

**STAKEHOLDER MANAGEMENT PRACTICES OF ROAD
CONSTRUCTION WORKS IN GHANA.
‘A CASE STUDY OF BITUMEN SURFACING OF DWAMENASE-ABOMPE-
ADASAWASE-ANYINAM FEEDER ROAD WITH TWO OTHER ROADS’**

By

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fulfilment of the requirement for the award degree of

MASTER OF SCIENCE IN PROJECT MANAGENT

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DECLARATION

I hereby declare that this submission is my own work and that, to the best of my Knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any degree or diploma at Kwame Nkrumah University of Science and Technology, Kumasi or any other educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

Road construction works involves a sequence of complex operations. In Road construction works, engaging stakeholders before the start of the project is essential. Ghana's road projects are no different from this scenario. The road project traverses in various communities thereby affecting community people directly. It is therefore essential for effective stakeholder management on Ghana's road projects to maintain an appropriate equilibrium between stakeholders' interests. The research therefore adopted the Bitumen Surfacing of Dwamenase-Abompe-Adasawase-Anyinam Feeder Road(16.95km) and other two Road Project as Case Study to achieve its objectives such as intensification of critical external stakeholder needs in road construction works in Ghana, identification of stakeholder management practices in road construction works and the extent to which those practices meet external stakeholder expectations. The aim of the research is to analyze stakeholder management practices in road construction works in Ghana. The researcher adopted the Quantitative Research Method for the study. Sample size of one hundred and (150) responses was obtained using a simple random sampling. Census approach was used for the analysis of the responses from the internal stakeholders. The sampling research instrument used for the responses from the internal stakeholders included the use of the Kendall's mean rank test to rank the needs of the external stakeholders from the responses, relative importance index in determining the level of importance of the stakeholder management practices on the road project to meet the stakeholder's expectations. The findings of the stakeholder need identification are; Build and maintain mutual trust relationship and others. In meeting the external stakeholders' expectations based on stakeholder management practices on a road project in Ghana, it was found out in the research that; Conflict should be resolved in a timely manner among stakeholders on the road project. It is therefore concluded that the findings of this research should be apply to Ghana's road project to help the smooth implementation of road projects within budget and on schedule. It is also recommended that Ghana's Road Agencies takes key interest and apply the stakeholder management practices in the findings of this research on their Projects.

Key words: Stakeholder Management Practices, External Stakeholder needs, External Stakeholder Expectations, Road Construction Works in Ghana.

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LIST OF ABBREVIATIONS

RII	- Relative Importance of Index
EDT	- Expectation-disconfirmation theory
PMBOK	- Project Management Body of Knowledge
SPSS	- Statistical Package for Social Scientists
NIMBY	- Not in my backyard
KNUST	- Kwame Nkrumah University of Science and Technology
Kendall's W	- Kendall's Coefficient of Concordance

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DEDICATION

I dedicate this thesis to God Almighty. He has been the source of my strength throughout this program. I also dedicate this work to my wife Mrs. Akua Konadu Ghansah Mintah and my children Nana Kojo Ghansah Mintah, Yaw Debrah Ghansah Mintah and Akua Ofosuah Ghansah Mintah who spared me part of our family time for this important exercise to become a reality.

CHAPTER ONE

GENERAL INTRODUCTION

1.1 BACKGROUND OF STUDY

According to the PM Book Guide (2017), project stakeholder management involves the procedures needed to identify individuals or organisations that can affect or be affected by the project, assess stakeholder expectations and their impact on the project, and create appropriate management methods to effectively participate stakeholders in project choices and execution. Management of stakeholders includes identifying, classifying and promoting timely, scheduled and coordinated engagement with stakeholders (Chinyio and Olamalaiye 2010).

There are stakeholders in construction undertakings including road construction works, just as there are in other endeavours. Newcombe (2003) and (Smith and Love 2004) as cited by (Chinyio and Olomolaiye, 2010) explains that “the checklist of stakeholders in construction project is often large and would include the owners and users of facilities, project managers, designers, shareholders, legal authorities, employees, subcontractors, suppliers, process and service providers, competitors, banks, insurance companies, media, community representatives, neighbours, general public, government establishments, visitors, customers, regional development agencies, the natural environment, the press, pressure groups civic institutions, etc”

The current leadership of stakeholders outlines an approach to stakeholder management where stakeholders provide resources (Huemann et al. 2016). This approach enables the stakeholders to focus on project needs (Derry, 2012) as cited by (Maddaloni and Davis 2017). However, there is an increasing interest more ethical and sustainable initiatives and a deliberate dedication to fairness and participation of

all stakeholders through a stakeholder management approach (Eskerod and Hueman 2013) as noted by (Maddaloni and Davis 2017). Project execution benefits have a greater impact on project outcomes, but managing lawful stakeholders such as the local community (external stakeholders) will help manage project benefits by reducing project planning and increasing transparency and accountability in decision-making (Maddaloni and Davis, 2017).

The execution of the Kejetia Central Market Redevelopment Project in Kumasi saw the closure of four major roads such as the Asafo interchange to Kejetia through Adum. The closure of the roads created traffic congestion in parts of the city of Kumasi which became a worry to external stakeholders such as commuters, traders and drivers.

The eviction of commercial drivers from the ‘Obra Spot’ – a parcel of land at the Ring Road forming part of the area of the interchange construction also resulted in agitations from the drivers causing some youth in burning tyres to show their displeasure to the interchange construction project. There was a need for stakeholder management on the projects to enhance the success of the project.

This study therefore seeks to analyze the stakeholder management practices in road construction works from the owners of the road asset- the implementing agencies and contractors’ perspectives towards the users of the road facility and community representatives along the road corridors.

1.2 STATEMENT OF THE PROBLEM

Stakeholder management practice in road construction works is extremely important to enable the successful completion of the project where stakeholder expectations are

met. Fundamentally, organizations such as consulting firms and road construction companies are affected by their stakeholder's activities against the organization's functioning goals, development and its survival (Chinyio and Olomolaiye 2010).

Vice versa, stakeholders are also affected by the organization's project activities (Chinyio and Olomolaiye, 2010).

In other industries, such as manufacturing, stakeholder management has achieved excellent success than the construction industry where road construction sector in Ghana is no exception with a poor record of success, (Loosemore, 2006) as cited by (Oppong et al. 2017).

Lartey (2004) noted that, the needs of communities or interest groups are not taken into account by project implementation agencies and contractors when choosing, designing, scoping and executing road project to serve the people of the communities.

Stakeholder expectations are therefore difficult to be met or not met all. There is a lack of workable strategies, plans, techniques or processes that Project Managers in road maintenance works can engage (Oppong et al., 2017). Implementing agencies on road construction works do not normally conduct stakeholder management analysis before project initiation, (Lartey, 2014). This is either the case that legal policy framework regarding stakeholder management practices in the road construction sector is not enforced during road project planning and the executing stage.

An understanding of the technical details of a road construction project by agencies of the Roads and Highways Ministry and contractors is insufficient to guarantee for a successful project completion (Lartey, 2014). Freeman (2010) as cited by (Hartmann

and Hietbrink, 2013), noted, “infrastructure stakeholders are individuals or groups who can affect or are affected by the performance of the infrastructure asset”. These people and groups' satisfaction has become a significant metric for the achievement of the road construction projects which agencies and contractors need to embrace to enhance stakeholder expectations which are difficult to satisfy, to be met with ease (Hartmann and Hietbrink 2013), hence the need for this study to identify the critical stakeholder needs in road construction works in Ghana.

A conceptual model of performance characteristics of stakeholder management conferred by (Oppong et al. 2017) purposive for benchmark, enhancement, monitoring and measuring the performance of construction. Oppong et al. (2017), noted performance goals, success factors and performance indicators as management strategies of stakeholders performance attributes to have interaction to raise performance of construction. The stakeholder management objectives square measure set at the start of stakeholder management to direct actions by stakeholders and reply to stakeholder demands.

The performance objectives in (Oppong et al. 2017) includes efficient communication, transparency and accountability of the technique of selection by (Oppong et al.2017) in disapproval of the project with smart name and media image (Olander and Landin, 2008), company social responsibility and promotion of equity among stakeholders. The success factors were classified as management support success factors: managing stakeholders by adopting social responsibilities, funding stakeholder management activities. data input success factors: clearly process project mission and objectives, (Yang et al. 2009), distinguishing stakeholders, freeman et al. (2007), aggregation data concerning stakeholders, exploring stakeholder needs and

their constraints to project, and acquainting yourself with local information (Aaltonen and Kujala, 2010).

Factors of assessing stakeholders: assessment of stakeholder characteristics -power, urgency and stakeholder closeness (Mitchell et al., 1997) assessing stakeholders' behaviors (Freeman, 1984), and alternative stakeholder assessment factors. the decision - making success factors includes doing a comprehensive analysis of all various project solutions (Ng et al., 2014), involvement of stakeholders in higher cognitive process to make sure effective two-way communication (El-sawalhi and Hammad 2015) and alternative higher cognitive process success factors exist. Principle and Shen (2015) as cited by (Oppong et al. 2017) considers the necessity for Project Managers to implement devised ways to stay project moving forward as a part of Action and analysis of success factors. El-sawalhi and Hammad (2015) proposed that the enforced methods should be reviewed through ongoing evaluation in action research.

Adopting sustainable success factors enables project executives overcome the difficulties they face in dealing with extreme energy stakeholders and conflicting individuals (Oppong et al. 2017). The property success factors involve guaranteeing communication with stakeholders promoting and sustaining sensible relationships among stakeholders (Jergeas et al., 2000) guaranteeing mutual trust and respect among stakeholders and alternative property success factors.

The conceptual model by Oppong et al. 2017, however, did not capture the 'Frequency' at which the identifiable stakeholder management practices are used to satisfy the varied needs, interest and objectives of stakeholders in construction projects including road construction works (Freeman,1984).

This research aims to identify the external stakeholder needs in road construction works in Ghana, to determine stakeholder management practices in road construction works by evaluating the frequencies through which stakeholder management methods are used in road construction works in Ghana.

