EXPLORING DECISION-MAKING STRATEGIES ADOPTED BY CONSTRUCTION MANAGERS IN MANAGING STAKEHOLDERS ON CONSTRUCTION PROJECT

By

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DECLARATION

I hereby declare that this research is my own work towards the award of a MSc Project Management and that, to the best of my knowledge, 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 other 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

The understanding of projects management practices as an alliance of powerful individuals and interest groups remain as one of the most important issue in construction management practices. This study sought to explore decision-making strategies adopted by construction managers in managing stakeholders on construction projects. Hence the specific objectives included; to identify stakeholder attributes in construction projects; to identify the effects of stakeholder attributes on project delivery; and to identify decision-making strategies adopted by construction managers in managing stakeholders. A total of 65 questionnaires were distributed. Data gathered from the field survey were analyzed using mean score ranking techniques and one sample T-tests. The study revealed that most of respondents encountered the social or economic influences of stakeholders' claims on the projects more often than the other behaviors. It was revealed that most construction managers selected *Influence (Shaping proactively the values and demands of stakeholders; actively sharing information and building relationships with stakeholders*) as the most adopted decision-making strategy.

Keywords; Stakeholders, management, decision making strategy

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May the Almighty God richly bless you all.

DEDICATION

I dedicate this work to my wife and children.

CHAPTER ONE INTRODUCTION

1.1 BACKGROUND TO THE STUDY

The understanding of projects management practices as an alliance of powerful individuals and interest groups remain as one of the most important issue in construction management practices (Newcombe, 2003). These powerful individuals and interest groups are termed as stakeholders. In effect, Stakeholders are individuals or individuals who share the project's success and the environment in which the project works and can have a significant impact on the project's achievement (Newcombe, 2003). However, in the earlier works of Bryson (1988) posit that stakeholders are any persons, groups or organizations that can place a claim on an organization's attention, resources or output, or is affected by that output. To this extent, Nutt and Backoff, (1993), contended that stakeholders are therefore individuals in a position to influence the organization or place demands on it. In other words, a stakeholder Ultimately, it determines if the project is a success (Jergeas et al., 2000). Many scholars have considered stakeholder management to be important in construction in recent years (e.g. Newcombe, 2003; Olander and Landin, 2005; Chinyio and Akintoye, 2008; Yuan et al., 2010), and as a result has become increasingly professionalized. Operational knowledge of the practice of stakeholder management is found in literature, software packages and current practice. Although there has been some success in areas such as the manufacturing industry, the construction industry still has a poor record of stakeholder management during the past decades (Loosemore, 2006). PMI (2008) described stakeholders as people and organisations whose interests may be impacted or who are effectively engaged in the task by project implementation or fruitful project implementation, either emphatically or adversely.

1.2 STATEMENT OF THE PROBLEM

Wideman (2004) asserted that stakeholders traits, practices and process of decision-making development activities is an excruciating excogitating for project managers; since they should

be receptive to the cultural, hierarchical, and social situations encompassing projects. They are some of the time conflicted between differing and normally dubious desires for stakeholders who assume a significant role in the success of the project (Wang and Huang, 2006; Davis, 2013). Lim et al. (2005) highlighted the impact on decision-making policies of the characteristics and mutuality of stakeholders, but in the meantime, they believed that the behaviors of stakeholders were also fundamental variables in advancing decision-making policies. Karlsen (2002) supported Lim et al. (2005) assertions in the building industry and suggested a network of Two-axis stakeholder management methods showing stakeholder degree of impact and potential for coordinated effort. Yang et al. (2009) differentiated the evaluation of the conduct, characteristics and development of appropriate processes of stakeholders as the essential success factors for the leadership of stakeholders.

These studies have guided our insight into the factors of decision making related to stakeholders policies; in any event, the importance of stakeholder behaviours, decision-making policies and characteristics, and the connections between stakeholder factors and policy-making in the construction industry have not been analysed and validated. However, literature on factors influencing stakeholder behaviours and decision-making in the construction industry is rare. This study therefore sought to bridge the gap in literature relating to the influencers of stakeholder behaviours and decision-making strategies in construction projects.

1.3 RESEARCH AIM AND OBJECTIVES

1.3.1 Aim of Study

This study sought to explore decision-making strategies adopted by construction managers in managing stakeholders on construction projects.

1.3.2 Objectives

1. To identify stakeholder attributes in construction projects;

2. To identify the effects of stakeholder attributes on project delivery; and

3. To identify decision-making strategies adopted by construction managers in managing stakeholders.

1.4 RESEARCH QUESTIONS

- 1. What are some of the attributes exhibited by stakeholders in construction projects?
- 2. How do stakeholder attributes affect project delivery?
- 3. Which strategies are mostly used in building projects in managing stakeholders?

1.5 SIGNIFICANCE OF STUDY

The significance of the stakeholders cannot be over emphasized as they can delay the implementation of a project; increase the cost as well as risk the entire project of achieving target objectives if relevant determinants are not assessed (Tikkanen et al., 2005). Finally, it is expected that the findings from the study would enable various stakeholders improve upon their performance whiles considering how to balance all interests and power at stake. The overall objective is to analyse the The meanings and significance of the characteristics, behaviours and decision-making strategies of stakeholders in building projects from the practitioners ' perspective.

1.6 RESEARCH METHODOLOGY

The methodology taken for this study engaged the collection and critical examination of appropriate literature decision-making strategies adopted by construction managers on stakeholder attributes. Methods of quantitative research were introduced to collect study-related data. The quantitative approach is selected because it helps from a randomly large sample to collect thoughtful information. Questionnaires were used to collect research data. Data from the survey will be collected and analysed using the Statistical Package for Social Sciences (SPSS). The tools for analysis will be Mean score rankings and other descriptive tools.

1.7 SCOPE OF THE STUDY

The study includes research into the characteristics, behaviours and decision-making strategies of stakeholders in building. "A broad classification of the characteristics of stakeholders in the building sector Based on the ' Stakeholder salience model ' of Mitchell et al. (1997), which believes that the accumulated authority, legitimacy and urgency of stakeholders can be used to determine stakeholders ' impact on a building project (Lander, 2007).

