KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI, GHANA

Decision Making Strategies Adopted by Construction Managers on Stakeholder Attributes:

A Case of Effutu Municipal Assembly.

By

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A Thesis submitted to the Department of Construction Technology and Management,

College of Art and Built Environment

in partial fulfilment of the requirements for the degree of

MASTER OF SCIENCE

DECLARATION

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

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ABSTRACT

Scanty or lack of research papers on construction stakeholder management in relation to the construction manager's decision making adopted on stakeholder attributes rationalized the need to highlight the concept. Thus, this study sought to assess the decision-making strategies adopted by construction managers on stakeholder attributes at the Effutu Municipal Assembly. The subsequent objectives were set to guide the study: identify the decision-making strategies adopted by construction managers on stakeholder attributes; identify stakeholder attributes that are more distinct in the construction industry; and identify the impact of decision-making strategies adopted by construction managers on stakeholder attributes on the successful implementation of projects. The study adopted critical review of germane literature on decision-making strategies adopted by construction managers on stakeholder attributes. The quantitative research approach was thus adopted to address the preceding objectives. A total of 65 questionnaires were administered and 51 were completed representing a response rate of 78.46%. That is, the research analysis was grounded on this response rate. The data collected were analyzed using descriptive statistics and mean score ranking. It was revealed that the most adopted decision-making strategy was giving out information to build relationship with stakeholders –having a mean value of 3.14. Similarly, it was revealed that the most distinct attribute of stakeholders in the construction industry was utilitarian power with financial or material resources (e.g. money, goods possession, and services) –having a mean value of 2.98. The study concluded that Decision making strategies adopted by construction managers on stakeholder attributes for construction projects is important for project success as the construction industry is undoubtedly crucial to the GDP and sustainable development of most economies, particularly developing countries like Ghana. The study thus recommended that proper channels should be created for effective communication between construction managers and the various project stakeholders.

Keywords: Stakeholder management; stakeholder attributes; decision-making strategies etc.

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DEDICATION

This thesis is dedicated to God Almighty and my family especially my wife Mrs. Regina baawa Robertson who has been a great support, my daughter Joy Robertson, Dennis Fiifi Robertson and Elvis Robertson. Lastly, to my mother Comfort Quarm and my siblings Ing. Daniel Gawugah and Emmanuel Allotey.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF STUDY

Stakeholder management as a concept is gaining attention and has thus become important as it strengthens even in the various industries particularly in the sector of construction —since construction projects are carried out by a number of major stakeholders. The management process with respect to construction projects remain a tough one for project managers especially, as they are required to have organizational, environmental, cultural, and social surrounding projects as Wideman (2004) posits. Project managers are in most cases torn between various controversial stakeholders' expectations which also matter most as part of the project success (Davis, 2016; Wang and Huang, 2006). The success, or failure, is strongly influenced by both the expectations and perceptions of its stakeholders, and the capability and willingness of project managers to manage these factors and the organization's politics team (Bourne and Walker, 2005). According to the Project Management Body of Knowledge (PMBOK) Guide (i.e. the 4th Edition) (PMI, 2008), project stakeholders refer to "individuals and organizations who are actively involved in the project, or whose interests may be positively or negatively affected as a result of project execution or successful project completion."

Stakeholder management is an effective management approach that brings the stakeholders concerns to the surface and develops robust stakeholder relationship in complex project environments (Bourne and Walker, 2005). Mitchell et al. (1997) aver that stakeholder salience refers to the degree to which the competing stakeholder claims are given priority by the project manager. According to Nguyen et al. (2009) four attributes of stakeholders (i.e. urgency, legality, proximity, as well as power) are deemed the donors to stakeholder salience. According to Kanter (1983), power is the ability to get things done. Stakeholder legitimacy has been taken.

1.2 STATEMENT OF PROBLEM

Bourne (2005) came up with a 'stakeholder circle' methodology where Mitchell et al.'s model was revised by the researcher as she deemed the proximity aspect of stakeholder salience as a significant attribute over stakeholder legitimacy. Bourne's and Mitchell et al.' viewpoints were accepted by Nguyen et al. (2009) as they applied the four stakeholder salience (i.e. urgency, legitimacy, proximity, and power) to analyse the impact of stakeholders on infrastructure projects given the variables equal weightings. Nevertheless, none of the studies done on stakeholders' attributes has related these attributes from the perspective of the construction manager. There is a similar gap on decision-making strategies as well as stakeholders' behaviours in the construction sector. Scholars have always followed findings from the perspective of general management and they have applied them in project executions with scanty or no practical studies. Karlsen (200) and De Lopez (2001) adopted the decision-making and potential for collaboration designs, which together with Freeman (1984)'s stakeholder policy making model to examine the behaviour and tactics of stakeholders devoid of proof. Again, scanty or lack of research papers on construction stakeholder management in relation to the construction manager's decision making adopted on stakeholder attributes rationalized the need to highlight the concept.

1.3 OBJECTIVE OF THE STUDY

1.3.1 Main Objective

The main objective of this study was to assess the decision-making strategies adopted by construction managers on stakeholder attributes at the Effutu Municipal Assembly.

1.3.2 Specific Objectives

To achieve the set aim of the study, the following objectives were set;

- 1. To identify the decision-making strategies adopted by construction managers on stakeholder attributes; and
- 2. To identify stakeholder attributes that are more distinct in the construction industry.

1.4 RESEARCH QUESTIONS

The study sought to provide answers to the following questions:

- 1. What are the decision-making strategies adopted by construction managers on stakeholder attributes?
- 2. Which stakeholder attributes are more distinct in the construction industry?

1.5 SIGNIFICANCE OF STUDY

A number of studies have established on stakeholder-related factors in terms of strategies for decision-making; however, the emphasis on decision-making strategies, the importance of the attributes of stakeholders, as well as the correlation between decision-making strategies and stakeholder-related factors have not been investigated and subsequently validated in the sector of construction. It provides relevant information on decision-making strategies adopted by construction managers on stakeholder attributes. Nevertheless, the study adds to knowledge in the area of quality management in the construction industry and also assist other researchers who may engaged in research in this line of study.

1.6 METHODOLOGY

The study adopted critical review of germane literature on decision-making strategies adopted by construction managers on stakeholder attributes. Quantitative research method was used for the collection of information centering on the research objectives. The adoption of the quantitative research approach was tied to the fact that it assisted the researcher in collecting thoughtful data from a large sample size. The study used the semi-structured questionnaires to gather the needed

information from the field. Details of the methodology were discussed in chapter three of this research work.

1.7 SCOPE

Basically, the study will be restricted to construction firms with D3 and D4 certificates from MW&H in Effutu Municipal. These categories of construction firms will be chosen because they are well equipped with various equipment's and with different construction activities on going on the project and are capable of providing adequate information for successful completion of this study.

The study will be executed within the environs of Effutu municipal assembly because of the proximity of the area to the researcher. This reduced problems that awaited the researcher with respect to the data collection, making questionnaire administration easier as well as faster for the retrieval of the questionnaires.

1.8 THESIS STRUCTURE

This research study was grouped into five separate chapters. The first chapter included the general introduction which was further divided into seven sections as highlighted subsequently: background of the study, problem statement, research questions, research aim and objectives, research justification, as the scope of study. Chapter two included review of germane literature —that is, literature centering on the research theme. The chapter three consisted of the methodological approaches as it included research methods, research design, sample and sampling procedural techniques, and data collection process. Chapter four consisted of the data analysis and discussion of results. The last was chapter five which presented the summary of the major findings of the study, the study's conclusion, and evidence-based recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

The chapter two presents a literature review for the study. Pertinent literature on c Decision Making Strategies Adopted by Construction Managers on Stakeholder Attributes are explored. Report gathered in the chapter two provides an outline for comparing and determining the study's significance and a benchmark for comparing the results with other findings (Creswell, 2009).

