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Conflict Management Strategies: Exploring the Choice Pattern of Stakeholders on Construction Projects in Ghana.

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DECLARATION

I hereby declare that this submission is my own work towards the Master of Philosophy (Project Management) and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University except where due acknowledgement has been made in the text.

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ABSTRACT

Conflict is a disagreement between two or several parties due to difference in thoughts, opinions and expectations in a project. Conflicts on projects have the tendency to affect stakeholders and project objectives. Several stakeholders are involved in the projects but mostly the main actors are contractors, consultants and the community. Various conflict management strategies are used by stakeholders to manage conflicts on projects as the occur. Every conflict has a better time to respond to a given solution and there is the need for stakeholders to know when to act to resolve it. This study sought to explore the choice pattern of conflict management strategies by stakeholders on construction projects in Ghana. Regarding concept, the study identified the factors that result in conflict among stakeholders on road projects and the conflict management strategies that are effective in managing these conflicts. The study used the descriptive research design with both qualitative and quantitative research methods. The population of this research covered the employees of the Ghana Highway Authority, the Department of Feeder Roads, the Department of Urban Roads, Contractors who had worked between the year 2014 and 2018, Chiefs, Opinion leaders, Assembly Members of affected communities with road construction conflicts and the Municipal Coordinating Directors (MCDs). Survey-based questionnaires were distributed to 108 stakeholders and retrieved for analysis. Geographically, the study was limited to Bono East, Bono and Ahafo regions of Ghana where conflict is generally high.

The study found that various factors such as lack of communication, failure of client to honour payments and contracts awarded to incapable contractors result in conflicts on road projects. Other factors considered were poor quality of work by contractors and delay in execution of contracts. When these conflicts arise, stakeholders adopt different conflict management strategies in an attempt to manage these conflicts. For the community leaders and road agencies, the first conflict management strategy adopted was the compromising approach followed by avoiding. Once the avoidance strategy fails to resolve the problem, they change to adopt the accommodating strategy, then collaborating with competing as the last option. With the contractors, the first conflict management strategy adopted was the avoidance strategy. The next conflict management strategies endorsed by the contractors were compromising, collaborating, accommodating and competing being the last option. Following the choice pattern of these conflict management strategies by stakeholders, the study proposes an approach to guide conflict management in the road construction industry. The study concluded that compromising,

accommodating and competing conflict management styles should be adopted when conflicts erupt on road projects in an attempt in resolving them. The findings of this study are expected to guide stakeholders in the management of conflicts and help project implementers adopt preventive measures of conflict.

Keywords: Conflict, Conflict management, stakeholders, construction projects, conflict management strategies.

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LIST OF ABBREVIATIONS

ADR   Alternate Dispute Resolution

CBOs   Community Board Organisations

DCE   District Chief Executive

DFR   Department of Feeder Roads

DUR   Department of Urban Roads

MCD   Municipal Coordinating Director

MCE   Municipal Chief Executive

MP   Member of Parliament

NGO   Non-Governmental Organisation

TCE   Transaction Cost Economics Theory

TKI   Thomas-Kilmann Conflict Mode Instrument

UNCITRAL United Nations Commission on International Trade Law

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DEDICATION

I would want to dedicate this work to my family whose support has been unflinching. Their support, love and commitment has been outstanding. I dedicate this piece of work especially to my children, Ethan, Elvira and Elvina.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The construction industry as a focused project is assigned with unique features which involve several parties, but mostly the contractors, consultants and the community, within the project life cycle. With the diversity of the sector and the participation of multiple parties, conflicts and disputes are bound to take place (Bal, Bryde, Fearon, & Ochieng, 2013). In trying to buttress the point above, Sutterfield, Friday-Stroud and Shivers-Blackwell (2007) noted that conflict forms part of the social interaction. This comes as a result of various struggles that characterize claims of resources, hazards, control, expectations, choices and desires among others. In the study of Jaffar, Abdul Tharim and Shuib (2011) they turn to link this point to an organization. They noted that conflict is very natural when it comes to social relationships.

Nonetheless, it needs to be appropriately managed in an organization to get the best results out of it. Hence, conflict is part of human interactions which naturally emerges due to the differences in purposes, requirements as well as competition and control. Hence, community project designs and implementations are filled with various objections. As posited by Gare and Feldman (2009), various stakeholders in contracts, which involve community projects, always have an influence on the project design, implementation strategies, project monitoring, and projects evaluations within their jurisdiction. This influence and interactions have resulted in conflicts, arguments, and disagreements. This has made several contractors and the stakeholders involved in community development projects encounter several challenges resulting in time delays, cost overruns due to stakeholder conflicts (Gyan & Ampomah, 2016).

Conflict is considered a serious misunderstanding that exists between or among parties as a result of inferences, such as miscommunication and interruption (Holahan & Mooney, 2004). It gives rise to challenges such as project cost overrun, delay in project execution, reduction in productivity and loss increment. In the study of Ntiyakunze (2011), he noted conflict to be a process that is started in the instance where one party perceives that another party has negatively affected, or is in the process of negatively going to affect something that the first party has a lot of interest in. Hence, conflict relies not mainly on hard facts, but it can be based primarily on perceptions. Emotions, in this case, play a vital role. It points to the emotional nature of a conflict. It emphasizes that more than one party is involved and that there may be a future component attached to it. A conflict could also be in opposition to one another (Boon, Bawole, & Ahenkan, 2013). It refers to a disagreement between people or members of organizations. Differences are part and parcel of our human relationships so would present itself most of the time.

Conflicts, controversies, and disputes in the road construction industry have an effect on the contractors, community, supervisory team, subcontractors and all the stakeholders. The study of Akanji (2004) revealed that managing conflicts constructively induces positive work or organizational performance and result in project acceptance by the community, while the reverse heats the work environment, resulting in a reduction of performance to achieving set targets. This means that, there is a need for calmness in the coordination in the construction industry such that conflicts are well-managed in order to improve the sector and stimulate production. With a well-managed conflict situation, there is effective collaboration among all the necessary parties with all of them coming together to search for a common solution. Conflicts at the workplace are therefore considered endemic since they are part of human relations and emerge in different

forms. According to Longe (2015), conflicts are ever-present process and they are more liable to happen in an organizational set-up since people are different and have divergent opinions and hence will react differently under different situations. However, conflict in work-relations is not always negative. Admittedly, conflicts are not always negative; they can sometimes create an outstanding possibility for improvement, settlement and enforce the good relationship between parties (Osad & Osas, 2013).

Therefore, Longe (2015) contended that certain types of conflicts might be meaningful and beneficial for the execution of the project. Akuh (2016) argued and referred to some conflicts as meaningful conflicts and stated that these conflicts open up several opportunities to aid creativity and learning in the organization. Therefore, these meaningful conflicts should be allowed to proceed provided the constraints attached to the project are not disrupted. Also, Akuh (2016) added that some conflicts are dysfunctional and should not be tolerated. These conflicts are destructive and if not managed properly may lead to a negative influence on the project to be executed. This research, therefore, explores conflicts between major stakeholders in the road construction industry and how these conflicts will be resolved when they occur. In addition, the effectiveness of conflict management strategies adopted during conflicts will be evaluated and finally an approach for conflict management will be proposed to assist in the conflict management process.

1.2 Statement of the Problem

Construction of roads is a social service and therefore demanded by almost every community in Ghana. This can be visibly seen especially during elections when communities demand for roads before voting (Inscriptions like 'No road, No Vote' are very common during elections). In addition, it is not uncommon for communities to mount roadblocks to demand for either the

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completion of an existing road project or commencement of a new one. For example, on 3rd May, 2019, residents of Dawhenya resorted to civil disobedience to get a good road network in their community. They burnt car tyres and blocked the Dawhenya-Afenyia Road as part of their protest. Residents of Tarkwa, led by their Chiefs protested in September 2018 and again in April 2019 on the state of their bad roads. Again, similar protests were recorded in Kenyasi, Techiman and Bolgatanga in 2018 and recently in Sunyani on May 6, 2019. Conflicts on road projects therefore affect stakeholders in the performance of their duties especially contractors. All these demonstrations and dissatisfaction of community members could have been averted if there existed a framework to manage conflicts between stakeholders on road projects.

Additionally, road projects usually traverse communities or suburbs and therefore may involve the relocation of several temporary and permanent structures as well as farmlands. Also, it involves the movement of heavy-duty equipment during the construction stage. The movement of these equipment pose a hazard to residents living along the road corridor under construction. These have the tendency of creating conflicts between property owners and the implementers of those projects. This study therefore focused on the road sector that has the potential of generating numerous conflicts. Studies conducted on construction related conflicts are all skewed towards building projects and that also prompted a study on road projects. As stated by Rauzana (2016), most well-planned projects fail because of conflict that exists among stakeholders. For this reason, many projects do not achieve their set targets and are mostly abandoned with all the cost.

Although there are possible stakeholder conflict effects of contracts on community development projects in the country, these effects are not well documented and properly researched into. According to Akiner (2014), what is lacking in the construction industry is appropriate and effective strategies to solve the various conflicts emanating from the construction industry.

Added to this is the assertion that effective conflict management and resolution is impossible without knowledge on the various factors that result in the menace (Prieto-Remón, Cobo-Benita, Ortiz-Marcos, & Uruburu, 2015). Within the international context, several studies such as Dalal (2017); Sudhakar (2015) and Carneiro, Gomes, Novais and Neves (2011) have documented various strategies adopted in managing conflicts. This is lacking in the Ghanaian context. For example, Boon et al (2013) investigated stakeholder participation in community development projects. The study concentrated on analyzing the quadripartite model of the International Centre for Enterprise and Sustainable Development and hence failed to independently delve into the conflict management strategies. In another instance, Gyan and Ampomah (2016) looked at the effect of stakeholder conflicts on community development projects in Kenyase. This study also failed to examine the conflict management strategies and hence failed to explore the choice pattern of conflict management strategies adopted by stakeholders on road projects. Hence, it is prudent that the various factors affecting conflict is appropriately researched into, identify the preferred conflict management strategies adopted by the stakeholders, explore the choice pattern of conflict management strategies so that appropriate recommendations could be made.

In Ghana, there are few projects undertaken in conflict management. The National Peace Council in November 2014 launched an online version of a detailed research document mapping out conflict zones in the country (Awinador-Kanyirige, 2014). The objective of the research document was aimed at helping stakeholders pick early warning signs of possible conflicts to enable authorities take preventive measures in addressing them. The research identified the then Brong Ahafo region as the most conflict prone region contrary to perceptions that Northern region was the most conflict prone region. It attributed the numerous chieftaincy and land disputes as accounting for this unenviable status of the Brong Ahafo region. The Brong Ahafo

region therefore provides a good environment to investigate conflicts on construction projects to confirm whether conflicts are also pervasive in this sector in the region since there is no literature on construction related conflict prone areas in Ghana. The region has now been divided into three (3) regions. These three (3) regions will constitute the geographical area for the study.

According to Amakye (2017), projects initiation, proper siting, and ensuring efficient implementation procedures are questionable given the numerous projects that have been abandoned or rejected by the communities due to conflicts that erupted between these stakeholders.. The three (3) regions, which are located around the Centre of Ghana, provides a good starting point for the study. For this reason, this study investigates the management of conflicts between stakeholders in the road construction industry so that it can enhance the understanding of others, improve decision-making and stimulate critical thinking.

Also, there are adequate provisions in the standard forms of contract for resolving conflicts between contractors and the client (Employer/Government). However, no provisions are made for resolving conflicts between other stakeholders especially between contractors/road agencies and communities. When these kind of conflicts occur it possess a challenge for stakeholders since there is nothing to guide them. There is, therefore, a need for a framework to guide project managers in the resolution of conflicts between these stakeholders. This would minimize the time spent on resolving conflicts as well as managing conflicts constructively to enhance a positive work environment.

1.3 Research Aim and Objectives

1.3.1 Aim of the Study

Generally, the sought to explore the conflict management strategies adopted by stakeholders on construction projects in Ghana towards the proposal of an approach for the management of conflicts.

1.3.2 Specific Objectives

The specific objectives to achieve the above aim are as follows;

   i.   To identify the factors that result in conflict between stakeholders on road projects

  ii.   To identify the preferred conflict management strategies adopted by stakeholders in managing conflicts on road projects.

 iii.   To explore the choice pattern of conflict management strategies adopted by stakeholders on road projects.

1.4 Research Questions

   i.   What are the common causes of conflict between stakeholders on road projects?

  ii.   What conflict management strategies are adopted during conflicts between stakeholders on road projects?

 iii.   What guideline can be used to manage conflicts between stakeholders on road projects?

1.5 Significance and Relevance of the Study

The study will be of much significance to stakeholders in the construction industry as well as academia. These include the central government, road agencies, contractors, community members and people in academia.

The Central government would be interested in this study since it has the potential of ensuring that the right systems of conflict resolution are instituted to ensure success in the road construction industry.

For the road agencies to achieve their mandate, they need to ensure effective management of possible conflicts that might arise in the communities. All stakeholders need to have an understanding of the requirements of projects and how they should be executed. This study will outline some of the frequent causes of conflicts and how they can be addressed by identifying the stakeholders who need to be involved in the process. An approach will also be proposed to enhance the management of conflicts between stakeholders.

For contractors and community members, this will assist in bridging the gap of potential conflicts. With this, expectations would be met and conflicts resolved amicably to ensure that projects are successfully executed to serve their intended purpose. Without peace, plans would be complicated to be performed.

Roads are a sign of development and therefore the level of development of a community is determined by the quality of roads they have (Carneiro et al., 2011). Every community would therefore demand for roads. Projects inundated with conflicts have the tendency of affecting those projects and invariably affecting development. There is therefore the need to resolve these conflicts effectively to enable projects to progress as planned and hence conducting a research in this area is a step in the right direction.

The study will be a source of reference for those in the academic field. For all those conducting various academic research in conflict management, this study can be an excellent referencing

tool. The suggestions for further studies can be adopted by other researchers to further the discourse on conflict management.

1.6 The Scope/Delimitations of Study

This study is limited to the major stakeholders within the road construction industry in the Bono Region, the Bono East Region and the Ahafo Region of Ghana. This would include clients, Contractors, Ghana Highway Authority (GHA), Department of Urban Roads (DUR), Department of Feeder Roads (DFR) and communities that have ever witnessed road construction conflicts. These three regions were selected based on the National Peace Council report stipulating these regions (previously, the Brong Ahafo Region) as a conflict prone area as previously discussed. In addition, studies such as Osei-Kufuor, Kendie and Boakye (2016); Campion and Acheampong (2014); and Mahama and Longi (2015) indicated escalation cases of construction-related cases in the Northern sector of the country including the Bono Region, the Bono East Region and the Ahafo Region of Ghana. A study by Amponsah (2011) on the dynamics of land use planning in the Brong Ahafo Region documented cases of construction related conflicts in the region. The study advocated for a research in conflict management and resolution in this sector of the country. In view of the relevance of conflict management in the road construction industry and the need to fill this research gap, this study examined the factors that result in conflict between stakeholders on road projects, the conflict management strategies adopted in managing conflicts between stakeholders on road projects as well as evaluating the effectiveness of conflict management strategies adopted during conflicts. The scope of the study also involved the proposal of an approach that could be used for the management of conflicts between stakeholders on road projects.

The study was limited to only Government of Ghana projects since majority of roads are funded by government.

1.7 Research Methodology

The study leaned towards the positivism paradigm of the epistemological view and the realist paradigm of the ontological assumption which is based on the justification that true and valued knowledge is valid knowledge (Navarro & Maldonado, 2007). The research approach adopted for this study was the abductive research approach as it involves the collection of quantitative data for measurements to confirm variables identified from literature and also make general conclusions from specific settings. The literature review facilitated the development and adoption of sound and vital questionnaire which centered on the aim and objectives of the study to collect field data. The initial step of the study focused on reviewing relevant literature from books, journals, conference proceedings and other publications on conflict and conflict management. The second stage of the study involved the preliminary field survey. The study used census and purposive sampling techniques to select the respondents. The third stage involved the design of the questionnaire for data collection. The questionnaire contained both closed ended and open ended questions. Piloting of the questionnaire was carried out prior to data collection. The last stage of the study was dedicated to the collection of relevant primary data through a semi- structured questionnaire. The data collected from the field survey was then analyzed using the Statistical Package for Social Sciences (SPSS version 22) and the Thomas-Kilmann Conflict Mode Instrument (TKI). One hundred and eight (108) questionnaire were administered and all were retrieved, representing 100% response rate

1.8 Organization of the Study

The research is grouped into five main chapters. These chapters are closely linked to each other, and it is as denoted by the school of graduate studies.

The first chapter, Introduction, gives a general outlook for the study. It introduces the central concepts under the study with the problem that needs to be addressed and the objectives and questions that helped to curb the challenge. The chapter also outlines the stakeholders who will benefit from this study. Lastly, the geographical boundaries of the study are defined.

The second chapter, Literature Review, reviews existing data that is related to the whole idea of conflict management. The chapter deals with the various concepts and definitions of conflict and conflict management and the review of literature about the objectives of the study. It also reviews the theories of which this work is based on, and the empirical review looks at various contributions of conflict and conflict management in Ghana and beyond.

The various methods used to conduct the study are laid out in chapter three (3) of the study. The chapter explains the research design, population and sample selection, the procedure used in designing the instrument and collecting the data, and provide an explanation of the statistical procedures used to analyse the data.

The fourth chapter deals with the presentation and analysis of the results gathered. A discussion of the result is done by comparing the primary data with the secondary data and the conclusion of other authors that have been reviewed. A proposed approach to managing conflicts in the road construction industry is also presented.

The last chapter, Chapter five deals with summarizing the significant points of the study, drawing conclusions and making recommendations to appropriate stakeholders. Some suggestions for further research are also outlined.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The chapter is based on related works that have been conducted by other researchers on conflict management in the construction industry. The study is sectioned into the conceptual, the theoretical and the empirical review. The conceptual review deals with the various concepts and definitions of conflict and conflict management and the review of literature about the objectives of the study. The theoretical review of the chapter deals with the theories of which this work is based on, and the empirical review looks at various contributions of conflict and conflict management in Ghana and beyond. The study also indicates the gaps this research fills.

2.1 Theoretical Review of literature

This section cites theories that were found to be relevant to the study. The Systems theory and Transaction Cost Economics (TCE) theory were found to be suitable for this study.

2.1.1 The Systems Theory

The work of Ludwig Von Bertalanffy (1973) cited in (Chikere & Nwoka, 2014) recognized and indicated that organizations need to interact with their internal and external environment. The origin of the theory was rooted in Ludwig Von Bertalanffy who brought up a system called the General System Theory. From this theory, there was the idea of a fundamental interdependence of several aspects of science which were studied separately. The theory was generalized to indicate that it was applicable and valuable to several disciplines. According to Sutterfield et al (2007), a system defines a physical or conceptual entity which habours several interdependent components with each component having a connection to other sub-components within the entity

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itself or from a different entity either directly or indirectly. According to Chikere and Nwoka (2014), the applicability of the theory of systems acting as a medium to identify a conceptual framework for conflict management in the construction industry lies in the premise that every system is a series of sub-systems interconnected in complex or unitary whole.