1.8 STUDY OUTLINE

The thesis is made up of five major chapters; with chapter one comprising of the background of the study, statement of the problem, the objectives of the study, research questions, scope and delimitations of study and the significance of the study. Chapter two is devoted to literature review with a look at stakeholder attributes, behaviours, and decision-making strategies. Furthermore, the research methodology is tackled in chapter three, in which the data collection and presentation procedures are examined. Chapter four is made up of analysis of the various data gathered based on the responses from the respondents. Finally, summary of major findings, recommendations and conclusions formed chapter five respectively.

CHAPTER TWO LITERATURE REVIEW

2.1 INTRODUCTION

The chapter two presents a literature review for the study. Pertinent literature on Decision Making Strategies Adopted by construction managers on stakeholder management 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.

Stakeholder identification 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. In this case, the functional interest of a corporation is with internal stakeholder as much as the external one. Also, it can be said that the corresponding functional interests are manifest on financial or social objectives of a company or an individual. However, the quality and accuracy of stakeholder's definition is vital for a satisfactory analysis process where relevant stakeholders are 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 most employed is to separate them into different groups which is subject to their level of participation in the project management processes, or legal relations between them and the project. The client, end users, project team members together with the members of the community within which a project takes place are all stakeholders (Becu et al., 2003). Likewise, PMI (2004) suggests that stakeholders of a project includes a user, employees of executing firms, project sponsor, management team, project team members among others. Four kinds of stakeholders are described by Briner et al., (1996), these are; client, project execution firm, shadow team members and service providers outside the project. This view is shared by Walker (2003) and PMI (2004). The approach to classify stakeholders by Tuman (2006) was In contrast to the above mentioned classifications, Tuman (2006) considered four main classes of stakeholders, these are; project participants, project champions, communication participants, parasitic participants and project participants. Project participants are those people who turned the idea into reality such as the client and consumers or customers. Project participant on the other hand are those responsible for implementing and planning he project, like the consultants and constructors, engineers among others, community participants is made up of groups as well as individuals whose various lives are directly affected by the project, through the natural environment, social or economic means. People who present challenges but have no direct stake in the project are referred to as parasitic participants, these include the media and family. Many scholars are of the view that stakeholders are of two categories, that is, internal and external stakeholders (Mitroff, 1983; Calvert, 1995; Turner, 1995; Winch et al., 2007). Internal stakeholders include managers at the top hierarchy of the structure of an organization, financial

accountants and members of the project team whiles external stakeholders include end users, clients, suppliers and competitors (Winch et al., 2007).

The relation between the stakeholder and the project determines the categorisation of relationship, whether primary or secondary. (McElroy and Mills, 2000; and, Clarkson, 1995) and direct or indirect (Lester, 2007). Stakeholders who have a relationship that are legal with the project are referred to as primary stakeholders and a responsibility in steering the project to success according to Cleland and Ireland (2007). In the same vein, people who directly partake on the administrative and executing processes and planning of a project are known as direct stakeholders (Lester, 2007). Indirect stakeholders do not have any direct link to the project and do not take part in any activity that directly affect the project (Cleland and Ireland; 2007 and Lester 2007). A recent study in Malaysia on attitudes of construction including the government indicated that in an attempt to satisfy their stakeholders, the government and the consultants kept them well informed and educated them well by providing forums. Private clients on the other hand focus on developing an alignment, focusing on satisfying the needs of the project mission, whereas contractors centre on lobbying and informing stakeholders of the progress of the work. The relevant stakeholders are identified based on the above literature, they include, clients, design team, legal advisor, related organisations, subcontractors/suppliers and project managers.

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. Newcombe (2003) also stated that project stakeholders are groups or people involved in the performance of the project, including customers, project executives, developers, subcontractors, distributors, financing agencies, customers and the community at large. The

implication of these definitions is that any person or group with the authority to be a danger or a gain is a stakeholder (Aaltonen, et al; 2008). A big number of stakeholder theories (Aaltonen, et al., 2008) and stakeholder system leadership models (Lenox, 2006) were suggested based on these definitions. Stakeholder management aims at addressing the varied opinions of different respondents, improving communication between stakeholders and clarifying their requirements (Lenox, 2006). The presence of stakeholders in all-organizational operations is a continuous method and is essential in all organisational frameworks (Lenox, 2006).

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 Managers should acknowledge and actively monitor the concerns of all legitimate stakeholders, and should take their interests appropriately into account in decision making and operations.
- Principle 2 Managers should listen to and openly communicate with stakeholders about their respective concerns and contributions, and about the risks that they assume because of their involvement with the corporation.

- Principle 3 Managers should adapt processes and modes of behavior that are sensitive to the concerns and capabilities of each stakeholder consistency.
- Principle 4 Managers should recognize the interdependence of efforts and rewards among stakeholders, and should attempt to achieve a fair distribution of the benefits and burdens of corporate activity among them, taking into account their respective risks and vulnerabilities.
- Principle 5 Managers should work cooperatively with other entities, both public and private, to ensure that risks and harms arising from corporate activities and minimized and, where they cannot be avoided, appropriately compensated.
- Principle 6 Managers should avoid altogether activities that might jeopardize inalienable human rights (e.g., the right to life) or give rise to risks which, if clearly understood, would be patently unacceptable to relevant stakeholders.
- Principle 7 Managers should acknowledge the potential conflicts between (a) their own role as corporate stakeholders, and (b) their legal and moral responsibilities for the interests of stakeholders, and should address such conflicts through open communication, appropriate reporting, and where necessary, third party review.

The basic idea of stakeholder theory is that the organization has relationships with many constituent groups and that it can engender and maintain the support of these groups by considering and balancing their relevant interests (Lenox, 2006) outline the basic premises of stakeholder theory as follows:

- 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).
- Overall, a central and original purpose of stakeholder theory is to enable managers to understand stakeholders and strategically manage them (Lenox, 2006).