2.2 STAKEHOLDER DEFINITION AND IDENTIFICATION

Over the years, the definition of the concept "stakeholder" as proposed by the Stanford Research Institute in 1963 has remained relevant to the construction industry all over the world. Freeman (1984) discovered that, they defined the stakeholders of any organization as a group of persons or individuals that were key and important for the survival of the organization. Freeman (1984) himself took a critical look at the concept and defined stakeholders as the persons who have the ability and potential to affect or who are affected when a firm's vision and objectives are achieved. Also, in expanding the definition into a wider sense, Phillips (2003) defined stakeholders as the various persons and parties who contribute to and/or are affected by the process of decision making in an organization. In principle, these definitions give a proper description of the term stakeholders and can be understood by the majority.

Having established the definition of the stakeholder concept, one may proceed to identify who these stakeholders may be. This step has largely and widely been said to be first step in stakeholder analysis (Jepsen and Eskerod, 2008). Donaldson and Preston (1995) stated that stakeholders can be identified based on their interests in the organization, this is whether or not the organization has any reciprocal functional in them. Also, it can be said that consistent

functional interests get manifested on a firm's social and financial objectives or even that of the individual. Nevertheless, the accuracy and quality of the definition of stakeholder remain significant for an acceptable analytical process where key stakeholders are clearly identified. These are the views of Vos and Achterkamp (2006).

Stakeholders can be categorized into various groups in order to help simplify their analysis. The commonest is to group stakeholders based on their comparative level of contribution in the management process of the project, position of each group in relation to the project, or the permissible relations between the group and the project at hand. Stakeholders of a project may include core project team, project sponsor, client, end users, including members of the project team as well as the community and the outside groups -individuals who have confidential link to the project as Walker (2003) posits. Also, according to PMI (2004) project stakeholders include project management team, performing organization, a project manager, members of the project team, user/customer, and project sponsors —these are set of individual groups who impacts the project management body.

Four sets of stakeholders were identified by Briner et al. (1996) –they include: organization of project leaders; the project client; the invisible team members; and outside services. Briner et al. (1996) view on project stakeholders in in line with PMI (2004) and Walker (2003). Conversely, Tuman (2006) limited project stakeholders to four basic groups –they include: project participants, project champions, parasitic participants, and community participants. The project participants Tuman (2006) indicates they include individuals whose actions bring the project to view, like the investor, client, customers, and developers. The project participants as Tuman (2006) indicates include individuals responsible for the planning and the implementation phases of the project like engineers, constructors, project team and project workers. On the other hand, the communication participants include groups and individuals

who get affected directly by the project like the economic, social and environment in which the project is executed. Finally, the various groups as well as individuals like the family and the media, whose direct stake in the project is minimal but impart challenges, constitute the parasitic group.

Subject to the relationship between the project and its stakeholders, stakeholders are characterized as primary and secondary (McElroy and Mills, 2000; Clarkson, 1995) and direct and indirect (Lester, 2007) stakeholders. To a degree, the two normally group project stakeholders in the same way. Cleland and Ireland (2007) posits that, the primary stakeholder comprise of individuals/groups who have legitimate relations to the project and thus have a responsibility in the management process of the project —like quality, cost and time management. Likewise, the direct stakeholders include individuals directly involved in all phases of the project (Lester, 2007). Both and Lester (2007) and Cleland and Ireland (2007) consent that indirect and secondary stakeholders are not directly involved in the project but however have stake in the project —these groups/individuals include economic, environmental and social groups, families, and media.

2.3 BACKGROUND OF STAKEHOLDER MANAGEMENT AND THEORIES AND CONCEPTS

As stated early on, the Stanford Research Institute in 1963 introduced this concept of stakeholders into management. Various definitions were used to describe the concept. According to Newcombe (2003), project stakeholders are individuals or groups who get affected or affect the outcomes of the project and they include subcontractors, clients, designers, funding bodies, project managers, suppliers, project users, and the whole community. What this definition means is that, a stakeholder is any group or individual with the influence which can be beneficial or a threat to the project successes (Aaltonen et al. 2008).

On the basis of this definition, stakeholder management process model (Lenox, 2006) has been proposed by a large number of stakeholder theories (Aaltonen et al. 2008). The purpose of managing stakeholders is to address the various views of the diverse project parties, enhance project communication among these stakeholders, and to clarify the needs of each stakeholder (Lenox, 2006). The existence of stakeholders is a continual process in every activity of the organization and is important in every organizational framework.

The Stakeholder Management Process consists of the following stages;

- 1. Identify Stakeholders,
- 2. Gather information on Stakeholders.
- 3. Identify Stakeholder Priorities,
- 4. Determine Stakeholder Strengths and Weaknesses,
- 5. Identify Stakeholder Support,
- 6. Predict Stakeholder Behaviour,
- 7. Prepare Stakeholder Management Strategy.

Also, Cleland and Ireland (2002) formulated principles of stakeholder management. These were cited in the work of (Aaltonen, et al; 2008).

- Principle 1 Project managers are supposed to acknowledge and as well monitor all legitimate stakeholders' concerns, and they should also take individual interest properly into account when appropriating decisions as well as operations.
- Principle 2 Project managers ought to heed to and agreeably communicate with the
 project's stakeholders on the concerns of each group/individual as well as their
 contributions, and concerning the risks they pose to the project as a result of their
 involvement.

- Principle 3 Project managers have the responsibility to adapt to modes and processes
 of behavior sensitive to each stakeholder's capabilities and concerns per their
 consistency.
- Principle 4 Project managers are supposed to recognize the interdependence of rewards and efforts of the project stakeholders, and as well ought to attempt to accomplish an equal distribution of project burdens and benefits among the stakeholders, considering their respective vulnerabilities and risks.
- Principle 5 Project managers are also expected to work together with other bodies,
 both private and public, in order to ensure harms or risks arising from the firm's
 activities and reduced especially where they are unavoidable.
- Principle 6 Project managers are expected to eschew every activity that stand the
 chance of jeopardizing the immutable rights of humans (example, right to life) or stand
 the chance of increasing risks that are patently intolerable to key stakeholders.
- Principle 7 Finally, project managers are supposed to recognize the possible conflicts between their own positions as commercial stakeholders, and (b) their moral and legal roles for stakeholders' interests, and ought to address such conflicts by using appropriate reporting, open communication, and party review.

The basic idea of stakeholder theory is tied to the fact that firm has connection with several basic groups and so the firm can maintain and engender the support of the groups through balancing the interest of each group. (Lenox, 2006) outline subsequently the constituent premises of the theory:

• The corporation has relationships with many constituent groups ("stakeholders") that affect or are affected by its decisions (Lenox, 2006).

- The theory is concerned with the nature of these relationships in terms of both processes and outcomes for the firm and its stakeholders;
- The interest of all (legitimate) stakeholders had intrinsic value, and not one set of interests is assumed to dominate the others (Lenox, 2006).
- The theory focuses on managerial decision-making (Lenox, 2006).
- In all, the original and central purpose of theory as proposed by Lenox (2006) is to equip project managers the ability to understand and strategically manage all project stakeholders.