1.3 AIM AND OBJECTIVES OF THE STUDY

The aim of this research is to specifically analyze stakeholder management practices in road construction works in Ghana, taking into account the following objectives:

- To identify critical external stakeholder needs during road construction works in Ghana
- To identify stakeholder management practices in road construction works
- To determine the extent to which stakeholder management practices in road construction works meet external stakeholder expectations.

1.4 RESEARCH QUESTIONS

1. What are the critical external stakeholder needs available in road construction works in

Ghana?
2. what are the stakeholder management practices in road construction works.
3. What extent does stakeholder management practices in road construction works meet

external stakeholder expectations?

1.5 SCOPE OF THE RESEARCH

The research is delimited geographically and contextually. Contextually, the research centers only on the study of management of external stakeholders in road construction works in Ghana. Geographically, the research uses the under listed three projects located in the eastern of region of Ghana and supervised by the Department of Feeder Roads as a case study:

- Bitumen Surfacing of Dwamenase-Abompe-Adasawase-Anyinam and other Feeder Roads(16.95km)
- Bitumen Surfacing of Akropong-Larbikrom Feeder Road and others (65.90km)
- Trial Construction of Akote-Obomofo Densua-Asiedu Feeder Road Phase 2(km 2.70-4.40) with provisional works for (Km 4.4-5.55)

This study does not cover internal stakeholder management practices in road construction works.

1.6 SIGNIFICANCE OF THE RESEARCH

The study will serve as a guide for the Roads and Highways Ministry, road construction agencies and contractors to manage their external stakeholders in a professional manner and with ease. The study will help road construction practitioners to capture the value of effective stakeholder management on their external stakeholders. The value of effective stakeholder management on external stakeholders will then have the potential of minimizing conflicts between implementing agencies or contractors and community folks along the road project corridors. The effective

stakeholder management on external stakeholders will also help project to be completed on schedule and on budget.

The study will also contribute to knowledge already available in managing external stakeholders in road construction projects and will serve as the basis for further studies into stakeholder management on external stakeholders of the road construction industry.

1.7 SUMMARY OF METHOD

The research method includes the adoption of a primary data and secondary data sources of collecting data for the research. The primary data source involves face-to-face interview, a pilot questionnaire survey and the administering of questionnaire survey. The method of purposive sampling technique will be used to collect data from the respondents via questionnaires. The Descriptive data analysis tools such as the mean and the mode will be used to describe the measure of central tendency of the data. Content analysis method will also be used to analyse the data. The secondary data aspect of this research will be collected from articles, text books, websites and newspapers.

1.8 RESEARCH ORGANISATION

This research study is organised into five chapters. Chapter one is the introduction of the research and it explains the research problem. Chapter one also indicates the Aim and objectives of the research, it enumerates research questions, explains the scope of the research and significance of the study.

It also provides insight into the methodology used for the research, under the summary of methodology.

Chapter two reviews the literature on stakeholder management practices with a focus on the external stakeholder's management in road construction works. Specifically, the study will review literature on external stakeholder needs in road construction works, best stakeholder management practices with emphasis on external stakeholder management in road construction works, the impact of inefficient management of external stakeholders in road construction works and also literature review on how external stakeholders contribute to road project success in Ghana.

The third chapter covers the research design, research method, target population, sampling technique and sample size, methods and instrument for data collection and the data analysis tools.

Chapter four is a presentation of research findings and discussions. The result of the empirical survey will be reported in this chapter and each finding will be supported with the findings of existing scholarly works. The analysis will be done to reflect the research objectives. Chapter five will summarise the research work and make conclusions based on the findings that will be made. The study will give recommendations for academic purposes, road construction industry and the government at large.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This segment of the research explores different knowledge expounded by others on various knowledge stakeholder management practices subject and reviews literature by other Authors to support the research. The review areas have been restricted to topics; for instance, such as, stakeholder management theory, stakeholder theory, identification of external stakeholder needs in road construction works, best practices in stakeholder management on infrastructure projects, how external stakeholder expectations in road construction works are managed, and how external stakeholders contribute to road project success.

2.2 STAKEHOLDER AND STAKEHOLDER MANAGEMENT THEORY

2.2.1 Who Are Stakeholders

A Stakeholder Approach (Freeman 1984), defined "stakeholder" as "any group or person that may or may be influenced by the accomplishment of the company's goals."

Freeman (1984) recognized that in 1963 at the Stanford Research Institute the concept of stakeholders arose through an international memo. Freeman not only acknowledged the importance of stakeholder management, but also established as stated a stakeholder management framework (Freeman, 1984) (Yang et al. 2015).

Freeman (2010), explained the concept of the term “stakeholder” by stating the original composition of the” term stakeholder” as shareowners, employees, customers, lenders and society.

Donaldson and Preston (1995) as cited by (Yang et al. 2015) shows that, stakeholder groups need to be understood by organisations' executives to enable the formulation of corporate objectives for the survival of the organisation which an argument was the SRI researchers raised.

Other academics replied to Edward Freeman's job on stakeholder significance by studying stakeholder theory from three facets, i.e. ' the descriptive or empirical facet (trying to understand stakeholder leadership methods and methods), The instrumental facet (researching the impact on the accomplishment of company performance goals of stakeholder management) and hence the normative facet. Then, based on the stakeholder dynamics idea, the three facets proposed for stakeholder theory studies were converted into two models by (Mitchell et al., 1997) and Rowley (1997). Mitchell et al. (1997) as quoted by (Yang et al. 2015), "suggested that categories of stakeholders may be known by the ownership, or attribution, of one or three characteristics of partnership: power, legitimacy, and urgency. By assessing the ownership of these three features, project managers will understand the shift in stakeholder salience rather than analyzing stakeholder features.

2.2.2 Stakeholder Management Theory

A stakeholder approach to strategy became necessary in the 1980's. Strategic management-A Stakeholder Approach book by R. Edward Freeman was published in 1984.

Mitroff (1982) and Emshoff (1978) also studied on stakeholder approach to management. External stresses on the company are increasing with a reduction in the company's inner flexibility to cope with.

“The emergence of a multitude of government regulations, corporate critics, media attacks on a firm put the manager in a pressure cooker” (Freeman, 2010).

Freeman (2010) noted that increasing the role of government in today's business organization and that the relationship between business and government in the U.S. is based on watch-dog principles.

Another internal demand on an organisation is the problem of stakeholders with the quality of the environment, i.e. clean air, water and soil, and natural resource conservation. Studies of (Freeman 2010), (Ackoff, 1974) and post (1978) argued that organisations have four basic mode for coping with a changing external environment. “The first mode inactivity, involves lingering the changes and continuing business as usual”.

In the second mode, reactivity includes waiting and reacting to something." "However, an external force must stimulate reaction. The third mode, proactivity, includes the attempt to predict the internal modifications that are taking place and to place the organisation before the reality (Freeman 2010).

“The proactive mode is anticipating”. “The fourth mode of coping with external forces is interactive mode, that is, active involvement with external forces and pressures that seeks to create the future of all concerned”. The concept behind the management of stakeholders was to attempt and create a structure that would address the issues of executives troubled with environmental turbulence and change regarding their organisational operations.

Traditional strategic frameworks have not helped managers generate new strategic directions, nor have they helped them perceive a way among most changes to generate new opportunities.

As Freeman pointed out, "Our current theories are inconsistent with both the quantity and the types of change taking place in the business environment of the 1980s... Therefore, a new conceptual framework was needed" (Freeman, 1984, pg. 5).

A strategy taken by stakeholders was a reaction to the present challenge. A bare play on the term 'stockholder,' strategy to extend the concept of strategic management beyond its traditional economic roots by identifying stakeholders as any group or person impacted by or capable of affecting the accomplishment of the goals of an organization.

Elias et al. (2002) clarified in a stakeholder management literature map that since then the concept of stakeholder has been positioned in four primary fields, in particular, corporate planning, theory of the scheme, corporate social responsibility and theory of organization. New stakeholder management views were created wherever stakeholder management theory is mentioned using descriptive, instrumental and normative techniques (Jones, 1995), the environment of stakeholders is seen as dynamic rather than static (Freeman, 1984).

Further study by Mitchell et al. (1997) revealed that "classes of stakeholders could be identified by the possession, or the attributed possession, of one or more of three relationship attributes: power, legitimacy, and urgency". "By analyzing the possession of these three attributes, project managers can realize the change of stakeholders' salience". "Rowley (1997) focused on the network of stakeholder relationships". "Rowley (1997), acknowledged that stakeholder relations are not static, they are

dynamic and in a constant state of flux. The attitudes and actions of stakeholders may change at different stages. This reflects the dynamic nature of the relationship between stakeholders”.

Subsequently, (Yang and Shen, 2014) disclosed that the last decade has seen a lot of stakeholder theories and empirical studies rising in line with the construction industry. Bourne (2005) planned the Stakeholder Circle Methodology; Olander (2006) implemented the Stakeholder Impact Matrix in practice; and in 2008 a group of academics such as Chinyio and Akintoye, Olander and Landin and Rolwlinson and Cheung based on their findings on stakeholder management in the Special Issue of Construction Management and Economics (Chinyio and Akintoye 2008; Olander and Landin 2008) .

Stakeholder management includes characteristic and classifying stakeholders by enabling in a very timely, scheduled and coordinated way each original and resulting commitment with them. (Chinyio and Olomolaiye 2010).

This includes identifying completely distinct classes of stakeholders in a project; collecting information on them; identifying their tasks in a project itself; identifying their strengths and weaknesses; identifying their approaches; predicting their behavior and creating and applying a stakeholder management approach to handle stakeholders (Cleland, 2002) as quoted by (Chinyio).

Stakeholders like internal, external stakeholders and others are sorted in many respects. Stakeholders are often split into internal stakeholders and external stakeholders in a specific project.

Internal stakeholders are the coalition project members or offering project financing. The project strongly are influenced by external stakeholders (Winch and Bonke 2002) Sutherfield et al. 2006)

2.2.3 Stakeholder Needs identification in Road Construction

2.2.3.1 Environmental and social Needs

Two aspects of needs; environmental and social needs have been highlighted in information from stakeholder management. Stakeholders (particularly residents) seeking additional requirements or complaining about requirements and stakeholders (particularly authorities) regulating environmental and social requirements.