The managerial importance of stakeholder management has been accentuated in various studies (Rowley and Moldoveanu, 2003) that demonstrate that just treatment of stakeholders is related to the long-term survival of the organization. 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 formulated a popular and contended developed a well-known and debated classification of types of stakeholder theory to aid in clarifying the equivocalness of the concept in the field of construction. They contend that the theory of stakeholders contains three distinctive aspects: normative, empirical and instrumental. Descriptive theory, is utilized to clarify explicit corporate qualities and practices. Hence, this angle portrays and clarifies how firms and their managers really act. Instrumental hypothesis, therefore, distinguishes the associations between management of stakeholders and the targets of an organization (Lenox, 2006). Subsequently, this point of view reveals to us what occurs after the adoption of a stakeholder management technique. The normative theory is concerned with the recognition of moral rules for the administration of firms and depicts what managers ought to do versus stakeholders. As it were, this point of view centers around the ethical appropriateness of the conduct of corporations.

Adopting the work of Freeman et al., (2007) stakeholder hypothesis has been categorized into two general classes: 1) Science based theory and 2) morals – based theory, concentrating on regularizing issues and connecting stakeholders to corporate social duty and morals discourse. They proceed by proposing confluent stakeholder theory, which joins normative and instrumental components and shows how managers can make ethically solid ways to deal with business and make them work. Steuer (2006), also, separates stakeholder theory into three alternate points of view: corporate, stakeholder and conceptual. Following Steuer (2006), the corporate viewpoint manages how firms oversee stakeholders, the stakeholder point of view manages how stakeholders attempt to impact the organization and the reasonable viewpoint examines how specific ideas.

2.4 STAKEHOLDERS IN CONSTRUCTION PROJECTS

The extent to which the project objectives and the stakeholders' aims are aligned creates possible uncertainties, such as schedule deviation and conflicting stakeholders interests that project managers need not to underestimate. Construction stakeholders can be categorized as primary and secondary stakeholders. Primary stakeholders include client, consultant, and PM who are considered as directly connected to the project. While Secondary stakeholders include investors, suppliers, employees, sub-contractors, third party, banks, governmental authorities, pressure groups, trade associations, and communities. Those have indirect connection to the project. 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.

However, in the Ghanaian construction industry there are five main groups of stakeholders' namely: client, consultants, contractors, community and local or national authorities. In the same vein, grouping these stakeholders into primary and secondary stakeholders indicate that

client, consultants and contractors (main and sub-contractor) are primary stakeholders whilst secondary stakeholders include the community and local or national authorities.

Clients are described as the core or initiators of the construction process (Bennett et al., 1988; Kamara et al., 2000; Latham, 1994) and are therefore internal stakeholders who provide the funds for the project. They are divided into four, namely: Government (being the major client), Real Estate Developers, Investors and Owner occupiers.

Consultants are individuals or organisations who have been well trained academically and practically to provide specialist service in the construction industry and are part of internal stakeholders. Indeed, appropriate and capable project consultants are the fundamentals to the success of a project (Chinyio & Olomolaiye, 2010). The government and high profile clients normally engage these services. These consultants includes Project Managers(PMs) ,Architects(ARCH), Quantity Surveyors (QS), Geodetic Engineers (GE), Structural Engineers(St.E), Electrical Engineers (EE) and Services Engineers (SE). More so, they are all regulated by their professional institutions, namely, Project Management Institute; Ghana Chapter, Ghana Institution of Architects (GIA), Ghana Institution of Surveyors (GhIS) for the QS and GE and Ghana Institution of Engineers (GhIE) respectively.

Communities and Local or National Authorities are public organizations involved in construction projects, including government authorities, labour unions, trade associations and nationalized industries (Chinyio & Olomolaiye, 2010). The influences of these parties on a project are varied. Some of the public agencies of government authorities, such as planning departments and building departments, have a legitimate authority within the project as construction projects have to be designed and built according to the building regulations and have to be approved by government authorities. In addition, community groups are individuals or societies who represent the general view of the masses at the place in which the project

physically takes place. In Ghana, the community groups form the largest part of the stakeholders in project management practices. These groups directly or indirectly affect or influence the project. It is therefore important that much attention be given to this form of stakeholders. Opinion leaders or chiefs in their localities mostly represent them. Hence, in order to ensure sustainable project management practice, the consultation of external stakeholders should not be ignored.

2.5 STAKEHOLDER BEHAVIORS

Savage et al. (1991) stated that the behaviour of stakeholders refers to stakeholder readiness to compromise or work. Investigating the behaviours of stakeholders can assist project executives know the beneficial or negative effect of stakeholders on the project results (Nguyen et al., 2009). In the framework of a project, little study has tended to involve organisational stakeholder behaviour (Beringer et al., 2013). As stated by Freeman (1984), there are two categories for stakeholder behaviour: collaborative potential and competitive danger. Cooperative opportunities are practices That would enable the organization to attain its objective in this regard, whereas competitive threats are practices that would discourage or discourage the organization from attaining its objective. More often than not, researchers recognize Classification and decision-making methods of Freeman, based on the level of behaviour of stakeholders (e.g., Bourne, 2005; Savage et al., 1991; Polonsky and Scott, 2005; Nguyen et al., 2009). In any case, this order really stirred up two conceptions:

(1) The ability of Threats from stakeholders or collaborate with the project and or company; and

(2) The readiness of threats from stakeholders or collaborate with the company and/or project. Stakeholder skills allude to their convictions about the company are extremely linked to their characteristics, while stakeholder eagerness is their attitudes or behaviour towards the company and reconsidered further. Savage et al's. (2002) relationships between stakeholder behaviours, stakeholder salience and decision-making strategies were grouped and deciphered; in any event, neither the links Suggested in Karlsen (2002) nor the types of partner behaviours, characteristics and strategies for making decisions were corroborated in practice.