The important factor attached to stakeholder management has been the main focus by several studies (Moldoveanu, 2003). While having its origins in strategic management, stakeholder theory has been applied to a number of fields and presented and used in a number of ways that are quite distinct and involve very different methodologies, concepts, types of evidence and criteria of evaluation. As the interest in the concept of stakeholders has grown, so has the proliferation of perspectives on the subject (Friedman and Miles, 2002). Lenox et al. (2006) has expounded an eminent classification of the various types of stakeholder theory so as to clear up the theoretical uncertainty in the sector. The researchers are of the view that stakeholder theory include 3 distinct aspects: instrumental, descriptive/empirical, and normative. The empirical/descriptive theory is adopted to describe the specific corporate behaviours and characteristics. Thus, this aspect explains and describe how companies including their managers behave. The instrumental theory also identifies the link between firm's performance objectives and stakeholder management objectives, like growth and profitability (Lenox, 2006). Thus, this view gives information on what happens should in case the stakeholder management is used. Ruf et al. (2001) indicates that the growing theoretical literature has examined the relationship between environmental and social consciousness including firms' profitability. Lastly, the normative theory has to do with the identification of philosophical or moral guidelines for managing firms including describing what managers ought to do regarding stakeholders. That is to say, the normative theory focuses more on the moral respectability of firms' behaviour.

Following the work of Freeman et al. (2007) stakeholder theory has been put into 2 major groups: 1) the social science -based theory as well as empirical/descriptive and instrumental approaches; 2) ethics -based theory, aiming on the normative factors and connecting stakeholders with firms ethics and social responsibilities discussions. The researcher continued given suggestions on convergent stakeholder theory -which coalesce instrumental and normative elements and validates how project managers do create ethically sound approaches to corporate business and ensure they are working.

2.4 CONSTRUCTION PROJECTS' STAKEHOLDERS

Before everything, the researcher seeks to present his own definition with respect to construction projects' stakeholders in this particular study –stakeholders in construction projects refer to the significant participating groups engaged in the project throughout the various phases till completion. Hoe project's stakeholders and project objectives are aligned do affect potential uncertainties like conflicting stakeholders interests and schedule deviation which no project manager should overlook. Throughout the life cycle, the various phases, that is, Pre-construction phase, Construction Phase and Operations Phase. The Pre-Construction phase includes the Client and the Consultant. The Construction phase includes the Client, the Consultant, the Local Authorities, the Contractor and all the individual parties involved in the Supply Chain.

2.5 STAKEHOLDER ATTRIBUTES

By definition, the term salience of a stakeholder can be described as the extent or magnitude to which a manager gives precedence to competing claims of stakeholders (Mitchell et al. 1997). There are 4 distinct features of stakeholders' salience and they are outlined below:

- 1. Stakeholder Power,
- 2. Stakeholder Legitimacy,
- 3. Stakeholder Urgency and
- 4. Stakeholder Priority (Nguyen et al. 2009).

2.5.1 Stakeholder Power

According to the work of Kanter (1983), power can be defined straightaway as, "the ability to get work done". Various types of classification of power exist (Frooman, 1999), however, academics have maintained two perspectives; that is relationship dependency and resource occupation. According to Cavanaugh (1984), resource occupation viewpoint consider power to an individual attribute. Stakeholder power conceives the higher the resources possessed by a stakeholder, the higher the power of the stakeholder and vice versa. 'Resource' used here constitute a broad term and it refers to all assets include tangible and intangible one like incorporeal capital. Freeman and Reed (1983) and Etzioni (1964) begun this viewpoint. Etzioni (1964) proposed 3 types of power, namely, practical power with financial or material resources (example money, goods possession, and services), forcible power with tangible resources of threat, violence, or force (example, the use of lock, wipe, or gun), and social/normative control with symbolic means (example, love, acceptance, prestige, and esteem). In 1983, Freeman and Reed proposed that the power of stakeholders vary between the voting or formalistic power (generally making reference to minority interest, authority pyramid, and funds of shareholder) to political power to economic power (i.e. market decisions). A number of stakeholder studies

the field of construction have unconsciously and consciously accepted the normative/coercive/utilitarian categorization as Mitchell et al. (1997)'s work refers to. For instance, Aaltonen et al. (2008) utilized Mitchell et al. (1997)'s model to examine authority in relation to a construction project on pulp mill. It was analyzed that, authority of stakeholder via three sources (that is expert, resource, and positional) (Nguyen et al., 2009). The correlation reliance viewpoint perceive authority to be a trait of social relations (Cavanaugh, 1984; Lovell, 1993). The researchers' viewpoint is characteristically identified in Dahl (1957) definition. Pfeffer (1981), thus, observed that "power is context or relationship specific in that a person is not 'powerful' or 'powerless' in general but only with respect to other social actors in a specific social relationship." Freeman and Evan (1990) also maintained that stakeholder setting include "series of multilateral contracts among stakeholders". Rowley (1997) posits that the nature of the existing relationship between stakeholders influences the behaviour of the stakeholder and thus require it position on the main organization. In sector of construction, a number studies have paid attention on this viewpoint in recent times. Yang et al. (2011), Newcombe (2003), Walker and Bourne (2008), and Pryke (2006) adopted the phrase "the network of relationships" during a research they conducted, as a result of the fact that they believe the influences of stakeholders in construction project come in the form of complex, interactive, non-linear, and iterative environment, which are hard to identify. Per the types of influence and resource control pathways, Beringer et al. (2012) suggested 4 stakeholder influence strategies: direct, usage, indirect, and withholding. Even though, these earlier researchers, have accented on the role that stakeholder's power has in terms of decision making, most of the researchers failed to indicate the degree to which these influences affect the decision-making strategies' of the project manager. Parent and Deephouse (2007) adopted a multi-approach on two huge organizing committees for a sporting event in a case-study, with key emphasis on interrogates with project executives as 3 ranked stages -they identified that control is key for decision

making and stakeholder salience. This declaration still remains invalidated, nevertheless, in the sector of construction.

2.5.2 Stakeholder Legitimacy

Legitimacy of a stakeholder has been considered in any case since Freeman (1984)'s profound work. Agle et al. (1999) and Mitchell et al. (1997) proposed that stakeholder authority can be adopted as a measure for identifying interested party whether their entitlements are legit or otherwise. According to Suchman (1995), stakeholder legality is "a generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions." Donaldson and Preston (1995) adopted Suchman (1995) definition and they made a distinction between influencers and stakeholders. The researchers believes some influencers (eg. competitors and the media) are considered not stakeholders on the basis that the firm's goal is not to see to their well-being. Freeman (1999) argues that the stakeholder's entitlement may not count compared to the stakeholder's capacity to influence the organization/project direction –and so project managers ought to take into consideration all stakeholder claims as a result of its potency of impacting activities and strategies of the project. On this grounds, that is, Freeman's (1999) argument, Philips (2003) suggested 2 types of legitimacy: derivative and normative legitimacies. The offshoot stakeholders include persons whose claims and actions have to be justified by executives as they have the power to affect the firm/project and the normative stakeholders. The normative stakeholders include those that the firm/project has moral obligation, and whose interest is the project being managed (Philips, 2003; Freeman, 1984). Additionally, Philips (2003) highlighted that these groups without derivative and normative legitimacies are 'nonstakeholders'. On the basis of Philips' classification, administrators can appreciate the whole concept on stakeholder legality and distinguish who the stakeholders are, on what grounds such persons merited the statuses conferred on them, and how they are link to the central administration. According to Stinchcombe (1968), the values of those with social power defines the stakeholder legitimacy. Driscoll and Starik (2004) suggested that, even though project administrators consider certain stakeholders to be legal although they do not have power, these categories of stakeholders will remain not salient to project managers "unless they hold either the power to influence the form or the urgency of a claim". Even though researchers have distinct viewpoints on philosophies, their reports ought to be validated when carrying out; nevertheless, their researches neither attained practitioners' views on the concept of legitimacy, nor analyzed whether these qualities are key for management where conflict arise between project's stakeholders.