Residents raised their concerns in three project instances in demands for requirements from stakeholders.

The issues included emissions of dust and noise created by the job of the project and the rubbish and dirt left behind by the execution of the project. The affected citizens generally used the media to take their project issues to the general public's eye. The project normally reacted rapidly and attempted to solve or mitigate the stakeholder-affected issues.

Individuals requested greater thinking on the environmental and social elements of the project deliverables on significantly fewer occasions. An instance is when performers requested to include extra art in the design of the new subway stations in order to satisfy the art representatives' expectations. Once some citizens (and politicians) became troubled about the undoubtedly insufficient air filtering resolution of the new tunnel that caused air pollution, angry debate within the press was triggered in a tunnel building. As revealed by Newspaper the scenario: Tunnel air pollution affects neighboring inhabitants. "Shouldn't filter the exhaust air? "The inhabitants ask".

2.2.3.2 Communication Needs

Communication is thus vital to project success that it has been referred as the lifeblood of a project by project professional person (Zulch, 2014).

External Stakeholders are thus included in project presentations and receives progress reports, project updates, changes occurring within the project management set up and changes to project documents as vital information (Mulcahy et al. 2018).

Talukhaba, Mutunga and Miruka (2011) agree on the basic role of feedback in communication. Interventions are needed to reinforce communication wherever feedback is absent, delayed or not forthcoming, it's thus vital to monitor communication and relationships with stakeholders to reinforce project success (Mulcahy et al., 2018). Project communicators ought to perpetually monitor and review the success of their communication processes upon assessment basis.

The receiver of the message like the external stakeholder ought to understand the message to avoid ineffective communication.

Ineffective communication with stakeholders will thus conjointly cause misunderstanding among stakeholders and Project managers' in respect of construction projects.

Steyn, 2008 disclosed that project management requires continual reselling of ideas, explaining the project's scope and methodologies to stakeholders (government, management, organizations and departments concerned).

The problem of threats from service providers, negotiation to settle conflicts or social conflicts between project team members impacts timetable, price, personnel safety and also project quality (Maslej, 2006), but enhanced communication between

stakeholders by the project manager could lead to fewer failures, innovation and technical alternatives, totally affecting the standard and retrofitting. Therefore, the construction project manager requires abilities to efficiently interact with the project's inner and external stakeholders (Zulch, 2014).

2.3 A STAKEHOLDER APPROACH AND MANAGEMENT PRACTICE

2.3.1 Stakeholder Approach

Collins and Porras (1994) "Built to Last" informs the tale of the extensive use of stakeholder approach by many successful companies with a lot of multinational elite included.

More importantly, they discovered that in practice the stakeholder approach predates stakeholder theory's official articulation. More importantly, they found that the stakeholder strategy predates the scholarly stakeholder theory's formal articulation in practice.

Svendsen studied businesses that build cooperative stakeholder relationships as part of their stakeholder strategy (Svendsen, 1998).

Svendsen (1998) illustrates the evolution of Wal-Mart, Marks and Spencer, Saturn, BankBoston and British Telecom and growing around the globe to BC Hydro, Motoman Inc., Stillwater Technologies, and Van City Credit Union through cooperative interactions with stakeholders.

Svendsen concludes that the capacity to balance the interests of all stakeholders in an increasingly volatile world will be a defining feature of successful businesses in the next century. This does not imply that businesses can always fulfill the interests of

everyone. However, companies with a strong set of values that can clearly communicate their corporate goals will maintain a stakeholder connection.

Wheeler and Sillanpaa (1997) trace the use of the stakeholder approach of IBM to the body shop by Robert Owen, William Morris, Thomas Watson. Their study shows the history of stakeholder suggestions, intent and functional execution. They improve and show the use of integration cycles that favorably strengthen that assist create higher and more stakeholder cooperative relationships. They also emphasize the need to re-describe trade creating greater and more cooperative relationships among stakeholders beyond the prospect of maximizing income, but not always in contradiction with it. There was a need for Shareholder Value rationale for quality community outreach packages in addition to traditional revenue generation.

2.3.2 Stakeholder Management Practices in Road Construction Works

Road construction works involves a sequence of complex operations. Different stakeholders in the project in which they are engaged have distinct responsibilities, kinds of investments and interests. For building projects such as road construction works (Eschenbach and Echenbach 1996), engaging stakeholders before the start of the project is essential.

According to Cleland (1999) and Karlsen (2002), it is essential for effective project delivery to manage various stakeholders and maintain an appropriate equilibrium between their interests. Olander and Landin (2005) cited by (Yang and Shen, 2014) revealed that, negative attitude towards a construction project by stakeholder has the ability to obstruct the project's implementation.

The adverse attitude towards stakeholders could lead to time, price and quality overruns that could result from conflicts and controversy over project design and execution (Yang and Shen, 2014). Their research shows that stakeholders' requirements and impact should be assessed and regarded as a significant step in any building project planning, execution and closure.

The project objective should be clear to all stakeholders while feedback from stakeholders being handled by the project team to solve stakeholder problems on the project (Jergeas et al. 2000)

"Many issues can be overcome if stakeholders are actively involved in early planning and incorporated into the project team and if a systematic method is used to define and handle stakeholders in the project delivery system" (Jergeas et al. 2000) as mentioned (Yang and Shen, 2014). Jergeas et al. (2000) recognized that this would allow stakeholder expectations to be managed, hidden agendas brought to the surface, and project priorities set.

However, the problem of stakeholders and their governance was not given needed attention in the construction industry (Rowlinson et al. 2010).

Management of stakeholders was rather ad hoc, as there are no good strategies, plans, techniques, or procedures to handle building project stakeholders. Yang and Shen (2014) cited Widén et al. (2013) as saying that stakeholder engagement must be an essential component of the construction innovation process.

Young (2006) regarded the phase of collecting data about stakeholders in building projects to be crucial, indicating a possible creation of a formal strategy to stakeholder management in favour of all stakeholders. Therefore, there are powerful signs that, to the benefit of the project and its stakeholders, a formal strategy should be further synthesized and established. Yang and Shen (2014), describes stakeholder management as a process involving problem-solving activities, minimizing project risks and encouraging timely and effective project advancement.

Modern building clients tend to manifest as vibrant settings of stakeholders that participate with a multi-faceted market (Newcombe, 2003). The multiple stakeholders in projects involving multi-faceted clients, large project teams and many other stakeholders need effective coordination and general management, and this warrants efficient customer management. The client's function is under-reached (Boyd and Chinyi, 2006).

Management of stakeholders enhances competency in relational problems and minimizes the hazards associated with them.

Management of stakeholders enhances competency in relational problems and minimizes the hazards associated with them. The project team must be able to handle different stakeholders ' interests throughout the entire project management process to obtain a good project result (Sutterfi eld et al. 2006).

Road projects generally cover significant distances, cross separate local government boundaries and have different effects on property owners. Without a geographical community of location or common interests (Hustedde, 2009), the issues of stakeholders may therefore differ considerably, requiring specific and time-

consuming reactions" as stated (Beach et al., 2012). As a consequence, it may require distinct intensities and kinds of stakeholder engagement procedures. It is important to engage with stakeholders affected directly, such as those facing loss of properties due to factors such as noise and air pollution and reduced property status.

However, it is not possible to underestimate the significance of citizen participation in decision making (Edelenbos and Klijn 2006), Although it may be difficult to contact some stakeholders (Brackertz et al 2005).

The community's 'silent majority' is often not heard straight during the project's planning and construction stage. For instance, framing is still essential in road infrastructure projects, although it is probable that more emphasis will be placed on the planning and construction stages resulting from problems such as property recovery, noise, access loss and environmental problems (Beach et al., 2012).

There are a number of imperative measures to efficiently manage stakeholders (Freeman, 1984) and stakeholder engagement can happen through iterative motion through a sequence of five interlinked operations for networked infrastructure projects such as road construction. The starting point is an identification of stakeholders (Friedman and Miles, 2006), focusing on how the network defines an infrastructure project's stakeholders. Identification of stakeholders includes two measures.

First, based on the criteria developed by the network, it specifies appropriate stakeholders and provides stakeholders with a chance to define themselves to allow them to engage in network procedures.

A second step of the network is the classification and prioritization of stakeholders based on the many systems of one of the literature (Friedman and Miles, 2006).

After the priorities have been distributed to distinct stakeholders (Freeman, 1984) focuses on creating strategically significant stakeholder relationships during the strategy implementation stage and protecting initiatives from spiraling conflict between project team and internal stakeholders. The technique now encourages the involvement of stakeholders with a structured approach to stakeholder connectivity (Thomson and Bebbington 2005 to be agreed with stakeholders).

The final stage would be to keep or disable relationships between stakeholders based on their ongoing strategic significance for project results (Crane and Livesey 2003) as mentioned in (Beach et al. 2012)

2.3.3 Network management in Road Construction

Governance network management efficiently engages and manages stakeholders in the network process to enhance results by integrating a variety of concepts, perspectives, reactions and solutions (Agranoff and McGuire, 1999). Governance network management seeks to complete projects successfully in terms of scope, time and budget (Beach et al., 2012). The application of a stakeholder management structure highlights the community's wider requirements and the customers that the network must serve (Provan and Milward 2001).

The notion of network management is endorsed by Koppenjan and Klijn (2004), who argue that the involvement of performers in network procedures is a key element of network management. Network management includes network activation, network framing, network mobilization, and network management synthesizing stakeholders' operations.

Activating involves identifying network members and evaluating strategically the abilities, expertise and resources that could be brought into the network (Agranoff and McGuire 2001).

Framing is defined as creating and affecting the operating system of the network by creating regulations and standards and creating a sense of interdependence for collective action through altering expectations of network members (Keast and Hampson 2017).

The purpose of mobilization is to induce people committing and maintaining this commitment to joint action. This is achieved by motivating, encouraging and building dedication by creating a sense of common purpose in a collective unit (Koppenjan and Klijn, 2004).

For instance, mobilizing the network's external assistance may require bringing important stakeholders into the network. "Network management's synthesizing activity focuses tightly on creating the atmosphere and circumstances that generate productive interactions between employees and leverage collective benefits from interactions" (Keast et al. 2006), to Prevents, minimizes or removes blockages of network interactions. "Checking levels of commitment and contribution is one of the main operations in keeping these relationships" (Keast and Hampson 2007).

