other hand, project that is plagued by dysfunctional conflicts is thought to have slowed progress and, as a result, impacted project success parameters. Dysfunctional conflicts have an impact on project crews and, as a result, project progress, since they promote a climate of mistrust, problems in task management due to employees' lack of seamless interaction, stressful work environments, and increased absenteeism which will ultimately accumulate to a result of projects failure.

Both the positive and negative implications of conflicts on a projects success will be assessed in the study with focus given to Ethiopian firms involved in highway construction projects.

1.1.2 Background of the Organization

Senan Construction PLC was established on August 2, 2007 GC as Senan Construction PLC to engage in construction of Roads, Bridges, Building and Water Works. Senan Construction PLC comprises of senior professionals, practical organizational structure and possesses new equipment's to deliver timely outstanding quality outputs.

Senan Construction PLC is a Grade I general contractor company with over 40,000,000 ETB capital and engages itself in different construction sectors and

practicing business relationship with high potential employers in the country, like Addis Ababa City Roads Authority and Ethiopian Roads Authority.

The organizational structure that is currently functional in the company is as depicted below.

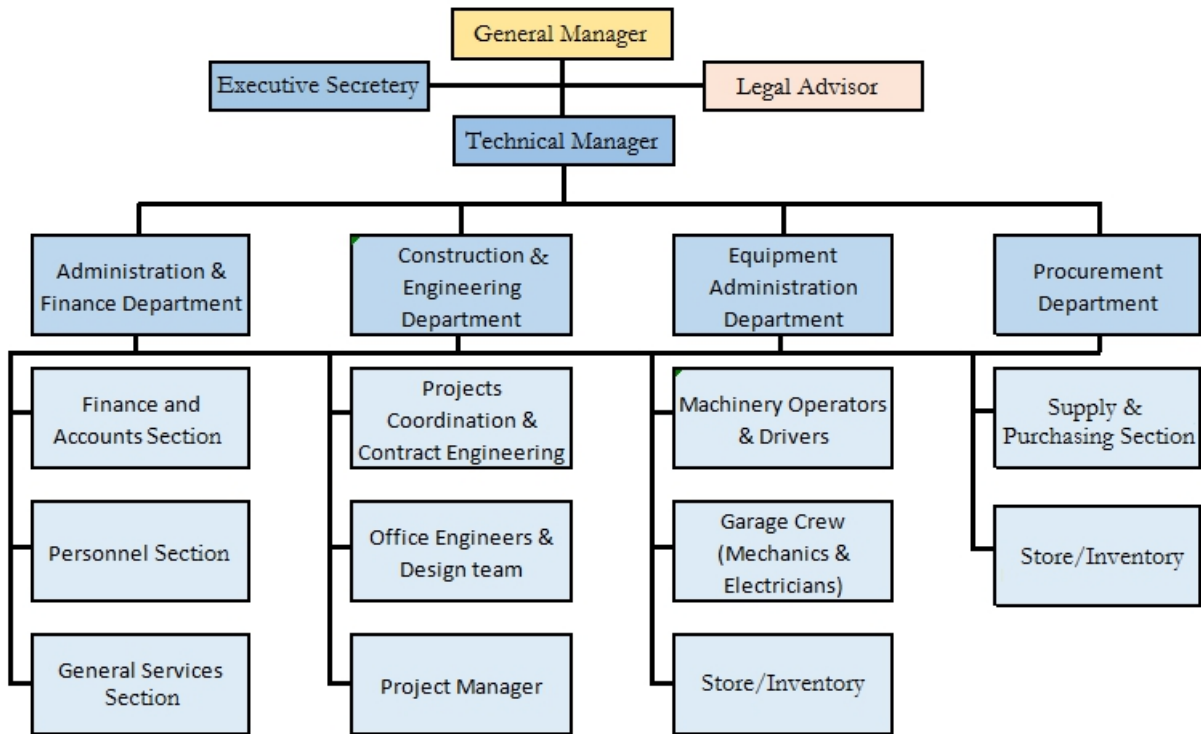


Figure 1: Senan Construction Organizational Structure

(Source: Company Profile)

The company is currently engaged on various projects residing here in the capital Addis and throughout the country. Some of the projects that are currently active and has been selected for the assessment of this paper are as tabulated on the next page with the projects settings, contract price and descriptions.

S/N	Project	Location	Contract Price
1	Assosa - Daleti - Baruda Asphalt Road Project	Assosa	228,513,513.56
2	Ayat - Arabsa Asphalt Road Project	Addis Ababa	183,163,399.28
3	Bahirdar City km7+400 Asphalt Road Project	Bahir Dar	231,513,513.54
4	Hana - Furi Asphalt and Gravel Road Project	Addis Ababa	286,513,813.36
5	Kality - TuluDimtu Lot 1:km0+000 - km3+300 Asphalt Road Project	Addis Ababa	141,513,851.31

Table 1: Projects Currently Active at Senan Construction PLC

(Source: Project Contract Documents)

1.2 Statement of the Problem

No entity operates solely for the purpose of philanthropy, unless otherwise stated as a non-profit organization; in order to succeed, it must produce income. Employees must give their all at work in order to achieve optimum efficiency. If workers are actively arguing and insulting one another on a routine basis, their engagements and outputs to the organization would seriously be affected.

Conflict management is critical in the workplace for preventing disputes and allowing workers to focus on their jobs. The team leader and project manager, in a construction environment, must ensure that each employee's roles and responsibilities are clearly communicated to them.

Employees should be discouraged from interfering with one another's jobs. A person must enjoy his or her work; otherwise, he or she will never be able to give it their all and then comes work stress.

Conflict, due to its inevitability nature, is evidently abundant especially in the construction industry. The projects that are currently active under the host company, Senan Construction PLC, are no exception when it comes to conflicts occurrences within several stakeholders involved in projects.

On the plus side, for functional conflicts, disputes may improve employee cohesion, reduce workplace stress, and create the basis for organizational growth by resolving vexing issues. However, as in the case of dysfunctional conflicts, disputes can also have significant negative consequences. Mistrust, rough relations

among employees, increased absenteeism and in return affected work progress could all be the effects of conflicts.

To this end, the paper is being written to address the fundamental problem of determining the seriousness of both the positive and negative effects of conflict on project success, as well as how effective conflict management can affect the success of projects completed by the company in the highway construction sector.

1.3 Research Questions

The study's goal is to determine the impact of conflict management on project success, specifically in the case of highway construction. As a result, the study would be circulated to answer the following research questions:

1. What are the most common causes and types of conflicts and their extent of impact on the success of highway construction projects in Ethiopia?
2. How prevalent are conflict resolution approaches among project managers in highway projects in Ethiopia?
3. What are the most effective conflict resolution methods used in construction projects with relations to projects success in our country?
4. To what extent are conflict management and projects success related and what are the positive/negative outcomes of conflicts on projects success?

1.4 Research Objectives

General Objectives

The purpose of this paper is to provide a comprehensive review of the literature and construction industry practices in relation to conflict management, as well as to assess the prevalence of conflict management methods and the extent to which conflict management impacts the success of highway projects across the country.

Specific Objectives

Peculiarly, the study has the following sub-objectives:

1. Providing a complete overview of the types and causes of conflicts that commonly occur in Ethiopian highway construction projects together with their impact extents to projects success;

2. Investigating the use of conflict resolution approaches by project managers and other important stakeholders in highway construction projects across the country.
3. Evaluating the efficacy of various conflict resolution approaches employed in the country's highway construction projects in relations to project success parameters.
4. Assessing the relationship and the extent to which conflict management affects a highway project's success and analyzing the positive and negative outcomes of conflict on a projects success.

The findings of this study will be useful to construction industry professionals and software providers in developing better conflict management practices and methods.

1.5 Significance of the Study

Resolving conflicts may dramatically enhance employee relations. To like their work, employees must be motivated at work and find the work environment engaging and challenging. Before any idea is implemented, it must be shared with others, and no one should ever feel neglected or excluded. In this way, every employee feels needed in the office, and he works hard to meet the demands of his coworkers, therefore giving as much as possible to the firm.

Conflict management aids in the discovery of a common ground, a solution to any dilemma, and the fruitful implementation of an idea. Problems must be resolved at the appropriate time to avoid confrontation and its negative consequences later on. A person with conflict management skills investigates all potential causes for concern that may later lead to a major issue and attempts to resolve it as soon as possible.

Thus it is deemed to be highly imperative to analyze conflict management methods and their impact on projects success, and particularity is given to Ethiopian highway construction projects in this study.