2.5.3 Stakeholder Urgency

Stakeholder urgency describe the extent to which stakeholders' claim call for instant attention as result of its importance to the stakeholders or its time sensitive nature (Mitchell et al. 1997). Stakeholder earnestness stands different to other qualities as it is contingent on time horizon where effects of claims are anticipated (Munteanu et al. 2007). Therefore, time-related factors like rates of return, resources' unavailability, project schedule, administrative calendars, and political agendas have the ability to influence the level of urgency. There exist two point of views that use for evaluating urgency, that is, the long-term sustainability and the short-term economic outcomes (Driscoll and Starik, 2004). The latter "is often precipitated by the use of the cost-benefit analysis, rates of return, and changes in stock prices" (Laverty, 1996). The long-term sustainability on the other hand, is more linked to environmental catastrophes like biodiversity loss, urban sprawl, vulnerability of species extermination, and coastal development (Driscoll and Starik, 2004). According to Agle et al. (1999) stakeholder urgency constitute the best stakeholder salience predictor, nevertheless, their statement got challenged by studies conducted by Parent and Deephouse (2007) —which indicates power to be the best

stakeholder salience predictor. In the construction industry, stakeholder's attribute constitute one of the most important aspect of a project in terms of decision-making strategies.

2.5.4 Stakeholder Proximity

The spatial distance is as important as time with respect to stakeholder interactions. The spatial distance is linked to 'urgency' (Driscoll and Starik, 2004). Proximity is considered as key stakeholder feature for indicating "the state, quality or fact of being near or next in space, time or order" (Soukhanov, 1984). Driscoll and Starik (2004) conducted a systematic statement on proximity in literature on general management. According to Driscoll and Starik (2004), the four aspects relating to proximity ought to be considered: 1) ubiquity -meaning "a stakeholder is multi-faceted as to be virtually omnipresent" (example communities and the populace in main road project); 2) physical sharing, like administrations that use similar physical space or next to an alternative; 3) affinity, which proposes the disposition of the firm for forming partnership with the right stakeholder group, from reasons of current strategies, resources, missions, structures, or their members. Driscoll and Starik (2004) again suggests that proximity is linked to the developing stakeholder network idea, specifically with regards to the aspect of 'interest connection'. The 2 network factors namely, density and centrality, were regarded as factors for indicating stakeholder proximity according to Driscoll and Starik (2004); nevertheless, per the theory of classical social network, the two factors have limited link with respect the concept of proximity. According to Wasserman and Faust (1994), with regards to centrality, irrespective of the type of centrality it may be (example closeness, out-degree, indegree, status centrality, and betweenness), calculate the amount of eminence of a stakeholder (individual) in the correlation web. Stakeholders who have greater connection reliance (related to closeness, status centralities, and betweenness) or controlling more resources (related to outdegree and in-degree centralities) are mostly located on the network. From this perspective, the term centrality is closely linked to 'power' (i.e. relationship dependency and resource

occupation, instead of 'urgency' or 'proximity'). Scott (2000) posits that density refers to the measure of "the relative number of ties in the network that link actors together". This is measured as the ratio of the amount of relations that is present in the system, as likened to the total amount of highest probable ties. According to Parise (2007) the density parameter is adopted for analyzing ways or communication status within the company and/or the project environment. Even though, the nuanced concept does exist, however, the proximity causes attention in literature on general administration (Driscoll and Starik, 2004). Relatively, the construction sector has literature on 'stakeholder proximity' remain scanty. Researchers neither viewed from a narrow viewpoint (Nguyen et al. 2009; Bourne, 2005) nor made mention of the impact on stakeholder salience by proximity (eg. Aaltonen et al. 2008; Olander, 2007). Compare Driscoll and Starik interpretation of proximity to Bourne (2005) which state that proximity refers to the extent to which stakeholders are included in the entire project; that is, those who find themselves not directly involved in the project are referred to as remote ones and their other counterparts as 'close' stakeholders –Bourne (2005) definition seems simpler to that of Driscoll and Starik. It is required that we clarify the proximity concept including its link with construction management.

2.6 DECISION-MAKING STRATEGIES ADOPTED BY CONSTRUCTION MANAGERS ON STAKEHOLDER ATTRIBUTES

In this section, strategies for managing stakeholders adopted or proposed by earlier researchers in the construction fields and general management. Although distinct terms are adopted to explain the 'sternness stages' of tactics, relationships exist between the various classifications. Starting with involvement (Karlsen, 2002; Savage et al. 1991), adaptation (Aaltonen and Sivonen, 2009), strategy, gentlest, offense (Freeman, 1984), all denote yielding or accepting to stakeholders' claims with slight conflict. Collaboration (Karlsen, 2002; Savage et al. 1991), trade-off (Chinyio and Akintoye, 2008), conciliation (Aaltonen and Sivonen, 2009),

accommodation (Elias et al. 2002; Clarkson, 1994), as well as swing (Freeman, 1984) constitute the 'gentler' strategy with respect to having negotiation with stakeholders to come to mutual understanding. 'Tougher' strategy includes avoidance (Aaltonen and Sivonen, 2009) and defense (Karlsen, 2002; Elias et al. 2002; Freeman, 1984; Clarkson, 1994; Savage et al. 1991), with which project executives manage to lessen the dependency/add-on to stakeholders including the entitlements due them – and perform solitary the least lawfully mandatory to solve issues relating to stakeholders. The 'toughest' strategy used in practice is referred to as monitor (Karlsen, 2002; Savage et al. 1991), hold (Freeman et al. 2010), dismissal (Aaltonen and Sivonen, 2009), or reaction (Elias et al. 2002; Clarkson, 1994), and specifies that project managers either withdraw and ignore the stakeholder's claim or fight against it. The 'influence' strategy constitute an exception as Aaltonen and Sivonen (2009) proposes. The 'influence' tactic is very beneficial for managing preventively detecting claims by the stakeholders on the basis of the established relationships, and come up with right decision-making strategy. With respect to decision-making strategies, even though Aaltonen and Sivonen (2009) and Chinyio and Akintoye (2008) came up with their categorizations on the basis of 4 case studies and 12 interviews respectively.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This research was conducted to assess decision making strategies adopted by construction managers on stakeholder attributes at Effutu municipal assembly. For the purpose of achieving the research aim and objectives, this chapter presented the knowledge underlying the study and finding the appropriate method to provide answers to the questions tied to the study, the various methods that were employed to meet the set research objectives are discussed in this chapter. It also defined the research procedure, research design and the processes that were used before the questionnaire administration. The chapter again defined the sampling techniques used for the study including the characteristics of the research sample size as well as the statistical tool adopted for the data analysis.

3.2. QUANTITATIVE RESEARCH

Quantitative research has been identified with a more realist stance. Kothari (2004) pointed out that quantitative research is based on the measurement of quantity or amount of something. Quantitative research as an inquiry into a social or human problem, based on testing a hypothesis or a theory composed of variables, measured with numbers, and analysed with statistical procedures, in order to determine whether the hypothesis or the theory hold true. It is also concerned with investigating things which could be observed and measured in some way (Degu and Yigzaw, 2006). Quantitative research is on collecting and analysing numerical data; it concentrates on measuring the scale, range, frequency of phenomena. This type of research, is usually highly detailed and structured and results can be easily collated and presented statistically (Neville, 2007).