The achievement of road construction relies in big measure on how client-financier, contractor, development group (builder, technician, volume monitor), and more, operate together, among other factors. This relies mainly on the project members being collectively aware of the same goals in the initiative and that what each team achieves is determined by what the others are doing. This perspective of group behaviour and the interrelation of systems elements allows the concept suitable for assessment and explanation of the relational disputes which occur in building initiatives for road construction. The company is not stationary, but evolving forever. The stakeholders must therefore be adapted to endure and cooperate efficiently with community in order to implement projects efficiently. It is also through its interaction with its external environment that a contractor receives and processes his input in raw material and finally emits it as a product.

2.1.2 Transaction Cost Economics Theory (TCE)

This theory is based on five essential elements and it is mostly applicable in situations of contracting problems and more especially, within complex and dynamic relationships which are inherent in the construction industry (Ntiyakunze, 2011). These five essential features are described below.

There is an element of governance structure which talks about the structural arrangements of the organization. Usually, contractors would try to choose the structures that will minimize their cost of construction so that they can make maximum profit. Within the contractual process, the

system of awarding contracts passes through several bureaucratic and government structures and procurement processes. All these processes make the contractor develop the perception that he exists to work and please these structures forgetting the community who are to benefit from the project.

There is also the element of contractual incompleteness and consequent ex-post adjustment. This element explains the nature of the contract. This element suggests that certain categories of contracts, in particular, the construction industry involves complex processes and long contract terms that are mostly and invariably incomplete. From the TCE theory, there is an underlining principle that there is always a factor of contractual incompleteness as a result of rationality, uncertainty and complexity. The principle of bounded rationality is the cognitive constraints experience by respondents that hinder the development of an entirely conditional contract ex-ante. The existence of these constraints could limit knowledge acquisition, capability, quality experience and competence. Pawar (2014) contended that, in its theoretical context, projects in the construction industry tendered through a complete and fully completed design with no omissions or errors in the documents in the tender process could be termed as complete and entirely contingent.

On the Transaction Economy Theory, there is a concept of specifics and monopoly power which assumed that markets are imperfect and competitive with several buyers and sellers (just as in the construction industry with several contractors who are all to compete to attain a project). There is therefore an opportunity which could emerged due to the specific features in a transaction. This opportunity creates a state of imbalance and this may give an opportunity to get a monopoly power over the other firms; that is several buyers and sellers. The basic means of monopoly is as a result of specifics in transactions (known as asset specificity). In the construction industry, this

monopoly specific is a result of a consultant or a contractor being engaged in a project through non-competitive means. This includes negotiation and undertaking assignments in a transaction.

The element of opportunity within the theory of TCE referred to the concepts of involvement in the appropriation of wealth of one party in the conflict when a challenge arises. It also referred to the various practices that do not maximise combined profits and therefore results in inefficiencies (Williamson, 1993). In anticipation for the occurrence of an opportunistic specifics, the governance structure with the conditions and terms within a contract, make provision ex-ante for adjusting ex-post.

There is also the element of commitment in the TCE theory which is the desire to cope with the contractual incompleteness and the opportunity through the adoption of mixed governance structure in the project. This is to provide appropriate assurances and mechanism to ensure that all parties have the trust and confidence to trade with each other. The commitment element ensures that there is cordial relationship among the parties so that the relationship does not break but is properly maintained until the completion of the project (Chikere & Nwoka, 2014). Projects in the construction sector are very complex since they involve uncertainties that are difficult to predict and hence be incorporated in the contractual agreements. This makes projects in the construction industry prone to conflicts.

2.2 Empirical Review of literature

Ntiyakunze (2011) examined the possible factors which caused conflicts and the conflict management approaches adopted by the building construction industry in Tanzania. The study was conducted using the literature review method of which various literature on the subject was reviewed. In addition, the study also used an interview guide and distributed questionnaires for the respondents. The outcome of the results revealed that a major cause of conflict is those which

relates to the nature of the contracts. These include unclear and ambiguous clauses which give undue advantages for other people to misinterpret the contractual agreements. There were other factors which also related to the main functions of the project. This includes failure to work as expected, building a substandard project, delay in project execution and many others.

Jaffar, Abdul-Tharim, and Shuib (2011) studied factors of conflict in the construction industry using the literature review methodology. The study indicated and categorized conflict factors into three main types; those that relate to behaviour, those that are connected to the contract, and those connected to the technical aspects of the contract. The behavioural factors included unwillingness for constructability, clarity, and completeness as well as poor communication among the project team. Also, factors that related to contractual aspects were the late acquisition of resources, delays in payments of interim certificates and ambiguous and unclear contractual terms. The technical factors included the failure of contractors to do a better job, late instructions from engineers and site architects.

Another study by Mitkus and Mitkus (2014) analyzed the factors that resulted in conflicts in the construction industry. The results of the study revealed that the primary cause of conflict in the construction industry is poor and lack of communication between the client and the contractor. Also, other factors revealed were unethical attitude towards the terms within the contract and other psychological defence mechanisms which are adapted to outwit the opponent.

In another development Assah-Kissiedu, Fugar and Badu (2010) undertook a study to identify the possible causes of disputes in the construction industry of Ghana and the impact of these disputes from the clients, consultants and contractors perspective. The study made use of the questionnaire as the research instrument and clients, contractors and consultants were the populations for the study. The study included 104 respondents comprising of clients (20),

contractors (27) and consultants (57). The outcome of the results indicated that the most critical factors affecting the construction industry are inadequate client financial arrangements which result in late payments of contractors, unclear and later demand in the bill of quantities, poor communication, failure of most contractors to properly read and understand the terms of the contract, contracts awarded to incompetent contractors and failure of contractors to adequately price for works.

A study by Gyan and Ampomah (2016) also examined the possible effects of stakeholder conflicts among the mining communities in Kenyase, Ghana. The study was anchored on the qualitative research method with respondents being sourced from various Community Based Organisations (CBOs) and Non-Governmental Organisations (NGOs), community leaders, the District Chief Executive (DCE), Member of Parliament (MP) and government departments in the study area. In all, the study involved 16 focus group discussions. The outcome of the study revealed that there are both financial and technical investments in the area without social investment that retards the community development projects.

Another study was the one conducted by (Brockman, 2012). The study was qualitative, and it sought to explore the nature and effect of the interpersonal conflicts within the construction industry and its potential financial burden. The study targeted 74 respondents within the construction industry using interview guides. The study indicated that the construction industry records many interpersonal conflicts with an average amount of time being 161.25 hours lost in managing conflicts. Averagely, an amount of $10,948 with $25 as the minimum and $367,000 as maximum was recorded as the cost of incidents recorded. The study also found that a major determinant of the conflict mostly experienced in the process of construction and the resolution strategies included verbal communication and settlements by the affected people themselves or

through the third party. Sometimes it also included the physical separation of individuals from each other for the duration of the project.

Prieto-Remón et al (2015) focused on the examination of the application of the five main conflict management strategies in resolving conflicts. The study tested a hypothesis using data collected from the field of study including academic and business world. The study revealed that project managers are used to adopting the confrontation and the compromising conflict management strategy in resolving conflicts.

In a research by (Holahan & Mooney, 2004), the authors found that conflicts have a powerful and both direct and indirect influence on the performance of projects. In support of previous studies, this study supported that the destructive conflict hurts decision outcomes and concluded that cognitive conflicts present a positive effect on the effective decision making of the project to be executed. This means that cognitive conflicts help to improve the quality of decision making, the commitment of the parties to the project and help to foster a mutual understanding among the parties. In other words, projects that recorded destructive conflict had a negative experience, and it was affecting the performance of the work. Destructive conflicts resulted in abandonment of projects, resentment on the projects and worsening the quality of the projects. Instead of fostering commitments, destructive conflicts distract the ability to properly make use of collective cognitive abilities of the entire people, and this delayed the project and negatively affected the performance of the project.

2.3 Concepts of conflict and Conflict Management

According to McNeish (2011), conflict is a misunderstanding between two or several parties due to the difference in thoughts, opinions and expectations in a project. Conflicts could also be regarded as disagreements between two or several institutions or members of institutions either

within or outside an organization. Mostly, the reason is that there are scarce resources which have to be used to satisfy several people or they might lack the resources or improperly utilize the resources to meet their targets (Rauzana, 2016). Although conflicts could negatively affect the progress of projects, they can be very relevant in some areas. For example, conflicts can provide new information and new ideas capable of improvement strategies and decision-making. Conflicts could even compel affected parties to think and re-evaluate their view on certain conclusions made. Accordingly, conflicts could unbury past challenges, revealing hidden secrets in them and enabling leadership to reconsider certain decisions and find better solutions to the problems at hand. The understanding of conflicts could be more apparent if they are viewed as a process consisting of episodes. Pondy (1967) cited in (Jaffar et al., 2011) in evaluating conflicts recognized five-stage episodes under conflicts. These are the stage of a latent conflict, perceived conflict stage, felt conflict stage, manifest conflict stage, and finally, the conflict aftermath stage. The evaluations revealed that each of the above-mentioned conflict stages has some characteristics that mark each stage and these characteristics have the tendency to deteriorate and gradually escalate to a state of disorder or climax into an aggressive stage. However, there is no definite order that a conflict need to pass through to reach an open attack stage or an aggressive stage. There are instances where parties in conflict may perceive a conflict but the characteristics or the signs get resolved, and the conflict never surfaces (Vaaland, 2004).

Latent Conflict

This is the first stage in the conflict episode, and it is characterized with the four underlining sources of conflicts (Vaaland & Håkansson, 2003). Within the road construction sector, this conflict rises when we have one party; either the contractors/road agency or the community who wants to dominate the other party by exerting unnecessary control over some activities contrary

to the will of the other party. For example, when a contractor seeks to exert control over a piece of land or an area where the community or a member of the community regards as his province. Usually, the opposing party will try to insulate himself by resisting the control, and this generates and starts the conflict process. The next factor is when the stakeholders need to jointly carry out an activity but all parties fail to reach a consensus.

Perceived Conflict

This stage is considered as a cognitive stage of the conflict. This stage happens when a party becomes aware and perceives the occurrence of a conflict, but all the parties keep calm and do not become upset about the situation. With this stage, Nonetheless, Vaaland and Håkansson (2003) argued that the situation could stem from the latent conflict stage of which the characteristics or features of the conflict could be present without the knowledge of the parties. In most cases, this situation occurs when the conflict exists, but the existence of the suppression mechanism limits its growth. The suppression could be fear, attention diversion or deception.

Felt Conflict

Felt conflict as the third stage occurs when a conflict exists and the parties are aware but decide to ignore it (Pawar, 2014). Mostly, it is because it exerts no negative effect or does not directly affect them. In this case, even though the conflict exists, its effect is not felt among the parties. For example, it might arise as a persistent effort, and demand of a community on the quality of a work which even though creates anxiety does not degenerate or escalate.

Manifest Conflict.

This conflict episode stage occurs when there are conflicting ideas between two parties or among partners such that parties could engage in open aggression, resistance to order and sabotage. Nonetheless, the argument put forward by Vaaland and Håkansson (2003) is that, manifest

conflict happens when a party consciously engages on a misunderstanding but does not necessarily impede the goal attainment of another.

Conflict Aftermath

For conflict, aftermath reveals the state after a conflict had occurred. It constitutes part of the events that characterize relationship within organizations or among organizations. Usually, on the occurrence of a conflict, there is a need for the conflict to be resolved (Vaaland, 2004). When the conflict resolution process becomes satisfied with the parties involved, there is a strong relationship between the parties than before. According to McNeish (2011), the effective resolution of the conflict brings about a more ordered relationship between the parties; or in their drive for a more ordered relationship, there is the possibility of resolving previous conflicts or latent conflicts that existed. However, if the conflict is not properly resolved, the state of tension is heightened, and the potential for conflict worsens and likely to explode to something more disastrous than at first. The road construction industry is an open system capable of interacting with its environment. This interaction could either alleviate the problem or worsen the situation, and hence there is the need to be more careful in this respect.

It is of the good interest of everyone that conflicts are effectively resolved to prevent a worse aftermath conflict. In the event of unsatisfactory conflict resolution, there is the possibility that latent conflict will persist which might escalate to a worse form of conflict. Therefore, in conflict resolution, there is a consensus agreement of both parties on a cause of action and direction. Effective conflict resolutions, therefore, involve all parties to get a common stand and empower each other and by so doing respect each other's views, rights, and commitments and hence resolve their difference (Tim, 2011). It entails the process of understanding the opposite partner's interest and submissions and work along with these submissions while making your own to be

known until a mutual understanding is attained. As perceived by Vaaland (2004), in the process of conflict resolution, each partner should know that the submissions of the opposite partner are prime to solving the issue and hence each view must be respected. When this rule of thumb is violated and selfishness sets in, the process of conflict resolution worsens and the two parties move contrary to each other. Therefore, when there is coordination between the parties, it helps in effectively resolving the conflict. Besides, there is a principle which is worth acknowledging that all conflicts cannot be resolved but can be managed to reduce their venom and the odds associated with them. The principle of effective conflict management is acquiring relevant knowledge in conflict resolution, knowledge about the various conflict modes and being able to devise a structure for management of conflicts (Amakye, 2017).

2.3.1 Nature of Conflicts in the Construction Industry

The construction industry is a complex and competitive environment in which participants with different views, talents and levels of knowledge of the construction process work together. In this complex environment, participants from various professions, each has its own goals and each expects to make the most of its own benefits. The increase in the number of participants of different cultural background in the construction value chain means more business interactions and arguments, whether contractual or social, resulting in an increase in the number of construction disputes (Rauzana, 2016). There is confusion among construction professionals about the differences between conflict and dispute, and these terms have been used interchangeably especially in the construction industry (Acharya et al., 2006). However, according to Rauzana (2016) conflict and dispute are two distinct notations. Conflict exists wherever there is incompatibility of interest. Conflict can be managed, possibly to the extent of preventing a dispute resulting from the conflict. On the other hand, disputes are one of the main

factors which prevent the successfully completion of the construction project. Disputes are associated with distinct justiciable issues and require resolution such as mediation, negotiation and arbitration. Longe (2015) noted that the project can be interpreted as a temporary activity that took place within a limited period, with the allocation of limited resources. According to Dalal (2017), the project is an effort that mobilizes resources, organized to achieve the objectives, and expectations of particular importance and must be completed within a limited period of time in accordance with the agreement. The series of activities in the construction project begins with an idea that comes from the need and proceed with a study of the possibility of its creation. Then conducted the preliminary design, detailed design, procurement of resources, construction on the site that has been provided, and maintenance of road until the handover of the road to the project owner.

In the construction industry, since differences in perceptions among the participants of the projects, conflicts are inevitable. If conflicts are not well managed, they quickly turn into disputes. Disputes are one of the main factors which prevent the successfully completion of the construction project. Thus, it is important to be aware of the causes of disputes in order to complete the construction project in the desired time, budget and quality. Susila (2012) found in a construction project, on the one hand the contractor's attention is in the completion of the project in accordance with specified schedule and attempt to make financial gain, while on the other hand the owner needs excellent facilities at economical prices. The purpose of each party seems contradictory in achieving their goals, such circumstances could lead to conflict. The causes of the conflict can be caused by the owner, consultants, contractors, contracts and specifications, human resources, and project conditions. The complexity of the work, limited time, the amount of resources used, and many things that affect the process of the construction

(Susila, 2012). If these constraints are not addressed immediately then it can result in losses and will lead to conflict.

2.3.2 Stakeholders in the Construction Industry

Generally stakeholders are individuals and organizations that are actively involved in the project or whose interests may be affected as a result of project execution or project completion (Assefa, Worke, & Mohammed, 2015). In construction industry stakeholders include but not limited to owners and users of facilities, project managers, facilities managers, designers, shareholders, legal authorities, employees, sub-contractors, suppliers, process and service providers, competitors, banks, insurance companies, media, community representatives, neighbors, general public, government establishments, visitors, customers, regional development agencies, the natural environment, the press, pressure groups, civic institutions (Assefa et al., 2015; Jin, Zhang, Liu, Feng, & Zuo, 2017; U-dominic & Okoro, 2015). The classification of stakeholders is different from writers to writers. U-dominic and Okoro (2015) classified the stakeholders as key stakeholders like the project owner, and performing organizations; internal stakeholders direct participants in the project and external stakeholders those people affected by the project. But according to Siddique, Ahad and Din (2019) stakeholders are classified in to two categories as primary; project team who has a contractual or legal obligation to the project team and secondary those who have no formal contractual relationship to the project but can have a strong interest on progress of project. This classification is also similar with primary, secondary classification method.

According to Jin et al (2017), stakeholders are grouped under direct and indirect stakeholders. Direct stakeholders are those directly associated or involved in the project. These include the client, project sponsor, project manager, members of the project team, technical and financial

services providers, internal or external consultants, material and equipment suppliers, site personnel, contractors and subcontractors as well as end users. They are also known as internal stakeholders. Indirect stakeholders are those indirectly associated with the project, such as; support staff not directly involved in the project, national and local government, public utilities, licensing and inspecting organisations, technical institutions, professional bodies, and personal interest groups such as stockholders, labour unions and pressure groups. They are also known as external stakeholders.

2.3.3 Factors that result in Conflicts between stakeholders in the construction industry

In the road construction industry, the job is assigning a road construction contract to a contractor who oversees to the smooth operations and completion of the work. The contractors are business entities, they work to gain profit, and hence they might want to carefully use available resources such that they make maximum profit (Zandvliet, 2005). However, the community being the beneficiaries requires the contractor to use the limited resources to give them an excellent or the most quality work. These two opinions contradict each other and hence there is the possibility of conflicts. Therefore, it is evident that all stakeholders within this sector appreciate the fact that conflicts are bound to happen due to competitive tensions, and several other factors that might even be inherent in the contractual agreements (Sutterfield et al., 2007). So right from the onset, there are conflicting expectations and everything points to the fact that conflicts are bound to erupt at any time. The implication is that all the stakeholders might equip themselves with conflict management strategies or at least there should be people who are specially trained for this purpose of managing conflicts in this sector. The factors that result in conflicts were sectioned into four categories by Ntiyakunze (2011), and this study adopts this classification.

Accordingly, the first is the common causes category, which includes basic exemptions that tend to possibly cause conflicts. The second factors are those that emanate from the working environment or during the executions of the project. Examples might be not ensuring effective communication with the other partner, personality clashes among others. There is a third causal factor which is classified as proximate cause, and this is considered as the immediate factor responsible for creating conflicts. These factors might include deviations or controversies in the tender document, lack of quantities in the tender document and lack of clarification of the project. Then there is a fourth category which is termed as claimed factors. Claimed factors are various demands that calls for a right or a requirement to be fulfilled or honoured in the cause of the project and this might generate conflict with the opposite partner who might see that the claim as an imposition or something which might affect his ability to honour the other terms in the project. Hence, additional demands from the parties in the contractual agreement might generate conflict. Mostly, the demand might add additional charges to the affected partner, and if this charge is not factored in the demand process, there is a high tendency to turn down the demand, and this might generate tension.