1.6 Scope and Limitations of the Study

In the construction sector, there are a variety of factors that influence project success. The scope of this study is to determine the impact of conflict on the success of Ethiopian highway development projects.

Due to a lack of time and resources, data was collected from a single construction company where the researcher is currently employed. The company is registered as a Construction Private Limited Company (PLC) in Bole Sub-city and classified as General Contractor (GC) with registered competence Level 1 by the Ministry of Construction.

Accordingly, this study will be limited to assessing highway construction projects in Ethiopia based on several accessible projects the stated firm is currently engaged on in its conflict management and success implication assessments. Thus, generalizations of the study's finding may also be limited to the same.

1.7 Organization of the Study

This paper is generally consolidated in five chapters. Chapter one includes the introductory part which entails the background of the study, problem statement, research questions, research objectives, significance of the study, scope and limitations of the study, the papers organization and definition of key terms. Chapter two includes the literature review with subsections of introduction, definitions and concepts, theoretical, empirical reviews and conceptual model and frameworks. The next chapter incorporates the research methodology. The study's results and discussions will be found in chapter four and the study will be enclosed with the last chapter which will include the conclusions and recommendations of conflict management methods in construction projects.

Chapter 2: Literature Review

2.1 Introduction

Conflict management in projects has been the subject of several studies. During the research for this paper, it was discovered that the majority of studies have focused on the many forms of project conflicts, the causes of these conflicts and the appropriate resolutions that have been advised.

Most of the journals that have been conducted on the subject matter have given primary focus on the resolution part of conflict management by statistically analyzing and suggesting the most effective resolution type in the assessed projects. This can be seen as a positive as recommending an effective conflict resolution type could aid in avoiding the consequences of a dysfunctional conflict.

However, most of the studies which have been tried to review in this study, has major pitfalls in trying to completely address conflict management in the construction industry. Some of the major pitfalls which have been noticed are as follows:

1. The frequency of conflicts in accordance to the stakeholders involved in the projects has also been merely showed in the reviewed studies. This is an important concept as it will have a direct implications on the type of resolution methods suggested.
2. Most of the researches depict conflict as having a negative impact on projects success. However, also from our studies in project management, conflicts can also be functional and have a positive impact on project success. Those conflict types would be thoroughly explained and identified in this paper.
3. Finally the exact impact and the direct and indirect implications of the impact of failing to properly manage dysfunctional conflicts on construction projects has not been precisely shown in most of the studies.

The stated pitfalls which has been noticed in previous studies could have originated due to negligence and ignorance in stating rudimentary definitions and concepts to the basic terms involved in conflict management.

2.2 Perspectives in Understanding Conflict and Project Success



Figure 2: Conflict

(Source: <http://ccwatraining.org/avoiding-conflict-is-not-the-goal-resolving-conflict-is/>)

It is not necessary to travel far to comprehend the inevitability of conflict. We often hear of disputes between partners, children, or even the entire family in a family consisting of husband, wife, and children. As demonstrated by the fact that there will always be conflicts as long as there are people, conflicts are unavoidable! Perhaps more so, when we apply this to the project community, where there are various individuals, organizations, and sometimes people from various cultural backgrounds, conflict becomes a prospect.

Traditionally, conflicts has been considered as bad, caused by trouble makers and are deemed to be avoided. Contemporary viewpoints however state that conflicts are inevitable, they can be beneficial and that they can be managed. Let us now turn our attention to the project environment for a more direct interpretation to this paper, now that we have a better understanding of what conflicts are and how they are perceived.

Conflicts are as routine, if not more so, in the project setting than in any other due to the fact that human resources of diverse cultures and orientations carry out project tasks in order to fulfill stakeholder standards and project goals. If human resources are not handled properly, they will always result in arguments, quarrels, conflicts, and even the disintegration of the project team, as the famous quote goes, "Where there are people, there is conflict".

Project success according to PMI is defined as, "*on time, within budget, to specification completion; success of the product produced; or success in achieving*

the business objectives of the project". The research will be confined to the specified criteria of project success and how conflict and conflict management may have a negative or positive impact on a highway construction project's success.

2.2.1 Functional and Dysfunctional Conflicts and their Implications on Projects Success

2.2.1.1 Functional Conflict: Positive Effects on Projects Success

Conflict within a community that contributes to positive outcomes is known as functional conflict. "Conflict" has a negative connotation, but functional conflict generally occur when members of a community address points of disagreement in a collaborative manner. Individuals, associations, and organizations will benefit from such constructive conflict. *“Several advantages have been identified such as increasing personal growth and morale, enhancing communication, and producing better project outcomes.”* (Conflict Resolution in PM, 2001).

Functional Conflict is beneficial in resolving individual and community issues as it resolves misunderstandings and perceived intentions through different mechanisms of settling and further aids in achieving project success. Some of the factors that highlight the use of functional conflicts are listed hereunder.

- ❖ It helps to relieve stress in the workplace,
- ❖ It motivates people to put in more effort at work,
- ❖ It aids critical thinking,
- ❖ It lays the groundwork for organizational growth and transformation,
- ❖ It contributes to inspiration and, on occasion, a change in emphasis.
As a consequence, it is also needed for the survival and growth of organizations,
- ❖ It aids in classification and search behavior generation, etc.

According to several prior research, functional conflicts should be encouraged in project settings since they have a beneficial impact on project success, owing to the consequences of the variables listed above. In this study, the positive impacts of functional conflict and how they aid project performance will be thoroughly examined by practical assessments on highway construction projects in Ethiopia.

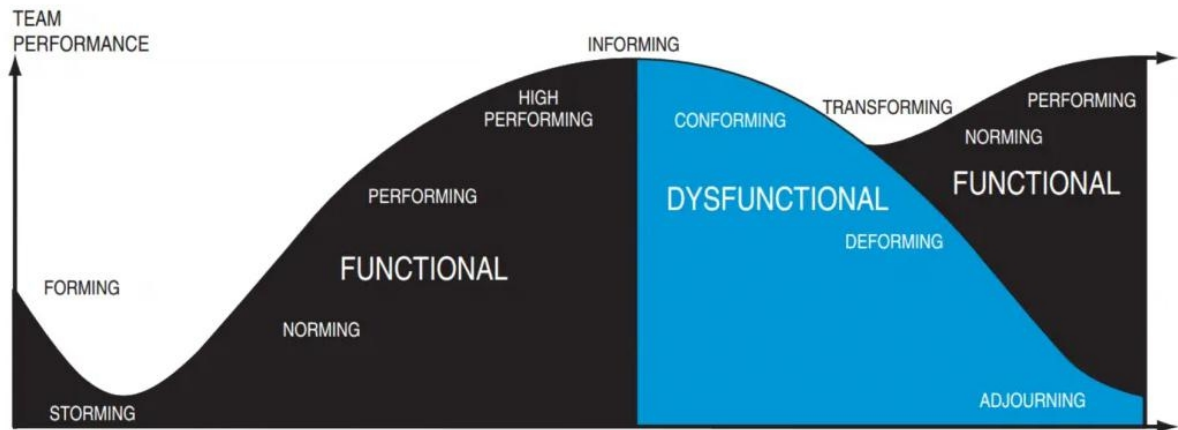


Figure 3: Functional Vs Dysfunctional Conflicts

(Source: <http://bruceemctague.com/functionally-dysfunctional-is-actually-the-norm>)

2.2.1.2 Dysfunctional Conflict: Negative Effects on Projects Success

Dysfunctional conflict is when a group's communication or success suffers as a result of the conflict. Disruptive conflict can be described as an excess of conflict or a lack of adequate motivating conflict.

Destructive conflict is another name for dysfunctional conflict. Conflict can be harmful and disastrous at times. Individuals, groups, and organizations all suffer as a result of such conflict. The consequences could include a diversion of energies, a deterioration of group cohesion, the promotion of interpersonal hostility, and the development of a hostile working atmosphere for organizations employees.

Employees become unhappy with the working atmosphere as a consequence of a dysfunctional conflict and has detrimental consequences which result to increased absenteeism and productivity falls. Growing dysfunctional conflict has a number of negative implications, including:

- ❖ Increased friction would trigger delays in meeting schedules, a reduction in the quality of products and, ultimately, a rise in client complaints.
- ❖ It is undesirable if it fosters an atmosphere of mistrust and suspicion among employees,
- ❖ There would be difficulties in organizing tasks if there is no smooth contact among coworkers at work.
- ❖ People tend to distract themselves from the actual work schedule as the organization's conflict level rises, and they display less

commitment and energy, which has a negative impact on the achievement of organizational goals and projects progress.