This research follows the quantitative approach to research as data collected will be analysed with statistical procedures. Rajasekar et al, (2006) stated that quantitative research often begins

with the collection of data based on a theory or hypothesis followed by the application of descriptive or inferential statistical methods. This study will therefore make use of statistical methods to analyse the collected data which will form the bases of formulating recommendations.

3.3. QUALITATIVE RESEARCH

Qualitative research is based more on the judgement of the individual. It involves examining and contemplating on the less perceptible parts of a research project, e.g. values, attitudes (Neville, 2007). This approach to research interested with subjective assessment of attitudes, opinions and behaviour. Presenting and interpreting findings on research work that was executed with the qualitative method can be difficult, the findings can also be challenged easily.

3.4 RESEARCH DESIGN

The research design refers to the master plan that directs the study in terms of how it is supposed to be carried out. It shows the procedures for exploring and analyzing the link between factors embroiled in the research problem. In the bid to find a solution to the problem of the study, it is important to skilfully separate the link between the factors in the case and thus analyze the link free from influence as Nenty (2009).

Nonetheless, this research adopted a questionnaire survey in a bid to identify the risk factors leading to cost overruns and delay in the Ghanaian construction industry. A survey provides the only available way of getting the current picture of a group, profession, organization, etc. (Janes 1999). Surveys also help in determining trends in the population.

3.5 RESEARCH PROCEDURE

The research procedure is used to discuss relevant issues relating to the research method adopted for achieving the objective and the overall aim of the study. It also discussed reasons underlying the choice of sampling methods, data collection techniques. The research procedure is further explained in the figure 3.1 below.

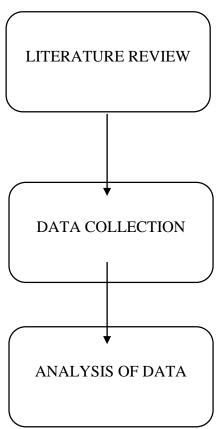


Figure 3.1 Research Procedure

3.5.1 Target Population

According to Taylor-Powell (1998) population refers to groups of interest all within a particular geographical region of interest in the time of the research. Target population also refers to all members who meet a particular criterion specified for a research investigation. This research considered construction professionals with D3/K3 and D4/K4 registered firms under the MW&H who are operating in the Effutu Municipality at the time of data collection as the target population. A list of all registered contractors in the Ghanaian construction industry was obtained and used for the study. The data had forty-three registered contractors who are in good standing and registered with the Association of Building Contractors and Civil Engineering Contractors of Ghana in the Central Region. Out of the forty-six, six were in D1K1 category of contractors, twelve in the D2K2 category, the remaining twenty-five in the D3K3 category (ABCECGH, 2019). The location was selected because of its proximity to the researcher and the fact that this research is a case study of the municipal assembly.

3.5.2 Sampling

Sampling is a procedure of selecting a few (a sample) from a bigger group (population) to become the basis for estimating or predicting the prevalence of an unknown piece of information, situation or outcome regarding the bigger group (Kothari, 2004). This research was a systematic study to examine the research problem and find relevant information from the respondents. The study adopted the probability sampling method to arrive at the study's sample size. The simple random and stratified sampling techniques were used to determine the sample size. The probability sampling means that all the items in the research population had equal chances of getting selected in the sample (Zikmund and Babin, 2006).

In determining the size of a sample in a given population, it is appropriate to use a statistical formula. The study's population constituted one hundred and twenty-five professionals from the thirteen D3K3 and D4K4 category of contractors. It was expected of every firm to have at least 5 professionals hence the 125 was arrived by multiplying the 25 firms by the 5 professionals. The Yamane's formula is used to determine the sample size since the population size is known (Ernest, 2012).

The formula is
$$n = \frac{N}{1 + Ne^2}$$

Where n = Sample size

N = Population of study

e = Limit of tolerance error (using 10%)

1 = Theoretical constant

(Yamane, 1973).

In assigning values to these the sample size would be calculated as follows

$$N = 125 = 55.55 = 56$$

1+Ne² 1+ 130(0.1)²

A sample size of 65 was determined as 9 more questionnaires were added to cater for uncertainties and loss of questionnaires. The distribution for the questionnaire was carried out in 14 D3K3 and D4K4 firms.

3.6 SOURCES OF DATA AND DATA COLLECTION

The purpose of this section was to make presentation on data collection instruments, including the procedures and the methods used. There are two major approaches to getting information when conducting a research study being primary and secondary sources (Kumar, 2019). Saunders et al. (2009) describe primary data as newly collected data mainly to answer the research question or to meet the research objectives. Primary data can be collected either through experiment or through surveys like interviews, questionnaires etc. (Jha, 2014). Kothari (2004) on the other hand, describes secondary data as that which have already been collected by someone else and which have already been passed through the statistical process. Neville (2007) stated that all research work ought to include primary data that is data gathered directly from sources and analysed. The sources of primary data for this research work include project managers, quantity surveyors and consultants. The questionnaires were self-administered by the respondents.

3.6.1 Questionnaire Design

Questionnaires are a written list of carefully structured questions, the answers to which are provided by respondents for the purposes of collecting reliable and statistically useful information concerning a particular study, questionnaire enhances data collection as questions are posed to respondents for answers. The questionnaire was to design to be concise and simple to attract respondents.

The questionnaire included two parts, Part I and Part II.

• Part I covered the demographics, that is, the background information of the respondents such as gender, profession, years in professional practice etc.

• Part II required correspondents to answer questions in relation to decision-making strategies adopted by construction managers on stakeholder attributes. The information under this section covered the three main objectives of this research, decision-making strategies adopted by construction managers on stakeholder attributes; stakeholder attributes that are more distinct in the construction industry; and the impact of decision-making strategies adopted by construction managers on stakeholder attributes on the successful implementation of projects.

3.7 DATA PRESENTATION AND ANALYSIS

The answered questionnaires retrieved from correspondents were analysed using the International Business Machines Statistical Package for Social Sciences (IBM SPSS) version 25.00. The interpretation of the data was also done by IBM SPSS version 25.00 using descriptive statistics and mean score rankings. The data was then presented graphically and in tabular form to enhance easy comprehension. Information in relation to the background of correspondents were also presented in cross tabulations. The outcome of the study was checked against the objectives and the aim of the research.

3.8 BRIEF OVERVIEW OF THE EFFUTU MUNICIPAL ASSEMBLY.

Located in the Central Region of Ghana, The Effutu Municipal Assembly was curved out of the then Awutu-Effutu Senya District Assembly in 2007 by L.11860. The Assembly covers a land area of 417.3 square kilometers (163 sq miles). The Municipal Assembly has Winneba as its administrative capital. According to the 2010 population and housing census, the population of the assembly is estimated to be 68,597. This consists of 32,795 males and 35,802 females. It has a population growth rate of 2.2% and an average household size of 4.1 persons. This Assembly is home to the University of Education, Winneba.

3.9 CHAPTER SUMMARY

This chapter addresses the methodology used in carrying out this research, how sample selected have been explained, the process used in the questionnaire designing have also been described.