Table 1 summarizes the major activities undertaken at the different phases of network management

<i>Network management phase activity</i>	<i>Network management</i>
Activating: recruiting members and resources network members	Identification of new
members	Selecting new network
members	Disconnecting network
Framing: establishing the vision and rules structure and roles	Negotiating network
engagement	Establishing terms of
Mobilizing: creating joint commitment within and	Obtaining support both
to undertake	outside the network.
	Developing new coalitions
	specific actions.
Synthesizing: building and maintaining relationships engagement	Checking levels of
	and contribution.
	Leveraging resources for the
	collaborative advantage.

Notes: McGuire, 2006.

2.3.4 Stakeholder identification and classification

The identification of stakeholders plays an important role in stakeholder management (Karlsen, 2002; Sutterfield et al. 2006), since stakeholder classification has been the basis for defining stakeholders. Classification can be as simple as two internal and external generic organisations (Orpwood, 1985), primary and secondary, fiduciary and non-fiduciary organisations (Clarkson, 1995), (Goodpaster,1991). Savage et al.,

(1991) categorized stakeholders into at least four organisations based on their capacity to impact socio-dynamic positions.

According to Cleland (1988, p. 281), external stakeholders are independent entities in comparison to the internal stakeholders of the project. Similarly, Calvert (1995, p. 215) also noted external stakeholders are free to act in any way they choose without regard to the project if not properly managed.

2.3.5 Stakeholder influence

Despite countless research on stakeholder effect, the large majority only highlight project stakeholder classification and priority (Young, 2006). There are three primary studies focused on the conduct generally employed by stakeholders in order to gain effect; two of them are based on social movement theory, while the other is tailored to the theory of resource dependence.

Hunter et al. (2013) revealed strategies that social media can use to induce stakeholders against businesses. Social media could broadcast severe criticism against trustworthiness of an on-going project and can take steps to mobilize opposition in any form against the project.

2.3.6 Stakeholder Engagement

Rowlinson and Cheung (2008) also emphasize the importance of the project involvement of stakeholders as a factor in attaining project success. As a result, stakeholder tolerance compared to the difficulties encountered increases as an identity is developed with the project and shared objectives (Bourne and Walker, 2005). The authors Olander and Landin (2008) described the NIMBY syndrome as an example (not in my backyard) where there is the resistance of stakeholders to implement a

project. The authors point out that to mitigate this syndrome, it is essential to communicate the various elements of the project, whether good or bad, minimizing adverse effects and maximizing beneficial effects, to stimulate the value of all stakeholders (Di Maddaloni and Davis, 2017).

In the social context of projects, topics such as trust, communication and internal team management, project managers and sponsors are discussed (Smyth, 2008)

To improve the project's long-term viability and community benefits, there is a need to involve stakeholders in decision and assessment process on the project. Such project decisions and assessments may be either quantitative (e.g. economic compensation for those requiring relocation due to project development) or qualitative (e.g. plan to maintain the local cultural character of the general public).

Participatory decision-making and assessment enable organisations of stakeholders to contribute to the decision-making process with important decision-makers and to assess any choices made from their own view.

Autocratic mode of decision and assessment can lead to strong resistance from other stakeholder organisations and eventually project failure.

2.3.7 Stakeholders management and trust

Commitment is an important component to stakeholder management. This justifies the powerful correlation between project success and relationships of stakeholder commitment (Pinto et al. 2009), because trust acts as a facilitator for smooth and efficient cooperation. Trust enhances cooperative behavior, encourages adaptive organizational types, reduces conflicts, and offers more efficient reaction to crises.

Trust is described as an organizational and interactional pragmatic element (Karlsen et al. 2008). Therefore, for each trust relationship there will always be two components. Any relationship of confidence given is an impact of an action taken by the recipient of this confidence. Similarly, it is possible to expand the relationship of confidence between fields, departments and businesses, given that trust relationship actors can represent distinct job units.

Olivera and Rabechini (2019) explains the three means to trust enhancement in stakeholder management. Integrity relates to the authenticity of interactions between two sides; intuitive relates to the other party's perception and the perception of expertise extracted from the expertise and skills of the other party (Hartman, 2003). All three kinds assist to enhance trust relationships in stakeholder management. At the start of the project, the intuitive is predominant.

In order to mitigate the impact of NIMBY syndrome (Hartman, 2003, Olander and Landin, 2005), Integrity is related to authenticity, transparency and quality of communication throughout the project and outcomes in relationships of confidence (Aubert and Kelsey, 2000). Competence is in the final chapter. If the contractor does not receive consistent deliveries, there will be no retention of any kind of confidence. The main reason the other party initially assumed the risk of a project was because it thought it would receive contract shipments (Pinto et al. 2009).

Managing the relationship with stakeholders is one of the activities of stakeholder management, and several authors suggested not restricting performance objectives such as scope, cost and time during organisational execution, but promoting approximation and engagement (Mok et al. 2014).

There is a solid link between trust and project accomplishment. Trust therefore promote engagement, as maintained by Pinto et al. (2009).

2.4 EXTERNAL STAKEHOLDER EXPECTATIONS

2.4.1 Expectation-disconfirmation theory (EDT)

EDT has its roots in marketing and consumer behavior research (Oliver, 1997) and has been applied in a variety of areas from IT execution (e.g. Brown et al., 2012), education (Bordia et al., 2006) to tourism management (Zehrer et al. 2011) and public service delivery.

The key argument of EDT is that satisfaction depends on past expectations and the distinction between expectations and actual experiences (Oliver, 1980). EDT shows that individuals already have a set of expectations about the characteristics or advantages that will be provided by the particular product or service when making products or services choices (Oliver, 1980). Expectations are individual predictions or anticipation of the results of the product or service (Van Ryzin, 2006). After witnessing the actual efficiency of the product or service (Oliver, 1997), expectations serve as a comparative reference for creating satisfaction choices.

A disconfirmation of expectations was called the discrepancy or gap between past expectations and actual outcomes (Van Ryzin, 2006). The magnitude and direction of disconfirmation will determine the level of (dis)satisfaction. EDT involves different models of the combined impact of past expectations and subsequent experiences that differ from expectations of satisfaction in the postulated impact of deviations. These models provide alternative theoretical explanations of the interaction between expectations, experiences and happiness.

The first model is known as the disconfirmation model and suggests that if experiences fall short of expectations, satisfaction will be lower, i.e. a disappointment effect. Experiences that exceed expectations have a positive effect, i.e. a surprise effect, on satisfaction (Strong et al., 2001; Brown et al. 2008). From this point of perspective, expectations should be understated in order to maximize the extent to which experiences exceed expectations.

The second model is the assimilation model that shows experiences being adjusted to expectations in order to prevent cognitive dissonance (Sherif and Sherif, 1967). As a consequence, individuals use expectations as an anchor for their experiences, which are then adjusted to be more responsive to expectations.

This reduction in dissonance would suggest that the higher expectations, the higher the satisfaction and the exaggeration of expectations would increase satisfaction.

‘The ideal point model is labeled as the third label. This model indicates that a reduced evaluation will result in any difference, irrespective of direction, between expectations and experiences. Unlike the disconfirmation model, when expectations are not met and when they are exceeded, the ideal point model anticipates negative results (Olsen and Dover, 1979). It is claimed that dissatisfaction stems from the physiological tension caused by an unfair perceived discrepancy between what someone has received and what somebody has earned. As a consequence, expectations raised should be closely met and experiences should not deviate from expectations to be fulfilled.

The fourth model is the experience model alone. This model shows that experiences are most influential in determining satisfaction, as they are more recent than expectations when evaluations are produced. Brown et al. (2008) compared the

information technology application disconfirmation, ideal point and experience-only models and could show that the overall effect of expectations is much lower than prior research stated. Like the study of job satisfaction by Irving and Meyer (1999), their research points to overemphasizing expectations for satisfaction determination.

Given the different competing models, it is surprising that the research of stakeholder satisfaction in construction adopts the disconfirmation model without strong empirical evidence of its suitability in the context of construction.

2.3.9 The role of expectations in satisfaction formation

A Study by (Hartmann and Hietbrink, 2013) on expectations of stakeholders disclosed a powerful influence on stakeholder satisfaction from the experience with maintenance procedures and data provision. The expectations of process and data are less essential and have only a marginal influence on the maintenance project satisfaction. This contrasts sharply with the usually assumed need to meet the expectations of stakeholders.

Stakeholders expect sufficient data from highways agencies to enhance their satisfaction. In this situation, the available data for the maintenance of the A20 by the highways agency was suitable, which included information for highway users, neighbors and businesses along locations of maintenance works, maintenance duration and alternative traffic means.

The agency's process approach could not fully address the study's findings. This can be attributed to the nature of highway maintenance that will always affect stakeholders. A process approach should strive to maintain the effects of maintenance at a rate acceptable to stakeholders. In the case of the A20, by minimizing the

maintenance duration and planning the maintenance for the break period, the agency tried to ensure this level. The results also indicate that the provision of data throughout the maintenance project facilitated stakeholder recognition rather than forming their expectations.

Outcome experiences also had a higher impact than expectations on satisfaction. However, expectations had a greater influence on satisfaction compared with the maintenance method and the provision of data.

The expectation path coefficient indicates a negative sign while the experience coefficient sign is positive. This indicates a mechanism of disconfirmation in forming satisfaction with the result of maintenance, but with a bias towards experience. Stakeholders were most satisfied with low expectations of results and witnessed a powerful increase in the quality of the highway. They were least satisfied with high performance expectations and low performance improvements.

This is partially in line with the premise that stakeholder expectations are met and a greater level of fulfillment is achieved by exceeding expectations with the experience bias in mind.

Looking at the comparative significance of the formative indices, it also seems to be supported.

Economy and travel time are the most significant indicators for expected outcome, but they are much less essential in determining the experience of the results which means that disconfirmation expectations of the result was linked to economy and travel time.