Table 2.2: Stakeholder behaviours

| SOURCE | STRATEGY | EXPLANATION OF THE STRATEGY |
|----------------|-----------------------|--|
| Freeman (1984) | Cooperative potential | A behaviour that either promotes the project or is prepared to take part in the decision-making process and provides both parties with a preferred alternative. |
| | Competitive threat | A behaviour that would deter or assist avoid the achievement of the objective of the project. |
| | Opposing position | A behaviour that demonstrates the full disagreement between stakeholders and project design. |

2.6 DECISION-MAKING STRATEGIES ADOPTED BY CONSTRUCTION MANAGERS IN MANAGING STAKEHOLDERS

In this section, the stakeholder management decision-making approaches suggested or embraced in the field of General management and building management by previous scholars. Although distinct terms (positive or negative) are used to define "toughness levels" strategies, there are similarities between categories starting with the' mildest' approach, offense (Freeman, 1984), participation (Karlsen, 2002 and Savage et al., 1991), adaptation (Aaltonen & Sivonen, 2009) and concession (Chinyio & Akintoye, 2008) all relate to accepting or yielding allegations of minor opposition to stakeholders. (Freeman, 1984), Swing, cooperation (Karlsen, 2002; Savage et al., 1991), housing (Elias et al., 2002). The toughest approach taken in practice is referred to as hold (Freeman et al., 2010), monitor (Karlsen, 2002), response (Elias et al., 2002) or rejection (Aaltonen & Sivonen, 2009), indicating that executives either fight against the declaration of a stakeholder or cancel it and disregard it completely. An exception is Aaltonen and Sivonen's influencing strategy.

| SOURCE | STRATEGY | STRATEGY EXPLANATION | |
|---|---------------|---|--|
| Freeman (1984) | Hold | Doing nothing and tracking existing programs; strengthening the company's present views; protecting against transaction process modifications. | |
| | Defense | Strengthening present company views retaining existing programs; connecting problems with others that stakeholders see more positively; allowing stakeholders to drive the transaction process. | |
| | Swing | Changing official public legislation, the decision forum, the types of choices being produced, and the process of transactions. | |
| | Offense | Adopting the stakeholder's position; linking the program to others that the stakeholder views more favourably. | |
| Savage et al. | Monitor | Monitoring of current results with the | |
| (1991); Karlsen (2002) | Defense | Reducing the reliance on the project that forms the foundation for the interests of the stakeholders. | |
| | Collaboration | | |
| | | Working with stakeholders and seeking a compromise solution. | |
| | Involvement | ····· | |
| | | Listening to the project process and involving stakeholders. | |
| Clarkson (1994); Elias et al. (2002 | Reaction | Either to fight against solving the problems of a stakeholder or to withdraw and ignore the stakeholder entirely. | |
| | Defense | Doing only the minimum needed by law to tackle the problems of a stakeholder. | |

Table 2.2: The decision-making strategies for stakeholder management

| | Accommodation | In terms of pro-action, it is less involved in addressing the problems of a stakeholder. |
|------------------------------|---------------|---|
| | Pro-action | Doing more than is necessary to tackle the problems of a stakeholder. |
| Chinyio & Akintoye (2008) | Trade-off | Proposing another choice for applications from stakeholders. |
| | Concession | Hearing and responding to the requirements of stakeholders |
| Aaltonen & Sivonen (2009 | Adaptation | To comply with the requirements and guidelines submitted by stakeholders. |
| | Compromise | Negotiate with stakeholders, listen to their project-related allegations and provide dialog opportunities and arenas. |
| | Avoidance | Loosening stakeholder attachments and argues that they are protected from charges. |
| | Dismissal | Ignoring stakeholders ' submitted requirements. |
| | Influence | Proactively shaping stakeholder values and requirements; actively exchanging data and building stakeholder relationships. |

2.7 STAKEHOLDER ATTRIBUTES

By definition, the term salience of a stakeholder can be described as the extent or magnitude to which a manager gives Priority for conflicting allegations of stakeholders (Mitchell et al., 1997). Four (4) stakeholders ' separate characteristics are regarded to contribute to their salience (Nguyen et al., 2009). These include;

1. Stakeholder Power,

- 2. Stakeholder Legitimacy,
- 3. Stakeholder Urgency and

2.7.1 Stakeholder Power

According to the work of Kanter (1983), power can be defined straightaway as, "the ability to get work done". Various types of classifications of power exist (Frooman.1999), however, academics have maintained two perspectives; that is the occupation of resources and the dependence on relationships. The perspective of Occupation of resources treats authority as an individual characteristic (Cavanaugh, 1984) and conceives the greater authority he or she has the more critical assets a stakeholder possesses. Three kinds of power were suggested by Etzioni (1964): Coercive power with physical strength, violence or threat.

2.7.2 Stakeholder Legitimacy

Legitimacy of stakeholders has been taken into account at least since the deep job of (Phillips, 2003). A general legitimacy definition of stakeholders is "a generalized perception or assumption that an entity's activities are desirable, suitable or suitable within a socially constructed framework of standards, values, beliefs and definitions." (Suchman, 1995). Phillips (2003) suggested two kinds of legitimacy of stakeholders: Normative derivatives of legitimacy. Standard stakeholders are those for whom an organisation has an obligation towards be it moral or any other (Freeman, 1984; Philips, 2003). Derivative stakeholders are those whose operations and requirements hold managers responsible for their future effect on the organization and project stakeholders and regulatory stakeholders (Phillips, 2003).