Watts and Scrivener (1994) cited in (Ntiyakunze, 2011) undertook a study to analyse and compare sources of disputes in the building industry from UK and Australia. The study identified two hundred and ninety sources from sixty cases in each country. From the study in the UK, the major cause of disputes in the building industry was found to be negligence as against the determination of agreement in Australia. Weddikkara (2003) in his study, indicated that conflicts arising from contractual agreements are rooted from several factors and the limited ability of personnel to think and communicate the idea across. The study found that three major factors mediated the occurrence of conflicts; the greater extent of uncertainty due to the complex nature

of projects; the imperfect contracts and the opportunistic behaviour of parties who try to dominate and take advantage of the other. In addition, the study contended that conflicts in projects and especially in the construction industry do emanate from unclarified assumptions, having differing expectations and unavoidable shortfalls due to the guidelines in the contract document of the project.

2.3.4 Conflict Management Strategies

Managing conflicts includes the process of conflict resolution and taking proactive measures to prevent their occurrence. Thus the term includes dispute resolution and beyond (Gill, Williams, Brennan, & Hirst, 2014; Lynch, 2001). The various conflict management strategies are discussed below.

Accommodating (or smoothing, suppression)

Accommodation talks about working on accepting the opposite partner's views. It involves providing the request of the other partner. This situation usually occurs when one party strives to achieve peace (Sudhakar, 2015). The principle is to provide the other partner's needs, and the problem is solved. In an organization, there is the likelihood that employees who adopt this method of conflict resolution strategy may develop resentment. The strategy principally leads to a reduction of the emotions that usually exists during conflict. This is achieved by emphasising on areas in which parties do agree or placing priority on their commonalities while looking down (de-emphasising) on areas of differences among the parties in the conflict (Gupta & Kerrick, 2014). A typical example in the situation of smoothing is to agree on say, three out of the five recommendations or points demanded by the other party and then trying to convince him/her that the other demands will be met. According to Tim (2011), the process of smoothing does not

primarily resolve the conflict but only tries to convince the next party or all the parties that a solution is eminent and hence there is the need for them to keep going.

According to Warner (2000), there exist instances or situations where a party in a conflict could value a substantial relationship and hence continue the relationship with the opposing party above its own demands and plight. In this case, the party may decide to agree on the demands of the other party by concealing or agreeing to accommodate part of or all the demands of his/her demands. Though such outcomes may appear as if they emanate through compulsory means, the difference is due to fear of losing alright. In this way, the accommodating partner secures the relationship between the partners, accompanied by way of securing good will or the intention of achieving something great in the future (Padilla, Brusset, Kugler, & Sarkar, 2008). Typical example is in a situation where an NGO accepts the demands of an opposing party to keep a project from collapsing. Below are characteristics of this conflict management style and actions for implementation

Symptoms/characteristics

- if you are desperately outmatched in power and the other side employs a competing strategy and will lose anyway
- if the concerns involved are significantly more important to one party
- if one party has a much better solution (position)

Action

- Playing down differences while emphasizing commonalties.

Implementation

- Generally, cover up the differences and claim that things are fine.

Avoiding (or withdrawing, denial)

The avoiding strategy involves a state of either ignoring the problem or delaying it with the hope that the problem will naturally die. This strategy seeks to put off conflict indefinitely by either pretending the conflict has no effect or simply ignoring all the effects of the conflict (Prieto-Remón et al., 2015). Usually, those who practice this strategy are those with fear that they might have problems pursuing their right or they might have low self-esteem. Mostly they are also the marginalized in the society or they think there is nothing they can do to change the situation. There are instances that avoidance may yield or serve as an advantage. This strategy is often considered as a temporal remedy to a conflict situation and hence the possibility that the conflict could erupt in the near future. People might see or classify those who adopt the avoidance strategy as being cowards and possessing the attitude of unresponsiveness to a situation (Warner, 2000). The theory recommends that, this strategy be adopted when there are chances of winning the conflict, when the stakes are low or when the stakes are very high but the party is not willing or ready to pursue it. It is also practiced when one party wants to get ample time to pursue the situation, preserve a neutral mind of the situation or when the party perceives that the conflict will disappear or its venom will lessen due to time. The symptoms of this management style and actions to be taken as indicated below.

Symptoms

- When there is a trivial problem and other matters are more important or urgent
- When there is no opportunity to address it constructively,
- When the potential cost in tackling the conflict is greater than the advantage of tackling it
- To abstain from a quick decision and give time to get more information or support.

Action and Implementation

- Avoid the conflict

Collaborating (confronting, integrating, problem-solving)

The concept of collaboration works by integrating the ideas of several people to take a decision and conclude on a matter. The objective of this principle is to integrate the ideas of several people and strike an acceptable point where everyone accepts. With this strategy, the parties meet face-to-face, talk over the issue and try to resolve their disagreements. The strategy therefore anchors on conflict resolution and hence seeks all measures to resolve the situation. According to Sutterfield et al (2007), when parties decides to adopt this conflict management strategy, their attitudes and behaviours are geared towards generating the best solution capable of resolving the conflict even though they might have differences. The parties work through their differences to generate an amicable solution. The attitude or behaviour of parties may need to be modified or discarded to achieve the best solution. Mostly, the parties aim at achieving a "win-win" situation. This strategy as recommended by Padilla et al (2008) is used in a situation where the conflicting parties have the opportunity to get part of their demands and lose part of their demands. For example, when a conventional power need to be created, when cost of the project need to be revised, when there should be trust established within the parties to keep work going or when there is confidence in the person's ability and when the ultimate objective is to learn. This approach exemplifies an active, creative response to conflict. This management style is used when the following symptoms are shown.

Symptoms

- If there is too much concern for negotiation.

- If no side has a successful, alternative and fusion options available.

- Remove the remaining negative feelings when complete resolutions are required.

- When people work to meet all the issues, the decision is committed to both parties.

Action

- Enter the issue, weight and select a alternative together in competing sides.

- Building confidence and regard by solving connection issues

- Requires complete focus and imagination. It also takes more time than other methods to dig through problems.

- Can be psychologically challenging because both sides have fresh perspectives, thoughts and difficulties to face.

Implementation

- Engage a dialogue ad work for an effective solution

Compromising (or negotiating)

This strategy of conflict management involves both opposing sides of the conflict to give up some elements of their opinions and strike a deal with each other. The concepts is lose little, win little situation, where one party does not get all their assertions implemented but some assertions with integration of some assertions from the opposite partner (Rauzana, 2016). Mostly, this situation prevails when the parties hold equal power and exert equal influence on the subject matter. For example, the system is employed mostly in businesses where each business is likely to lose something but come to an agreement for a common goal which is needed. The strategy to compromise is fundamentally grounded on bargaining or searching for solutions through give and take attitude such that the parties leave with some satisfaction. This strategy emanates due to confrontation (Kerzner,2002). The strategy is best applied when the situation is that there is no outright winner or loser and hence the need to resolve the situation by maintaining relationship among conflicting parties. The stakes involved in this conflict mode are moderate and the parties

to the conflict have some claims that are necessary. In this case, ample time is needed for negotiations so that the parties would reach a solution. This approach like collaborating exemplifies an active, creative response to conflict (Sutterfield et al., 2007). The strategy is used when the following characteristics exist.

Symptoms:

- When both sides submit certain requirements to the overall benefits of the organization.

- When all engaged in a dispute are unrealistic to fulfill completely.

- If a rapid settlement is needed, even temporarily.

- If the results are moderate and do not justify the extensive use of time and energy necessary in collaboration.

- If the importance of relations is greater than the real results of the dispute.

- If both sides ' objectives are equally important and worthy.

Action

- Use negotiation or mediation

- Creates resolutions that aim for equal gains and losses for both parties.

Implementation

- Engage a dialogue with parties

- Assign them to a mediator

Competing (or forcing, assertive, power)

Competing as a conflict management strategy operates as a zero-sum game of which only one person or one side wins. Usually, people who are highly assertive often adopt this principle as their conflict management strategy (Sutterfield et al., 2007). During emergencies, this strategy works best since it leads to easy and fast decision taking. The system could be adopted in

businesses such that the business which succeeds takes all the credit. The approach results from instances when one party tries to impose ideas or solution at the expense of the opposing party. It is a strategy that anchors on a win-lose situation. This conflict management strategy, according to Kerzner (2002) function effectively when a resolution or solution is predicted at the lowest possible level. The higher up or intense the nature of the conflict, the intense the imposition of ideas by the "powerful party" on the opposing party. The theory is best used in situations where there exist a master-slave relationship or a do-or-die situation and the only opportunity for the "weaker party" is to yield in (Rauzana, 2016). The symptoms that characterise this management style are indicated below with actions to be taken.

Symptoms

- It is essential to act quickly and decisively.

- Where a problem is crucial and the course of intervention controversial wants to be implemented.

- When a problem is essential for a company's long-term achievement. When other parties ' demands are insignificant.

Action

- Push a party to accept the decision made by a leader or majority.

Implementation

- All participating sides need to keep working together to preserve cooperative relationships

- Helping the other group know how it benefits your stance and how it can profit from your proposition.

- If needed, educate the other group calmly that you have the authority, impact and capacity to win a control competition and it would be easier not to compromise on the result of your choice.

Alternative Dispute Resolution

The Alternative Dispute Resolution (ADR) concerns the principles and procedures which the parties involved in the conflict use to resolve legal disputes outside the courts (Mueller, 2009). ADR encompasses the process of mediation, arbitration or a mixed approach involving a third party for the resolution of disputes without recognized judgement. This situation is gradually being a common strategy usually adopted in resolving conflicts in Ghana. For instance, the country has the Alternative Dispute Resolution Act 2010 (Act 798) which binds and guides arbitration processes in Ghana. This arbitration guide (Act 798) is anchored on the UN Commission on International Trade Law (UNCITRAL). The country from then has instituted and adopted UN Convention on the Enforcement and Recognition of Foreign Awards, the Convention on Settling Investment Disputes, the UN Geneva Convention and several others. The Alternative Dispute Resolution Act 2010 (Act 798) gives guidelines for settling conflicts through arbitration, mediation and customary arbitration and the enactment of an Alternative Dispute Resolution Center.

Arbitration

In arbitration, the system involves a neutral third party; otherwise called the arbitrator; who adjudicates the process of the conflict resolution process and make the necessary decisions to solve the problem (Ntiyakunze, 2011). Mostly, the person selected to be the arbitrator is someone with special expertise on the matter to be resolved. Sometimes, the person might have legal training. Any dispute that does not end up in court becomes subject to binding arbitration

from an agreement by the parties. This implies that arbitration is a contract with terms and conditions subject to review from the parties. Mostly in commercial contracts involving the sale of goods and services, international trade and most big businesses, there is an agreement on arbitration that binds the parties and sometimes the parties involved may choose an arbitrator to look into their problems should such problems arise in the future (Mueller, 2009). A contract for arbitration can also start after a conflict has risen as a result of an agreement between the parties involved in the conflict. Arbitration, which is binding instead of judicial adjudication, is not enforceable since it is only by an agreement that arbitration can take place. However, once there is an agreement, the agreement becomes binding, and the judicial adjudication becomes involuntary since the courts will enforce it against an unwilling party.

Adjudication

This is an involuntary process and a law court having the mandate to coerce someone into the process or risk suffering the consequences of a default judgement (Shamir, 2003). The court only has the mandate once a plaintiff invokes its jurisdiction. Usually, the judge who comes in as a third party and neutral to the case and appointed by the state has the mandate to run the proceedings and resolve the matter. The system has the judicial procedures highly been structured with formal rules governing each process of the trial. Evidence is presented with witnesses and arguments are made (Gupta & Kerrick, 2014). From the evidence and arguments presented and from the adjudicator's sense based on the principle of the reasoned decision and legal norms, a judgement is made on the case. Whatever the trial decisions are, they are binding to each party. However, a party has the right to appeal the case in a higher court of jurisdiction.

Negotiation and Mediation

The principle of negotiation does not require a third party or a neutral person to solve the case. Instead, the parties themselves make their rules and principles and decides their terms of resolving the matter (Rauzana, 2016). The system of negotiation is involuntary because none of the parties is under any obligation to negotiate with the other party. With negotiations, the process is informal, and there are no laid down rules or regulations governing how one should negotiate. This implies that negotiation is based on consensus and agreement between the two parties on the methods of the acceptable resolution process. After the laid down rules and regulations by the parties, they still have the mandate to modify these rules anytime to suit themselves; but it must be mutually accepted and binding to the two parties (Mueller, 2009). If a consensus is reached, the settlement is not ordinarily subject to judicial review but could be enforced as a contract.

The process of mediation requires the involvement of a third party. However, the mediator in this process has no power to impose any resolution process on the parties. The parties themselves set their own rules, choose the mediator. The role of the mediator is, therefore, to facilitate the process of resolution and help the parties involved to reach a mutually acceptable point to settle their differences (Gill, Williams, Brennan, & Hirst, 2014). The process is typically voluntary, and the process is private and confidential. The mediator is responsible for facilitating the mediation process and managing the process with no standard procedures or fixed rules. Everything works under an informal or unstructured manner. The mediator could spend some time meeting the parties; however, the practice could vary depending on the mediator and the processes suggested by the parties involved (Shamir, 2003).

2.3.5 The Effectiveness of the Conflict Management Strategies - The Thomas-Kilmann Conflict Mode Instrument (TKI)

This study utilized a conflict management tool called the TKI instrument; otherwise referred to as the Thomas-Kilmann Conflict Mode Instrument (TKI) (Dalal, 2017). The instrument is used because it combines all the conflict management strategies discussed earlier. The instrument is usually used to assess the behaviour of people in conflict situations. For instance, the conflict process and causation model of Kelly & Nicholson (1980) and the Lynch Group (2001) have also developed a conflict management approach to tackling conflict issues within organizations. Although designed for industrial organisations, the Kelly and Nicholson model focussed more on pre-conflict issues with an emphasis on power and politics. The issue of conflicts and conflict management processes was not addressed. The Lynch model for all organisations was designed to handle conflicts without considering the causal factors. Nevertheless, the conflict management model that incorporates all the sides' approaches, triggers and behaviors, is stated by writers like Sudhakar (2015), Dalal (2017) and Dangrochiya and Rathod (2017). The distinction between the TKI and other evaluation tools was the result of comprehensive studies that developed claims of equivalent social desirability and eliminated the system's prejudicial elements in terms of cooperation.

All five types of conflict management styles and their differences are also dispute reactions. If a person prefers a particular style, he or she will not use other types. In fact, this model implies that at one stage or another we use each type. Our 'dominant' mode nonetheless represents our specific belief in dispute, choices and a 'convenience area'. Secondary decisions are options for backups when we think that our preferences need to be abandoned, generating the hierarchy of reaction. It is essential to stress that we are capable of changing our main mode and our hierarchy

of responses. If a person really wants a more constructive approach to managing conflicts, changes are entirely possible and a personal option. To change our style, we need to know the options available and then carry out a conscious building skills program where we need them. With discipline and commitment, we can change or enhance our skills and respond as a third Party (mediator, facilitator) as is appropriate to each individual conflict.

Thus, the instrument looks at the conditions under which two people will differ when confronted with a situation. The instrument was designed by Ralph Kilmann and Kenneth Thomas in the early 1970s when they looked into various means of assessing how an individual will process conflict and act to resolve it. To Ralph Kilmann and Kenneth Thomas, they emphasized and tested the habit of an individual to resolve conflict through "collaboration" as the most efficient way. Their reassessment made them come out with a new way of handling conflicts that countered the ability of a person to choose collaboration as a means of conflict management strategy since they perceive that the best conflict management strategy which is mostly desirable in society is the collaboration (Ntiyakunze, 2011). After their findings, they published it and got the attention of a commercial publisher who expressed interest in publishing their results and to support the marketing of this instrument. On testing the reliability of the instrument, it was realized that when individuals were tested on these five conflict management strategies, the results were skewed towards collaboration since it was mostly accepted as the best conflict management behaviour. This affected the reliability of the tool and hence the authors decided to develop a 30 test-based question pairs that tested the behaviour of an individual. Those who were tested with the tool for example needed to choose between a collaborating statement and an avoiding statement (Thomas & Kilmann, 2008).

The instrument measures the average frequency of a person's choice of one strategy over the other. The TKI assessment tool therefore, evaluates the behaviour of individuals and how that influences their choice of selection. In conflict situations, it has been found that the behaviour of an individual could be described with two dimensions (Thomas & Kilmann, 2008). These are the assertiveness and cooperativeness dimensions. The assertiveness is the ability in which the individual seeks to satisfy himself as against the other party in the conflict. The cooperativeness measures the extent to which different individuals strive to satisfy the other party in a conflict. These two dimensions were used to define the five strategies of conflict management as follows;
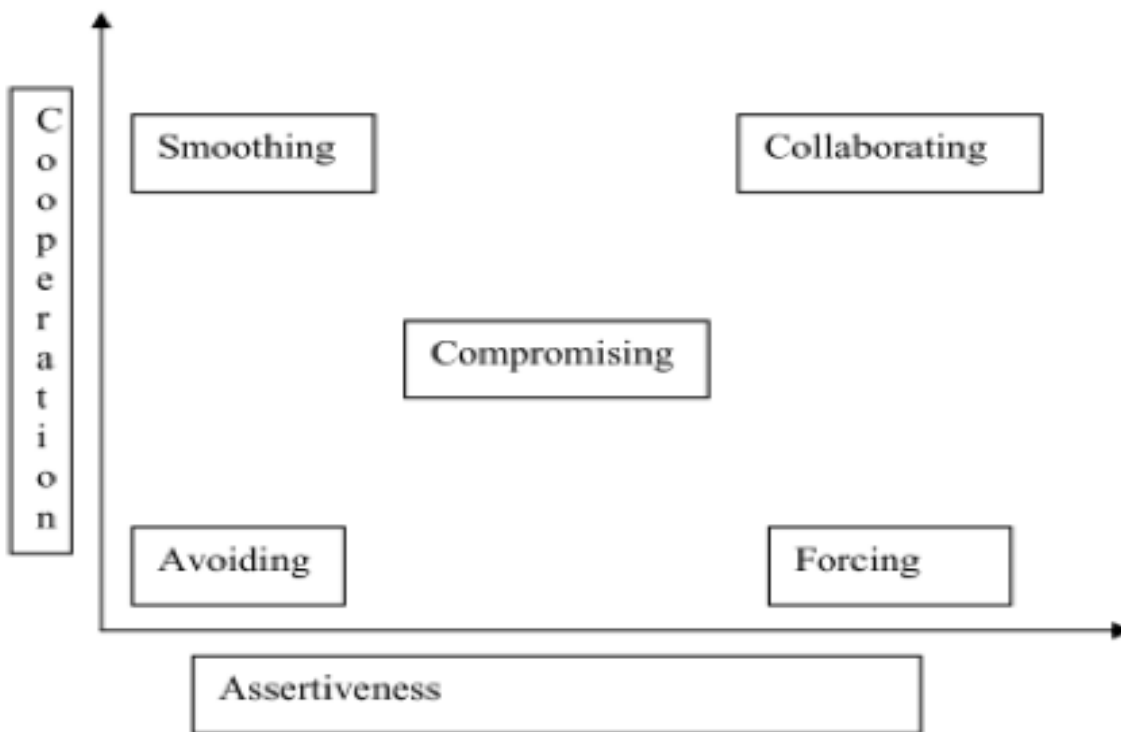
Figure 2.1: Thomas-Kilmann Conflict Mode Instrument (TKI) (Kenneth Thomas, 1976)

Forcing or competing, which is more assertive and uncooperative, depicts the power-oriented mode. During competing, a person becomes so personal centered such that he pursues his or her concerns at the expense of the opposite partner (Thomas & Kilmann, 2008). The person engages

in whatever means to achieve his aim. Sometimes this system could be that the person is fighting for his right or just trying to win at all cost.