The greater the expectations associated with these effects on the highway, the greater the satisfaction level. It is, however, the mixed impact of the seven factors that accounts for the connection between expectation of the result and happiness. This obviously indicates the significance of specifying the model of formation. The removal or addition of formative factors may alter the weights of the indices and the connection of the structural model's latent constructs (Cenfetelli and Bassellier 2009).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter centers on the suggested research philosophy outline, i.e. the research method

used, the research design process, method of data collection and sampling techniques used for the research and the possible limitations of the research.

The research methodology focuses on identifying external stakeholder needs, stakeholder management practices relevant in road construction works in Ghana and the extent to which the stakeholder management practices meet external stakeholder expectations during road construction works in Ghana.

The specific methodology of the exercise is based on literature review on stakeholder management practices, a pilot study of a self-administered questionnaire for the research and a questionnaire survey delivered on the field and collected for a population of two hundred and forty (240) external stakeholders and nine (9) internal stakeholders.

The research procedure is in conformity with the studies of Babbie (2010) and Muijs (2010)

Babbie (2010) and Muijs (2010) adopted quantitative method of research in their study of ‘The Practice of Social Research’, and Doing Quantitative Research in Education with SPSS which this research adopt.

3.2 Research Design

Research Design has to do with the strategy employed to handle the research problem. Descriptive research Design was adopted for this research. There was a need for data to meet the objectives of the research. Data was however collected from stakeholders from Communities, District and Municipal Assemblies along selected road projects sites in the Eastern Region of Ghana and from the District Affected District Assemblies. Close-ended questionnaire was designed for data collection.

The questionnaire for the data collection had a content of a statement of assurance for the respondents that; every information provided by the respondents would be kept confidential and for the purpose of academics only.

3.3 Research Method

The research method adopted for this study is the Quantitative research method. Quantitative research is concerned with numbers, logic and an objective position. Babbie (2010) therefore explained that, Quantitative methods emphasize objective measurements and statistical, mathematical, or numerical analysis of information gathered through polls, questionnaires, and surveys, or by using computing techniques to manipulate pre-existing statistical information. Quantitative research focuses on collecting and generalizing numerical data across groups of individuals or explaining a specific phenomenon.

Similarly, this research needed to do a numerical analysis of critical external stakeholder needs, stakeholder management practices in the road works and the extent to which the stakeholder management practices meet external stakeholder expectations of a survey carried out on the field through responses from a close-ended questionnaire.

This research therefore adopted the theoretical principle of quantitative research by using close-ended structured questionnaire for data collection on stakeholders at road construction communities in the eastern region in other to explain phenomenon such as stakeholder needs identification, stakeholder management practices in Ghana's road construction works and the extent to which stakeholder expectations are met. The questionnaire therefore captured questions on the level of importance of stakeholder needs for a road project, frequency of stakeholder management practices during Ghana's road construction works and whether expectations of stakeholder needs are met.

The variables used for the structuring of the questionnaire was extracted from the literature review chapter of this research.

3.4 Population

Population refers to the total number of units from which a sample is selected (Bryman, 2008).

The population for this research is two hundred and forty (240) external stakeholders and nine (9) internal stakeholders from Fanteakwa District, Atiwa East District, Atiwa west District and Suhum Municipal which are located in the Eastern Region of Ghana where the roads adopted as case study for this research traverses. The nine (9) internal stakeholders were District Engineers from the various Assemblies, District Town Planning officers, District Feeder Roads Engineers and the Contractor's Site Managers.

The two hundred and forty (240) external stakeholders used for the study included Chiefs, Assemblymen, other opinion leaders, Drivers, Motor cycle riders, Bicycle

riders, Farmers and other professionals who are residents in the towns where the roads under construction traverses. The road projects used for the case study are Bitumen Surfacing of Dwamenase-Abompe-Adasawase-Anyinam and other Feeder Roads(16.95km), Bitumen Surfacing of Akropong-Larbikrom Feeder Road and others (65.90km) and Trial Construction of Akote-Obomofo Densua-Asiedu Feeder Road Phase 2(km 2.70-4.40) with provisional works for (Km 4.4-5.55).

3.5 Sampling and Sampling Techniques

Sampling gives researchers opportunity to infer information about a population in connection with results from a subset of the population without having to investigate every member of the population. The limited time for this study coupled with possible high cost implications necessitated the need for the adoption of Probability Sampling of the population of the external stakeholders for this research.

The simple random sampling technique was therefore used for the sampling of the population of the external stakeholders for this research, and census used for the internal stakeholders. The simple random technique is a probability sampling method which gives the individuals who participated in this research an equal chance or probability of being selected for the study. Sample size of one hundred and fifty (150) external stakeholders was selected from the external stakeholder population and nine (9) internal stakeholders were used for the study.

According to Israel (1992), there are several approaches used in determining the sample size. These, include using a census for small populations, imitating a sample size of similar studies, using published tables, and lastly applying formulas to calculate a sample size. For this study the first and the latter were applied. The study assumed a margin of error of 5% according to Creswell (2009) which determines the

sample size as shown below. The sample size for the external stakeholders was determined using the formula by (Kish, 1965)

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

Where, n is the sample size

N is total population which in this research, $N = 240$ which is the population which comprises of the total number of people in the various community visited.

α is standard error of the sampling distribution, $\alpha = 0.05$ with 95% confidence interval

By computation,

$$n = \frac{240}{1 + 240(0.05^2)}$$

$$n = \frac{240}{1 + 0.6} = 150$$

The sample size formulae used above, provides the minimum number of responses to be obtained. The sample size of the external stakeholders for the study is one hundred and fifty (150) respondents considering a total population of two hundred and forty (240) people.

3.6 Data Collection

Two different types of closed-ended structured questionnaire were developed and pilot tested during the study and were used to collect primary source quantitative data from internal and external stakeholders from selected road project sites in the eastern region of Ghana.

The Questionnaires were delivered to the internal stakeholders and some key members of the external stakeholders who are affected by the road construction projects for responses and were collected later by the data collection team. The questionnaires were developed into two types; one for internal stakeholders and the other for the external stakeholders.

Some famers, pedestrians and drivers who are stakeholders were not able to fill the questionnaire so easily due to their educational level, they were however given explanation at every stage of the questionnaire by the data collection team through face-to-face administration of the questionnaires.

3.7 Data Measurement, Validity and Reliability

This research accepted an ordinal scale to determine the level of importance of stakeholder needs for a road project, frequency of stakeholder management practices in Ghana's road construction works and whether expectations of stakeholder needs are met. The Likert scale used in ranking the various variables to achieve the research objectives are as follows:

Table 3.1 Likert Scale to determine the level of importance of stakeholder of needs in road construction works in Ghana

1	2	3	4	5
Not at all important	Low important	neutral	Moderately important	Extremely important

Field Study, 2019

Table 3.2 Likert scale to determine the Frequency of stakeholder management practices of Road Construction Works in Ghana

1	2	3	4	5
never	rarely	sometimes	Almost every time	Every time

Field Study, 2019

Table 3.3 Likert Scale for stakeholder expectations of road construction works in Ghana

1	2	3	4	5
Not at all met	Slightly met	Moderately met	Considerably met	Extremely met

Field Study, 2019

3.8 Data Analysis and Presentation

Data analysis examines the data critically in order to understand the parts of the data, relationships and the trends in the data collected. Descriptive data analysis by way of mean and standard deviation calculations were employed under this research to analysed the data. In this view, Statistical Package for Social Scientists (SPSS), a window based statistical program was adopted to enter the data where frequency tables regarding the data selected for the research were generated and the mean rank for the various variables were completed.

The descriptive characteristics of the respondents forming the sample size of the external and the internal stakeholders was analysed to generate the descriptive profile for the respondents using the field survey. The external stakeholder needs obtained from the respondents considering the level of importance of the needs in construction works were obtained using the Kedall's mean ranked test. Standard deviation calculations were also done in respect of the need variables to determine the extent of the deviation among the needs.

In analyzing the internal stakeholder management practices meeting the external stakeholder needs in Ghana's road construction works, weightings were applied to responses from respondents based the likert scale of the stakeholder management

practices and using the relative importance index, the practices were ranked to determine the expectations of the external stakeholders.

The Relative Importance Index was computed with the formula below.

$$RII = \frac{\sum W}{A * N}$$

Also, the Kendall's W was also used in testing the null hypothesis regarding non-agreement among the respondents with regard to the level of importance of external stakeholder needs in the construction of roads in Ghana.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the descriptive characteristics of the respondents and the findings of the study in line with the practices of stakeholder management in Ghana's road works. The chapter also presents and discusses the findings of identifying external stakeholder needs during road construction works in Ghana, identifying stakeholder management practices in road construction works and to determine the extent to which stakeholder management practices in road construction works meet external stakeholder expectations.

4.2.1 Descriptive Characteristics of External Stakeholders Responses

The descriptive profile of the surveyed respondents is deliberated in this segment of the study. The main descriptive features of the surveyed respondents deliberated included the community involved as an external stakeholder management, number of years in the community, gender of respondents, age of respondents and the level of education of the community members.

The result of the descriptive characteristics regarding respondents is accessible in Table 4.1.

Table 4.1: Descriptive Profile of Respondents (External stakeholders)

Industrial Profile	Frequency	Percent
Gender		
Male	105	70.0
Female	45	30.0
Age of respondents		
Below 25 years	28	18.7
25 – 30 years	44	29.3
31 – 40 years	28	18.7
41 – 50 years	26	17.3
51 – 60 years	6	4.0
Above 60 years	18	12.0
Respondents level of education		
PhD	0	0
Masters	1	0.7
First Degree	7	4.7
HND	5	3.3
SHS	35	23.3
JHS	102	68.0

Source: Field Survey, 2019

The outcome of table 4.1 shows that, hundred and five (105) of the respondents were majority male respondents constituting 70.0% of the total number of respondents whilst 30.0% constitute female respondents which is forty-five (45) respondents.

The result also shows that 18.7% were equally in the range of below 25 years and 31 to 40 years respectively. 29.3% of the respondents for the research were in the age

range of 25 and 30 years, whereas a percentage of 17.3 were in the age range of 41 and 50 years. Again, a percentage of 4.0 of the study's surveyed respondents were in the age range of 15 and 60 years and lastly, a percentage of 12 of the respondents were above 60 years. This therefore denotes that; the larger respondents are in the dynamic age bracket of the Ghanaian population.