2.7.3 Stakeholder Urgency

The degree to which a claim by a stakeholder is described as urgency requires instant attention due to its time sensitivity to the stakeholder as well as its significance (Mitchell et al., 1997). Urgency varies from other characteristics of stakeholders as It relies on the expected time horizon for allegations (Munteanu et al., 2007). Time-related factors such as the risk of unavailability of assets, exchange rates, political agendas, administrative timetables and schedule of projects, may impact instant concentrations. Two views are used to assess the urgency of stakeholders: short-term financial outcomes and long-term sustainability (Driscoll and Starik, 2004). Phillips (2003) proposed two types of stakeholder legitimacy: normative legitimacy and derivative legitimacy. Normative stakeholders are those to whom the organization and/or project have a moral obligation, and for whose benefit the firm and/or project is managed. 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 (Phillips, 2003).

| Researcher | Attributes | Explanation of The Attributes | |
|--------------------------|-----------------------|---|--|
| (Nguyen et al., 2009) | Power | Stakeholders ' capacity to Providing / removing Physical, material, economic or social assets or other mobilization through resource-intensive formal or informal interactions. | |
| | Urgency Legitimacy | To what extent the claim of a stakeholder requires instant attention due to its short-term financial and long-term ongoing impact on the project. | |
| | | An overall definition of the legitimacy of stakeholders 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" | |

Table 2.3: Stakeholder Attributes

2.8 CONCLUSION

Chapter two delved into the overview of the stakeholders in the construction industry. Extant literature related to stakeholder behaviour and stakeholder management was conducted. The study then identified stakeholders in the Ghanaian construction industry, the various factors influencing the behaviours and decision making of stakeholders were also looked at.

CHAPTER THREE RESEARCH METHODOLOGY

3.1 INTRODUCTION

This research was conducted to explore factors influencing stakeholder's behaviours and decision-making in construction projects. To accomplish the aim and goals of this research, this chapter provided the understanding underlying this research as well as the best methodology to answer the study questions posed, 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 procedures used prior to questionnaire administration. The section also described the sampling technique and sample size features as well as the statistical instrument used to analyse the gathered information.

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 study is based on the quantitative research strategy 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

Research design is a master plan showing how to conduct the study. It demonstrates the processes by which the connection between the factors embroiled in our issue can be explored and analysed. Nenty, (2009) asserted that in the bid to solve the problem of research, it is imperative to skilfully separate the relationship between or between variables in a situation and to analyse the relationship without external influences.

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

This research methodology chapter describes problems appropriate to the techniques used to accomplish the study's goal and general goal. It also addressed the reasons behind the selection of sampling methods, the techniques of information collection. The research procedure is further explained in the figure 3.1 below.



Figure 3.1 Research Procedure

3.5.1 Target Population

Population refers to groups of Interest in a geographical region of interest during the period of concern (Taylor-Powell, 1998). Target population also refers to all members who meet a particular criterion specified for a research investigation. This research considered construction professionals located in Accra as the target population. The location was selected because of it is a hub for most construction firms in the Greater Accra region of Ghana. The target population was seventy – eight construction professionals. Target correspondents consisted of individuals of various professional backgrounds such as project managers and quantity surveyors. In order to explore decision-making strategies adopted by construction managers in managing stakeholders on construction projects, the classes of D3/K3 and D4/K4 contractors in the Accra and Kumasi metropolis were targeted. A total of seventy – four (74) D3/K3 and four (4) D4/K4

construction firms actively involved in construction were considered. A population of seventy – eight (78) was considered in this study.

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. Interest in a geographical region of interest during the period of concern.

3.5.3 Sampling Technique and Sample Size

The sampling technique employed for this research was purposive sampling which is a type of non - probability sampling. The idea is to pick out the sample in relation to criterion which are considered important for the particular study. This method is appropriate when the study places special emphasis upon the control of certain specific variables. Target correspondents consisted of individuals of various professional backgrounds such as project managers, quantity surveyors and consultants. In order to explore factors influencing stakeholder's behaviours and decision-making in construction projects, various construction professionals were targeted. These categories of respondents were engaged as a result of their various engagements in the construction industry and it is believed that their experiences will enhance the reliability and validity of their responses giving.

The formula proposed by Yamane (1973) was used incalculating the sample size of the respondents.

$$n = \frac{N}{1 + N(e)^2}$$
------ Equation 1

Where: n = sample size

N = population

e = desired level of precision, i.e. .05

Therefore, the required sample size is:

$$n = \frac{78}{1 + 78(.05)^2}$$

= 65.27≈ 65

3.6 SOURCES OF DATA AND DATA COLLECTION

The aim of this methodology aspect was to current tools, techniques and processes for information collection. The method of information collection comprises of two phases, field survey (primary stage) and literature review (secondary stage). The secondary stage involved the search for existing literature on factors influencing stakeholder's behaviours and decision-making in construction projects. (Neville, 2007) stated that every research work should 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. A self-administered questionnaire was the method for gathering primary data as it serves as a significant source of information.

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, questionnaires facilitate the collection of data by asking people to respond to the same questions. The questionnaire was to design to be concise and simple to attract respondents.

The questionnaire consisted of two main 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 explore factors decision-making strategies adopted by construction managers in managing construction stakeholders on construction projects. The information under this section covered the three main objectives of this research, decision-making strategies adopted by construction managers in managing stakeholders; stakeholder attributes in construction projects; and the impact of stakeholder attributes on project delivery.

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 one sample T tests 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. The one sample T-tests was done at a 95% confidence level using a test value of 3.5.

3.8 CHAPTER SUMMARY

This chapter addresses the research methodology of this study, explain the sample selection, describe the procedure used in designing the instrument and collecting the data, and provide an explanation of the statistical procedures used to analyse the data.

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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.

4.2 SURVEY RESPONSES

The purpose of the study was to explore factors influencing stakeholder's behaviours and decision-making in construction projects. 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 0.755 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

In research conduct, knowledge of respondent background is vital to establish the reliability and confidence in responses given by respondents. The conduct of respondent profile analysis helps to provide appreciative of respondents involved in the process of data collect. The results on the respondent background analysis are presented in Figure 4.1 to 4.3 below.