- ❖ The rise of negative emotions at work can be extremely stressful.

When a confrontation does not result in a solution to a dilemma, it is ineffective, and time and resources are wasted.

The majority of conflicts that arise during Ethiopian highway construction projects are regarded as dysfunctional conflicts with harmful consequences.

2.2.2 Views of Conflict

In most of our country's initiatives, conflict is still viewed as completely destructive and must be avoided for the sake of the organization's success. However, conflict is an unavoidable feature of any organization, and its existence can be beneficial in some ways.

Unfortunately, it is only fair to state that Ethiopians' overall understanding of disputes in the construction environment is still stuck in the early stages of traditional thinking. The evolving human relations perspective of conflict, as well as interactionist views of conflict, need to be addressed and embraced by highway building project members.

To this end, this paper will address the three accepted views of conflict. When it comes to conflict, there are three main schools of thinking.

- ❖ The traditional view of conflict,
- ❖ Human relations view of conflict and
- ❖ Interactionist view of conflict.

Starting with the earliest, the conventional viewpoint claims that all differences in ideas are harmful to an organization and/or project and should be avoided. The human relations approach, on the other hand, maintains that conflict is a natural part of all social gatherings and that, in most cases, it should be managed rather than eliminated.

The third and final viewpoint, the interactionist viewpoint, suggests that conflict may be a beneficial force in an organization and unambiguously asserts that some disagreement is necessary for a company to succeed. All of the aforementioned points of view will be evaluated further below.

2.2.2.1 Traditional View

The traditional view on organizational conflict is the earliest of the views. A traditional viewpoint holds that a confrontation must be avoided at all costs as it has detrimental effects to an organization and/or projects success. It should be reduced, suppressed, or eliminated by the manager. The manager is free to take an authoritative approach to resolving problems in the organization.

Despite the fact that there are many different sorts of conflicts, the traditional perspective of conflict only sees it as dysfunctional. Conflict is seen as a dysfunctional conclusion resulting from mistrust among employees, poor communication, lack of openness, unclear job descriptions and managers' failure to respond to their employees' needs and goals.

2.2.2.2 Human Relations View

Rather than associating conflict with destruction and a bad outcome, the human relations approach acknowledges the presence of conflict in an organization and focuses on managing conflicts rather than eliminating it. Conflict is unavoidable and natural in an organization, according to human relations viewpoint. It recognizes conflict as an important part of every organization, which cannot be overstated; yet, unlike the earliest traditional viewpoint, the human relations perspective does not dismiss conflict as a wholly negative and destructive force in an organization.

A favorable impact on an organization's performance can be achieved by resolving a conflict. A dispute cannot be completely eliminated, yet there are situations when a disagreement might be beneficial to a company, as in the case of functional conflicts which will be latter discussed in this section of the study.

Instead of suppressing conflict, managers should acknowledge it and endeavor to manage it efficiently. They must not allow the conflict to escalate beyond a certain point, nor should they leave the conflict unsolved in which either way could result in a drop in a projects performance and ultimately risk its success.

2.2.2.3 Interactionist View

The interactionist viewpoint extends the concept of inevitability of conflict by claiming that an organization requires and benefits from ongoing, low-degree and functional conflicts. A static and inflexible organization or project crew is more likely to become static, non-responsive and unattainable.

According to the interactionist viewpoint, a low level of conflict is beneficial to an organization because it inhibits individuals' creativity, self-evaluation, and competitiveness in the organization. All of this contributes to better group performance, more creative problem-solving skills, and generally better outcomes which paves the way to projects and organizations success.

Conflict is shown to be not only a motivating element in an organization, but also a necessary requirement for a group to work efficiently. However, this does not imply that all sorts of conflict are beneficial.

The fundamental difference between the human relations and interactionist perspectives is that the former accepts conflicts in organizations, whereas the latter encourages them because a harmonious, peaceful, and cooperative organization is more likely to become rigid, apathetic, and unresponsive to new requirements with the lack of conflicts.

Accordingly, the general perception of Ethiopian highway construction crew members and project teams on conflicts and their implications will be assessed in relations to the accepted schools of thinking in conflicts.

2.2.3 Understanding the Causes of Conflicts in Highway Constructions

Individuals, parties, and even nations can easily cause or arouse a dispute, resulting in a conflict situation. The art of overcoming such events is a technique by itself. Conflicts in projects, according to Binder (2012), occur from a lack of resources and differing priorities on budgets, time, scope, and quality, which are the most critical limitations in a project.

The following are some of the most prevalent sources of conflict referred in the literature that are relevant to Ethiopian projects, particularly in the context of highway construction projects.

- ❖ Communication barriers,
- ❖ Cultural differences,
- ❖ Organization structure and ambiguous roles,
- ❖ Personality conflicts,
- ❖ Resource competition,
- ❖ Schedules,
- ❖ Silo working and
- ❖ Stakeholder priorities.

Of course, there are several more sources of conflict in the project environment; however, in this study, special attention has been paid to those conflict-inducing sources that are prevalent in highway construction projects in Ethiopia.

It is beneficial for project managers and team leaders to have a basic understanding of human behavior and certain aspects of psychology so that they can deal more efficiently with project team members if counseling is needed. When such disputes arise, the project manager must take sufficient steps to manage them so that destructive effects are avoided.

Project managers in a highway construction project often have the automatic authority to promote conflict resolution within their respective projects. Owing to the extremely inflexible situation, project management is also associated with conflict management.

Different trends or behavior from project team members can be seen as the project progresses through the various phases of the project life cycle, i.e. from initiation to planning, implementation, and closure. Some of the project crew are devoted and excited about their roles, while others can display signs of dissatisfaction and begin to exhibit symptoms of poor teamwork.

As a project manager, it is critical to actively develop the project team in order to inspire them to meet project objectives. The Tuckman theory, which is depicted below, will better elaborate the team growth process (Tuckman & Jensen, 1997)

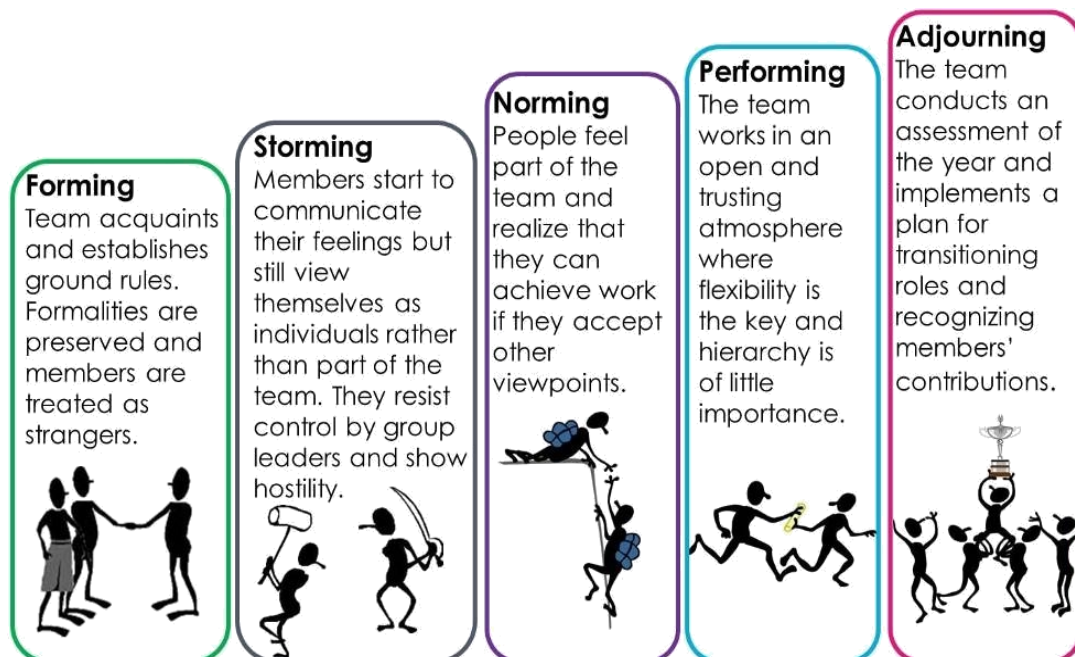


Figure 4: Tuckman Principle

(Source: <https://thoughtleadershipzen.blogspot.com/#thoughtleadership> Tuckmans group Development theory)

The majority of conflicts in highway construction projects arise during the forming and storming stages of the project. Due to their various personalities and multiculturalism, project team members have a tough time adjusting to their project environment, and conflict frequently arises.