In terms of education, (68.0%) of the larger respondent was Junior High School (JHS). However, 23.3% and 3.3% of the respondents of the research are the highest in terms of Senior High School (SHS) education and Higher National Diploma (HND) respectively. 4.7% of the respondents of the study was First Degree in various areas of academic study whilst 0.7% of the surveyed respondents were Masters degree holders in various areas of academic study. None (0.0%) of the respondents for the research had PhD degrees.

4.2.2 Descriptive Characteristics of Internal Stakeholders

For the internal stakeholder management practices in road construction, the main descriptive features of the surveyed respondents discussed included their age, gender and their highest educational level.

Table 4.2: Descriptive Profile of Respondents (Internal stakeholders)

Industrial Profile	Frequency	Percent
Gender		
Male	9	100.0
Female	0	0.0
Age of respondents		
Below 25 years	0	0.0
25 – 30 years	7	77.8
31 – 40 years	0	0
41 – 50 years	1	11.1
51 – 60 years	1	11.1
Above 60 years	0	0.0
Respondents level of education		
PhD	0	0.0
Masters	0	0.0
First Degree	7	77.8
HND	2	22.2
SHS	0	0.0
JHS	0	0.0

Source: Field Survey, 2019

Table 4.2 result displays that there nine (9) internal stakeholder management and 100% of the respondents were males whilst 0.0% constitute female respondents which is zero (0)

The result also shows that 77.8% of the respondents for the research were in age range of 25 and 30 years, whereas 11.1% were equally in the range of 41 and 50 years and

51 to 60 years. The results finally show that, none (0.0%) were below 25 years, 31 to 40 years and above 60 years.

The highest level of education of most (77.8%) of the study's surveyed respondents were First Degree Holders in diverse areas of academic study whilst 22.2% of the surveyed respondents were Highest National Diploma (HND) holders. None (0.0%) of the respondents for the research had PhD degree, Masters degree, Senior High School and Junior High School certificates

4.3 Stakeholder Needs in Road Construction Works in Ghana

This section identifies the possible stakeholder needs which have been identified for the purpose of this study for the road project. Sixteen (16) constraints (needs) categorized into Environmental, Economic, Social and Communication needs described in the literature as the possible needs of the community members in the road construction project sites were issued to the respondents.

It was required of respondents to rate based on individuals' contribution to the possible needs of the community members on road construction project sites in Ghana.

This section's objective was attained by adopting the Kendall's Mean Rank test and the Kendall's Coefficient of Concordance. Table 4.3 and Table 4.4 presents the results of the section respectively.

Table 4.3: Stakeholder needs in Road Construction works in Ghana (External)

Stakeholder Needs (External)	Mean Rank	Std. Dev	Rank
Build and maintain mutual trust relationship	11.07	0.397	1
Prevention of Air Pollution in project affected communities	10.82	0.626	2
Employing community artisans and laborers on the project	10.68	0.704	3
Engage stakeholders (community members)	10.63	0.484	4
Paying workers' salaries within the minimum wage	9.53	0.847	5
Timely payment of worker's salary	9.49	0.842	6
Paying compensation to project affected persons	9.03	0.886	7
Understanding the cultural influences of communities along the road corridor	8.40	0.986	8
Creation of a central location to store all project information where stakeholders can access	7.89	1.101	9
Conservation of Natural resources located along the road corridor	7.78	1.377	10
Relocation of Project affected persons to an appropriate location	7.67	1.404	11
Organizing regular Stakeholder Meeting	7.01	1.358	12
Frequent update of Project Status (Progress) to stakeholders	6.96	1.202	13
Protection of open spaces such as durbar grounds in project affected communities	6.78	1.452	14
Prevention of Noise Pollution in project affected communities	6.77	1.387	15
Preservation of Farmlands during construction activities	5.49	1.464	16

Source: Field Study, 2019

Table 4.3 results are shown above. Degree of acceptance amongst the sixteen (16) needs for the surveyed respondents from the external stakeholders needs in the construction of roads in Ghana.

Results of the table (4.3) displays the most pressing needs of external stakeholders during construction of road in Ghana included: (1) Build and maintain mutual trust relationship (Mean Rank = 11.07); (2) Prevention of Air Pollution in project affected communities (Mean Rank = 10.82); (3) Employing community artisans and laborers on the project (Mean Rank = 10.68); (4) Engage stakeholders (community members) (Mean Rank = 10.63); (5) Paying workers' salaries within the minimum wage (Mean Rank = 9.53); (6) Timely payment of worker's salary (Mean Rank = 9.49); (7) Paying compensation to project affected persons (Mean Rank = 9.03); (8) Understanding the cultural influences of communities along the road corridor (Mean Rank = 8.40); (9) Creation of a central location to store all project information where stakeholders can access (Mean Rank = 7.89); and (10) Conservation of Natural resources located along the road corridor (Mean Rank = 7.78).

The other external stakeholder needs ranked from 11th to 16th were Relocation of Project affected persons to an appropriate location (Mean Rank = 7.67), Organizing regular Stakeholder Meeting (Mean Rank = 7.01), Frequent update of Project Status (Progress) to stakeholders (Mean Rank = 6.96), Protection of open spaces such as durbar grounds in project affected communities (Mean Rank = 6.78), Prevention of Noise Pollution in project affected communities (Mean Rank = 6.77) and Preservation of Farmlands during construction activities (Mean Rank = 5.49).

Table 4.4: Kendall's Coefficient of Concordance

Test Statistics	
Size, N	150
Kendall's W	0.190
Chi-square (χ^2)	410.345
Degree of Freedom	15
P-Value	< 0.0000

Source: Field Study 2019

4.3.2 Hypotheses

H_0 : Mean (Build and maintain mutual trust relationship) = Mean (Prevention of Air Pollution in project affected communities) = Mean (Employing community artisans and laborers on the project) = . . . = Mean (Preservation of Farmlands during construction activities)

H_1 : At least the mean of one need is different

Using the Kendell's W, the results obtained was that there is zero acceptance amongst the respondents in connection with importance level of external stakeholders needs in the construction of roads in Ghana and therefore ignored. Therefore, there is an acceptance of the research respondent that, the prevalent external stakeholder needs in road constructions are more related first to Build and maintain mutual trust relationship and/or Preservation of Farmlands during construction activities.

4.4 Stakeholder Expectations in Road Construction Works in Ghana

The stakeholder needs have been identified and ranked for the purpose of this study for the road project. This section seeks to indicate whether the external stakeholder expectations are met in the execution of the road project., The research adopted the Relative Importance Index (RII) to investigate the perception regarding the sixteen (16) items listed on Table 4.5 as probable practices on their expectations in the execution of the road projects in order to achieve objectives of the research. The stakeholders' expectations were rank applying the scale of 1= Not at all met, 2= Slightly met, 3 = Moderately met, 4 = Considerably met and 5 = Extremely met. Table 4.5 therefore indicates feedbacks from respondents.

Table 4.5: Stakeholder Expectations in Road Construction Works in Ghana

Management Practices	Responses					RII		
	1	2	3	4	5	Weight	RII	Rank
Build and maintain mutual trust relationship	5	1	5	45	93	667	0.889	1
Prevention of Air Pollution in project affected communities	6	13	25	35	71	602	0.803	2
Conservation of Natural resources located along the road corridor	6	4	32	63	45	587	0.783	3
Understanding the cultural influences of communities along the road corridor	9	8	23	59	51	585	0.780	4
Protection of open spaces such as durbar grounds in project affected communities	10	7	33	59	41	564	0.752	5
Creation of a central location to store all project information where stakeholders can access	19	10	32	42	47	538	0.717	6
Engage stakeholders (community members)	13	3	5	33	96	526	0.701	7
Preservation of Farmlands during construction activities	12	23	39	30	46	525	0.700	8
Organizing regular Stakeholder Meeting	33	23	17	23	54	492	0.656	9
Prevention of Noise Pollution in project affected communities	17	14	57	41	21	485	0.647	10
Paying workers' salaries within the minimum wage	36	6	39	38	31	472	0.629	11
Frequent update of Project Status (Progress) to stakeholders	34	26	24	28	38	460	0.613	12
Employing community artisans and laborers on the project	43	18	20	14	52	455	0.607	13
Paying compensation to project affected persons	40	22	40	35	13	431	0.575	14
Timely payment of workers salary	35	13	60	21	21	430	0.573	15
Relocation of Project affected persons to an appropriate location	20	43	37	33	17	397	0.529	16

Rank: [1= Not at all met, 2= Slightly met, 3 = Moderately met, 4 = Considerably met and 5 = Extremely met]

Source: Field Survey, 2019

The (RII) result in Table (4.5) displays that the sixteen (16) highly perceived potential stakeholder expectations that were met in the execution of the road project include: (1) Build and maintain mutual trust relationship (RII = 0.889); (2) Prevention of Air Pollution in project affected communities (RII = 0.803); (3) Conservation of Natural resources located along the road corridor (RII = 0.783); (4) Understanding the cultural influences of communities along the road corridor (RII = 0.780); (5) Protection of open spaces such as durbar grounds in project affected communities (RII = 0.752); (6) Creation of a central location to store all project information where stakeholders can access (RII = 0.717); (7) Engage stakeholders (community members) (RII = 0.701) and (8) Preservation of Farmlands during construction activities (RII = 0.700). The result of this research reveals that the first eight (8) stakeholder expectations were met in the execution of the road project are perceived to be the mostly met expectations since their RII values fell above or equal to the minimum importance threshold value of 0.700.

The results indicates that the other eight (8) stakeholder expectations that were met in the execution of the road project include (9) Organizing regular Stakeholder Meeting (RII = 0.656); (10) Prevention of Noise Pollution in project affected communities (RII = 0.647); (11) Paying workers' salaries within the minimum wage (RII = 0.629); (12) Frequent update of Project Status (Progress) to stakeholders (RII = 0.613); (13) Employing community artisans and laborers on the project (RII = 0.607); (14) Paying compensation to project affected persons (RII = 0.575), (15) Timely payment of workers salary (RII=0.573) and (16) Relocation of Project affected persons to an appropriate location (RII=0.529) are not perceived as stakeholder expectations that were met in the execution of the road project since their RII values fell short of the minimum importance threshold value of 0.700.