Collaborating functions as both assertiveness and cooperativeness. To collaborate, an individual attempts with an opposing partner to solve their differences such that the outcome will benefit everyone (Ntiyakunze, 2011). It is a means of fully investigating into an issue with a concern of the two opposing parties to come out with a solution that will meet both sets of concern. Collaborating might mean investigating difference or misunderstanding to get an understanding of the opposite partner and come out with a befitting solution that satisfies both your concern and the others' concern.

Compromising lies between assertiveness and cooperativeness (Dalal, 2017). To compromise is to find a desirable, mutually acceptable solution that does not fully satisfy all the parties involved. This system lies between forcing and smoothing; thus giving more than competing and giving less than accommodating. The system addresses a challenge but does not thoroughly explores the problem like collaborating.

Avoiding is neither assertiveness nor cooperativeness (Thomas & Kilmann, 2008). In this case, the affected person does not fail to pursue the concern but rather leaves the challenge with the hope that it will die off naturally. The situation could be that the person does not know what to do or sees the challenge as too big that there is nothing he can do to change the situation. It could be the process of delaying or postponing a solution until a later time.

Smoothing or accommodating is the opposite of competing and it is unassertive but cooperative. Usually, a party pursues accommodating when he neglects or become unconcern about his feelings or opinions but rather adopts a solution that addresses only the opposite partner (Thomas

& Kilmann, 2008). The solution to the challenge is such that it is to satisfy the opposing partner. The situation could reflect the stage of charity or yielding to another person's demand because you feel the person has power over you. It is mostly adopted by low-esteemed personalities in society.

According to Ntiyakunze (2011), there is a possibility that the different modes of conflict resolutions either could positively or negatively affect the situation. When a party decides to adopt avoiding in solving a problem, there is the possibility that the conflict might grow worse in the future. Adopting a smoothing process may present a situation where the parties become less resentful since each of the party was involved in identifying common ground in finding the solution. On the other hand, when force is applied to solve a situation, there is a win-lose situation and this increases the resentfulness of the opposing partner or the partner who lost. Hence, the adoption of any conflict management approach should first evaluate the implication of a proposed mechanism on the partners and other people before executing judgment. The compromising approach, for example, can result in a situation where partners might be a little satisfied but most probably, this mechanism or strategy might not be the best (Kerzner, 2002). The application of this strategy to resolve conflicts in construction projects based on technical performance issues might be very risky. As stated by (Zandvliet, 2005), the collaborative approach proves beyond all doubt to be the most preferred approach because the approach allows all parties to have a positive mind-set and together with the opposing partner search for an amicable solution.

Two scales; assertiveness and cooperation can characterize each of the above five modes. There is the TKI instrument (Thomas-Kilmann Conflict Mode Instrument); which has been previously

explained as an instrument that could be adopted in conflict situations to determine the best approach to use in resolving the conflict (McNeish, 2011).

2.3.6 Conflicts and Project Performance

Conflicts are considered in two main perspectives by Vaaland and Håkansson (2003). The study classified conflicts as a disease in organisations with fundamental disruptive, non-associating and dysfunctional aspects. The next perspective or classification is that conflicts are functional. As indicated by Loosemore (2000), conflict could be advantageous since it can bring creativity and innovation of ideas. For example, the two world wars led to various innovative inventions such as radar, aircrafts and several innovative and active devices (development of nuclear power and space race which is currently used in communication). It also led to management proactiveness such as the formation of United Nations, the International Monatery Fund and the World Bank.

Conflict can enhance creativity and innovation (Akiner, 2014). Vaaland and Häkansson (2003) argued that imbalances and difficulties stimulate creativeness and innovativeness. Probably and as indicated by Vaaland (2004), without conflicts, there is the possibility for the absence of progress and creativity in projects.

Another study by Vaaland and Häkansson (2002), illustrated the processes through which conflicts could be made functional and dysfunctional. This is illustrated in Figure 2.2 below. The figure contains two axes; the first axis (x-axis) indicates the extent of the conflict due to the connection with businesses and the second axis (y-axis) indicates the extent of collaboration between the opposing parties as indicated in the figure. The figure illustrates four quadrants with a very challenging fourth quadrant being "well developed" and characterized by a high degree of conflicts and at the same time a high degree of collaboration.

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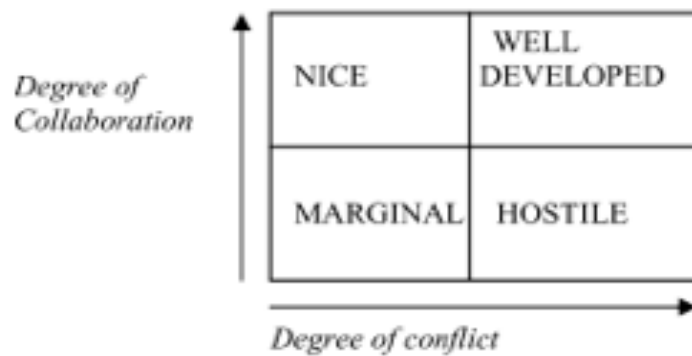
Figure 2.2: Functional and Dysfunctional Conflict Model *(Vaaland and Håkansson , 2003)*

The process was given a detailed explanation by Vaaland and Häkansson (2003) based on studies conducted in industrial business relationships. These relationships were as a result of a seller-buyer relationship, which expresses effective means accompanied with complexity in technology, great interdependence, several internal and external parties either directly or indirectly involved and the pressure of time. This amplifies the situation of a challenged construction project with specialised knowledge demands and skills demand during the design and process of construction. The process involves several participants who usually come together to design and compose the project. The principal challenge that conflicts are functional is based on the principle that conflicts are improved as long as cooperation is maintained among the parties. A study by Vaaland (2004), recommended that conflicts are noted or classify as functional when they add tension or generates tension in existing relationship that extends opportunities and lead to innovativeness.

According to Holahan and Mooney (2004), a conflict could have a paradoxical effect on project decision making and its results. Sometimes, the existence of conflicts leads to an improvement on a company's decision quality, its understanding and commitment to decisions reached, which helps during the implementation process. However, a conflict could worsen the decision-making

process when it leads to a distraction of members from the fundamentality of the project. This challenge exists due to the motive of conflicts and from the experiences gathered from the parties. Obviously, conflict emanates from several dimensions and could lead to either or both constructive form or destructive form. Whenever there is a conflict and the team members debate from differing perspective to come out with an agreement, then the conflict is classified as constructive conflict. Usually, the exchanges and arguments improve the decision-making process of the parties and the issues that surrounds the decision context. On the other hand, destructive conflict occurs when there is a conflict and the team members engage in personal and emotion debates. These debates give birth to tensions and increases the animosity within members in the group, distracting them from the main task or targets set to be accomplished.

2.3.7 Conceptual Framework for the Study

The study was guided by the conceptual framework depicted in Figure 2.3 below.
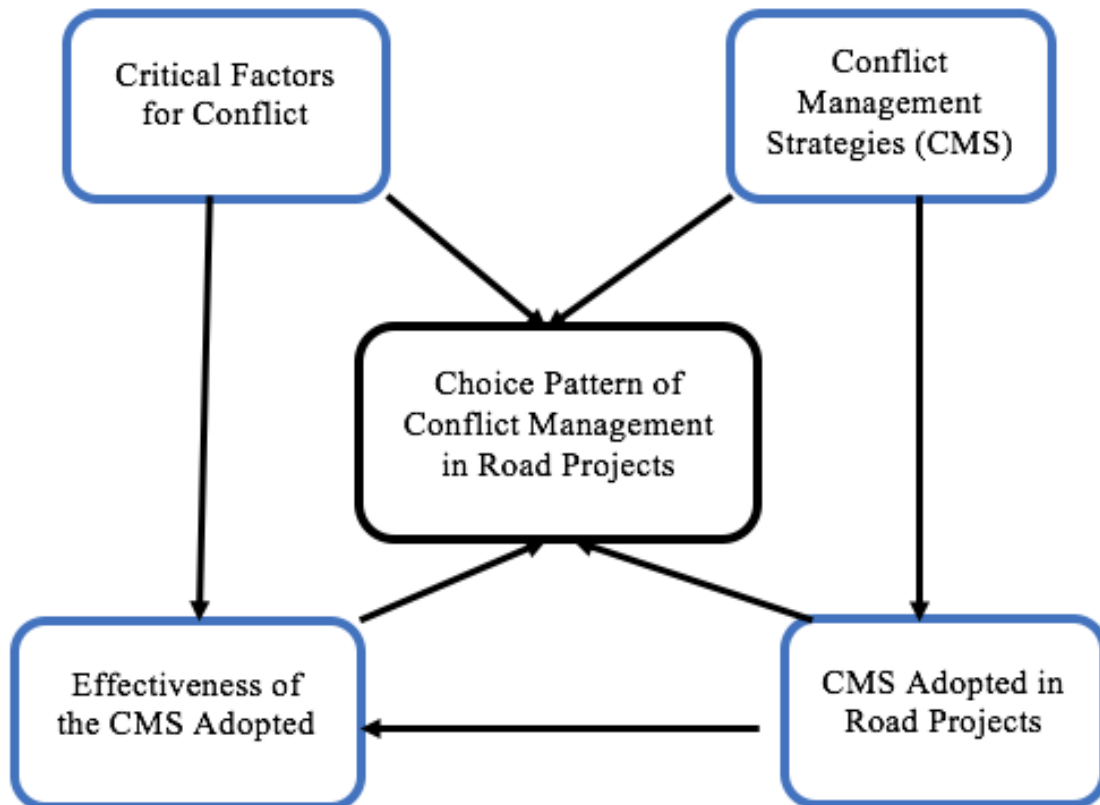
Figure 2.3: Conceptual Framework for the Study
Source: Author (2019)

The approach taken by the researcher is that within the execution of road projects, certain factors tend to trigger conflicts. When these conflicts occur, management of projects seek to solve these conflicts by adopting strategies that they think are effective to them and might bring satisfaction to both parties. These strategies were evaluated using the Thomas-Kilmann Conflict Mode Instrument (TKI). The TKI measures the five conflict management facets proposed by the Dual Concerns Model: competing, collaborating, compromising, accommodating and avoiding. The strategies adopted are likely to be influenced by the role of the project implementing team (Road Agencies).

The Thomas Kilmann Instrument of Conflict Mode is commonly used for assisting both fresh and founded managers from front line personnel to junior leadership teams at all organisational stages (Amakye, 2017; Sutterfield et al., 2007). It is also used by a multitude of government and personal organisations.

Using the TKI evaluation in conjunction with fresh groups, participants learn each other's types of dispute, define future difficulties and define objectives to deal with conflicts as a collective whole. Thomas-Kilmann Conflict Mode Instrument enables group participants, with its defined staff, understand the distinct problem habits within the group, recognize the difficulties facing the group in conflict management, and discover positive methods to meet these issues.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the methodology that underpins this study and explains the methods used in gathering, collating and analysing data. The justification for all adopted methodological choices is given in each section. The hypotheses, research setting, population and sampling used is presented. The instruments used for the data collection are described in detail. Finally, this chapter highlights the ethical considerations that needed to be taken into account. Each of these sections is presented below.

Research methodology according to Kothari (2004) is the systematic method or step by step approach to studying a research problem along with the logic behind adopting the various steps. The analyzed facts help the researcher in reaching a conclusion in a form of solution (s) or recommendation towards the stated problem. Researchers also need to understand the assumptions underlying various techniques adopted and those that are relevant and applicable to the study. It is therefore necessary for the researcher to design his methodology for his problem as the same may differ from problem to problem.

3.2 Research Philosophy

The term research philosophy relates to a system of beliefs, concepts and assumptions in developing knowledge and the nature of that knowledge. These assumptions define how research questions are understood, the methods adopted by the study, and how interpretations can be done on the research findings (Mark, Lewis, & Thornhill, 2019). The philosophical stand of a research is therefore guided by the paradigm of the researcher. In educational research, the term paradigm

is used to describe a researcher's 'worldview' (Mackenzie & Knipe, 2006). This worldview is the perspective, or thinking, or school of thought, or set of shared beliefs, that informs the meaning or interpretation of research data. Epistemology and Ontology are the two main philosophical considerations used in social research (Bryman, 2016). These two viewpoints are discussed below.

3.2.1 Epistemology

Epistemology concerns what constitutes acceptable knowledge in a field of study (Saunders, Lewis, & Thornhill, 2009). Epistemology also provides philosophical grounds for the kind of knowledge needed for a study. This also seeks to come out with the adequacy and legitimacy of knowledge (Ahmed, 2008). Epistemology generally claims the knowledge which is valid in research when organizing knowledge, presenting the knowledge, and accepting the final results of knowledge (Tennis, 2008). Several researchers have identified the two main paradigms of the epistemology philosophy as Positivism and Interpretivism. The positivist view is concerned with the quantitative approach and that of the interpretivist leaned towards the qualitative approach. Fundamental to the positivist approach is the idea that the study of the social world can use the tools of science in order to create understandings, which are verifiable. The positivists assumption is that situations are according to the natural laws and can be subjected to quantitative logic, such that the reality can be observed, studied and even modelled (Manuela, 2010). It advocates the use of natural sciences methods to social reality study and beyond (Bryman, 2012). It is frequently advocated that the positivist researcher will be likely to use a highly structured methodology in order to facilitate replication (Gill and Johnson, 2002). Hence, the emphasis is on quantifiable observations that lend themselves to statistical analysis.

Interpretivism, on the other hand, believes that the researcher and the society interact with each other such that what is believed to be facts are not static and lacks objectivity as they are subjected to the ideas of the research (Agbodjah, 2008). It relies on the interaction and the experience of the researcher and the social world to understand the phenomena. It is important to note that while in the positivism approach, the researcher is not part of the observations, the researcher however is part of the study under Interpretivism. Positivism measures concepts for generalization through statistical methods, contrary to the Interpretivism idea where concepts are incorporated as per the perspective of stakeholders. Interpretivists contend that only through the subjective interpretation of and intervention in reality can that reality be fully understood.

According to Pathirage, Amaratunga and Haigh (2005), a study that requires an objective evaluation and prediction lean towards the positivism paradigm for its epistemological stance. Epistemologically, the study adopted the positivist position as established facts are used to verify scientific knowledge (Bryman, 2012). The research questions posed in Chapter 1, lend themselves with measurement and therefore in order to allow for objective measurements, it makes sense to adopt positivism stance for the phenomenon being studied.

3.2.2 Ontology

Ontology is concerned with the nature of reality. According to Saunders et al. (2009), the ontological philosophy of a researcher espouses the researchers view on the nature of reality. Panas and Pantouvakis (2010) classified the ontological philosophies into objectivism which is concerned with the investigation of social phenomena without social interactions as well as Constructivism postulated that social phenomena are not static therefore require social interactions. Objectivism leans towards the quantitative approach whereas constructivism is linked the qualitative approach. Kwofie (2015) also posited that those with the ontological

views attempt to understand the research phenomenon from the perspective of realist and/or idealist. It added that in the realist consideration, reality is based on pre-determined structures in contrast to the idealist considerations which deals with diverse perceptions from different observers. Considering he connection of the epistemology and ontology, it has been established that positivism paradigm leans towards the realist view whereas interpretivist collates with the idealist view.

The study leans towards the realist paradigm of the ontological assumption since the factors that result in conflict as well as the conflict management strategies are real issues and not abstract. In addition, the experience of stakeholders in determining the factors that result in conflict and the conflict management strategies adopted which fall outside the influence of the researcher are regarded as external facts.

3.3 Research Design

Kothari (2004) says the research design is the conceptual structure within which the research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. Therefore, the research design can be described as a plan, structure and strategy of a research to find out alternative tools to solve the problems and to minimize the variances. The research design is determined by the research problem. According to Kothari (2004), research designs can be conveniently described in three (3) categories. They include exploratory research studies, descriptive/diagnostic research studies and hypothesis-testing research studies. This study adopted the descriptive/diagnostic research studies in line with the research objectives. Descriptive research studies are those studies which are concerned with describing the characteristics of a particular individual, or of a group. This type of design can be appropriately referred to as a survey design since it takes into account all the steps involved in a survey

concerning a phenomenon to be studied. The TKI utilises questions of equal social desirability, which eliminates bias in line with descriptive research designs which must make enough provision for protection against bias. Descriptive research is usually used to portray 'an accurate profile of persons, events or situations', Robson (2002) as cited in Saunders (2009)

3.4 Research Approach

Research approach refers the step by step procedures and action plans adopted for a research from the stage of general assumption up to data interpretation (Creswell, 2009). However, the approach to follow is influenced by the purpose of the study and the type and extent of availability of the information being sought (Hussain, Elyas, & Nasseef, 2013). According to Bell and Bryman (2007), research approach can be categorised into three distinctive approaches, namely deductive, inductive and abductive.

The Deductive approach deals with what is already known as existing theories or ideas about a subject by identifying the theory and testing through observation to confirm the theory (Alghamdi, 2015). This approach involves a top-down approach in the formulation of the theory and testing of hypothesis while maintaining the independence of the researcher. That is to say that, the process starts from the identification of the relevant theories and the use of scientific study through observations to confirm these theories. Deductive reasoning begins with general statements (premises) and, through logical argument, comes to a specific conclusion (Nicholas, 2011). The deductive approach generally implies the use of quantitative methods for the observations, collection and analysis of data to test the validity of assumptions. Deductive approach is mostly adopted for studies in the natural sciences (Noor-Ul-Amin, 2013).

The inductive approach used mainly in theory building begins with the study of specific instances of societal issues, through the identification and development of patterns from the

analysis of data gathered (Neville, 2007). Inductive reasoning starts from specific observations or sensory experiences and then develops a general conclusion from them (Nicholas, 2011). The inductive approach is used to gain more understanding of the problem from the perspective of society such that the researcher is part of the search in identifying the phenomenon, collect data and analyse it for deeper understanding leading to the development of the theory (Saunders *et al*., 2009). According to Saunders *et al*. (2009), the inductive approach most often relies on the collection of qualitative data.

The abductive research approach deals with the weaknesses of the deductive and inductive approaches. Nicholas (2011) refers to this approach as the scientific method. Akaranga and Makau (2016) posited that the abductive approach begins with deriving theories from literature review, presenting the theory in the form of hypothesis, testing the hypothesis in an empirical setting and then drawing conclusions in line with specific instances. Instead of moving from theory to data (as in deduction) or data to theory (as in induction), an abductive approach moves back and forth, in effect combining deduction and induction (Suddaby, 2006).