In the forming stage, project managers' role assignments to new personnel are the clear initiators of conflict, whereas opposition to accepting roles and integrating as team members is in the storming stage. Conflict would still be present in the later stages, albeit on a much less frequent basis.

Accordingly, conflicts need to be addressed starting from the very beginning of project teams formation stage in-order to minimize its derailing effects on projects progress which could ultimately lead to a project failure.

2.2.4 Conflict Resolutions and Project Success

“Although success is never guaranteed, a project is more likely to be successful when conventional project management processes are practiced.” (Conflict Resolution in Project Management, 2015). Conflict resolution strategies have a direct impact on disputes and disputants. In accordance with the various causes of conflict, different employees have varied preferences for handling conflicts.

There hasn't been much study linking conflict management in highway construction projects to project success in the Ethiopian context. This study will sought to address the same, and the effects of various conflict management strategies on project success will be evaluated.

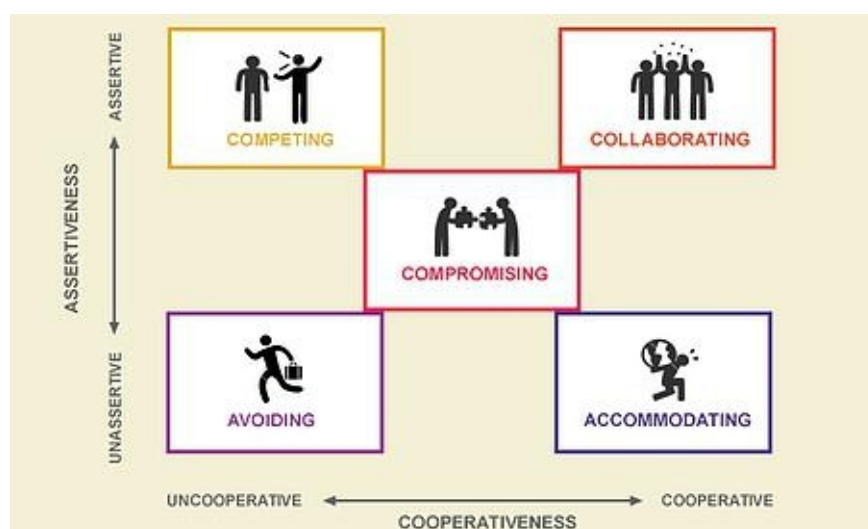


Figure 5: Conflict Resolution Methods

(Source: <https://learn.g2.com/conflict-management-styles>)

2.2.4.1 Problem Solving / Collaboration / Confronting

“Collaboration is a method of conflict management in which a person tries to work together with the other person” (Crystal, 2007). People interested in a conflict or who hold opposing viewpoints come forward to address the issue at hand with an open mind in this process. They concentrate on resolving the dispute and deciding the team's best alternative/solution. They talk about it by putting personal feelings aside and focusing only on what is best for the team. As a result, there is a win-win situation. Everyone works together in this setting.

2.2.4.2 Compromising/Reconciling

Often, in order to resolve a dispute, the parties involved must consider a middle path in which all parties agree to give up something and find a solution. This form of solution is only temporary for the time being and is not a long-term solution. As both parties can believe they have lost something, this results in a lose-lose situation.

2.2.4.3 Withdrawing/Avoiding

In some situations, one of the potential conflicting party can decide to withdraw from the debate and accept the other's point of view. In certain situations, one of the parties can decide to avoid the conflict entirely by remaining silent or not issuing their concerns. This method works well in situations where one of the conflicting parties is emotionally charged or frustrated. As a result, avoiding any dispute resolution gives the parties involved a chance to "cool down" before returning for a more substantive resolution and buys more time which could enhance their chances of winning.

2.2.4.4 Forcing/Competing

In certain cases, a person with authority and power may impose his or her opinion and settle the dispute without giving the other party/person a chance to respond. As a consequence, the outcome is a win-lose scenario when the imposing party of higher power wins at the cost of the other. Someone may feel like a loser, while someone in a position of authority may feel like a winner. If we see conflicts as unnecessary and mostly destructive to the team, we can use this technique.

2.2.4.5 Smoothing/Accommodating

This is a strategy that is used when the environment among the parties concerned appears to be fraught with apprehension/distrust and no one is willing to help resolve the dispute or when the conflict is unwinnable and should be postponed.

In these types of situations, one of the parties should take the initiative to try to smooth things over by using nice terms and stressing points of consensus while downplaying points of disagreement. This will act as a catalyst for breaking the tension between the parties involved by instilling a sense of confidence in them, encouraging them to come forward and settle the conflict.

2.3 Conceptual Model/Frameworks

The following conceptual framework was constructed for the aim of the research based on the aforementioned theoretical literature analysis.



Figure 6: Conceptual Model (Source: Own Model)

The independent variables assessed in the study are the prevalence of conflict and conflict resolution methods used in highway construction project in Ethiopia. The effects of conflicts occurrence and the different resolution methods implemented by project managers and crew members have on the dependent variable of projects success will be analyzed.

Conflicts prevalence in projects would entice resolution methods to be implemented (independent variables) and affect the dependent variable of projects success.

If a project satisfies the needs of the stakeholders, it is considered successful. In general, a project is regarded successful when it is finished within the contract time, with measured and approved deliverable quality, within the budget, ensuring the satisfaction of all stakeholders, and attaining the organization's business goals.

Chapter Three: Research Methodology

3.1 Introduction

The research design and methodology are described in this chapter of the paper. It describes how the research was carried out in relation to the study's goal. Further, it presents the data type and sources, population and sample size, variable measurement and instrument, reliability and validity, method of data Analysis, reliability and validity (for questionnaires and ethical considerations).

3.2 Research Approach

The research technique used in the study is a mixed strategy, which is appropriate for the subject matter's applicability and requirements. For studying the consequences of conflict management on project success, a mix of qualitative and quantitative methodologies provides a more thorough knowledge than either technique alone.

In this study, a quantitative research technique is used to better comprehend the links between the selected variables in the study's conceptual framework and to conduct statistical analysis that will assist in determining their correlations. On the other hand, qualitative research approach is also done in the study for qualitative data collected to aid in analyzing and uncovering the significance of the variables relationships.

3.3 Research Design

As previously stated, the research problem examined in this paper is the evaluation of the impact of conflict management on the success of highway construction projects in Ethiopia. To this cause, the descriptive study design method was adopted in this paper. *“Descriptive research is a type of research that describes a population, situation, or phenomenon that is being studied. It focuses on answering the how, what, when, and where questions of a research problem, rather than the why.”* (formplus - descriptive research, 2020). The researcher does not control or manipulate the variables in a descriptive research design but rather only observes and measures them.

Accordingly, the descriptive design is believed to be ideal for this study as the main aim of the study is to identify the extent of the effects of the variable i.e. conflict management on a project success. Conflict prevalence and conflict resolution techniques used in Ethiopian highway construction projects are the study's independent variables, which the researcher has no control over and must instead observe and measure their effects directly, or indirectly through a mediator variable to the study's direct variable, project success.

When the goal of the study is to discover features, frequencies, and trends, descriptive research is an appropriate option. It is beneficial when there's not a lot of information on the subject. The study being on conflict and its management's impact on project's success, descriptive research methodology will better address the different features of conflicts, their frequency, and their consequences on project success. Before evaluating why, it's critical to understand how and when indirect factors affect the direct variable.

3.4 Data Type and Data Source

This paper uses both primary and secondary data gathering methods due to the availability and accessibility of data and the research requirement to conduct primary analysis. As secondary data sources, various literature, contract documents, company profile documents and articles on conflict management and conflict resolution approaches were assessed and examined, while primary data sources included questionnaires with open and closed ended questions, interviews, and group discussions.

The primary sources of data used - questionnaire, interview and group discussion questions have been attached in the appendix section of the paper.

3.5 Population and Sample size

3.5.1 Sample Size

Senan Construction PLC comprises of over a hundred temporary and permanent staff and is working on eight highway construction projects in Addis Ababa, the country's capital, and four others across different regions of the country. A total of 31 permanent employees and 46 temporary workers on four active and one provisionally accepted projects has been selected for this study to be assessed with considerations to availability of data and time constraints for the research. Thus the sample size, with a confidence level of 95% and margin of error 5%, will be 61 employees clustered into the five projects.