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, Civil engineers and others that were specified by respondents since they represented managers in the construction industry. Out of the 51 retrieved questionnaires, 21 were project managers representing 41.2%, 11 were quantity surveyors representing 21.6%, 5 were architects representing 9.8% and 8 were civil engineers representing 15.7% (see Table 4.1). It is evident from Table 4.1 that majority of the respondents were project managers.

| | Frequency | Percent |
|-------------------|-----------|---------|
| Project manager | 21 | 41.2 |
| Quantity surveyor | 11 | 21.6 |
| Architect | 5 | 9.8 |
| Civil engineer | 8 | 15.7 |
| other | 6 | 11.8 |

Table 4. 1: Demographic Characteristics of Respondents

4.3.2 Years of Experience of Respondents

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 (49%), 27.5% of the respondents had spent 11 to 20 years in professional practice and the remaining 23.5% had less than 5 years in professional practice.

| | Frequency | Percent |
|-------------------|-----------|---------|
| | | |
| Less than 5 years | 12 | 23.5 |
| 5 – 10 years | 25 | 49.0 |
| 11 – 20 years | 14 | 27.5 |
| | | |

Table 4.2: Years of professional practice

4.3.3 Type of Projects Executed

Majority of the respondents 47.1% (24) executed building projects, 21(41.2%) executed both building and civil works, 7.8% of respondents were engaged in civil works while the remaining 3.9% were involved in other projects.

Table 4.3: Type of Projects Executed

| | Frequency | Percent |
|------------------|-----------|---------|
| Building | 24 | 47.1 |
| Civil | 4 | 7.8 |
| Building & Civil | 21 | 41.2 |
| Other | 2 | 3.9 |

4.4 STAKEHOLDER ATTRIBUTES

In order to examine decision making strategies adopted by construction managers on stakeholder attributes, Interviewees were told to rate various Behaviours according to how often you encounter 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 encountered such behaviours on construction projects.

From table 4.3 below, it can be deduced that most of respondents encountered the *Social or financial impacts of claims on projects by stakeholders* more often by ranking it first with a mean score of 3.12 followed by the *Relation of stakeholders to society and its members With symbolic resources (for example, prestige, appreciation, love, and recognition).)* With a mean score of 3.11 coming in second place. *Stakeholders assessing customer's capacity before processing claim* ranked third with mean score of 3.02. *The Ability of a stakeholders to practically use Material or economic resources (e.g. products, services and cash ownership)* ranked fourth among the variables with a mean score of 2.82 followed closely by *Compelling by force of authority by stakeholders (Physical strength, violence, or threat, e.g., Goods, services and cash ownership)* with a score of 2.24.

Table 4.3: One-Sample Statistics for Stakeholder attributes

| | Mean | Std. Deviation | Rank |
|--|------|----------------|-----------------|
| social or economic influences of stakeholders' claims on the projects | 3.12 | 1.29160 | 1 st |
| Relation to society and its members with symbolic resources (for example, prestige, appreciation, love, and recognition).) | 3.11 | 1.25932 | 2 ND |
| Assesses customer's capacity before processing claim | 3.02 | 1.28826 | 3 RD |
| Ability to practically Use of economic or material assets (e.g. products, services) and money ownership).) | 2.82 | 1.12616 | 4 TH |
| Compelling by force of authority (Force, violence or threat physical Resources, e.g. products, services and cash ownership) | 2.24 | 1.01170 | 5 TH |

4.4.1 One sample T-test on stakeholder Attributes

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 4.3. Two 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.

However, the factors *Assesses customer's capacity before processing claim* had a p-value of 0.010 which is greater than 0.05 indicating that their means are significantly different from 3.5. Also, factors *Relation to society and its members with symbolic resources (for example, prestige, appreciation, love, and recognition).) and financial or social impacts on stakeholder demands* had p-values of 0.035 and 0.80 respectively indicating a significant difference between the hypothetical mean of 3.5 and the means of these factors.

In the construction field, a broadly adopted classification of stakeholders' attributes is based on Mitchell et al. (1997)'s 'stakeholder salience model,' which considers that the accumulative number of stakeholders' power, legitimacy, and urgency can be used to decide the influence of stakeholders on a construction project (Olander, 2007). The findings of the study are in line with these findings of Mitchell et al., (1997) and Olander, (2007), The study identified stakeholder power, stakeholder legitimacy and stakeholder urgency as the attributes of stakeholders in a construction project. The social or economic influences of stakeholders' claims on the projects which is related to the stakeholder urgency concept. Legitimacy of stakeholders has been taken into account at least since the deep job of (Phillips, 2003). A general legitimacy definition of stakeholders is "a generalized perception or assumption that an entity's activities are desirable, suitable or suitable within a socially constructed framework of standards, values, beliefs and definitions." The degree to which a claim by a stakeholder is described as urgency requires instant attention due to its time sensitivity to the stakeholder as well as its significance (Mitchell et al., 1997). Urgency varies from other characteristics of stakeholders as It relies on the expected time horizon for allegations (Munteanu et al., 2007). According to the work of Kanter (1983), power can be defined straightaway as, "the ability to get work done". Various types of classifications of power exist (Frooman.1999), however, academics have maintained two perspectives; that is the occupation of resources and the dependence on relationships. The perspective of Occupation of resources treats authority as an individual characteristic (Cavanaugh, 1984) and conceives the greater authority he or she has the more critical assets a stakeholder possesses.

| | Test Value | e = 3.5 | | | | | | |
|--|------------|---------|-----------------|-----------------|------------------------------|----------|------|----|
| | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Difference | Interval | of t | he |
| | | | | | Lower | Upper | | |
| Compelling by force of authority (Physical resources, such as ownership of products, services and cash, of force, violence or threat.) | -8.927 | 50 | .000 | -1.26471 | -1.5493 | 9802 | | |
| Ability to practically use Material or economic resources (e.g. products, services and cash ownership).) | -4.290 | 50 | .000 | 67647 | 9932 | 3597 | | |
| Assesses customer's capacity before processing claim | -2.663 | 50 | .010 | 48039 | 8427 | 1181 | | |
| Relation to society and its members Material or economic resources (e.g. products, services and cash ownership).) | -2.168 | 50 | .035 | 38235 | 7365 | 0282 | | |
| Social or financial impacts of claims on projects by stakeholders | -1.789 | 50 | .080 | 32353 | 6868 | .0397 | | |

 Table 4.3.1: One-Sample T-Test for Stakeholder Attributes

4.5 IMPACT OF STAKEHOLDER ATTRIBUTES ON PROJECT DELIVERY

Respondents were also asked to rate various stakeholder attributes based on how they impact project delivery. 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 4.4 below, it can be deduced that most of respondents claim that the *Social or financial impacts of claims on projects by stakeholders impacted project delivery* more than the other variables by ranking it first with a mean score of 2.92 followed by the *Relation of stakeholders to society and its members With symbolic resources (for example, prestige, appreciation, love, and recognition)* with a mean score of 2.59 coming in second place. *Stakeholders Ability to practically Use of material or economic assets (e.g. products, services and cash ownership)* and *Stakeholders Assessing customer's capacity before processing claim* ranked third and fourth with mean scores of 2.58 and 2.55 respectively. *Compelling by force of authority by stakeholders (Physical resources, such as ownership of products, services and cash, force, violence or threat)* ranked fifth with a mean score of 2.33.