The research approach adopted for this study was the abductive research approach as it involves the collection of quantitative data for measurements to confirm variables identified from literature and also make general conclusions from specific settings.

3.5 Research Strategy

A strategy is a plan of action designed to achieve a specific goal (Denscombe, 2010). There are several research strategies available and the one chosen is a matter of choice. According to (Denscombe, 2004), there is no single strategy that can be recommended as the best in all circumstances. The choice of a strategy should consider its suitabilitity for providing the kind of data for answering the research questions, its feasibility and ethical considerations.

The researcher adopted the survey strategy for the study in line with the objectives of the study. As posited by Denscombe (2010), surveys are good when looking for patterns of activity within groups or categories of people and best suited for gathering data on relatively straightforward facts, thoughts, feelings or behaviour. According to Kothari (2004), surveys are conducted in descriptive research studies and usually appropriate in case of social and behavioural sciences. This falls in line with the research design adopted for the study.

3.6 Research Method

Research methods are tools for data collection (Denscombe, 2010). They are strategies, processes or techniques utilized in the collection of data or evidence for analysis in order to uncover new information or create better understanding of a topic (Bryman, 2016).

According to Creswell (2013), quantitative and qualitative approaches have dominated in several studies.

Quantitative research is concerned with measurement in the collection and analysis of data (Bryman, 2006; Agbodjah, 2008). This strategy employs the use of mathematical and statistical techniques to identify facts and causal relationships. It is used to gather numerical data which can be measured through statistical analysis. As Denscombe (2010), puts it, quantitative research uses numbers as the unit of analysis. It assists with uncovering patterns or relationships and making generalizations. Quantitative research approach seeks to gather information aimed at describing a phenomenon involving a larger number of participants and to study relationships between facts and relationships how those facts align to theories and the findings of past researches (Fellows & Liu, 2008). According to Bryman (2006), measurement is important to distinguish between people in terms of characteristics in question, provide a consistent yardstick for gauging differences and provide a more accurate estimate of degree. This type of method is

useful for finding out how many, how much, how often or to what extend (Pathirage et al., 2005). Tools such as surveys or questionnaire, observation, document screening and experiments can be used for quantitative analysis.

Qualitative research uses words or visual images as the unit of analysis (Denscombe, 2010). In this approach, the researcher undertakes the study based on the experiences of social and historical individuals through the collection of open-ended and emerging data to develop a theory or pattern (Creswell, 2013). Qualitative research gathers data about lived experiences, emotions or behaviours and the meanings individuals attach to them (Sofaer, 2002). This type of method is useful in exploring how or why things have occurred, interpreting events and describing actions. According to Bryman (2004), this research method enables researchers to gain a better understanding of complex concepts, social interactions or cultural phenomena. Techniques used for gathering research data in qualitative approach are interviews, focus groups, observations, document analysis and oral history of life stories.

In recent times, researchers are gradually shifting towards a blend of both approaches which is commonly termed as a mixed method or triangulated method. One notable reason for this shift towards the emerging trend is to ensure limitations of both approaches are overcome to make studies more robust and rich (Creswell, 2013). The mixed method is a combination of the best of both quantitative and qualitative to undertake an observation for generalization of phenomenon on the assumption that there is an increased understanding of such a phenomenon through the collection and analysis of copious data (Creswell, 2003). It therefore provides a complete understanding than either the quantitative or the qualitative approach (Creswell, 2013).

This study therefore adopted the mixed method research approach because conflict and conflict management deals with opinions, beliefs and behaviours. It therefore requires a comprehensive

approach to understanding the issue by designing quantitative assessment of human behaviour while qualitative data is employed to ascertain the depth of the reasons which influences stakeholders to adopt different conflict management strategies.

3.7 Data collection

3.7.1 Population for the Study

In describing the population in research, Lacey and Luff (2007) defined it as the entire element in the investigative context. Bacon-Shone (2015) also described population as the whole elements, objects and events in a particular setting that the researcher intends to investigate to generalise. The population of this research covered the employees of the Ghana Highway Authority, the Department of Feeder Roads, the Department of Urban Roads in the regions under the study, A1B1 and A2B2 contractors who had worked with these road agencies from the year 2014 – 2018 and recorded conflicts on their projects, Chiefs, opinion leaders, Assembly Members of communities in which these projects with conflicts were recorded and Municipal/District Coordinating Directors (MCDs/DCDs) of the districts in which these projects were executed.

For the road agencies, the employees were ninety-six (96) and the contractors under consideration were fifteen (15). The community leaders were divided into four categories. The first category was the Municipal Coordinating Directors. A total of six districts were considered for the study and therefore six (6) MCDs constituted the population for this category. The communities that the road projects traverse form the communities for the study. The assembly members, chiefs and opinion leaders from these communities form the population for the other three categories of community leaders. The selected projects traversed thirty-eight (38) different communities.

3.7.2 Sample and Sampling Technique

The sample in research is used to describe a subset or a portion of the total population (MacDonald & Headlam, 1999). Beissel-Durrant (2010) also asserted that sample is a smaller unit or subsets bearing the same characteristics of the population of interest. The rationale is to make generalization or inference based on the study of the sample about parameters of the population from which the sample was drawn (Basu, 2017).

Multiple sampling techniques were used in the study. The study selected respondents from the contractors, the road agencies, municipal/district assemblies and the community leaders. With the selection of contractors for the study, consultants (Road agencies) were requested to list projects that had recorded conflicts during project execution from the year 2014 to 2018. The period 2014-2018 was chosen in order to obtain current information which is likely to be fresh in the mind of stakeholders as well as enough contractors for the study since it covers a period of 5 years. The contractors who executed those projects were listed and screened based on the following criteria;

- The contractor's classification should either be A1B1 or A2B2. A1B1 and A2B2 contractors were considered for the study since they were likely to work on large projects that were likely to record conflicts.

- Only contractors who were willing to participant in the study were selected.

- No contractor was counted twice.

Based on the criteria above, seven (7) contractors were selected from the DUR, five (5) from the GHA and three (3) from the DFR. Therefore, the search resulted in choosing 15 contractors from the road agencies for the study.

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The communities in which the selected projects that had recorded conflicts by the road agencies form the communities for the study. The chiefs, opinion leaders and assembly members form the population for this category. Out of the thirty-eight (38) communities along the selected projects, fifteen (15) of them were identified to have actually recorded conflicts between them and contractors or road agencies. These 15 communities therefore were selected since they were involved in conflict and likely to have knowledge on how these conflicts were resolved. The assembly members aided in the identification of the chiefs and the opinion leaders.

Community leaders were therefore selected from these communities. Also, from the search conducted and analysis of the list of projects submitted, it revealed that the projects were located in 6 districts; hence 6 MCD/DCD were selected for the study. Therefore, the community leaders were chosen as follows;

MCD/DCD	- 6 (1 from each district)
Assembly members	- 15 (1 from each community)
Chiefs	- 15 (1 from each community)
Opinion leaders	- 15 (1 from each community)
Total respondents	**- 51**

The study also considered employees of the various road agencies in the study. Table 3.1 contains the sample for the employees. The technical staff are involved in projects and likely to have information and therefore were selected for the study. The technical staff comprise mainly of engineers and quantity surveyors.

Table 3.1: Employees of road agencies

ROAD AGENCY	ALL STAFF	TECHNICAL STAFF	ADMIN. STAFF	SAMPLE	REMARK
GHA	66	23	43	23	Technical staff only
DUR	11	7	4	7	Technical staff only
DFR	19	12	7	12	Technical staff only
TOTAL	**96**	**42**	**54**	**42**	

In summary, the study considered one hundred and eight (108) respondents; 42 respondents from the road agencies, 15 contractors and 51 community leaders.

3.7.3 Source of Data

The study examined primary and secondary data sources. The primary data is data collected specifically for a research assignment by a researcher. The primary data is the information a study should collect because nobody has collected and published the information in a publicly available forum (Kumar, 2014). According to Beissel-Durrant (2010), the data collected by the researcher are primary data using various methods, such as interviews, inquiries and questionnaires. The primary data used for this study was a questionnaire that was used to solicit information from the respondent.

Secondary data was however, adopted in reviewing literature associated with the conflict management and helped to confirm the primary data. For instance, where documents were involved in reaching consensus in some cases, the researcher requested to see them as evidence. The secondary data was also sourced from the road agencies in identifying the contractors to participate in the study. A secondary source of data was used because the procedure affords the opportunity to collect high-quality data and to confirm the authenticity of the primary data collection.

3.7.4 Instruments for Data Collection

The study adopted questionnaire as an instrument to collect primary data from the targeted respondents. Most of these questions were sourced from literature.

The survey used the Thomas-Kilmann Instrument for Conflict Mode (TKI). The TKI evaluates the behaviour of an individual in circumstances of dispute; i.e. circumstances where two people's issues seem inconsistent. The questionnaire included questions which were both open and closed. Open questions were used to allow participants to voice their own opinions and to represent the complete wealth and depth of their opinions.

3.7.4.1 The TKI Mode

The Thomas-Kilmann Instrument for Conflict Mode is a conflict management self-report questionnaire which has been designed and adopted by several studies to measure the manner in which a person deals with conflict. The instrument comprises of five conflict management strategies and measures two main constructs. The first is to identify the dominant conflict management strategy to be adopted by an individual. In addition, it measures the effectiveness of the conflict management strategy adopted by the individual. The instrument begins by identifying two fundamental dimensions of behaviours of conflict:

- *Assertiveness:* This explains the extent to which an individual tries to consider and satisfy his own concerns when there is a conflict.

- *Cooperativeness:* This is the degree to which a person tries to consider and satisfy the opposing party's concerns.

In five (5) methods of conflict management, the Thomas-Kilmann instrument is implemented. The approaches for conflict management involve five main components: competing, collaboration, compromise, avoidance and accommodation.

There is no better way to manage every dispute, as stated in the tool. Each of the five types of conflict management styles has its own set of advantages and expenses. If correctly used in the correct circumstances, each can be extremely efficient. The prime use of this instrument in designing conflict management framework is that to effectively manage a conflict between two parties, there is the need to 1) consider the dominant conflict management strategy adopted by each party and 2) consider the effectiveness and the easiness of the individual to move from one management strategy to another when the dominant strategy fails to resolve the problem. It allows an individual to choose a conflict management style that will be most productive at different situations. It is important to recognize an individual's predominant conflict management style because it influences the manner in which the conflict will be managed. The instrument has been used by (Carneiro et al., 2011; Gupta & Kerrick, 2014; Sudhakar, 2015) to develop various frameworks for resolving conflicts.

3.7.5 Procedure of Data Collection

In collecting data for the study, several procedures were followed. First, the researcher contacted all the stakeholders (the district assemblies, road agencies, contractors, chiefs, and opinion leaders) personally and sought permission for the research. He also requested for the list of contractors for the study from the road agencies. A letter introducing the researcher as a student was taken from the Kwame Nkrumah University of Science and Technology and shown to individuals partaking in the study for consideration to use their data for academic purposes. The covering letter ensured the participants of their anonymity, and efforts were taken to ensure both the anonymity and the confidentiality of the answers of the respondents. Majority of the survey questionnaires were hand delivered while a few were sent through email addresses to reach respondents who were not easily reachable or preferred soft copies. There were also informal

meetings between the researcher and the participants on a number of occasions to explain the purpose of the questionnaire. The contact number of the researcher was also made available to respondents to seek clarification of any question if the need arose.

3.7.6 Reliability and validity checks

The dependability of a research result is pivoted on two key testing methods. They are reliability and validity (Saunders et al, 2009). Subjecting the research outcomes to testing assures you that the findings of the study can survive rigorous scrutiny, and can be proven as being valid and reliable. The Thomas-Kilmann Mode Instrument has been proven to be a valid and reliable conflict management instrument and used over more than 30 years.

Reliability test is important in determining whether a measurement instrument used to arrive at a particular result will yield the same result if used on another concept and that the same data would have been collected when the construct is repeated (Ofori-Kuragu *et al.,* 2016). According to Denscombe (2010), the research instrument should not vary in the results it produces on different occasions when it is used. He further indicated the test-retest approach should produce results that are very similar, thus boosting the researcher's confidence that the instrument is reliable. The study adopted the Cronbach's alpha coefficient to test for reliability. According to Hinton *et al*. (2005), Cronbach's alpha is the most common measure of research reliability. As expounded by Bassioni *et al*. (2008), the most common instrument used in measuring the reliability is the Cronbach's alpha and the acceptable value of the Cronbach's alpha is recommended as 0.6.

Validity of an instrument refers to the extent to which it measures what it intends to measure so as to show the understanding of a research component (Kimberlin & Winterstein, 2008). It

concerns appropriateness of the data in terms of the research question being investigated (Denscombe, 2010).

The study adopted the content validity to check the validity of the data collected. According Drost (2011), content validity is a judgmental type of validity which is achieved by ensuring that the respondents get into the true picture and the meaning of the concepts as purported by the researcher thereby making the domain of the concept clear. The questionnaires were piloted with three experienced experts to ascertain details of wording and understanding in the various constructs. The comments necessitated the choice of 20 pairs of questions out of the 30 pairs from the TKI due to people's resistance to filing out a long assessment.

3.8 Data Analysis Method

The data analysis involves the classification, evaluating and integrating issues, according to Kothari, Kumar, and Uusitalo (2014), to obtain meaning and consequences, to uncover trends and to combine details of occurrences into consistent stories.

The study analyzed the data in the questionnaire both descriptively as well as inferentially. Descriptive statistics are short descriptive coefficients which summarize a given set of data, which may be either a representative of or sample of the entire population. Descriptive statistics are divided into key trend measurements and variation or diffusion estimates. In this study, the means, percentages and standard deviations were utilized.

The study also utilised the TKI to evaluate the effectiveness of the conflict management strategies likely to be adopted during conflicts between the stakeholders.

3.9 Ethical Consideration

The concepts of ethics in research refers to the truthful and fair processes considered for the well-being of the respondents who is to participate in the study (Farese, Budmiger, Aregger,

Bergmann, Frey & Uehlinger, 2008). This research also considered these ethical processes. For instance, the study provided an informed consent to all participants who took part in the study. The consent form was supplied in conjunction with the questionnaires distributed for the respondents of the study. In addition, the researcher convinced the participants to assure them of their anonymity, privacy and confidentiality. This was to ensure that the privacy of the respondents who took part in the study was sought before answering the questionnaires. In addition, the study ensured that the identities of the respondents were preserved and that there was no means that the responses of any respondents could be traced by any third party. The process was to assure participants so that they could provide data without fear or bias.

3.10 Summary of the Chapter

The chapter addresses the research methodology of this study. A description of how the questionnaire was administered. The chapter also explained the sample selection, described the procedure that was used in designing the instrument and collecting the data, and provided an explanation of the statistical procedures that was used to analyse the data. With this background, the next chapter was devoted to the analysis and discussion of the survey results.

RESULTS AND DISCUSSION

4.1 Introduction

This chapter explains the results and findings of the collected data based on the study objectives. The findings are shown in the form of summary tables. Both descriptive and inferential analysis were used in the study. The section starts with the demographic data of the respondents and proceeds with the analysis of the objectives of the study.

4.2 Educational Level of Respondents

Table 4.1: Educational Level of Respondents

	Community Leaders		Contractors		Road Agencies	
Categories	Freq.	Percent	Freq.	Percent	Freq.	Percent
Below Diploma	8	15.7				
Diploma/HND	14	27.5	3	20.0	12	28.6
Undergraduate	21	41.2	9	60.0	20	47.6
Post graduate	8	15.7	3	20.0	10	23.8
Total	51	100	15	100	42	100

Source: Field Data (2019)

From the results in Table 4.1, majority of the community leaders had undergraduate degree certificates. This category of leaders constituted 41.2%. Also, 27.5% had Diploma/HND certificates, 15.7% had certificates below Diploma and 15.7% had postgraduate certificates. With most of the community leaders having a Diploma certificate or higher, it was expected that they could read and comprehend the questions in the questionnaire and answer them appropriately to minimize personal biases.

For the contractors, 60% had undergraduate degree certificates whereas 20% each had Diploma/HND certificates and postgraduate certificates. With all contractors being educated, it was likely that they might have learnt conflict management and hence obtained some degree of

knowledge on conflict management. It was also assumed that they could read and understand the questions in the questionnaire.

For the road agencies, 28.6% had Diploma/HND certificates, 47.6% had undergraduate degree certificates and 23.8% had postgraduate degrees. Similarly, with the employees of the road agencies having educational level of Diploma or higher, it implied they might have attained some knowledge in conflict management strategies and could understand and answer the questionnaire with little difficulty.

4.3 Working Experience of Respondents

Table 4.2: Working Experience of Respondents

	Contractors		Road Agencies	
Category	Freq	Percent	Freq	Percent
Less than 3 years	0	0	0	0
3 – 5 years	0	0	7	16.6
6 – 8 years	2	13.3	6	14.3
9 – 11 years	4	26.7	12	28.6
12 – 14 years	4	26.7	7	15.7
15 years and above	5	33.3	10	23.8
	15	100	42	100

Source: Field Data (2019)

From the results in Table 4.2, 2 (13.3%) of the contractors have been with the construction business for 6-8 years. Also, 4 (26.7%) have been within the industry for 9 – 11 years now, 4 (26.7%) have been with the industry for 12 – 14 years while 5 (33.3%) have been in the industry for 15 years and above. The contractors therefore have much experience in the job and might have been engaged in several conflict management cases.

The study also had 7 (16.6%) of the employees at the road agencies who had worked for 3–5 years and 6 (14.3%) working with the road agency for 6 - 8 years (Refer Table 4.2). Also 12 (28.6%) have worked for 9 – 11 years and 20 (23.8%) have worked for 15 years and above. With

most of the employees in the road agencies having work for 9 years and above, it was expected that they have much knowledge in the proceedings of their organization in relationship with conflict management.

4.4 Reliability Test

In this study, the value of the Cronbach's alpha was computed for each construct and the Table 4.8 below shows the reliability test of the instruments used as calculated from SPSS. From the table below, the value of the Cronbach's alpha for the 9 variables under factors is 0.714, while that of the 20 variables under conflict management strategies is 0.721. Therefore, since all the Cronbach's alpha values as described above are higher than the minimum recommended value (that, is 0.6 as posited by Bassioni *et al*. (2008)), it suggests that the study has a significant degree of reliability.

Table 4.3: Reliability Test

Variable	N	Respondents	Cronbach's Alpha
factors	9	108	0.714
Conflict management strategies	20	108	0.721

4.5 Factors that Result in Conflicts

The study utilized the one-sample t-test to analyze this part of the study. Before t-test analysis, the descriptive of the factors is indicated in Table 4.4.