3.5.2 Sampling Technique

Due to the diverse nature of projects and to reduce sampling bias probabilistic sampling technique has been implemented in the study. Probability sampling use statistical theory to pick a sample at random from a large population and then forecast that all of their responses will be representative of the entire population. As the sample size is a cluster of different projects residing here in Addis Ababa

and throughout other parts of the country geographically, random cluster sampling will be used to better represent the population. Other obvious justifications for the use of probabilistic cluster sampling in the study include its cost efficiency and simplicity.

3.6 Reliability and Validity

The studies reliability and validity has been assessed in relations to previous literary works on the subject matter and through different mechanisms of testing the same to insure the acceptability of the research. Test-retest with a variation in time of two weeks for responds which are frequently accessible has been conducted to measure the consistency and reliability of their responses.

Further questionnaire and interview questions has been designed to test the reliability of the methods used through internal consistency measures.

In-terms of verifying validity, thorough assessment to construct, content and criterion cogency to literature reviews has been evaluated in preparation of data collection tools.

3.7 Method of Data Analysis

The different sources of data acquired by different sources of data collection techniques has been analyzed accordingly. Quantitative analysis has been conducted for data which could be diffused to figures through the use of WBS spreadsheet. Almost all of the data input for the quantitative analysis has been from the questionnaire data sources.

Further, qualitative data analysis has also been conducted for data inputs which could not be quantifiable. This includes primary data collected from interview, open ended questionnaire and of secondary data sources from literary reviews.

3.8 Ethical Considerations

The researcher is fully aware and devoted to the ethical considerations of research papers and has all been considered in the making of this paper. All citations of previous works has been indicated so in the papers body and in the citation section of the study.

Further, as for primary data collections, all respondents involved were of informed consent and respected anonymity while any confidential data of the company in which the study was set on has been assessed through formal grant from authorized personnel.

Chapter Four: Results and Discussion

4.1 Introduction

The results acquired from the data collected based on the research design will be presented in this chapter. Personnel involved in the Hana - Furi, Kality - Tulu Dimtu, Bahirdar City, and Assosa - Daleti - Baruda Asphalt Road Projects, as well as the provisionally accepted Ayat - Arabsa Asphalt Road Project are the population of the study.

The response rates, demographic data and results collected will be presented accordingly. Further, interpretation of the results and discussions will also be bestowed in this section the paper.

4.2 Response Rate and Demographic Data

A total of 70 questionnaires were distributed using a random clustered sampling method among the five highway construction projects on which this study was based for primary data gathering. 59 (84%) of the distributed questionnaires were completed and collected correctly. This is deemed to be adequate based on response rate studies, *“For survey research intended to represent organizations, a response rate of $\geq 80\%$ is expected.”* (Response Rates and Responsiveness for Surveys, Standards, and the Journal, 2008).

Males accounted for almost 71% of the respondents, while females accounted for only 29%. Females are underrepresented in the highway building industry in Ethiopia. In addition, more than 69% of respondents had been with the company for more than three years, with only 15% having less than a year's experience.

Variable	Classification	Frequency	Percentage
Respondent Gender	Male	42	71.19
	Female	17	28.81
Total		59	100
Educational Level	Certificate	17	28.81
	First Degree	28	47.46
	Master of Science	6	10.17
	Other	8	13.56
Total		59	100
Experience	Less than a year	9	15.25
	1-3 years	16	27.12
	3-5 years	11	18.64
	Above 5 years	23	38.98
Total		59	100

Table 2: Demographic Profile of Respondents (Source: Own Survey)

From the clustered data collected, response rate and demographic data is as presented tabulated hereunder.

S/N	Project Description	Questionnaire (No.)		
		Issued	Accepted	Response Rate
1	Assosa - Daleti - Baruda Asphalt Road Project	22	18	81.82%
2	Ayat - Arabsa Asphalt Road Project	3	3	100.00%
3	Bahirdar City km7+400 Asphalt Road Project	17	14	82.35%
4	Hana - Furi Asphalt and Gravel Road Project	7	6	85.71%
5	Kality - Tulu Dimtu Lot 1:km0+000 - km3+300 Asphalt Road Project	21	18	85.71%
Total		70	59	84.29%

Table 3: Survey Respondent Rates (Source: Own Survey)

The projects that are closer to the research area, Addis Ababa, have the highest response rates. Ayat - Arabsa, Hana - Furi, and Kality - TuluDimtu, three initiatives based in the capital, have 100%, 85.71 percent, and 85.71 percent response rates, respectively.

4.3 Occurrences of Conflict

The primary data collected on the occurrence of conflict on the project sites will be presented in this section of the chapter.

Conflict Occurrence in the Project Settings		
Scale	Frequency	Percentage
Almost never	2	3.39
Occasionally	3	5.08
Half of the time	15	25.42
Usually	12	20.34
Almost always	27	45.76
Total	59	100.00

Table 4: Occurrence of Conflicts (Source: Own Survey)

As it can be seen tabulated above, more than 91 percentage of respondents have admitted that conflict occurs at least half of the time in highway construction projects in Ethiopia. This goes to insure that conflict management is indeed a critical issues in project management as project crew spend most of their time in conflict and its handling can have huge implications on projects success.

Respondents Involvement in Conflicts at Work Place		
Scale	Frequency	Percentage
Almost never	3	5.08
Occasionally	14	23.73
Half of the time	16	27.12
Usually	21	35.59
Almost always	5	8.47
Total	59	100.00

Table 5: Involvement of Conflicts (Source: Own Survey)

More than 71 percentage of respondents have been involved in conflicts only within this project year, i.e since the start of September.

4.4 Conflict Perception

This paper has also considered to assess the general cognition of workers in highway construction projects towards conflict.

Respondents Conflict View as a Negative Experience		
Scale	Frequency	Percentage
Almost never	12	20.34
Occasionally	11	18.64
Half of the time	4	6.78
Usually	8	13.56
Almost always	24	40.68
Total	59	100.00

Table 6: Respondents Conflict View as a Negative Experience (Source: Own Survey)

The majority of the respondents in this study came from the project site crew, as it is the most dense environment in a highway construction company. Conflict is viewed as a negative experience by almost 61 percent of the same, and they want to avoid it.

The research was implemented with considerations for insuring respondents reliability. To this cause, the respondents were tested for their internal consistency in the primary data collection method to enhance the reliability of their inputs.

Accordingly, tabulated hereunder, is the respondents view of conflict having positive outcomes.

Respondents View of Conflict Resulting in Positive Outcomes		
Scale	Frequency	Percentage
Almost never	18	30.51
Occasionally	16	27.12
Half of the time	10	16.95
Usually	9	15.25
Almost always	6	10.17
Total	59	100.00

Table 7: Responds Conflict View as a Positive (Source: Own Survey)

Just over 42 percentage of the respondents view conflict as having positive outcomes. That is, over 16 percent think it has positive outcomes half of the time, over 15 percent think it usually has positive outcomes and over 10 percent of them think it almost always have positive outcomes.

Some of the positive outcomes of conflicts respondents listed out are better relations with conflicting parties after the resolution of conflicts, motivate parties to put in more effort to their job tasks and relieve negative atmosphere at the project environment. This goes in line with previous studies done on the subject matter of functional conflicts and how it aids in achieving project success.

4.5 Main Sources of Conflict

Conflict can emerge in highway construction projects from a variety of factors. Some of the most common sources of conflict discovered through secondary data collecting, such as literary reviews, have been mentioned for respondents, and the survey's results are shown in figure seven below.