4.5 Internal Stakeholder Management Practices in Road Construction Works Meet External Stakeholder Expectations

In this section, the study asserts whether the expectations of the external stakeholder were met by the practices of the internal stakeholder management in road construction works. Investigation was done to show the respondents level of judgement of the sixteen (16) items listed on Table 4.6 as possible stakeholder expectation practices whether they met the expectations in the execution of the road projects of the external stakeholders. Respondents were required to rank the stakeholder expectations using the scale of 1= Never, 2= Rarely, 3 = Sometimes, 4 = Almost every time and 5 = Every time

Table 4.6: Internal Stakeholder Management Practices in Road Construction Works Meet External Stakeholder Expectations

Management Practices	Responses					RII		
	1	2	3	4	5	Weight	RII	Rank
Conflict should be resolved in a timely manner among stakeholders on the road project	0	0	2	1	6	40	0.889	1
Use negotiation effectively in stakeholder management	0	1	2	0	6	38	0.844	2
Get stakeholders to sign off when stakeholder requirements are finalized	0	1	1	3	4	37	0.822	3
Identify Stakeholders	0	0	2	6	1	35	0.777	4
Plan to engage stakeholders	0	0	2	3	4	34	0.756	5
Determine stakeholder's requirements on the road project	0	1	3	3	2	33	0.733	6
Let stakeholders know which requirement will be met, which requirement and expectations will not be met, and why	0	0	4	4	1	33	0.733	6
Determine expectations of major stakeholders on the	0	1	3	4	1	32	0.711	8

road project								
All stakeholder request outside the project requirements must go through the change control system before consideration is made.	0	2	2	3	2	32	0.711	8
Understand the power relationships around the project (political awareness)	1	1	1	5	1	31	0.689	10
Determine stakeholders level of influence on the road project	0	2	4	1	2	30	0.667	11
Assessment of stakeholder attributes (Power, urgency and proximity) on the project	0	2	4	2	1	29	0.644	12
Determine stakeholders interest on the road project	0	1	5	1	2	29	0.644	12
Manage stakeholders expectations, influence and engagement on the road project	0	1	5	3	0	29	0.644	12
Use stakeholder interest/power matrix to manage stakeholders	1	2	4	2	0	27	0.600	15
Determine stakeholders level of Authority on the road project	1	2	3	3	0	26	0.577	16

Source: Field Survey, 2019

The Relative Importance Index (RII) results in Table (4.6) denotes sixteen (16) largely perceived practices that internal stakeholder intends to meet the expectations of the external stakeholder in the execution of the road project include: (1) Conflict should be resolved in a timely manner among stakeholders on the road project (RII = 0.889); (2) Use negotiation effectively in stakeholder management (RII = 0.844); (3) Get stakeholders to sign off when stakeholder requirements are finalized (RII = 0.822); (4) Identify external stakeholder (RII = 0.777); (5) Plan to engage external stakeholders (RII = 0.756); (6) Determine stakeholder's requirements on the road project and Let stakeholders know which requirement will be met, which requirement

and expectations will not be met, and why (RII = 0.733); (8) Determine expectations of major stakeholders on the road project and All stakeholder request outside the project requirements must go through the change control system before consideration is made (RII = 0.711). This study's result affirms that the first nine (9) external stakeholder expectations were met in the execution of the road project by the internal stakeholder since their RII values fell above the minimum importance threshold value of 0.700.

The (RII) result show that, the other seven (7) external stakeholder expectations that were not met by the internal stakeholder in the execution of the road project include (10) Understand the power relationships around the project (political awareness) (RII = 0.689); (11) Determine stakeholders level of influence on the road project (RII = 0.667); (12) Assessment of stakeholder attributes (Power, urgency and proximity) on the project, Determine stakeholders interest on the road project and Manage stakeholders expectations, influence and engagement on the road project (RII = 0.644); (15) Use stakeholder interest/power matrix to manage stakeholders (RII = 0.600) and (16) Determine stakeholders level of Authority on the road project (RII=0.577)

(1= Never, 2= Rarely, 3 = Sometimes, 4 = Almost every time and 5 = Every time) and A is the highest weight (5 in this case) and N is the total number of respondents which is nine (9).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the research outcome, derive inference grounded on important findings and also make recommendations.

5.2 Summary of Findings and Conclusions

This study sought to investigate the management of stakeholder practices of road construction works

in Ghana through the attainment of objectives including: (1) identifying external stakeholder needs during road construction works in Ghana; (2) Stakeholder Expectations in Road Construction Works in Ghana; and (3) determine the extent to which stakeholder management practices in road construction works meet external stakeholder expectations.

5.2.1 Objective 1: Stakeholder Needs in Road Construction Works in Ghana

The most perceived pressing external stakeholder needs Ghana's road construction included: (1) Build and maintain mutual trust relationship, Prevention of Air Pollution in project affected communities, Employing community artisans and laborers on the project, Engage stakeholders (community members), Paying workers' salaries within the minimum wage, Timely payment of worker's salary, Paying compensation to project affected persons, Understanding the cultural influences of communities along the road corridor, Creation of a central location to store all project information where stakeholders can access, Conservation of Natural resources located along the road corridor, Relocation of Project affected persons to an appropriate location, Organizing

regular Stakeholder Meeting, Frequent update of Project Status (Progress) to stakeholders, Protection of open spaces such as durbar grounds in project affected communities, Prevention of Noise Pollution in project affected communities and Preservation of Farmlands during construction activities

5.2.2 Objective 2: Stakeholder Expectations in Road Construction Works in Ghana

The study found several potential stakeholder expectations that were met in the execution of the road project including: (1) Build and maintain mutual trust relationship; (2) Prevention of Air Pollution in project affected communities; (3) Conservation of Natural resources located along the road corridor; (4) Understanding the cultural influences of communities along the road corridor; (5) Protection of open spaces such as durbar grounds in project affected communities; (6) Creation of a central location to store all project information where stakeholders can access; (7) Engage stakeholders (community members) and (8) Preservation of Farmlands during construction activities. (9) Organizing regular Stakeholder Meeting; (10) Prevention of Noise Pollution in project affected communities; (11) Paying workers' salaries within the minimum wage; (12) Frequent update of Project Status (Progress) to stakeholders; (13) Employing community artisans and laborers on the project; (14) Paying compensation to project affected persons, (15) Timely payment of workers' salary and (16) Relocation of Project affected persons to an appropriate location.

It can therefore be concluded that, the first eight (8) stakeholder expectations were met in the execution of the road project are perceived to be the mostly met expectations since their RII values fell above or equal to the minimum importance threshold value of 0.700 whilst the last eight (8) are not perceived as stakeholder

expectations that were met in the execution of the road project since their RII values fell short of the minimum importance threshold value of 0.700.

5.2.4 Objective 3: Internal Stakeholder Management Practices in Road Construction Works Meet External Stakeholder Expectations

The study found several practices that internal stakeholder intended to meet the expectations of the external stakeholder in the execution of the road project including:

(1) Conflict should be resolved in a timely manner among stakeholders on the road project; (2) Use negotiation effectively in stakeholder management; (3) Get stakeholders to sign off when stakeholder requirements are finalized; (4) Identify external stakeholders; (5) Plan to engage external stakeholders; (6) Determine stakeholder's requirements on the road project and Let stakeholders know which requirement will be met, which requirement and expectations will not be met, and why; (8) Determine expectations of major stakeholders on the road project; (9) All stakeholder request outside the project requirements must go through the change control system before consideration is made; (10) Understand the power relationships around the project (political awareness); (11) Determine stakeholders level of influence on the road project; (12) Assessment of stakeholder attributes (Power, urgency and proximity) on the project; (12) Determine stakeholders interest on the road project and (12) Manage stakeholders expectations, influence and engagement on the road project; (15) Use stakeholder interest/power matrix to manage stakeholders and (16) Determine stakeholders level of Authority on the road project.

It can be concluded that, the first nine (9) internal stakeholder expectations were met in the execution of the road project are perceived to be the mostly met expectations since their RII values fell above or equal to the minimum importance threshold value

of 0.700 whilst the last seven (7) are not perceived as internal stakeholder expectations that were met in the execution of the road project since their RII values fell short of the minimum importance threshold value of 0.700.

5.3 Conclusion

This aim of this research is to analyzed stakeholder management practices in road construction works in Ghana. The objectives are to identify critical external stakeholder needs stakeholder needs during road construction in Ghana, identification of stakeholder management practices in road construction works and the extent to which stakeholder management practices in road construction works meet external stakeholder expectations.

The literature reviewed enabled the researcher in selecting the variables for the study. A survey was carried out using close-ended questionnaire to come out with the findings of this study. During the analysis to identify the critical external stakeholder needs, twelve (12) of the external stakeholder needs were found within a mean of 7.01 to 11.07. The rest of the needs fell within a mean of 5.49 to 6.96 which means that external stakeholder needs such as Build and maintain mutual trust relationship, Prevention of Air Pollution in project affected communities, Employing community artisans and labourers on the project, engage stakeholders and other needs which were found within the mean rank of 7.01 to 11.07 are critical stakeholder needs. The stakeholder management practices for a typical road construction project in Ghana was determined under this study to meet the stakeholders expectations with the application of relative importance index to determine the level of importance of the stakeholder management practice from the external stakeholder perspective.

Nine (9) of the stakeholder management practices were found out during the analysis to be within a relative importance index of 0.711 to 0.889. These stakeholder management practices include resolving conflicts in a timely manner among stakeholders, using negotiation effectively among stakeholders on road projects, getting stakeholders to sign off when stakeholder requirements are finalized, identify stakeholders, and other practices.

Stakeholder management practices in road construction is important to avoid agitations among stakeholders which can result in delay of projects and thereby escalate the project cost.

The application of the findings of this research to Ghana's road project will help in the smooth implementation of road projects in Ghana within budget and on schedule.

5.4 Recommendation

Based on the summary of findings and conclusions of the research, the research therefore recommends that the following stakeholder management practices should be adopted for a typical road project in Ghana.