Table 4.4: Descriptive of the Factors that result in conflicts

Factor	Never	Very Rarely	Rarely	Occasionally	Freq.	Total
Lack of communication	0 (0%)	0 (0%)	0 (0%)	40 (37%)	68 (63%)	108 (100%)
Improper allocation of risk	53 (49.1%)	55 (50.9%)	0 (0%)	0 (0%)	0 (0%)	108 (100%)
Delays in execution of contract	0 (0%)	10 (9.3%)	18 (16.7%)	35 (32.4%)	45 (41.7%)	108 (100%)
Non-inclusion of indigenes in the project	0 (0%)	11 (10.2%)	59 (54.6%)	35 (32.4%)	3 (2.8%)	108 (100%)
Unrealistic pricing	37 (34.3%)	67 (62%)	4 (3.7%)	0 (0%)	0 (0%)	108 (100%)
Breach of terms of contract	20 (18.5%)	43 (39.8%)	45 (41.7%)	0 (0%)	0 (0%)	108 (100%)
Poor quality of work by contractor	0 (0%)	0 (0%)	8 (7.4%)	61 (56.5%)	39 (36.1%)	108 (100%)
Failure of client to honour payments	0 (0%)	0 (0%)	7 (6.5%)	30 (27.8%)	71 (65.7%)	108 (100%)
Contracts awarded to incapable contracts	0 (0%)	2 (1.9%)	5 (4.6%)	51 (47.2%)	50 (46.3%)	108 (100%)

Source: Field Data (2019)

The results from Table 4.4 indicate that all respondents agreed that lack of communication is a common factor that result in conflicts. This included 40 (37%) of the respondents who agree that lack of communication occasionally causes conflict and 68 (63%) who indicated that it frequently results in conflict in the road sector. With improper allocation of risk as a factor that causes conflict, 53 (49.1%) indicated that it never results in conflict and 55 (50.9%) added that it very rarely results in conflict in the road sector.

In addition, 10 (9.3%) of the respondents indicated that they very rarely experience delays in the execution of contracts as a cause of conflict in the road construction industry. The study also had

18 (16.7%) who rarely agreed, 35 (32.4%) who occasionally agreed and 45 (41.7%) who frequently agreed that delay in execution of contract result in conflict in the road projects.

With the non-inclusion of indigenes in the project as a factor that cause conflict, 11 (10.2%) very rarely agreed, 59 (54.6%) rarely agreed, 35 (32.4%) occasionally agreed and only 3 (2.8%) frequently agreed. The study therefore had majority of the respondents who disagreed (those who rarely and very rarely agreed) that the non-inclusion of indigenes in the project result in conflict.

The study disagreed that unrealistic pricing causes conflict. The study had 37 (34.3%) who never agreed, 67 (62%) who very rarely agreed and 4 (3.7%) who rarely agreed that unrealistic pricing cause conflict in the road construction sector.

Furthermore, the study indicated that breach of contract terms does not cause conflict. The study had 20 (18.5%) who never agreed, 43 (39.8%) who very rarely agreed and 45 (41.7%) who rarely agreed. In summary, the study had all respondents disagreeing that breach of terms of contract causes conflict. With poor quality of work by contractors as causes of conflicts in the road construction sector, 8 (7.4%) respondents rarely agreed, 61 (56.5%) occasionally agreed and 39 (36.1%) frequently agreed.

Similarly, 7 (6.5%) of the respondents rarely agreed that failure of client to honour payments causes conflicts. The study also had 30 (27.8%) who occasionally agreed and 71 (65.7%) who frequently agreed that failure of client to honour payments is a common cause of conflict in the road construction industry.

The study also had majority of the respondents who agreed that contracts awarded to incapable contracts is a common cause of conflict. Fifty (50) respondents constituting 46.3% frequently agreed and 51 (47.2%) occasionally agreed that contracts awarded to incapable contracts is a

common cause of conflict. Two (2) respondents constituting 1.9% very rarely agreed and 5 (4.6%) rarely agreed that contracts awarded to incapable contracts is a common cause of conflict.

To proceed with the t-test, the normality of the data was determined using the skewness and kurtosis. This was to satisfy the assumption of normality of data, which is a requirement for the t-test analysis.

Table 4.5: Skewness and Kurtosis of Factors that result in Conflict

Factor	N	Skewness	Kurtosis
Lack of communication	108	-0.544	-1.736
Improper allocation of risk	108	-0.038	-1.037
Delays in execution of contract	108	-0.741	-0.510
Non-inclusion of indigenes in the project	108	0.129	-0.77
Unrealistic pricing	108	-0.097	-0.622
Breach of terms of contract	108	-0.404	-1.091
Poor quality of work by contractor	108	-0.196	-0.557
Failure of client to honour payments	108	-1.235	0.486
Contracts awarded to incapable contracts	108	-0.998	1.476

Source: Field Data (2019)

The data is said to be normality distributed when the skewness and kurtosis values are between -2 and 2 (Bryman, 2013). The skewness and kurtosis values of lack of communication (-0.544 and -1.736), improper allocation of risk (-0.038 and -1.037), delays in execution of contract (-0.741 and -0.510), non-inclusion of indigenes in the project (0.129 and -0.77) as well as unrealistic pricing (-0.097 and -0.622) all had values between the stipulated interval of -2 and 2. All the other variables; breach of contract terms (skewness of -0.404 and kurtosis of -1.091), poor quality of work by contractors (skewness of -0.196 and kurtosis of -0.557), failure of client to honour payments (skewness of -1.235 and kurtosis of 0.486) and contracts awarded to

incapable contracts (skewness of -0.998 and kurtosis of 1.476) also had values within the acceptable range (that is between -2 and 2).

Table 4.6: One-Sample T-Test of Factors that Result in Conflicts

	Test Value = 4				95% C.I of the Diff.	
	t	df	Sig. (2-tailed)	Mean Diff	Lower	Upper
Lack of communication	13.487	107	0.000	0.630	0.54	2.64
Improper allocation of risk	-51.53	107	0.000	-2.491	-2.59	-2.39
Delays in execution of contract	4.688	107	0.000	0.065	-0.12	0.25
Non-inclusion of indigenes in the project	-11.016	107	0.000	-0.722	-0.85	-0.59
Unrealistic pricing	-44.57	107	0.000	-2.306	-2.41	-2.20
Breach of terms of contract	-24.71	107	0.000	-1.769	-1.91	-1.63
Poor quality of work by contractor	4.999	107	0.000	0.287	0.17	0.40
Failure of Client to honour payments	10.063	107	0.000	0.593	0.48	0.71
Contracts awarded to incapable contractors	5.925	107	0.000	0.380	0.25	0.51

Source: Field Data (2019)

The decision is that variables with positive mean difference and significance level of less than 0.05 form the common factors that result in conflict in the road sector. From the results in Table 4.6, lack of communication registered a mean difference of 0.630 and significant at the 0.05 significance level. The implication is that lack of communication is a common factor that result in conflicts. This variable registered a lower value of 0.54 and an upper value of 2.64 meaning, the mean range is between 6.64 (4+2.64) and 5.54 (4+ 0.54). In addition, the variable recorded the highest mean difference. This implies that lack of communication was considered the most common determining factor of conflicts.

The next variable with highest mean difference was the failure of client to honour payments. This variable achieved a mean difference of 0.5943. This value is significant since the significance (2-tailed) value is less than 0.05. The lower and upper mean difference values were 0.48 and 0.71. This means that respondents considered this variable as a common factor responsible for conflicts in the road construction sector.

Additionally, the study also considers the contracts awarded to incapable contractors as a common factor for conflicts. The variable (contracts awarded to incapable contractors) had a mean difference of 0.380. Its significant value is less than 0.05 with a lower and upper mean difference of 0.25 and 0.51 respectively. Other factors considered to be among the common factors were poor quality of work by contractor (with mean difference value of 0.287 and significant at the 0.05) and delays in execution of contract (with mean difference of 0.065 and significant at the 0.05 significance level).

These results confirm earlier findings by other researchers. For example, Ntiyakunze (2011) found that if there are poor communication or personality clashes among members in a project team, it may cause conflicts at some stage of the project life. Examples might be not ensuring effective communication with the other partner, personality clashes among others (Dalal, 2017). Mitkus and Mitkus (2014) said, the mixture of confusion and the restricted capacity of individuals to believe and interact lead to financial disputes. They suggested three factors that drive conflict development. First, the degree of uncertainty that arises from the complexity of the projects is high, secondly, imperfect contracts and thirdly, the opportunism of many parties that try in a competitive marketplace to take advantage of each other. Weddikkara (2003) argues that disputes stem from a range of mutual relations in building initiatives and many disputes result from absence of communication, unclear assumptions, conflicting perceptions and breaches of

contractual conditions. Jaffar, Abdul-Tharim, and Shuib (2011) researched dispute variables in the construction industry using the methodology for literature review and discovered that contracted issues such as early ownership, customer temporary billing delays and incorrect assignment of hazard impact disputes. Gyan and Ampomah (2016) examined the impacts of disputes between stakeholders for the growth of the society and discovered that negligence of stakeholder relations could lead to disputes through efficient communication during plan initiation, conception, and execution.

4.6 Intervention Strategies for Effective Conflict Management

The study utilized the TKI (indicated in Section C of the questionnaire) to examine the intervention strategy of conflict management from the three (3) major stakeholders' perspective. The instrument is in two dimensions; first is the dominant conflict management strategy and the second is the strength of the preference (that is, the willingness to stay or move from one style to the next). The effectiveness of a management style depends on the requirements of the circumstances and an individual's personal predisposition since no management style is right or wrong. The community leaders' perspective of the results is indicated in Table 4.7 and Figure 4.1.

Table 4.7: Descriptive of the TKI of Community Leaders

Conflict Management Strategy	Frequency	Total Responses	Percentage
Compromising	329	1020	32.3
Avoiding	241	1020	23.6
Accommodating	236	1020	23.1
Collaborating	160	1020	15.7
Competing	54	1020	5.3

Source: Field Data (2019)

Note: *Total Responses = Total Respondents (51) x Number of questions (20).*

= 1020

The results from Table 4.7 indicate that the dominant conflict management strategy for the community is compromising. This attained a percentage of 32.3% endorsement with 329 endorsed responses out of the 1020 total responses. They tend to involve the other party of the conflict, give up some elements of their opinions and strike a deal with each other. The concept is a lose little, win little situation, where one party does not get all their assertions implemented but some assertions with integration of some assertions from the opposite partner. Basically, compromising is about negotiating or looking for solutions so that both parties go away with some satisfaction. Compromise, as Kerzner (2002) suggested, is often the result of a contention. The compromise theory shows that this mode should be used if: No winner or loser can emerge, the relationship between the conflicting parties is essential, conflict stakes are limited, and conflict parties are equally strong.

The next preferred strategy for community leaders was avoiding after first adopting compromising. This means that the community delays the conflict, and hope the problem resolves itself without a confrontation. This might be due to the fear of losing the project. They

ignore the conflict thinking that nature (time) or project structures will resolve the conflict. Gupta and Kerrick (2014) reported that people who actively avoid conflict often have low regard or a low-power position. Avoidance may bring the type of a diplomatic escape, postponement of a problem until a stronger moment, or simply retreating from a dangerous position.

This was followed by accommodating with 236 responses constituting 23.1% of the total responses. At this stage, the community leaders are ready to sacrifice their own goals to satisfy the other party. This they do to keep a good relationship with the conflicting party with the aim of achieving a gain in future. The community leaders may see the conflict to be hindering the progress of the project and will rather sacrifice its views for the good of the community.

Collaboration is the next conflict management strategy preferred. The conflicting sides' attitude should, in the case of the adoption of such strategy, lead to a "finest" alternative, although the initial opinions of either or both sides may have to be amended or dismissed, according to Sutterfield, Friday-Stroud and Shivers-Blackwell (2007). They should both strive to achieve a win - win situation. The community leaders try to integrate their ideas with the opposing party to arrive a solution acceptable to both parties.

The last conflict management option for the community leaders is competing. At this stage, they use whatever means available to push the other party to accept their position. Actions such as demonstrations, roadblocks could be used. The results of the study are shown in Figure 4.1 below.
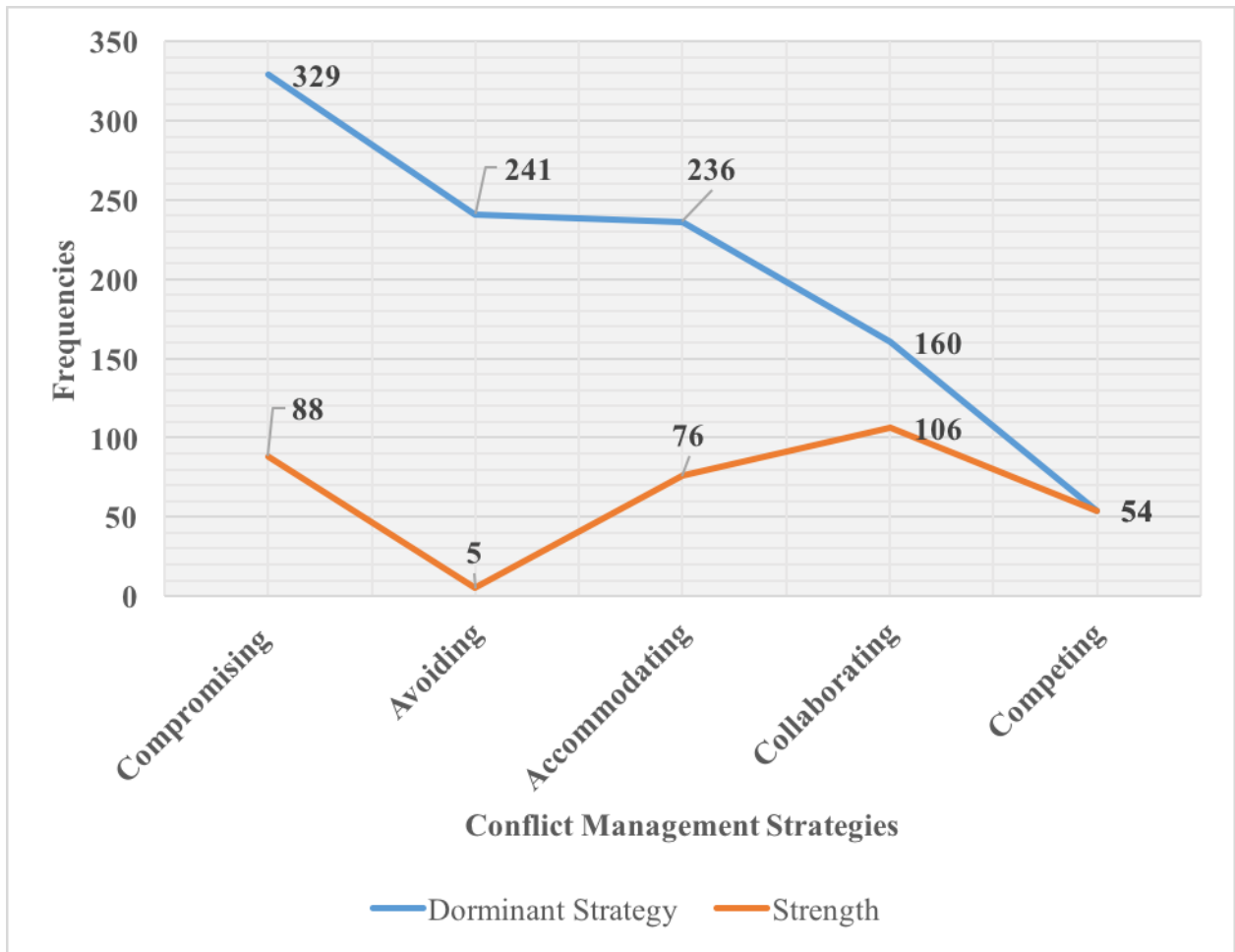
Figure 4.1: Graph of the TKI of Community Leaders

From Figure 4.1, the brown line constitutes the strength of preference (that is, the willingness to stay or move from one style to the next) of the conflict management. The strength is predicted by the difference between the scores of the conflict management strategies. If the difference is high, resistance become high and it indicates that it becomes difficult for one to move from one conflict management strategy to the other. If the difference is low, you may move from one style to the other with ease.

The blue line indicates the dominant conflict management strategy. From Figure 4.1, it becomes difficult for the community to move from the compromising conflict resolution strategy to the

avoiding strategy (strength of 88). However, once at the avoiding strategy, it becomes easier (strength of 5) for them to accommodate the other partner to find a lasting solution to the conflict.

For the road agencies, the results are indicated in Table 4.8 and Figure 4.2.

Table 4.8: Descriptive of the TKI of Road Agencies

Conflict Management Strategy	Frequency	Total Responses	Percentage
Compromising	257	840	30.6
Avoiding	211	840	25.1
Accommodating	167	840	19.9
Collaborating	163	840	19.4
Competing	42	840	5.0

Source: Field Data (2019)

Note: *Total Responses = Total Respondents (42) x Number of questions (20).*

= 840

From Table 4.8, it is realized that the dominant conflict management strategy is also compromising. This conflict management strategy had a frequency of 257 out of the 840 responses and constitute 30.6%. Similarly, this was not surprising since the road agencies are part of the community and hence are likely to share similar sentiments with the community leaders. It involves digging into an issue to identify the underlying concerns of the two individuals and to find an alternative that meets both sets of concerns. Some demands or concerns are dropped while others are accepted.

When this conflict management strategy fails, they tend to work by either ignoring the problem or delaying it with the hope that the problem will naturally die (Avoiding strategy). This strategy seeks to put off conflict indefinitely by either pretending the conflict has no effect or simply

ignoring all the effects of the conflict. They may avoid some conflicts because there is nothing they can do about it and hope time will resolve the conflict. This could be due to factors beyond their control.