How data was collected and analysed using statistical processes have been expatiated.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 INTRODUCTION

This chapter details all relevant analysis of data collected and also discusses the results obtained from the data collected. All data used in the analysis were collected through the distribution of questionnaires. It is this data which upon analysis would source the information needed to meet all objectives and ultimately achieve the aim stated. This chapter is sectioned in two; the first part tackles the demographic data collected. This part is primarily analysed using frequency tables through descriptive statistics tool of analysis from SPSS window version 25. Part two zooms in on the objectives of this study. The objectives were analysed using mean score ranking and one sample t tests.

4.2 SURVEY RESPONSES

The purpose of the study was to assess the decision-making strategies adopted by construction managers on stakeholder attributes using Effutu Municipal Assembly as a case study. A total of 65 questionnaires were distributed and 51 were retrieved representing a response rate of 78.46%. The presentation, analysis and discussion of data retrieved are guided by the research questions of the study but would be preceded by background of the respondents. A Cronbach Alpha value of 0.998 was achieved for the survey results. For a Cronbach's Alpha value to be valid, it must be equal to or greater than 0.70.

4.3 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

This section provided an understanding of the profile of the respondents. Knowing the background of the respondents helped to generate confidence in the credibility of the data and eventually the findings of the study.

4.3.1 Professional Background of Respondents

The intention of this question was to know the profession in which the various respondents

belong. The various professions were, Project manager, Quantity surveyor, Architect, and Civil engineer since they represented stakeholders in the construction industry. Out of the 51 retrieved questionnaires, 22 were project managers representing 43.1%, 13 were quantity surveyors representing 25.5%, 7 were architects representing 13.7% and 6 were civil engineers representing 11.8%. The remaining 5.9% had other professional backgrounds. It is evident from Table 4.1 that majority of the respondents were project managers.

Table 4. 1 Demographic Characteristics of Respondents

	Frequency	Percent
Project manager	22	43.1
Quantity surveyor	13	25.5
Architect	7	13.7
Civil engineer	6	11.8
other	3	5.9

Source: Field survey (2019)

4.3.2 Years of Professional Practice

The intent of this part of the demographics was to establish the working experience of the respondents. This information gave the relevance to the kind and quality of information that was to be given out. Table 4.2 shows the professional experience of the respondents. Apparently, majority of the respondents have been in professional practice between 5 to 10 years (51%), 35.3% of the respondents had spent 11 to 20 years in professional practice and the remaining 13.7% had less than 5 years in professional practice.

Table 4.2: Years of professional practice

	Frequency	Percent
Less than 5 years	7	13.7
5 – 10 years	26	51.0
11-20 years	18	35.3

Source: Field survey (2019)

4.3.3 Type of Projects Firm

27 of the respondents representing 52.9% worked with D4/K4 construction firms. 13(25.5%)

worked with D3/K3 construction firms. The remaining 11 respondents worked with other construction firms.

Table 4.3: Type of firm

	Frequency	Percent
D3/K3	13	25.5
D4/K4	27	52.9
A3/B3	8	15.7
A4/B4	3	5.9

Source: Field survey (2019)

4.4 DECISION-MAKING STRATEGIES ADOPTED BY CONSTRUCTION MANAGERS ON STAKEHOLDER ATTRIBUTES

In order to examine decision making strategies adopted by construction managers on stakeholder attributes, respondents were asked to rate decision making strategies according to how often they use them on construction projects. More precisely, a five-point Likert scale (with 1 representing 'Not often' and 5 representing 'Very Often') was used to derive answers from respondents in the sample to select the number that indicates how often they use these strategies.

Table 4.5 shows the results obtained from the analysis. The table shows that respondents ranked Influence (giving out information as relationship with stakeholders are built; affecting the demands and values of the stakeholders) as the most employed decision-making strategy with a mean score of 3.14, ranked second was Collaboration (working together with the stakeholder to come to an agreement) with a mean score of 3.04. Pro-action (doing more than necessary to tackle issues concerning a stakeholder), Compromise (consulting with stakeholders, heeding to each of their claims in relation to the project, and settling claims using dialogues), Concession (paying attention to the request of stakeholders) and Adaptation (Conforming to the rules and demands presented by the stakeholders) ranked third, fourth, fifth and sixth with mean scores of 2.96, 2.94, 2.84, and 2.78 respectively. Involvement (heed to and engaging the

stakeholders in the various phases of the project), Offense (relating other programs which stakeholders see as favourable; assuming the position of the stakeholder; and changing the whole operational processes), Avoidance (untying all stakeholders' attachments including their claims so as to guard oneself from the claims), and Trade off (offering other options on issues concerning stakeholders) ranked seventh, eighth, ninth and tenth with mean scores of 2.76, 2.75, 2.68, 2.67 respectively. Ranking 11th, 12th, 13th, 14th, 15th, and 16th were Defence (decreasing the stakeholder's interest by reducing his or her dependence on the project, and doing only the minimum legally demanded to settle issues concerning stakeholders), Monitor (checking current performance apart from it being negatively influenced), Accommodation (just like pro-action, accommodation is somewhat less active way of addressing issues concerning stakeholders), Reaction (completely retracting from or ignoring the stakeholder or fighting against addressing issues concerning stakeholders), Dismissal (flouting the demands of the stakeholder) and Hold (declining to monitor current programs; strengthening existing beliefs on the organization; and protecting changes in operational process).

Table 4.4: One-Sample Statistics for Decision-Making Strategies

DECISION-MAKING STRATEGIES	Mean	Std. Deviation	Rank
Hold (declining to monitor current programs; strengthening existing beliefs on the organization; and protecting changes in operational process)	2.51	.85726	16 TH
Defence (decreasing the stakeholder's interest by reducing his or her dependence on the project, and doing only the minimum legally demanded to settle issues concerning stakeholders)	2.66	1.01634	11 TH
Offense (relating other programs which stakeholders see as favourable; assuming the position of the stakeholder; and changing the whole operational processes)	2.75	.99173	8 TH
Monitor (checking current performance apart from it being negatively influenced)	2.65	1.16316	12 TH

Collaboration (working together with the stakeholder to come to an agreement)	3.04	.99922	2 ND
Involvement (heed to and engaging the stakeholders in the various phases of the project)	2.76	1.10613	7 TH
Reaction (completely retracting from or ignoring the stakeholder or fighting against addressing issues concerning stakeholders)	2.62	1.13068	14 TH
Accommodation (just like pro-action, accommodation is somewhat less active way of addressing issues concerning stakeholders)	2.63	1.13068	13 TH
Pro-action (doing more than necessary to tackle issues concerning a stakeholder)	2.96	1.09473	3 RD
Trade off (offering other options on issues concerning stakeholders)	2.67	.99331	10 TH
Concession (paying attention to the request of stakeholders)	2.84	1.10223	5 TH
Adaptation (Conforming to the rules and demands offered by the participants)	2.78	.98618	6 TH
Conciliation (consulting through patrons, heeding to each of their claims, and settling claims using dialogues)	2.94	.98817	4 TH
Avoidance (untying all stakeholders' attachments including their claims so as to guard oneself from the claims)	2.68	.90532	9 TH
Dismissal (flouting the demands of the stakeholder)	2.61	.87358	15 TH
Influence (giving out information as relationship with stakeholders are built; affecting the demands and values of the stakeholders)	3.14	1.03961	1 ST

Source: Field survey (2019)

4.4.1 One Sample T-Test on Decision-Making Strategies Adopted by Construction Managers on Stakeholder Attributes

All of the decision strategies had t-values (the strength of the test) that were positive. All the decision-making strategies had p-values (significance of the test) less than 0.05 and this implies that the means of these variables are not significantly different from the hypothesized mean of

employ these methods in managing stakeholders.						