- Conflict should be resolved in a timely manner among stakeholders on the road project.
- Use negotiation effectively in stakeholder management.
- Get stakeholders to sign off when stakeholder requirements are finalized.
- Identify external stakeholders.
- Plan to engage external stakeholders.

- Determine stakeholders requirements on the road project and let stakeholders know which requirements will be met and which requirements will not be met.
- Determine expectations of major stakeholders on the road project and all stakeholder request outside the project requirements must go through the change control system before consideration is made.

It is recommended that Road Agencies such as Ghana Highway Authority, Department of Urban Roads, Department of Feeder Roads and Contractors takes key interest in these stakeholder management practices to meet external stakeholder expectations.

Also, since the Kendall's Coefficient of Concordance was implored to determine the rejection of the null hypothesis of the external stakeholder needs in road works. Friedman's test can also be implored to compare and determine the rejection criteria of the stated hypothesis in future research.

5.3.1 Further Research on Road Construction Works in Ghana

The following are proposed future research for road construction works in Ghana.

- A Study on 'Timely Conflict Resolution' among stakeholders in Road Project.
- 'Negotiation' a key stakeholder management practice in road construction works.
- A study on the Benefits of External Stakeholder Engagement in Road Construction Works in Ghana.

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APPENDIX 1: QUESTIONNAIRE FOR INTERNAL STAKEHOLDERS
KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI
COLLEGE OF ARTS AND BUILT ENVIRNMENT
DEPARTMENT OF BUILDING TECHNOLOGY

QUESTIONNAIRE FOR INTERNAL STAKEHOLDERS

I am pursuing MSc. Project Management at the Kwame Nkrumah University of Science and Technology. I am currently carrying out a research on the topic: **“Stakeholder Management practices in road construction works in Ghana”**. The aim of the research is to analyse stakeholder management practices in road construction works in Ghana. I therefore request your outfit to support this research by answering the questionnaire.

Every information provided is strictly for academic purpose and shall be kept confidential. In case of any clarifications, questions or contributions, I can be contacted on **0244071400** or email: felmint@yahoo.com

I appreciate your time spent in completing this questionnaire.

SECTION A
DEMOGRAPHIC BACKGROUND

Organization.....

Number of years in this organization.....

Your Position in the Organization.....

Profession.....

Road Project Name.....

1. Gender

Male [] Female []

2. Age

Below 25 Years [] 25 Years -30Years [] 31 Years - 40Years [] 41
Years -50Years[]

51Years -60 Years[] 60 Years and above[]

3. Highest Educational Level

SHS Certificate [] HND [] First Degree [] Masters [] PhD []

Other []

SECTION B

STAKEHOLDER NEEDS IN ROAD CONSTRUCTION WORKS IN GHANA

The following stakeholder needs have been identified for the purpose of this study for the road project. Kindly indicate the **level of importance** of these needs to the road project, using the scale below:

1	2	3	4	5
Not at all important	Low important	neutral	Moderately important	Extremely important

	STAKEHOLDER NEEDS	Level of importance				
		1	2	3	4	5
	ENVIRONMENTAL NEEDS					
1	Prevention of Air Pollution in project affected communities					
2	Prevention of Noise Pollution in project affected communities					
3	Conservation of Natural resources located along the road corridor					
4	Protection of open spaces such as durbar grounds in project affected communities					
5	Preservation of Farmlands during construction activities					
	ECONOMIC NEEDS					
1	Employing community artisans and labourers on the project					
2	Paying workers' salaries within the minimum wage					
3	Paying compensation to project affected persons					

4	Timely payment of workers salary					
	SOCIAL CHANGE NEEDS					
1	Relocation of Project affected persons to an appropriate location					
2	Understanding the cultural influences of communities along the road corridor					
3	Organising periodic training programmes for workers					
4	Build and maintain mutual trust relationship					
5	Engage stakeholders					
	COMMUNICATION NEEDS					
1	Organising regular Stakeholder Meeting					
2	Frequent update of Project Status (Progress) to stakeholders					
3	Creation of a central location to store all project information where stakeholders can access					
4	Persuading workers to change unacceptable working practices during construction activities					
	ANY OTHER NEED					

SECTION C

FREQUENCY OF STAKEHOLDER MANAGEMENT PRACTICES IN ROAD CONSTRUCTION WORKS IN GHANA

The following stakeholder management practices have been identified for the purpose of this study for the road project. Kindly indicate the **level of frequency** of these practices used on the road project, using the scale below:

1	2	3	4	5
never	rarely	sometimes	Almost every time	Every time

	Stakeholder Management Practices on the Road Project	Level of Frequency				
		1	2	3	4	5
1	Identify Stakeholders					
2	Determine stakeholders requirements on the road project					
3	Get stakeholders to sign off when stakeholder requirements are finalized					
4	Determine expectations of major stakeholders on the road project					
5	Determine stakeholders interest on the road project					
6	Determine stakeholders level of influence on the road project					
7	Determine stakeholders level of Authority on the road project					
8	Plan to engage stakeholders					

9	Manage stakeholders expectations, influence and engagement on the road project					
10	Use stakeholder interest/power matrix to manage stakeholders					
11	Assessment of stakeholder attributes (Power, urgency and proximity) on the project					
12	Let stakeholders know which requirement will be met, which requirement and expectations will not be met, and why.					
13	Conflict should be resolved in a timely manner among stakeholders on the road project					
14	Use negotiation effectively in stakeholder management					
15	Understand the power relationships around the project (political awareness)					
16	All stakeholder request outside the project requirements must go through the change control system before consideration is made.					

APPENDIX 2: QUESTIONNAIRE FOR EXTERNAL STAKEHOLDERS

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI**

COLLEGE OF ARTS AND BUILT ENVIRONMENT

DEPARTMENT OF BUILDING TECHNOLOGY

QUESTIONNAIRE FOR EXTERNAL STAKEHOLDERS

I am pursuing MSc. Project Management at the Kwame Nkrumah University of Science and Technology. I am currently carrying out a research on the topic: **“Stakeholder Management practices in road construction works in Ghana”**. The aim of the research is to analyse stakeholder management practices in road construction works in Ghana. I therefore request your outfit to support this research by answering the questionnaire.

Every information provided is strictly for academic purpose and shall be kept confidential. In case of any clarifications, questions or contributions, I can be contacted on **0244071400** or email: felmint@yahoo.com

I appreciate your time spent in completing this questionnaire.

SECTION A
DEMOGRAPHIC BACKGROUND

Name of Community.....

Number of years resident in the Community

Your Position in the community

Profession.....

Road Project Name.....

1. Gender

Male []

Female []

2. Age

Below 25 Years [] 25 Years -30Years [] 31 Years -40Years [] 41 Years -
50Years []

51Years -60 [] 60 and above []

3. Highest Educational Level

SHS Certificate [] HND [] First Degree [] Masters [] PhD []

Other []

SECTION B

STAKEHOLDER NEEDS IN ROAD CONSTRUCTION WORKS IN GHANA

The following stakeholder needs have been identified for the purpose of this study for the road project. Kindly indicate the **level of importance** of these needs to the road project, using the scale below:

1	2	3	4	5
Not at all important	Low important	neutral	Moderately important	Extremely important

	STAKEHOLDER NEEDS	Level of importance				
		1	2	3	4	5
	ENVIRONMENTAL NEEDS					
1	Prevention of Air Pollution in project affected communities					
2	Prevention of Noise Pollution in project affected communities					
3	Conservation of Natural resources located along the road corridor					
4	Protection of open spaces such as durbar grounds in project affected communities					
5	Preservation of Farmlands during construction activities					
	ECONOMIC NEEDS					
1	Employing community artisans and labourers on the project					
2	Paying workers' salaries within the minimum wage					
3	Paying compensation to project affected persons					

4	Timely payment of workers salary					
	SOCIAL CHANGE NEEDS					
1	Relocation of Project affected persons to an appropriate location					
2	Understanding the cultural influences of communities along the road corridor					
4	Build and maintain mutual trust relationship					
5	Engage stakeholders					
	COMMUNICATION NEEDS					
1	Organising regular Stakeholder Meeting					
2	Frequent update of Project Status (Progress) to stakeholders					
3	Creation of a central location to store all project information where stakeholders can access					
	ANY OTHER NEED					

SECTION C

STAKEHOLDER EXPECTATIONS IN ROAD CONSTRUCTION WORKS IN GHANA

The following stakeholder needs have been identified for the purpose of this study for the road project. Kindly indicate whether your expectations are met in the execution of the road project, using the scale below:

1	2	3	4	5
Not at all met	Slightly met	Moderately met	Considerably met	Extremely met

	STAKEHOLDER NEEDS	Level of Expectation met				
		1	2	3	4	5
	ENVIRONMENTAL NEEDS					
1	Prevention of Air Pollution in project affected communities					
2	Prevention of Noise Pollution in project affected communities					
3	Conservation of Natural resources located along the road corridor					
4	Protection of open spaces such as durbar grounds in project affected communities					
5	Preservation of Farmlands during construction activities					
	ECONOMIC NEEDS					
1	Employing community artisans and labourers on the project					
2	Paying workers' salaries within the minimum wage					
3	Paying compensation to project affected persons					

4	Timely payment of workers salary					
	SOCIAL CHANGE NEEDS					
1	Relocation of Project affected persons to an appropriate location					
2	Understanding the cultural influences of communities along the road corridor					
4	Build and maintain mutual trust relationship					
5	Engage stakeholders					
	COMMUNICATION NEEDS					
1	Organising regular Stakeholder Meeting					
2	Frequent update of Project Status (Progress) to stakeholders					
3	Creation of a central location to store all project information where stakeholders can access					
	ANY OTHER NEED					

**APPENDIX 3: COMMUNITIES IN EASTERN REGION ADOPTED FOR THE
STUDY**

S/N	COMMUNITIES ADOPTED FOR THE SURVEY
1	Abomosu
2	Asonafo
3	Jejeti
4	Akakom
5	Akote
6	Obomofo Densua
7	Asiedu
8	Akropong
9	Larbikrom
10	Asamama
11	Sarfokrom
12	Dwenase
13	Abompe
14	Adsawase
15	Anyinam