The next conflict management styles preferred by the road agencies were accommodating, collaborating and competing in that order. As consultants and project supervisors, road agencies put in all efforts to ensure smooth implementation of projects. They therefore adopt strategies that are not combative in resolving conflicts. Not surprising, as stated by Gill, Williams, Brennan and Hirst (2014), competition operates as a zero-sum game, in which one side wins and the other loses and since projects are carried out in a community and for the community, it is unlikely that this conflict management strategy (competing) will be adopted. When competing, an individual pursues his or her concerns at the other person's expense, using whatever power seems appropriate to win his or her position.
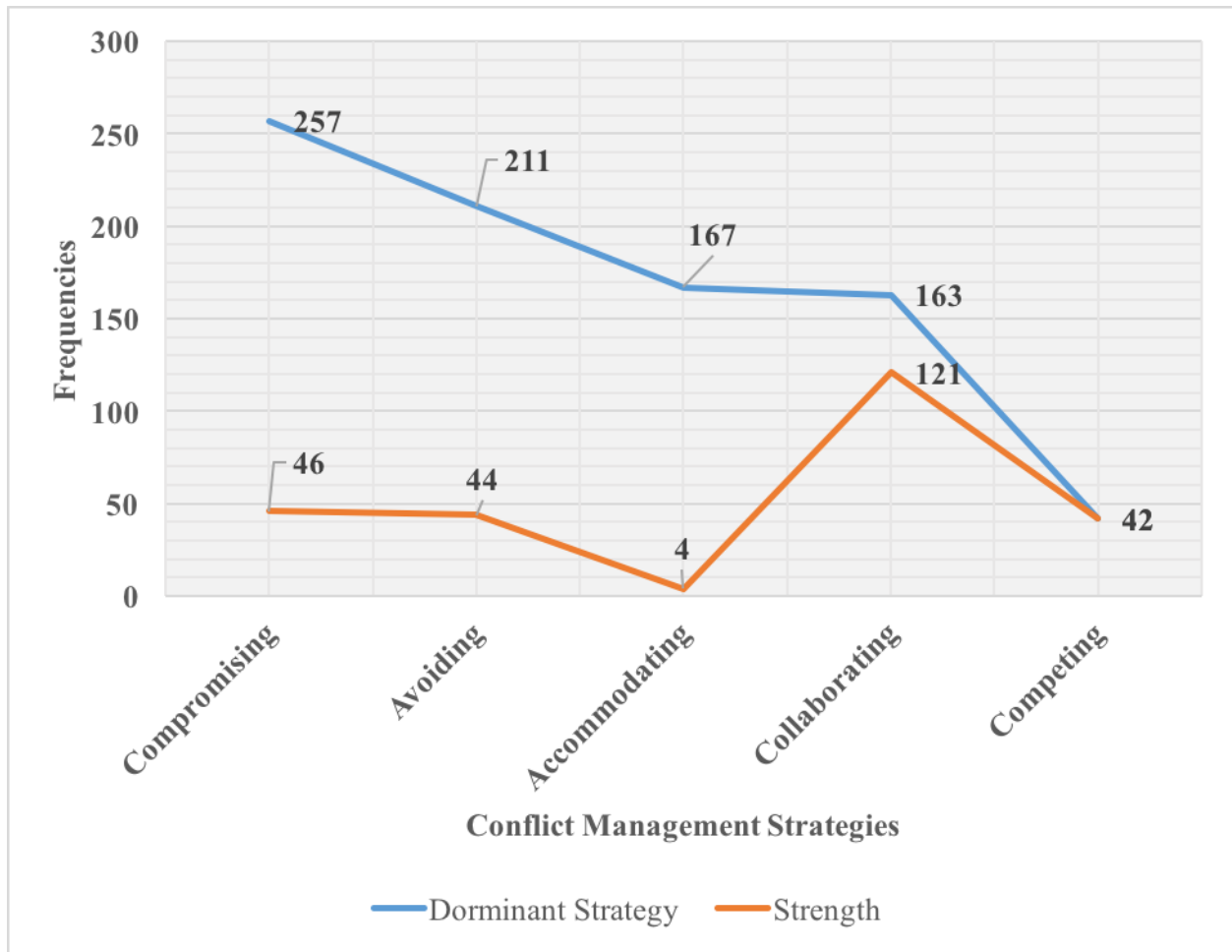
Figure 4.2: Graph of the TKI of Road Agencies

Source: Field Data (2019)

From the results (Figure 4.2), it is noticed that there is usually resistance for employees within the road agencies to move from the compromising conflict management strategy to the avoiding strategy and from the avoiding strategy to the accommodating stage. The resistance from accommodating to collaborating is minimal whereas, the resistance from collaborating to competing is high. It means once at the accommodating approach, it is very easy to integrate ideas and search for the best solution for the conflict. The implication is that the last option for the road agencies to adopt in managing conflict is the competing strategy which becomes difficult to adopt.

The results for the contractors are indicated in Table 4.9 and figure 4.3 below.

Table 4.9: Descriptive of TKI of Contractors

Conflict Management Strategy	Frequency	Total Responses	Percentage
Avoiding	93	300	31.0
Compromising	85	300	28.3
Collaborating	60	300	20.0
Accommodating	45	300	15.0
Competing	17	300	5.7

Source: Field Data (2019)

Note: *Total Responses = Total Respondents (15) x Number of questions (20).*

= 300

The results from Table 4.9 indicate that when there is a conflict, the first conflict management strategy to be adopted by contractors is the avoidance strategy. Contractors try to prevent the matter being dealt with immediately. This may include altering the topic, postponing a debate until subsequently, or merely not discussing the issue of dispute. This is reasonable since contractors are business entities and hence might not want to lose resources in settling out conflict. They are therefore likely to avoid most of the conflicts. The intention to carefully use available resources and make maximum profit might motivate them to adopt this strategy. Contractors may also be of the view that the project structures or the contract provisions would be adequate to resolve the conflict and thus, adopt this strategy.

The next conflict management strategy endorsed by the contractors is the compromising strategy. This conflict management strategy was endorsed by 85 respondents, which constitute 28.3%. It is logical for the contractors to adopt this strategy since they may be able to compromise some of their concerns for the progress of the project. It may be in their interest to let go some concerns in order to achieve their objective of executing the contract.

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From compromising, the next management strategy preferred was collaborating. Obviously, when contractors are not able to compromise, they resort to integrating ideas to find the best solution in the circumstance.

The next strategy adopted by the contractors was accommodating. With this strategy, they accept the other party's views in order to maintain peace and harmony. This may also be due to the anticipation of achieving a future gain.

The study indicated that when conflict arises in the road projects, the probability that contractors will adopt competing is less. This may be due to the time and effort in competing.
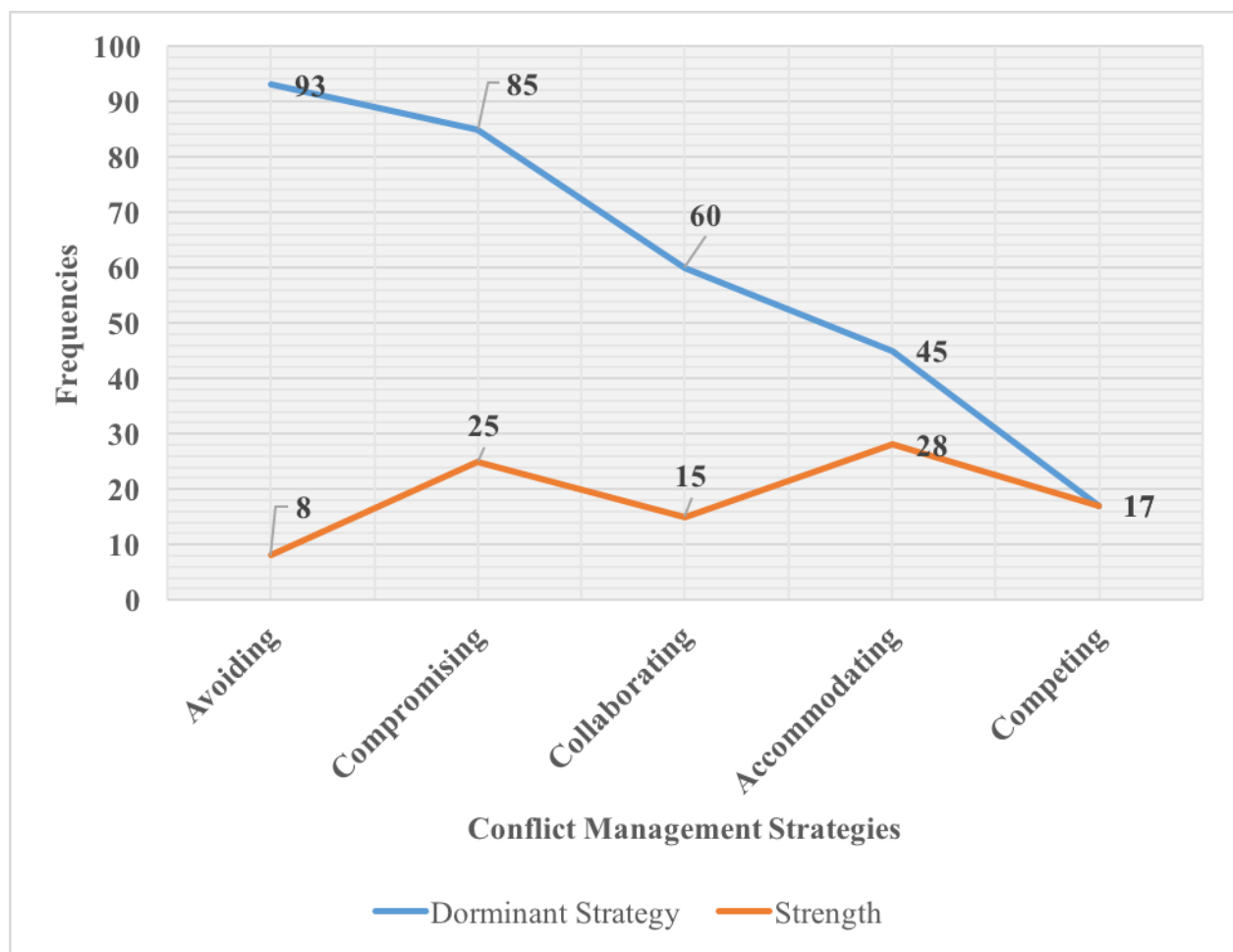

Figure 4.3: Graph of the TKI of contractors

The strength of contractors to move from one conflict management strategy to another is indicated in Figure 4.3. The results indicate that there is a high probability that a contractor will adopt the avoiding conflict management conflict. However, when that fails, it is very easy for them to move to the compromising conflict management strategy (strength of 8). The compromising approach, for example, can result in a situation where partners might be a little satisfied (Gare & Feldman, 2009).

When the compromising strategy fails to solve the problem, the contractors are likely to collaborate with the other party. To collaborate, an individual attempt with an opposing partner to solve their differences such that the outcome will benefit everyone. It is a means of fully investigating into an issue with a concern of the two opposing parties to come out with a solution that will meet both sets of concern. Collaborating might mean investigating difference or misunderstanding to get an understanding of the opposite partner and come out with a befitting solution that is satisfying to both parties. However, moving from the compromising strategy to adopt the collaborating strategy is relatively difficult for the contractors (strength of 25)

The next logical strategy adopted by the contractors was accommodating. Because they want to work in peace and maximize their profit, they accept the conflicting party's views with the aim of reducing the emotions that exist in the conflict. It is relatively easier to move from collaborating to accommodating (strength of 15) than from compromising to collaborating (strength of 25).

The last option is the competing stage and with a strength of 28, it implies that it is difficult for contractors to adopt this conflict management strategy.

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According to Amodu (2012), adopting a smoothing process may present a situation where the parties become less resentful since each of the party was involved in identifying common ground in finding the solution. On the other hand, when force is applied to solve a situation, there is a win-lose situation and this increase the resentfulness of the opposing partner or the partner who lost (Akiner, 2014). Hence, the adoption of any conflict management approach should first evaluate the implication of a proposed mechanism on the partners and other people before executing judgment.

4.7 Analysis of choice pattern of conflict management strategies by stakeholders

From the study, two (2) behavioural paths were revealed as shown in the figure below.
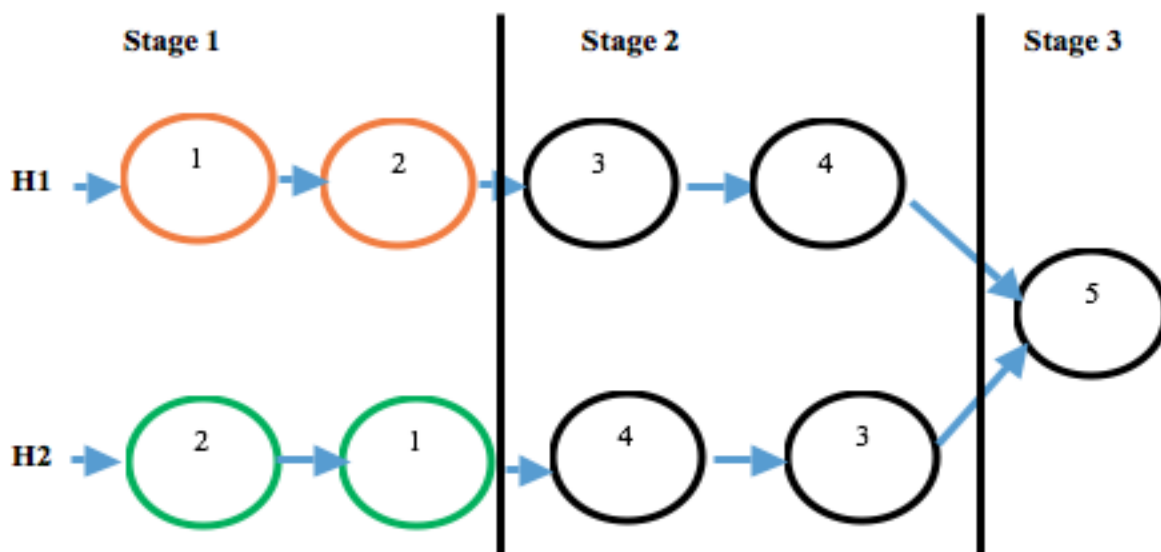
Figure 4.4: Choice Pattern of Conflict Management strategies by stakeholders
Source: Author (2019)

Key: *H1 = Conflict Management Path 1,   H2 = Conflict Management Path 2,*

1 = Compromising, 2 = Avoiding, 3 = Accommodating, 4 = Collaborating, 5 = Competing

Figure 4.4 indicates two behavioural paths that a person will need to consider when managing conflicts (either prevention or resolving it) in the road construction industry. The first (H1) is a

group of people (Community leaders & Road agencies) who are likely to first adopt comprising, then avoiding, accommodating, collaborating and competing. The second (H2) is a behavioural change path for some stakeholders (contractors) which starts with avoiding, then compromising, collaborating, accommodating and competing.

Each path is not considered in isolation but in conjunction with the other.

Hence, to manage a conflict, there is the need to consider the behavioural pattern of the parties in the conflict (Thomas Kilmann Model). Another concept to consider is the ideology that explains that, people or organizations are surrounded by factors in the environment, which affects their existence (the System Theory).

According to the study, the community and the road agencies are always ready to adopt a "middle stand" in an attempt to serve a common good.

With this information, a good initiative by contractors (*contractor's perspective*) to manage conflicts is to always engage with the community or the road agency with an attitude that would be in-line with compromising. This is because there is high resistance for the community and the road agencies to change the compromising position. This is indicated by the strength of the conflict strategy (which is 88 for the community and 46 for the road agencies). Hence, it will be of no use for contractors to avoid the problem but to adopt the compromising process. Contractors are therefore advised to use the compromising as the first means of conflict management. The road agencies could also institute a third party to be responsible or train contractors on compromising process to minimize conflict escalation. All these could be instituted to manage conflicts. From the *community and road agencies perspective,* the best means is to stick to the compromising. This is because it is very easy for the contractors to turn

away from the avoidance to agree with them, which is compromising (indicated with a strength of 8). This becomes stage 1 which is predominantly the compromising style.

Now there is the possibility that compromising might fail to resolve the conflict and in this process, the community might try to avoid the conflict. Avoiding might take the form of diplomatically sidestepping an issue, postponing a problem until a better time, or just withdrawing from a threatening situation. However, since the resistance is high for the community and road agencies to accept the avoidance stage (strength 88 and 46 respectively), the best management strategy from the *contractor's perspective* is to adopt the collaborative strategy. The community and the road agencies would then adopt the accommodating strategy. At this stage, the community is ready to sacrifice its own goals to satisfy the contractor to continue the project. This may be because the community or road agencies might fear that their actions may sabotage the contract. For the community, the likelihood that they will stay at the accommodating stage is high and since this is good for the contractors, the conflict is likely to be resolved. That is, the contractors will be happy to submit their proposals for the community to accept (need to accept the accommodating). For the Road Agencies, at the accommodating stage, their conflict strength is such that they move easily to the collaborating stage (possibly, because they are the consultants and cannot compromise on issues such as quality) and hence the best remedy is for the other party (contractor) to accommodate them. Thus, the accommodation strategy reigns in all cases. With the accommodating, all the parties agree that the issues involved are considerably more important to the opposing party and hence allow the opposing party to decide a better solution. This becomes stage 2 with the accommodating party aiding the resolution of the conflict.

From this option, the only alternative is to compete with the other party to get the conflict resolved. This may lead to redress in the law court and this forms stage 3.

Therefore, considering both path 1 and path 2 in the choice pattern above, the following approach is recommended for the management of conflicts between stakeholders.

Stage 1	**Stage 2**	**Stage 3**
Compromising	Accommodating	Competing
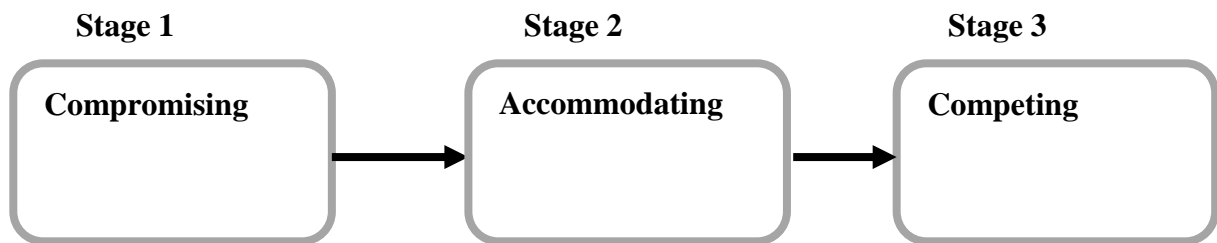
Figure 4.5: Proposed Conflict Management Approach
Source: Author (2019)

The first stage is to try the compromising conflict management style by implementing the actions associated with the management style whilst taking into consideration the personal predisposition of the parties involved in the conflict. The next stage is for one party to show that it has a much better solution for the other to accept (Accommodating) for solution. If the conflict is still not resolved, the only option is for the parties to compete with the possibility of the law court settling the conflict. Therefore, within the road construction industry, this approach could be used as a guide in the management of conflicts.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of findings, conclusion and recommendations from the study. It highlights the summary, conclusions of the survey and recommendations as well as suggestions for further research.

5.2 Summary

The study seeks to explore the choice pattern of conflict management strategies by major stakeholders on construction road projects in Ghana. Regarding concept, the study identified the factors that result in conflict between stakeholders on road projects, the conflict management strategies adopted in managing these conflicts as well as evaluating the effectiveness of these conflict management strategies. The study also proposed an approach to guide stakeholders in the management of conflicts. The study used the descriptive research design with mixed research method. The population of this research covered the employees of the Ghana Highway Authority, the Department of Feeder Roads, the Department of Urban Roads, contractors who had executed projects from the year 2014 – 2018, Chiefs, opinion leaders, Assembly Members and the Municipal/District Coordinating Directors (MCDs/DCDs). In summary, the study considered one hundred and eight (108) respondents; 42 respondents from the road agencies, 15 contractors and 51 community leaders.

5.3 Major Findings

The major findings of the study are outlined below;

1. From the results, lack of communication was identified as the most common factor that results in conflict. The next variable with highest mean difference was the failure of clients to honour payments. Additionally, the study also considers contracts awarded to incapable contractors as a factor that result in conflicts. Other factors considered to be among the common factors were poor quality of work by contractor (with mean difference value of 0.287 and significant at the 0.05) and delays in execution of contract (with mean difference of 0.065 and significant at the 0.05 significance level).