Stakeholder behaviours refer to the willingness of stakeholders to threaten or cooperate with the project management team (Savage et al., 1991). The analysis of stakeholder behaviours can help project managers be aware that stakeholders have positive or negative influences on project outcomes (Nguyen et al., 2009). The study revealed that stakeholder behaviours have both negative and positive effects on the successful delivery of projects. The characteristics of stakeholder be it of the urgency concept, power concept or legitimacy concept has its own impact on the successful delivery of construction projects.

| | Mean | Std. Deviation | Rank |
|--|------|----------------|-----------------|
| social or economic influences of stakeholders' claims on the projects | 2.92 | 1.33930 | 1 ST |
| Relation to society and its members with symbolic resources (for example, prestige, appreciation, love, and recognition) | 2.59 | 1.21945 | 2 ND |
| Ability to practically use Material or economic resources (e.g. products, services and cash ownership) | 2.58 | 1.25182 | 3 RD |
| Assesses customer's capacity before processing claim | 2.55 | 1.13690 | 4 TH |
| Compelling by force of authority (Physical strength, violence, or threat, e.g., Goods, services and cash ownership) | 2.33 | 1.10755 | 5 TH |

Table 4.4: One-Sample Statistics for Impact of Stakeholder Attributes on project delivery

4.5.1 One Sample T-Test for Impact of Stakeholder Attributes on Project Delivery

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.

However, the factor *Assesses customer's capacity before processing claim* had a p-value of 0.010 which is greater than 0.05 indicating that their means are significantly different from 3.5.

| | Test Value = | = 3.5 | | | | |
|--|--------------|-------|-----------------|------------|----------------|-----------------|
| | t | df | Sig. (2-tailed) | Mean | 95% Confidence | Interval of the |
| | | | | Difference | Difference | |
| | | | | | Lower | Upper |
| Compelling by force of authority (Physical resources, such as ownership of products, services and cash, of force, violence or threat.) | -7.523 | 50 | .000 | -1.16667 | -1.4782 | 8552 |
| Ability to practically use Material or economic resources (e.g. products, services and cash ownership).) | -5.201 | 50 | .000 | 91176 | -1.2638 | 5597 |
| Assesses customer's capacity before processing claim | -5.974 | 50 | .000 | 95098 | -1.2707 | 6312 |
| Relation to society and its members with symbolic resources (for example, prestige, appreciation, love, and recognition) | -5.340 | 50 | .000 | 91176 | -1.2547 | 5688 |
| Social or financial impacts of claims on projects by stakeholders | -3.084 | 50 | .003 | 57843 | 9551 | 2017 |

 Table 4.4.1: One-Sample T-Test for Impact of Stakeholder Behaviour on Project Delivery

4.6 DECISION-MAKING STRATEGIES ADOPTED BY CONSTRUCTION MANAGERS ON STAKEHOLDER MANAGEMENT

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 (Shaping proactively the values and demands of stakeholders; actively sharing information and building relationships with stakeholders) as the most employed decisionmaking strategy with a mean score of 4.14, ranked second was Compromise (negotiate with stakeholders and seek a compromise solution) with a mean score of 4.10. Collaboration (To work with stakeholders and to find a solution to compromise.), Participation (Hearing and involving stakeholders in the project process.), Accommodation (Relative to action, it is less involved in addressing the problems of a stakeholder) and Trade off (Proposing another option for stakeholder's issues) ranked third, fourth, fifth and sixth with mean scores of 3.98, 3.82, 3.78 and 3.12 respectively. Pro-action (More than necessary to tackle the problems of a stakeholder), Adaptation (Obeying Requirements and rules put forward by stakeholders), Offense (Adopting the stance of the stakeholder; connecting the program to others more favourably viewed by the stakeholder), and Monitor (Monitoring current performance with the exception of detecting adverse impact) ranked seventh, eighth, ninth and tenth respectively. These findings are in line with many previous studies, including Winch and Bonke (2002), Newcombe (2003). Bourne and Walker (2005) stated that making collaboration between

influential stakeholders and the project manager is very critical to the successful delivery of projects.

The stakeholder management decision-making approaches suggested or embraced in the field of General management and building management by previous scholars. Although distinct terms (positive or negative) are used to define "toughness levels" strategies, there are similarities between categories starting with the' mildest' approach, offense (Freeman, 1984), participation (Karlsen, 2002 and Savage et al., 1991), adaptation (Aaltonen & Sivonen, 2009) and concession (Chinyio & Akintoye, 2008) all relate to accepting or yielding allegations of minor opposition to stakeholders. (Freeman, 1984), Swing, cooperation (Karlsen, 2002; Savage et al., 1991), housing (Elias et al., 2002). The toughest approach taken in practice is referred to as hold (Freeman et al., 2010), monitor (Karlsen, 2002), response (Elias et al., 2002) or rejection (Aaltonen & Sivonen, 2009), indicating that executives either fight against the declaration of a stakeholder or cancel it and disregard it completely. An exception is Aaltonen and Sivonen's influencing strategy. The findings of this study were in line with that of other scholars indicated in this section. The study showed that respondents ranked Influence (Shaping proactively the values and demands of stakeholders; actively sharing information and building relationships with stakeholders) as the most employed decision-making strategy, ranked second was Compromise (negotiate with stakeholders and seek a compromise solution) with a mean score of 4.10. Collaboration (To work with stakeholders and to find a solution to compromise.), Participation (Hearing and involving stakeholders in the project process.), Accommodation (Relative to action, it is less involved in addressing the problems of a stakeholder) and Trade off (Proposing another option for stakeholder's issues.