3.5. This indicates a positive agreement of respondents with the variables and how often they

Table 4.5: One-Sample T-Test for Decision-Making Strategies

Test Value = 3.5							
	t	df		Mean	95% Confidence Interval		
				Difference	of the Difference		
					Lower	Upper	
Hold (declining to monitor current programs; strengthening	20.908	50	.000	2.50980	2.2687	2.7509	
existing beliefs on the organization; and protecting changes in							
operational process)							
Defence (decreasing the stakeholder's interest by reducing his or	18.600	50	.000	2.64706	2.3612	2.9329	
her dependence on the project, and doing only the minimum							
legally demanded to settle issues concerning stakeholders)							
Offense (relating other programs which stakeholders see as	19.909	50	.000	2.76471	2.4858	3.0436	
favourable; assuming the position of the stakeholder; and							
changing the whole operational processes)							
Monitor (checking current performance apart from it being	16.252	50	.000	2.64706	2.3199	2.9742	
negatively influenced)							
Collaboration (working together with the stakeholder to come to	21.721	50	.000	3.03922	2.7582	3.3202	
an agreement)							
Involvement (heed to and engaging the stakeholders in the various	17.850	50	.000	2.76471	2.4536	3.0758	
phases of the project)							
Reaction (completely retracting from or ignoring the stakeholder	16.595	50	.000	2.62745	2.3094	2.9455	
or fighting against addressing issues concerning stakeholders)							
Accommodation (just like pro-action, accommodation is	16.595	50	.000	2.62745	2.3094	2.9455	
somewhat less active way of addressing issues concerning							
stakeholders)							
Pro-action (doing more than necessary to tackle issues concerning	19.315	50	.000	2.96078	2.6529	3.2687	
a stakeholder)							

Trade off (offering other options on issues concerning	19.172	50	.000	2.66667	2.3873	2.9460
stakeholders)						
Concession (paying attention to the request of stakeholders)	18.421	50	.000	2.84314	2.5331	3.1531
Adaptation (Conforming to the rules and demands presented by	20.163	50	.000	2.78431	2.5069	3.0617
the stakeholders)						
Compromise (consulting with stakeholders, heeding to each of	21.256	50	.000	2.94118	2.6633	3.2191
their claims in relation to the project, and settling claims using						
dialogues)						
Avoidance (untying all stakeholders' attachments including their	21.190	50	.000	2.68627	2.4316	2.9409
claims so as to guard oneself from the claims)						
Dismissal (flouting the demands of the stakeholder)	21.319	50	.000	2.60784	2.3621	2.8535
Influence (giving out information as relationship with	21.551	50	.000	3.13725	2.8449	3.4296
stakeholders are built; affecting the demands and values of the						
stakeholders)						

Source: Field survey (2019)

4.5 STAKEHOLDER ATTRIBUTES THAT ARE MORE DISTINCT IN THE CONSTRUCTION INDUSTRY

Respondents were also asked to rate various stakeholder attributes based on how applicable they are in the construction industry. Using a five-point Likert scale (with 1 representing Not Severe and 5 representing Very Severe) was used to get answers from respondents on how these stakeholder attributes were applicable to the construction industry.

From table 4.5 below, it can be deduced that most of respondents claim that "utilitarian power with financial or material resources (e.g. money, goods possession, and services)" more than the other variables by ranking it first with a mean score of 2.98 followed by the "economic or social

influences of claims by the stakeholders on projects" with a mean score of 2.88 coming in second place stakeholders the project and/or the organization have moral duty, and on their behalves is the project and/or the firm is managed and "social/normative control with symbolic means (example, love, acceptance, prestige, and esteem)" ranked third and fourth with mean scores of 2.86 and 2.84 respectively. "Assessing customer's capacity before processing claim" ranked fifth with a mean score of 2.67 whiles "coercive power (threat, violence, or physical resources of force e.g. possession of goods, services, and money)". "Economic or social influences of claims of stakeholders on projects" was ranked second with a mean score of 2.88.

Table 4.6: One-Sample Statistics for Stakeholder Attributes That Are More Distinct in The Construction Industry

	Mean	Std. Deviation	Rank
coercive power (threat, violence, or physical resources of force e.g. control of cash, goods, and services)	2.67	.99331	7 TH
utilitarian authority with financial or material resources (e.g. money, goods possession, and services)	2.98	1.00976	1 ST
Assesses customer's capacity before processing claim	2.76	1.10613	6 TH
social/normative control with symbolic means (example, love, acceptance, prestige, and esteem)	2.84	1.04638	4 TH
economic or social influences of claims by the stakeholders on projects	2.88	1.17724	2 ND
The normative stakeholders include those that the firm/project has moral obligation, and whose interest is the project being managed	2.86	1.11390	3 RD
The derivative stakeholders include persons whose claims and actions must be justified through executives as they have the power to affect the firm/project and the normative stakeholders	2.80	1.18355	5 TH

Source: Field survey (2019)

4.5.1 One Sample T-Test for Stakeholder Attributes That Are More Distinct in The Construction Industry

All the factors had t-values (the strength of the test) that were negative indicating that their means were below the hypothesized mean of 3.5 and this is confirmed in Table 4.4. All of the five factors had p-values (significance of the test) less than 0.05 and this implies that the means of these variables are not significantly different from the hypothesized mean of 3.5.

Table 4.7: One-Sample T-Test for Impact of Stakeholder Behaviour on Project Delivery

	Test Va	lue = 3	3.5		
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference Lower
coercive power (threat, violence, or physical resources of force e.g. control of cash, goods, and services)	-5.991	50	.000	83333	-1.1127
utilitarian authority with financial or material resources (e.g. money, goods possession, and services)	-3.675	50	.001	51961	8036
Assesses customer's capacity before processing claim	-4.747	50	.000	73529	-1.0464
social/normative control with symbolic means (example, love, acceptance, prestige, and esteem)	-4.483	50	.000	65686	9512
economic or social influences of claims by the stakeholders on projects	-5.789	50	.000	87255	-1.1753
The normative stakeholders include those that the firm/project has moral obligation, and whose interest is the project being managed	-3.747	50	.000	61765	9487
The derivative stakeholders include persons whose claims and actions must be justified through executives as they have the power to affect the firm/project and the normative stakeholders	-4.086	50	.000	63725	9505
coercive power (threat, violence, or physical resources of force e.g. control of cash, goods, and services)	-4.200	50	.000	69608	-1.0290

Source: Field survey (2019)

4.6 CHAPTER SUMMARY

The chapter four was dedicated to analysis as well as discussions of the research findings from respondents. The chapter started by introducing the questionnaire survey including the response and descriptive statistics used for the demographic information of respondents. The chapter concluded with a one sample T-test of the various variables to determine the most adopted decision-making strategy in managing stakeholders on construction projects and its impact on project delivery.

CHAPTER FIVE

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter attempts to summarize the findings of the study based on the results relating to the objectives so as to draw a conclusion and make recommendations for industry practice and further research based on the objectives of the study, thus; to identify stakeholder behaviours in construction projects; to identify the effects of stakeholder behaviours on project delivery; and to identify decision-making strategies adopted by construction managers in managing stakeholders.

5.2 REVIEW OF OBJECTIVES

The aim of the study was to explore factors influencing stakeholder's behaviours and decision-making in construction projects.

- . In achieving this aim, the following objectives were outlined;
 - 1. To identify the decision-making strategies adopted by construction managers on stakeholder attributes; and
 - 2. To identify stakeholder attributes that are more distinct in the construction industry.