2. The results indicated that the dominant conflict management strategy for both community leaders and road agencies was compromising. They tend to involve the other party in the resolution of the conflict, give up some elements of their opinions and strike a deal with each other. The concept is a lose little, win little situation, where one party does not get all their assertions implemented but some assertions with integration of some assertions from the opposite partner. Compromising fundamentally is to bargain or search for solutions with a give and take attitude so that both parties leave with some degree of satisfaction. When this fails, the next strategy the community and road agencies adopt was the avoiding strategy. This means that the community leaders and road agencies delay the resolution of the conflict, and hope the problem resolves itself without a confrontation. This was followed by accommodating and collaborating respectively. To collaborate, an individual attempt with an opposing partner to solve their differences such that the outcome will benefit everyone. It is a means of fully investigating into an issue with a concern of the two opposing parties to come out with a solution that will meet both

sets of concern. The last option adopted by the community and road agencies was competing.

3. With the contractors, the first conflict management strategy adopted was the avoidance strategy. The contractors attempt to avoid directly confronting the issue at hand. Methods of doing this could include putting off a discussion until later, or simply not bringing up the subject of contention. The next conflict management strategy endorsed by the contractors was the compromising approach. From compromising, the next management strategies were collaborating, accommodating with competing being the last option.

4. The study also proposed an approach to guide stakeholders in managing conflicts on road projects.

5.4 Conclusion

The study concludes that various factors such as lack of communication, failure of client to honour payments and contracts awarded to incapable contractors result in conflicts. Other factors considered to be among the causes were poor quality of work by contractors and delay in execution of contracts. When these conflicts arise, the stakeholders adopt different conflict management strategies in an attempt to manage these conflicts. For the community leaders and road agencies, the first conflict strategy likely to be adopted is the compromising style followed by avoiding. Once the avoidance strategy fails to resolve the problem, they change to adopt the accommodating strategy, then collaborating with competing as the last option.

The community may have chosen this path because it has low power on the project and would not want to lose the project. The community will derive benefits from the project and so they will not do anything to frustrate the contractor or other stakeholders directly involved in the project.

The road agencies, apart from being the supervisors for the project, also live in the community and may directly benefit from the project. They therefore endeavour to ensure peace on the project to make their work easy as project implementers.

With the contractors, the first conflict management strategy likely to be adopted was the avoidance strategy. The next conflict management strategies endorsed by the contractors were compromising, collaborating, accommodating and competing being the last option. The pattern chosen by contractors is not surprising because they usually rely on project structures/contract provisions to resolve most of the conflicts that may arise. The contractor's objective is to maximize profit and would therefore adopt strategies that allow him to work in harmony to achieve his objective.

Following pattern of choices of these conflict management strategies by the stakeholders in this study, it can be concluded that stakeholders are likely to compromise when conflict erupts, then gradually accommodate the opposing party's view before competing or being assertive. It is worth noting that every conflict has a better time to respond to a given solution and there is the need for the one in-charge to know whether to act now, to wait until next time and get ample time to do feasibility studies or convince one party.

The researcher believes that the road agencies have an immense role to play in the prevention and settlement of conflicts from the planning stage of the project to its sourcing and execution.

5.5 Recommendations

Based on the findings and conclusions drawn, the following suggestions are put forward for consideration;

1. The good part is that the stakeholders in the road sector can rely on most of the community leaders in the conflict resolution process. The data revealed that 60% of the leaders indicated that they had ever mediated in a conflict and were successfully in resolving them. These leaders could be a means of reaching to the community and since most communities trust their leaders, it could prove to be an effective means.

2. All the leaders indicated that they had never attended or had any training in conflict management. However, these leaders are involved in conflict management in their respective communities. It is therefore recommended that some of these leaders are selected and trained so that in the event of conflicts they could handle the situation before it goes out of control. This training could be sponsored by the road agencies or the municipal assemblies.

3. In addition, the questionnaire data indicated that none of the stakeholders had ever undergone training in conflict management. Management of the road agencies are therefore recommended to select potential staff and expose them to conflict management strategies so that they could be of help in event of conflict.

4. It is recommended that the road agencies adopt preventive measures of conflict. This could be in the form of taking steps such as education, sensitization and maintain effective communication with project communities and stakeholders. This is necessary to promptly identify potential conflict issues from the onset and take actions to prevent their progression.

5. It is recommended that prior to the commencement of any project, stakeholders especially clients ensure there is adequate funding for the project. This will ensure contractors' payment claims are honoured promptly to avoid conflicts.

6. It is also my recommendation that the choice of contractors for projects is based on merit and capacity. External influence in the awarding of contracts should be minimized.

5.6 Suggestions for Further Studies

Further research is suggested for the following areas;

1. Geographically, the study was limited to three (3) regions. It is suggested that a similar study is conducted in other regions to either confirm or refute these findings.

2. It is also suggested that a study is conducted to determine the effects of conflict on project execution.

3. It is recommended that another conflict management tool or different method should be used to conduct a similar study to either confirm or refute the findings

4. It is also recommended that a study be conducted to develop a comprehensive framework for the management of conflicts on road projects. This could be used alongside the provisions in the Conditions of Contract.

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KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF CONSTRUCTION TECH & MANAGEMENT

Dear Respondent,

The researcher is a final year student of Kwame Nkrumah University of Science and Technology. The researcher is conducting a study on "Conflict management strategies: Exploring the choice pattern of stakeholders on construction projects in Ghana". Kindly answer all questions as honestly as possible and your responses will be treated confidential. I hope you will take a few minutes to complete this questionnaire. Thank you for your cooperation.

SECTION A: RESPONDENT'S PROFILE

1. Educational Level

[   ] Below Diploma   [   ] Diploma/HND

[   ] Undergraduate   [   ] Postgraduate Degree

Others Specify……………………

SECTION B: COMMOM FACTORS THAT RESULT IN CONFLICT

2. Please indicate whether each of the factors stated result in conflict between stakeholders by **ticking [√]** the scale that reflects your opinion. Use the keys below.

1 =Never	2= Very Rarely	3 = Rarely	4 = Occasionally	5 = Frequently

No	Factor	1	2	3	4	5
1	Lack of communication					
2	Improper allocation of risk					
3	Delays in execution of contract					
4	Non-inclusion of indigenes in the project					
5	Unrealistic pricing					
6	Breach of terms of contract					
7	Poor quality of work by contractor					
8	Failure of client to honour payments					
9	Contracts awarded to incapable contractors					
10	Any other, specify…………………………					

SECTION C: CONFLICT MANAGEMENT STRATEGIES

3. In this section, several pairs of statements describing possible behavioral responses during conflict resolution. For each pair, **please circle the "A" or "B" statement**, which is most characteristic of your own behavior.

In many case, neither the "A" nor the "B" statement may be very typical of your behavior; but please select the response which you would be more likely to use.

i   A   There are times when we let others take responsibility for solving the problem.

      B   Rather than negotiate the things on which we disagree, we try to stress those things upon which we both agree.

ii.   A   We try to find a compromise solution.

      B   We attempt to deal with all of theirs and my concerns.

iii. A   We are usually firm in pursuing our goals.

      B   We might try to soothe the other's feelings and preserve our relationship.

iv.   A   We try to find a compromise solution.

      B   We sometimes sacrifice our own wishes for the wishes of the other party.

v.   A   We consistently seek the other's help in working out a solution.

      B   We try to do what is necessary to avoid useless tensions.

vi.   A   We try to avoid creating unpleasantness for ourselves.

      B   We try to win our position.

vii. A   We are usually firm in pursuing our goals.

      B   We attempt to get all concerns and issues immediately out in the open.

viii. A   We feel that differences are not always worth worrying about.

      B   We make some effort to get our way.

ix.   A   We are firm in pursuing our goals.

      B   We try to find a compromise solution.

x.   A   We attempt to get all concerns and issues immediately out in the open.

      B   We might try to soothe the other's feelings and preserve our relationship.

xi. A We sometimes avoid taking positions, which would create controversy.

   B We will let the other party have some of their positions if they let us have some of ours.

xii. A We propose a middle ground.

   B We press to get our points made.

xiii. A We might try to soothe the other's feelings and preserve our relationship.

   B We try to do what is necessary to avoid tensions.

xiv. A We try not to hurt the other's feelings.

   B We try to convince the other party of the merits of our position.

xv. A If it makes other party happy, we might let them maintain their views.

   B We will let the other party have some of their positions if they let us have some of ours.

xvi. A We attempt to get all concerns and issues immediately out in the open.

   B We try to postpone the issue until we have had some time to think it over.

xvii. A We attempt to immediately work through our differences.

   B   We try to find a fair combination of gains and losses for both of us.

xviii. A   In approaching negotiations, we try to be considerate of the other party's wishes.

    B   We always lean toward a direct discussion of the problem.

xix. A We are usually firm in pursuing our goals.

   B We usually seek the other's help in working out a solution.

xx. A We propose a middle ground.

   B We feel that differences are not always worth worrying about.

4. Please have you ever participated in any conflict resolution process between your community and any entity? Yes / No

5. If yes, what was is your success rate (approximately)?
………………………………………………………………………………….
………………………………………………………………………………….

6. Have you attended a conflict resolution or management training before? Briefly explain the content of the training.

7. Do the road agencies sensitize stakeholders on the scope of work and other details before commencement of works? Explain briefly the content of the sensitization

    …………………………………………………………………………………………….

    …………………………………………………………………………………………….

8. What role do you play to ensure smooth and efficient execution of road projects?

9. What procedures are undertaking during conflicts?

    …………………………………………………………………………………………….

    …………………………………………………………………………………………….

Thank You

Researcher's contact number: 050 783 2422; *ernestboom@gmail.com*

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF CONSTRUCTION TECH & MANAGEMENT

Dear Respondent,

The researcher is a final year student of Kwame Nkrumah University of Science and Technology. The researcher is conducting a study on "Conflict management strategies: Exploring the choice pattern of stakeholders on construction projects in Ghana". Kindly answer all questions as honestly as possible and your responses will be treated confidential. I hope you will take a few minutes to complete this questionnaire. Thank you for your cooperation.

N.B Please tick **[√]** where applicable and specify where necessary**.**

SECTION A: RESPONDENT'S PROFILE

1. Educational Level

[   ]   Below Diploma   [   ]   Diploma/HND

[   ]   Undergraduate   [   ]   Postgraduate Degree

Others Specify……………………

2. Working Experience.   [   ]   less than 3 years   [   ]   3 – 5 years
                                [   ]   6 – 8 years   [   ]   9 – 11 years
                                [   ]   12 – 14 years   [   ]   15 years and above

SECTION B: COMMON FACTORS THAT RESULT IN CONFLICT

3. Please indicate whether each of the factors stated result in conflict between stakeholders by **ticking [√]** the scale that reflects your opinion. Use the keys below.

1 =Never	2= Very Rarely	3 = Rarely	4 = Occasionally	5 = Frequently

No	Factor	1	2	3	4	5
1	Lack of communication					
2	Improper allocation of risk					
3	Delays in execution of contract					
4	Non-inclusion of indigenes in the project					
5	Unrealistic pricing					
6	Breach of terms of contract					
7	Poor quality of work by contractor					

8	Failure of client to honour payments					
9	Contracts awarded to incapable contractors					
10	Any other, specify ………………………………………..					

SECTION C: CONFLICT MANAGEMENT STRATEGIES

4. In this section, several pairs of statements describing possible behavioral responses during conflict management. For each pair, **please circle the "A" or "B" statement**, which is most characteristic of your own behavior.

In many case, neither the "A" nor the "B" statement may be very typical of your behavior; but please select the response which you would be more likely to use.

i   A There are times when we let others take responsibility for solving the problem.

       B Rather than negotiate the things on which we disagree, we try to stress those things upon which we both agree.

ii.   A We try to find a compromise solution.

       B We attempt to deal with all of theirs and my concerns.

iii. A We are usually firm in pursuing our goals.

       B We might try to soothe the other's feelings and preserve our relationship.

iv. A We try to find a compromise solution.

       B We sometimes sacrifice our own wishes for the wishes of the other party.

v.   A We consistently seek the other's help in working out a solution.

       B We try to do what is necessary to avoid useless tensions.

vi. A We try to avoid creating unpleasantness for ourselves.

       B We try to win our position.

vii. A We are usually firm in pursuing our goals.

       B We attempt to get all concerns and issues immediately out in the open.

viii. A We feel that differences are not always worth worrying about.

       B We make some effort to get our way.

ix.   A   We are firm in pursuing our goals.

      B   We try to find a compromise solution.

x.   A   We attempt to get all concerns and issues immediately out in the open.

      B   We might try to soothe the other's feelings and preserve our relationship.

xi.   A   We sometimes avoid taking positions, which would create controversy.

      B   We will let the other party have some of their positions if they let us have some of ours.

xii.   A   We propose a middle ground.

      B   We press to get our points made.

xiii. A   We might try to soothe the other's feelings and preserve our relationship.

      B   We try to do what is necessary to avoid tensions.

xiv. A   We try not to hurt the other's feelings.

      B   We try to convince the other party of the merits of our position.

xv.   A   If it makes other party happy, we might let them maintain their views.

      B   We will let the other party have some of their positions if they let us have some of ours.

xvi. A   We attempt to get all concerns and issues immediately out in the open.

      B   We try to postpone the issue until we have had some time to think it over.

xvii. A   We attempt to immediately work through our differences.

      B   We try to find a fair combination of gains and losses for both of us.

xviii. A   In approaching negotiations, we try to be considerate of the other party's wishes.

      B   We always lean toward a direct discussion of the problem.

xix. A   We are usually firm in pursuing our goals.

      B   We usually seek the other's help in working out a solution.

xx.   A   We propose a middle ground.

      B   We feel that differences are not always worth worrying about.

5. Please describe briefly the procedure you go through to procure a contractor for a project

………………………………………………………………………………………….

6. Please, does the agency have a written plan for conflict management and resolution on projects? Yes / No

………………………………………………………………………………………….

7. If yes, who are the stakeholders in the document?

………………………………………………………………………………………….

8. Have you attended a conflict resolution or management training before? Briefly explain the content of the training.

………………………………………………………………………………………….

………………………………………………………………………………………….

10. Does the agency sensitize stakeholders on the scope of work and other details before commencement of works? Explain briefly the content of the sensitization.

………………………………………………………………………………………….

………………………………………………………………………………………….

11. What procedures are undertaking during conflicts on projects?

………………………………………………………………………………………….

………………………………………………………………………………………….

Thank you.

Researcher's contact number: 050 783 2422; ernestboom@gmail.com

APPENDIX C: QUESTIONNAIRE FOR CONTRACTORS

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF CONSTRUCTION TECH & MANAGEMENT

Dear Respondent,

The researcher is a final year student of Kwame Nkrumah University of Science and Technology. The researcher is conducting a study on "Conflict management strategies: Exploring the choice pattern of stakeholders on construction projects in Ghana". Kindly answer all questions as honestly as possible and your responses will be treated confidential. I hope you will take a few minutes to complete this questionnaire. Thank you for your cooperation.

N.B Please tick **[√]** where applicable and specify where necessary**.**

SECTION A: RESPONDENT'S PROFILE

1. Educational Level

[　] Below Diploma　　　[　] Diploma/HND

[　] Undergraduate　　　[　] Postgraduate Degree

Others Specify……………………

2. Working Experience.　　[　] less than 3 years　[　] 3 – 5 years
　　　　　　　　　　　　　[　] 6 – 8 years　　　　[　] 9 - 11 years
　　　　　　　　　　　　　[　] 12 – 14 years　　　[　] 15 years and above

SECTION B: COMMON FACTORS THAT RESULT IN CONFLICT

3. Please indicate whether each of the factors stated result in conflict between stakeholders by **ticking [√]** the scale that reflects your opinion. Use the keys below.

1 =Never	2=Very Rarely	3 = Rarely	4 = Occasionally	5 = Frequently

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6	Breach of terms of Contract					
7	Poor quality of work by contractor					

8	Failure of client to honour payments					
9	Contracts awarded to incapable contractors					
10	Any other, specify………………………….					

SECTION C: CONFLICT MANAGEMENT STRATEGIES

4. In this section, several pairs of statements describing possible behavioral responses during conflict resolution. For each pair, **please circle the "A" or "B" statement**, which is most characteristic of your own behavior.
In many case, neither the "A" nor the "B" statement may be very typical of your behavior; but please select the response which you would be more likely to use.

i   A   There are times when we let others take responsibility for solving the problem.

     B   Rather than negotiate the things on which we disagree, we try to stress those things upon which we both agree.

ii.   A   We try to find a compromise solution.

     B   We attempt to deal with all of theirs and my concerns.

iii.   A   We are usually firm in pursuing our goals.

     B   We might try to soothe the other's feelings and preserve our relationship.

iv.   A   We try to find a compromise solution.

     B   We sometimes sacrifice our own wishes for the wishes of the other party.

v.   A   We consistently seek the other's help in working out a solution.

     B   We try to do what is necessary to avoid useless tensions.

vi.   A   We try to avoid creating unpleasantness for ourselves.

     B   We try to win our position.

vii.   A   We are usually firm in pursuing our goals.

     B   We attempt to get all concerns and issues immediately out in the open.

viii.   A   We feel that differences are not always worth worrying about.

     B   We make some effort to get our way.

ix.   A   We are firm in pursuing our goals.

     B   We try to find a compromise solution.

x.   A   We attempt to get all concerns and issues immediately out in the open.

     B   We might try to soothe the other's feelings and preserve our relationship.

xi.   A   We sometimes avoid taking positions, which would create controversy.

     B   We will let the other party have some of their positions if they let us have some of ours.

xii.   A   We propose a middle ground.

     B   We press to get our points made.

xiii.   A   We might try to soothe the other's feelings and preserve our relationship.

     B   We try to do what is necessary to avoid tensions.

xiv.   A   We try not to hurt the other's feelings.

     B   We try to convince the other party of the merits of our position.

xv.   A   If it makes other party happy, we might let them maintain their views.

     B   We will let the other party have some of their positions if they let us have some of ours.

xvi.   A   We attempt to get all concerns and issues immediately out in the open.

     B   We try to postpone the issue until we have had some time to think it over.

xvii.   A   We attempt to immediately work through our differences.

     B   We try to find a fair combination of gains and losses for both of us.

xviii.   A   In approaching negotiations, we try to be considerate of the other party's wishes.

     B   We always lean toward a direct discussion of the problem.

xix.   A   We are usually firm in pursuing our goals.

     B   We usually seek the other's help in working out a solution.

xx.   A   We propose a middle ground.

     B   We feel that differences are not always worth worrying about.

5. Please describe briefly the procedure you go through to procure a contract from a road agency.

………………………………………………………………………………….

6. Has any of your employees attended a conflict resolution or management training before? Briefly explain the content of the training

…………………………………………………………………………………….

7. Do the road agencies sensitize stakeholders on the scope of work and other details before commencement of works? Explain briefly the content of the sensitization

…………………………………………………………………………………….

8. What procedures are undertaking by the company during conflicts on projects?

…………………………………………………………………………………….

Thank You

Researcher's contact number: 050 783 2422; ernestboom@gmail.com