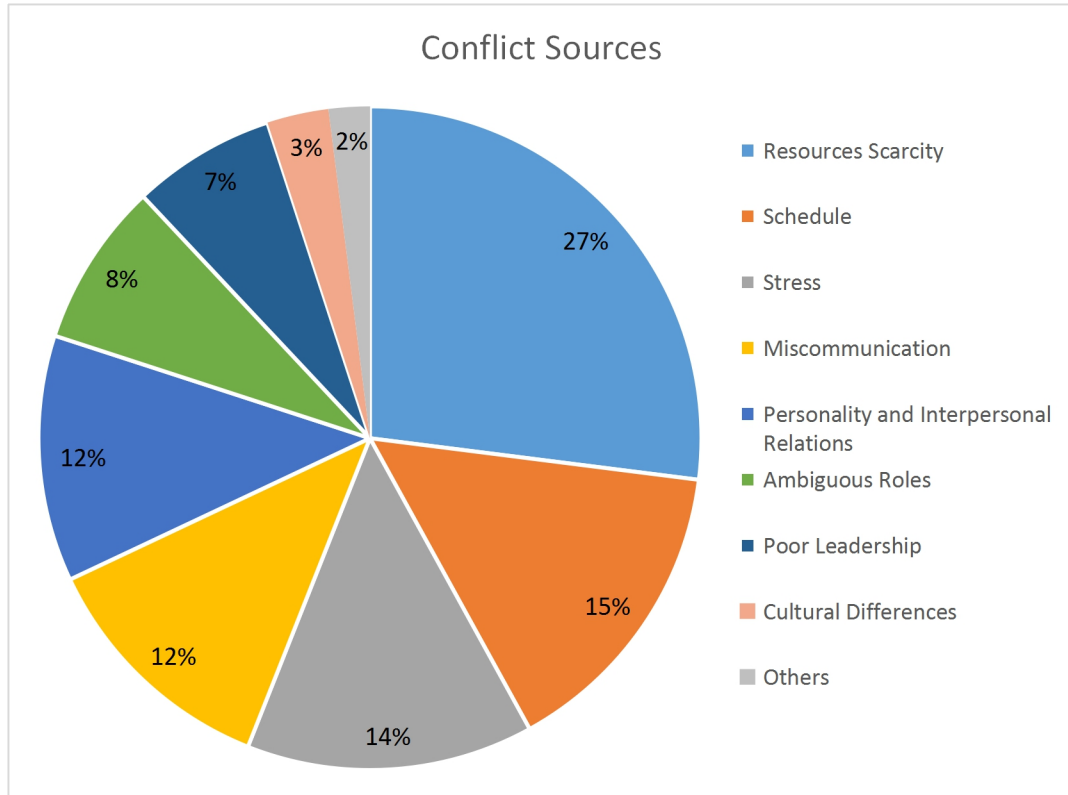


Figure 7: Sources of Conflict on Highway Construction Projects in Ethiopia

(Source: Own Survey)

Resources shortage had the highest rating among the conflict causes by some margins, according to the respondents. Highway construction, unlike building and other types of construction, is primarily reliant on machinery resources. As a result, when project managers and crew members share insufficiently allocated resources, the lack of the same is a primary source of friction.

Schedule is the other main source of conflict as clients, Addis Ababa City Roads Authority (AACRA) and Ethiopian Roads Authority (ERA) supply funding and require the projects to be finished without time creeps. This frequently leads to external disputes between contractors, consultants, and clients, as well as internal disputes between project coordinators, project managers, and project crew members inside the construction organization.

Stress is the third highest poll next to schedule chosen as a source of conflict. Stress and conflict can both be viewed as cause and effect as stress could lead to conflict while conflict can also lead to stress.

Miscommunication and interpersonal relationships are the fourth and fifth most common sources of conflict in highway building projects, respectively. Communication is crucial because stakeholders communicate with each other in both formal and informal ways. Furthermore, conflict has been seen to arise due to the various personalities of project stakeholders. In the project context, ambiguous responsibilities, inadequate leadership, and cultural differences have all been identified as sources of conflict with percentages of 8, 7 and 3 respectively. .

4.6 Conflict Resolutions

This section of the paper discusses about the resolutions of conflict. It has been assessed in the literature review of this study that there are five resolution types. Respondents were assessed for their view of the resolution types.

Effectiveness of Conflict Resolution Methods		
Resolution Type	Frequency	Percentage
Compromising (Lose/Lose)	23	38.98
Collaborating (Win/Win)	15	25.42
Accommodation (Smoothing)	10	16.95
Competing (Win or Lose)	7	11.86
Avoidance (Withdrawing)	4	6.78
Total	59	100.00

Table 8: Conflict Resolutions Effectiveness (Source: Own Survey)

For conflict management, the most effective method in resolving conflicts according to the research input-ants in highway construction projects is the compromising method, with 38.98 percentage of respondents selection.

Some of the major conflict sources in the highway construction projects, such as resource scarcity and time slippages cannot be collaborated among conflicting parties and would require mutually acceptable solutions.

Accordingly, the compromising resolution is the most popular method of conflict management among highway construction projects according to the respondents. This method is applicable when a temporary solution is required in projects and when the goal is more important. From literature review, compromising method is stated as creating a lose-lose situation. However, conflicts caused by resources scarcity such as

machinery and labor mobilizations from projects to projects can only be compromised accordingly to the priority of the projects and time slippages.

The collaboration or problem solving method comes in second among respondents with over 25 percentage. As the study was conducted in a construction company with employees working in projects together over the years, a high percentage of the respondents preferred the compromising approach of conflict management. Consensus of conflicting parties, high level of trust, long-term work relationship and a collaborative environment which is usually seen in Ethiopian highway construction projects make the applicability of the problem solving approach of conflict management ideal.

Almost 17 percentile of respondents prefer the accommodation conflict management method in the survey that was conducted. Justifications for use of this method is highly practical when the conflicting parties are of different hierarchy in a highway construction project - for example when the conflicting parties are from site crew member and the project manager.

Competing conflict management method had 11 percentile of the respondents votes. On the contrary to accommodation method, forcing or competing is applicable in mostly similar conflicts of different employee hierarchy or project prioritization. However, their basic difference is, accommodation is operable for the party of lower hierarchy or prioritization while forcing is for the parties with higher power.

Avoidance or withdrawing conflict management method came in last with 6 percentile score. This method is least considered in resolving conflicts according to the respondents involved in highway construction project in Ethiopia.

The construction environment, especially highway construction environment, is highly dynamic and requires tasks execution with very limited schedules. Avoidance is less practicable method among workers in resolving conflicts as there are several conflict sources and most of the conflict causes need to be addressed by the conflict parties.

4.7 Conflict Outcomes

As all conflicts are not bad to an organization, the functional conflicts are expected to bring about better outcomes to the company while dysfunctional conflicts will obviously harm an organization and its path to success. Proper management of the conflicts would alter a projects success.

Conflict Resolution Enhancing Parties Relationship		
Scale	Frequency	Percentage
Almost never	3	5.08
Occasionally	7	11.86
Half of the time	9	15.25
Usually	18	30.51
Almost always	22	37.29
Total	59	100.00

Table 9: Conflict Resolution Outcomes to Parties (Source: Own Survey)

More than 83 percentile of respondents believe at-least more than half of the time conflicting parties would have a better relationship after the resolution of conflicts. This implies that a proper conflict management style, for functional conflicts, would enhance the relationship and workmanship of project crew in Ethiopian highway construction projects.

Conflict Negatively Impacting Projects		
Scale	Frequency	Percentage
Almost never	16	27.12
Occasionally	18	30.51
Half of the time	9	15.25
Usually	4	6.78
Almost always	12	20.34
Total	59	100.00

Table 10: Conflict Impacts on Projects (Source: Own Survey)

According to the survey, roughly 73 percent of respondents believe that conflicts have a positive outcome on projects. The two extreme magnitude measurements, "almost never" and "almost usually," however, had the second and third highest percentile scores among the five. This illustrates that conflict is also viewed as a negative by a large number of the respondents.

Conflict as an Opportunity for Change		
Scale	Frequency	Percentage
Almost never	0	0.00
Occasionally	2	3.39
Half of the time	15	25.42
Usually	6	10.17
Almost always	36	61.02
Total	59	100.00

Table 11: Conflict Outcomes on Projects (Source: Own Survey)

Almost 93 percentile of the 59 respondents agree conflict brings about an opportunity for change in projects. This changes could be in organizations project structure, employees or methods which will be discussed in later section.

Conflict Related to Project Success		
Scale	Frequency	Percentage
Almost never	0	0.00
Occasionally	3	5.08
Half of the time	5	8.47
Usually	9	15.25
Almost always	42	71.19
Total	59	100.00

Table 12: Conflict and Project Success (Source: Own Survey)

The inevitability of conflicts in highway construction projects makes it one of the highest determinants of its success. Due to its high occurrence rates, if conflicts among coworkers is not appropriately handled, the impact of its effects will be heavily felt in the projects progress and goals. Likewise, almost 95 percentile of the respondents believe conflict is related to a projects success.

4.7 Interpretation and Discussion

With the aim of assessing the significance of conflict management on the success of highway construction projects in Ethiopia, this dissertation centered its topic on answering four fundamental research questions. To this cause, data was collected and assessed on previous sections of this study to analyze the extent of conflict management in affecting projects success.

Results and findings of the analyzed data and further qualitative data collected through interviews and open ended questionnaires will be interpreted and broadly discussed in this section with reference to previous studies done in the subject matter. Primary focus in results interpretation and discussion will be given to the findings that directly are related to the study's research questions.