A methodological approach involving a literature review process; a questionnaire development and administration stage and finally a data analysis section using mean score as well as the one sample T-tests to rate the various variables. Here, the research objectives were revisited to highlight on how they have been achieved all through the stages of the study.

Objective 1: To identify the decision-making strategies adopted by construction managers on stakeholder attributes;

This objective was achieved by calculating the mean score of each of the attributes and also performing a one sample test to determine the significance of these attributes and how often managers face them. The results were analysed and discussed. Influence "(giving out information as relationship with stakeholders are built; affecting the demands and values of the stakeholders)" as the most adopted decision-making strategy.

Objective 2: To identify stakeholder attributes that are more distinct in the construction industry

This objective was achieved by calculating the mean score of each of the attributes and also performing a one sample test to determine the significance of the stakeholder attributes and their impact on project delivery. The results revealed that the most distinct attribute of stakeholders in the construction industry was "utilitarian power with financial or material resources (e.g. money, goods possession, and services)" more than the other variables by ranking it first by respondents.

5.3 RECOMMENDATIONS

- 1) Proper channels should be created for effective communication between construction managers and various stakeholders.
- 2) It is imperative for internal stakeholders to include various external stakeholders in the various stages of projects so as to foster good relations resulting in successful project delivery.

5.4 LIMITATION OF THE RESEARCH

It is important to acknowledge the relatively small sample size used for the study. Consequently, analyses of the variables were constrained by the fact that those variables with mean less than the hypothesized mean is subjective; and there is the possibility that the mean scores may change when a larger sample size is chosen.

5.5 DIRECTIONS FOR FUTURE RESEARCH

There are numerous research avenues in the future as a result of this study. The following is therefore, recommended for future research:

- Further studies should be undertaken on the impact of these decision-making strategies adopted by construction managers in managing stakeholders on project delivery.
- 2) Also, a study should be conducted on the factors impacting relationship between construction managers and stakeholders of construction projects.

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APPENDIX

QUESTIONNAIRE

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI-GHANA

COLLEGE OF ART AND BUILT ENVIRONMENT

FACULTY OF BUILT ENVIRONMENT

DEPARTMENT OF CONSTRUCTION TECH. AND MANAGEMENT

Please, I would kindly request that you complete this questionnaire for my research project which is on the topic: *Decision Making Strategies Adopted by Construction Managers on Stakeholder Attributes: A Case of Effutu Municipal Assembly.*

The questionnaire is in two parts: Part One and Part Two. Part one consists of the background information of the respondents and part two contains a schedule of the decision-making strategies adopted by construction managers on stakeholder attributes which is to be assessed in order of importance.

The purpose for this survey is entirely academic, therefore respondents are assured that by no chance will any information be traced back to them or the company since the answers will be kept confidential.

Thank you.

George Robertson, MSc Student

Dr. Michael Nii Addy, Supervisor

Department of Construction Technology and Management

The Kwame Nkrumah University of Science and Technology, Ghana

PART ONE

Please tick where applicable

SECTION A; RESPONDENT'S PROFILE

Please provide the correct information by ticking the appropriate box and fill in the blank spaces where necessary.

spaces	where	e necessary.							
1)	Kind	ly indicate your gende	r.						
	a)	Male	[]						
	b)	Female	[]						
2)	Kind	ly indicate your profes	sional background	•					
	a)	Project manager	[]						
		Quantity surveyor	[]						
	c)	Architect	[]						
		Civil engineer	[]						
	If oth	ner, please state		• • • • •					
3)	For h	ow long have you bee	n in professional pr	ractice	?				
	a)	Less than 5 years	[]						
		5-10 years	[]						
	c)	11 - 20 years	[]						
	d)	Above 20 years	[]						
4) Wh	at is th	ne type of projects exec	cuted by your organ	nizatio	n?				
	a)	Building	[]						
	b)	Civil	[]						
	c)	Building/Civil	[]						
	d)	Other	[]						
5) Wh	ich cat	tegory of class is your	firm?						
	a)	D3/K3	[]						
	b)	D4/K3	[]						
	c)	A3/B3	[]						
	d)	A4/B4	[]						
			PART TWO						
			SECTION A		_				
	-	wn technical experience	-					_	ision
		egies adopted by const			ceholo	ler atti	ibutes	5.	
		er by ticking $()$ the co			_				
	t often		3= Neutral	4=M	lore o			Very (
No). <u>I</u>	Decision making strate	egies				f Free		
					1	2	3	4	5
1	c	Hold (Either fighting as claim or completely wi	_	r's					
	1)	gnoring)							

2.	Defence (Reducing the attachments/dependency to stakeholders and			
	their claims, and doing only the minimum			
	legally required to address a stakeholder's			
	issues.)			
3.	Offense (Adopting the stakeholder's position;			
	linking the program to others that the	_	_	_
	stakeholder views more favourably)			
4.	Monitor (Monitoring existing performance			
	except when a negative influence is detected)			
5.	Collaboration (Collaborating with			
	stakeholders and trying to find a			
	compromising solution.)			
6.	Involvement (Listening to and involving			
	stakeholders in the project process.)			
7.	Reaction (Either fighting against addressing a			
	stakeholder's issues or completely			
	withdrawing and ignoring the stakeholder)			
8.	Accommodation (Relative to pro-action, it is			
	a less active approach to dealing with a			
	stakeholder's issues)			
9.	Pro-action (Doing more than is required to			
	address a stakeholder's issues)			
10.	Trade off (Proposing another option for			
	stakeholder's issues)			
11.	Concession (Listening and yielding to			
	stakeholder requests)			
12.	Adaptation (Obeying the demands and rules			
	that are presented by stakeholders)			
13.	Compromise (Negotiating with the			
	stakeholders, and trying to find a			
	compromised solution)			
14.	Avoidance (Loosening attachments to			
	stakeholders and their claims in order to			
	guard and shield oneself against the claims)		 	
15.	Dismissal (Ignoring the presented demands of			
17	stakeholders)		 	
16.	Influence (Shaping proactively the values and			
	demands of stakeholders; actively sharing			
	information and building relationships with			
7.C	stakeholders)			
• •	her, state and rate		 	
17.				

SECTION B

From your own technical experience, rate the severity of the following stakeholder attributes based on how applicable they are in the construction industry. Please answer by ticking $(\sqrt{})$ the corresponding boxes.

1= Not Severe 2= Less Severe 3= N		3= Not sure	4=Sev	vere	5= \	Very S	Severe
No.	Stakeholder Attributes		Level of agreement				
	Stakeholder Power		1	2	3	4	5
1.	Coercive power (physical resources of force,						
	violence, or threat, e.g., possession of goods,						
	services, and money)						
2.	Utilitarian power with material or financial						
	resources (e.g., possession of goods,						
	services, and money)						
3.	Assesses customer's cap	pacity before					
	processing claim						
4.	Normative/ social power	r with symbolic					
	resources (e.g., prestige, esteem, love, and						
	acceptance)						
	Stakeholder Urgency						
5.	Social or economic influ	iences of					
	stakeholders' claims on	the projects					
6.	Social or economic influ	iences of					
	stakeholders' claims on	the projects					
	Stakeholder Legitima	ncy					
7.	Normative stakeholders	are those to whom					
	the organization and/or	project have a moral					
	obligation, and for whos						
	and/or project is manage	ed					
8.	Derivative stakeholders	are those whose					
	actions and claims must be accounted for by						
	managers because of their potential effects						
	on the organization and/ or project and						
	normative stakeholders						
If any of	her, state and rank						
9.							

Thank You.