4.7.1 Sources of Conflict in Senan Construction Projects

The pivotal of the research questions was, "What are the most common causes conflict types that occur in Ethiopian highway construction projects?". Literature reviews on the common causes of conflict identify the basic conflict sources as resources scarcity, schedule, stress, miscommunication, personality and

interpersonal relations, vague job descriptions, poor leadership, cultural differences and poor organizational structure.

The major and obvious deviation of highway construction projects from building and/or other types of construction projects is their dependency on heavy machinery for construction. With massive machinery involved comes higher investment cost and, consequentially, resources scarcity due to financial constraints.

Over 27 percentile of the respondents identify resources scarcity as the primary source of conflict. Projects would be required to share company resources and this has been identified as the primary source of conflict among workers in the construction company where this study was based on.

The intensity of this issue involves several parties and major stakeholders of the project including the project manager, projects coordinator, site engineers, machinery operators, formans and daily labors and ignites conflicts among the parties.

Schedule, with almost 15 percentile of respondents votes, comes in second of the common conflict sources in highway construction projects. Highway construction projects, and projects in general, are constrained to cost, time and scope. Highway construction projects, especially from the contractors side, are highly monitored for time creeps.

It is very rare, if not impossible, to find any highway construction project in Ethiopia that has been finished within the contract period. Right of way (ROW) issues, contractors poor performance, resources scarcity, design issues and etcetra all account for the delay of projects. With each of the delaying issues occurs conflict among involved stakeholders.

Stress and conflict can be interdependent, and over 14 percentile of the respondents identify stress to be the cause of conflict. Project team members, in accordance to their job descriptions and roles in the project, are all required of outcomes and obligations. Higher expectations and demands from project coordinators escalates stress among the project crew and stressed workers have a higher tendency of conflicting.

Communication is a key aspect of highway construction projects and clients, consultants and contractors use formal and informal ways to exchange information. As highway construction projects are highly dynamic and decision makings are

required on a daily basis, employees at times would be forced to make decisions on project matters without the consent of authorized personnel. 12 percentile of the conflict sources from the study's respondents are of this origin.

Personality, ambiguous roles, poor leadership and cultural differences can be a cause of conflict in any work environment, and they are no exception in the highway construction projects.

Further, in the open ended primary data collection utilized in the study, impractical organizational structure has also been identified as a source of conflict. Projects usually do not have a proper structure due to the nature of highway construction projects cycle.

Project teams are mostly required to do the same activities in different settings, therefore adjusting to the requirements and establishing a project structure are regarded rudimentary. This allows for ambiguous job descriptions and team member duties, especially for less experienced personnel.

4.7.2 Conflict Resolution Methods and their Prevalence in Senan Construction Projects

Functional conflicts require adequate conflict management mechanisms to aid in the determination of a projects success. Literature identifies conflict management methods as five - collaboration, compromise, accommodation, competing and avoidance.

Prevalence of conflict resolution approaches among project managers in the highway construction industry is the next core research question which will be further assessed in this section.

	Issue Importance	Relationship Importance	Time Limits	Power Over issue
Competing	High	Low	High	High
Collaborating	High	High	Low	Moderate
Compromising	Medium	Medium	Low	Equal
Avoiding	Low	Low	N/A	Equal
Accommodating	Low	Low	High	Low

Table 13: Situational Issues for Conflict Management Styles

(Source: Sadri G. "Conflict's here, Now what?" Industrial Management 2012;54(3):23)

Research shows that conflict resolution methods are dependent on factors of issue importance, relationship importance, time limits and power over issue. According

to (Sadri G., 2012), competing conflict resolution method marks high on all the factors except one.

Highway construction projects are known for time constraints and with conflict sources of usually moderate importance, as seen in the results section. In line with this, the best alternative of the conflict resolution methods which was also preferred by employees of Senan Construction is the compromising method.

Avoiding and accommodating conflict resolution styles are stated as having low issue and relationship importance and no to high time constraints respectively. The two resolution methods were used less frequently in the firm as well according to the survey conducted in this study.

4.7.3 Extent of Conflict Resolutions Impact in Senan Construction Projects Success

“Conflict involving the project team, as well as groups that are outside of the project, can be detrimental to project performance.” (Yu-Chin Liu et al., 2011)

Researchers has stressed the damaging magnitude of conflict to projects success if not properly managed. On the contrary, conflict resolutions have a significant beneficial implications on projects success.

Most conflict research suggests that managing conflict is a four-step process: 1) identification, 2) resolution, 3) enactment, and 4) evaluation, which examines the effects of conflict type on project performance. Among Senan Construction employees, over 95 percentile of those selected for the assessment of this paper believe conflict is directly related to projects success.

Conflicts could impact projects progress by affecting project teams relationships and cohesiveness, decreased productivity and violence. The detrimental effects of conflict could be altered to a favourable outcomes with applications of appropriate conflict management methods. *“Nowadays, there is a big consensus around the fact that projects have great leverage when it comes to creating and improving the processes and products that companies offer to the market.”* (Tomás C. Prieto-Remón, 2015).

From the five projects the study has been based on in Senan Constructions, the project with the highest conflict occurrence is Assossa - Daleti - Baruda Asphalt Road Project. The rankings of the projects conflicts occurrence which has been gathered is as tabulated hereunder.

Project Description	Conflict Occurrence Scale					Total (%)
	Almost never	Occas.	Half of the..	Usually	Almost always	
Assosa - Daleti - Baruda Asphalt Road Project			7	6	13	44.07
Ayat - Arabsa Asphalt Road Project			4	2	7	22.03
Bahirdar City km7+400 Asphalt Road Project		1	2	3	5	18.64
Hana - Furi Asphalt and Gravel Road Project	2	1				5.08
Kality - TuluDimtu Lot 1 km0+000 - km3+300 Asphalt Road Project		1	2	1	2	10.17

Table 14: Conflict Occurrence Among Projects

(Source: Own Survey)

Assosa - Daleti - Baruda Asphalt Road Project has the highest rate of conflicts occurrence due to the project's magnitude and consequently being the most densely populated. It accounts for over 44 percentile of the total accumulated data for conflict occurrence in the projects. Being congested by conflicts, the positive and negative effects of conflicts on the project to its success implications will be assessed.

The project is currently at a time lapse of over 77 percentile from the original contract period. Right of way (ROW) issues, regional instability, construction material constraints and contractors cash flow problems have heavily affected the project and the contractor has been granted an extension of time (EOT) of 267 days from the original project completion time.

Limiting the projects assessment to the study's scope, i.e. conflict management and its impact on success, the project has suffered from dysfunctional conflicts throughout its construction period. Among the several issues affecting the projects progress, conflict can also be considered among the key lagging factors. Both internal and external conflicts among the projects stakeholders has incurred to the projects ultimate failure according to the success parameters.

Some of the critical internal conflicts within the construction company that heavily derailed the projects progress include conflicts among the project manager and projects coordinator caused by resources allocation from the head office, materials

procurement, continuous demobilization of machinery, insufficient crew and prolonged settlements for monthly wages of crew members.

Mostly, the major conflicts were resolved through the forcing technique imposed by the project coordinator and general manager as they have a higher organizational hierarchy to the project managers of the project.

The project had four different project managers to-date of which one has been terminated and the other two quitting on their own terms. Conflicts caused by the mentioned sources has made the project environment highly stressful for its crew, affected projects progress due to unmotivated works and dissatisfied employer. Research tells us that this are the characteristics of dysfunctional conflicts and should be highly managed to minimize their impacts.

The project is currently progressing at a loss to the construction company due to the high inflation of construction materials and has already passed its completion period. According to the project success parameters, the project can be regarded as a failure as it has cost, time and scope creeps and has negative financial implications to the contractor.

Thus, owing to the company's negligence to proper handling of conflicts and not integrating conflict management policies to their company policy and organizational structure, it can be stated that conflicts management impact has highly accounted for the projects failure.

Chapter Five: Summary, Conclusion and Recommendation

5.1 Introduction

The final chapter of this study presents the summary of the findings, conclusion of the dissertation and recommendations for practice and further future studies.

5.2 Summary

The following significant findings from the preceding chapter's analysis are summarized in this section. The summaries are written with the research questions in mind, while maintaining the flow of the study's results.

- ❖ More than 71 percentile of employees selected for the study were demographically of male gender. This signifies the dominant presence of men in highway construction projects of our country, Ethiopia.
- ❖ Over 97 and 94 percentiles of respondents admit to conflict occurrences and self involvement in conflict respectively in the current project year alone. This highlights the inevitability of conflicts is no exception in highway construction projects as-well.
- ❖ Close to 80 percentile of respondents view conflict as a bad experience and would like to avoid it. Most of the respondents selected for this paper were from project crew and due to the lower power over the conflicting issues, most perceive conflict as a bad experience.
- ❖ On the contrary, almost 76 percentile of respondents perceive conflict to result in positive outcomes of at least half of the time in the internal consistency test conducted for primary data collection techniques in the study.
- ❖ Resources scarcity, time constraints, stress, miscommunication, personality, ambiguous roles, poor leadership and cultural differences, in that order, are identified as the major sources of conflict in highway construction projects in Ethiopia.
- ❖ Compromising and collaborating account for more than half percentile of recommended conflict resolution methods according to the respondents of the survey. Accommodating and competing have almost 27 percentile recommendations with avoidance regarded as the least better option of resolving conflicts in highway construction projects.

- ❖ Conflict resolutions is believed to enhance conflicting parties relationships by over 94 percentile of selected respondents in Senan Construction. Close to 5 percentile of the respondents believe conflict will “almost never” enhance conflicting parties relationships.
- ❖ Conflict is an opportunity for change by almost a 100 percentile of the selected respondents in the firm sharing the idea of it “more than occasionally” bring about changes in a projects structure and methodology.
- ❖ The same 100 percentile of the selected respondents also believe conflict is related to project success at-least “occasionally”.

5.3 Conclusion

This paper is prepared with the aim of analyzing the impacts of conflict on projects success, as in the case of Ethiopian highway construction projects. To this cause, several data collection and analysis techniques were implemented to reach at the following peroration.

Conflict is highly prevalent in Ethiopian highway development projects owing to its inevitability. The most prevalent source of conflict in highway construction projects in our country is identified to be resources constraints. Resources constraints included only the machinery and manpower limitations as personnel in the industry fight as to whom should acquire them more.

Time constraints is the other major source of conflict as time and schedule is of high priority and high determinant of success in highway construction projects management. Stress, miscommunication, personality and leadership skills are other notable sources of conflicts.

Strolling to the other fundamental research question, prevalence of conflict management approaches in highway projects of the country, it can be concluded that the inevitability of conflicts in projects is highly seen in highway construction projects of Ethiopia and conflict resolution approaches are applied in a four step process of - identification, resolution, enactment and evaluation of the resolution methods.

For the effectiveness of the resolution methods, compromising is recognized as the primary conflict resolution tool due to the very nature of the conflict causing issues in highway construction projects. Collaboration, which is deemed as the best conflict management method in most researches, is acknowledged as a second

alternative with accommodating, competing and avoiding the last preferred techniques in the sector.

Finally, the study's key question, as stated in the title, is the extent to which conflict management has an influence on project success. All of the study's participants voted "yes" on whether conflict is connected to highway project success since its resolution is critical to the project's progressions.

5.4 Recommendations

Based on the study findings, the researcher recommends the following for practice and for further study.

5.4.1 Recommendations for Practice

“Where there are people, there is conflict”. Accordingly, highway construction firms in Ethiopia should consider and integrate conflict management policies and departments in their project and organizational structures. As owners and project managers seek projects success, they should also seek to find the best alternatives of conflicts management due to the high correlation of the same.

Further, the common causes of conflicts need to be considered in the feasibility stages of projects planning as their occurrence is inevitable in projects. It is highly advisable for highway construction companies to thoroughly assess and implement the conflict resolution methods as their occurrence is unavoidable.

5.4.2 Recommendations for Further Study

Time constraint for this study has limited the research focus to examining only the extent of conflict in a projects success from the view point of the contractor firm in the Ethiopian Context. This topic could be much broader with insightful assessments on identifying conflicts and their effects on the different stakeholders in projects, i.e internal conflicts in the client, consultant and contractor companies and externally among each other, and which of these conflicts have a higher impact on the projects success.

The researcher has also initially aimed to address, but due to severe time constraints revised not to address in mapping a timeline for the different conflict types and causes identified in highway construction projects. There exists a known and predicted sequence and trends of conflict types and causes in the industry. Identifying the common trends of conflict to projects life cycle could help in predicting and equipping project managers for handling conflicts better.

The researcher's third recommendation for future study is to examine the repercussions of disputes in a broader sense, not just in terms of impacting projects success, but also how it is perceived in terms of organizations, projects, and personnel.

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Appendix
Questionnaire



Addis Ababa University
School of Commerce

Graduate Program
Department of Project Management
Questionnaire

Dear Sirs,

This questionnaire is designed to collect the required information for final thesis paper as per the requirements of post graduate studies in project management. The research paper is titled **“Effect of Conflict Management on The Success Projects: The Case of Ethiopian Highway Construction Projects”**. The questionnaire has both open and close ended questions and is presented in three sections with clearly indicated instructions.

Respondents are required to complete the full questionnaire anonymously. Answer the questions to portray your most usual way of dealing with conflicts. Do not take long on any question. Give your initial reactions. The more honest your answers, the more reliable the results will be. Information provided are kept confidential and only for the sole use of this paper.

Completing the questionnaire is estimated to consume 10 - 15 minutes. Your contribution is highly valued for the making of this paper.

Thanking you in advance for your usual cooperation, I remain

Sincerely yours,

Nahom Workneh,
The Researcher

Section 1: Demographic Questions

Please answer the following questions on the spaces provided and with the mark (X) where appropriate.

1.1 Project Site: _____

1.2 Position in the Company/Project: _____

1.3 Gender

Male

Female

1.4 Qualification

Certificate

First Degree

Msc

Other

1.5 Experience

Less than a year

1-3 years

3-5 years

Above 5 years

Section 2: Close Ended Questions PART A.

Please rate the following statements from 1 - 5 corresponding to the occurrences. 1 = Almost never, 2 = Occasionally, 3 = Half of the time, 4 = Usually & 5 = Almost always.	1	2	3	4	5
Occurrence of Conflict.					
The occurrence of conflict in your project site/work environment.					
I myself have been involved in work place conflict.					
Conflict Views					
I feel that conflict is a bad experience.					
Conflict has resulted in better outcomes.					
Conflict Sources					
Miscommunication is the cause of conflict in my project site/work environment.					
Stress is the cause of conflict in my project site/work environment.					
Schedule is the cause of conflict in my project site/work environment.					
Resources scarcity is the cause of conflict in my project site/work environment.					
Personality and interpersonal relations are the causes of conflict in my project site/work environment.					
Ambiguous roles are the source of conflict in my project site/work environment.					
Cultural differences are the source of conflict in my project site/work environment.					
Poor leadership is the source of conflict in my project site/work environment.					
Conflict Resolutions					
Work place conflicts are quickly resolved.					
Work place conflicts are resolved by conflicting parties themselves.					
The project manager resolves conflicts.					

Conflicting parties have a better relationship after the resolve of conflicts.					
Conflict are identified and resolved.					
Please rate the following statements from 1 - 5 corresponding to the occurrences. 1 = Almost never, 2 = Occasionally, 3 = Half of the time, 4 = Usually & 5 = Almost always.	1	2	3	4	5
Conflict Outcomes					
Conflict has a negative effect on projects.					
Conflict provides an opportunity for change.					
Conflict is related to project success.					

PART B

Please answer the following questions on the space provided with the mark (X) for either Yes or No.

- Yes No**
- Which conflict resolution methods is the most effective from your previous conflict management experience in your project/work environment?
(Choose One)
 - a. Collaborating (win/win)
 - b. Competing (win or lose)
 - c. Compromising (lose/lose)
 - d. Avoidance (withdrawing)
 - e. Accommodation (smoothing)
 2. Conflicts are resolved through conflicting party behaviour.
 3. Resolution is reached after own intentions met.
 4. Resolution is reached once the intentions of others were met.

Section 3: Open Ended Question

1. Do you believe that conflict management is an important aspect of project management? Why?

2. Has the occurrence of conflict impeded project progress in the past? What method of resolution was used?

3. What was the cause of the last work conflict you were involved at?

4. What is the recommended technique for resolving conflicts in highway construction projects in your opinion? Why?

5. Have positive results ever come from conflicts? Explain.

Secondary Data

	Issue Importance	Relationship Importance	Time Limits	Power Over issue
Competing	High	Low	High	High
Collaborating	High	High	Low	Moderate
Compromising	Medium	Medium	Low	Equal
Avoiding	Low	Low	N/A	Equal
Accommodating	Low	Low	High	Low

Table 13: Situational Issues for Conflict Management Styles

❖ (Source: Sadri G. "Conflict's here, Now what?" Industrial Management 2012;54(3):23)