| | Mean | Std. Deviation | Rank |
|--|------|----------------|------------------|
| Influence (Shaping proactively the Stakeholder values and requests; active data sharing and relationship building with stakeholders) | 4.14 | .84899 | 1 st |
| Compromise (Negotiating with the Stakeholders and the attempt to find a compromise) | 4.10 | 1.10009 | 2 ND |
| Collaboration (Collaborating Trying to discover a compromise solution with stakeholders.) | 3.98 | 1.00976 | 3 RD |
| Participation (Hearing and involving stakeholders in the project process) | 3.82 | 1.24428 | 4 TH |
| Accommodation (Relative to A proactive strategy to addressing stakeholder problems is less active) | 3.78 | 6.00105 | 5 TH |
| Trade off (Proposing another option for stakeholder's issues) | 3.12 | 1.12511 | 6 TH |
| Pro-action (More than necessary to tackle the problems of a stakeholder) | 3.04 | 1.05756 | 7 TH |
| Adaptation (Obeying Requirements and guidelines put forward by stakeholders) | 2.82 | 1.26025 | 8 TH |
| Offense (Adopting the stakeholder's position; linking the program to others that the stakeholder views more favourably) | 2.78 | 1.22170 | 9 TH |
| Requirements and guidelines put forward by stakeholders) | 2.76 | 1.27418 | 10 TH |
| Concession (Listening and yielding to stakeholder requests) | 2.63 | 1.24837 | 11 TH |
| Defense (Reducing the Attachments / dependencies To stakeholders and their | 2.55 | 1.15436 | 12 TH |

Table 4.5: One-Sample Statistics for decision-making strategies adopted by construction managers on stakeholder management

| demands, and to the minimum legal requirements only for addressing stakeholder problems.) | | | |
|--|------|---------|------------------|
| Evasion (Loosing attachments to stakeholders and their claims to protect themselves from allegations) | 2.51 | 1.22266 | 13 TH |
| Reaction (either battling to address the problems of a stakeholder or removing the stakeholder entirely and ignoring it) | 2.40 | 1.40112 | 14 TH |
| Dismissal (Ignoring the presented demands of stakeholders) | 2.20 | 1.35676 | 15 TH |
| Hold (Either fight against the claim of a stakeholder or withdraw and ignore entirely) | 2.02 | 1.02937 | 16 TH |

4.6.1 One sample T-test of decision-making strategies adopted by construction managers on stakeholder management

Majority of the decision strategies had t-values (the strength of the test) that were negative indicating that their means were below the hypothesized mean of 3.5 except for *Collaboration* (Working with stakeholders and seeking a compromise solution), participation (Hearing and involving the project stakeholders), lodging (The pro-action strategy to stakeholder problems is less active), compromise (Negotiating with stakeholders and seeking a compromise solution) and Influence (Proactively shaping stakeholder values and requests ; actively sharing data with stakeholders and construction relationships), this is confirmed in Table 4.3. Thirteen of 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 3.5.

However, the strategies *Participation (Hearing and involving stakeholders in the project process), Accommodation (Relative to action, addressing stakeholders is a less active strategy problems), and Trade off (Proposing another option for stakeholder's issues)* had p-values of 0.069, 0.737 and 0.19 respectively which is greater than 0.05 indicating that their means are significantly different from 3.5.

| | Test Value = | 3.5 | | | | |
|--|--------------|-----|-----------------|--------------------|------------------------------|-----------------|
| | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Difference | Interval of the |
| | | | | | Lower | Upper |
| Hold (Against the statement of a stakeholder or completely withdrawing and ignoring) | -10.270 | 50 | .000 | -1.48039 | -1.7699 | -1.1909 |
| Defense (Reducing the Attachments / dependence on Stakeholders and their demands and the minimum legal requirements for addressing stakeholder problems) | -5.883 | 50 | .000 | 95098 | -1.2756 | 6263 |
| Offense (Adopting the stakeholder's position; linking the program to others that the stakeholder views more favourably) | -4.184 | 50 | .000 | 71569 | -1.0593 | 3721 |
| Monitor (Monitoring current performance with the exception of detecting adverse impact) | -4.121 | 50 | .000 | 73529 | -1.0937 | 3769 |
| Collaboration (Collaboration with stakeholders and attempts to find a compromise) | 3.398 | 50 | .001 | .48039 | .1964 | .7644 |
| Participation (Hearing and involving stakeholders in the project process.) | 1.857 | 50 | .069 | .32353 | 0264 | .6735 |
| Reaction (either battling to address the problems of a stakeholder or withdrawing the stakeholder entirely and ignoring them) | -5.647 | 50 | .000 | -1.10784 | -1.5019 | 7138 |

Table 4.5.1: One-Sample T-Test for decision-making strategies adopted by construction managers on stakeholder management

| Accommodation (Relative to action, it is less involved in coping with the problems of a stakeholder) | .338 | 50 | .737 | .28431 | -1.4035 | 1.9721 |
|--|--------|----|------|----------|---------|--------|
| Pro-action (More than necessary to tackle the problems of a stakeholder) | -3.112 | 50 | .003 | 46078 | 7582 | 1633 |
| Trade off (Proposing another alternative for problems for stakeholders) | -2.427 | 50 | .019 | 38235 | 6988 | 0659 |
| Concession (Listening and yielding to stakeholder requests) | -4.992 | 50 | .000 | 87255 | -1.2237 | 5214 |
| Adaptation (Obeying the demands and rules that are presented by stakeholders) | -3.833 | 50 | .000 | 67647 | -1.0309 | 3220 |
| Compromise (Negotiating with the stakeholders, and trying to find a compromised solution) | 3.882 | 50 | .000 | .59804 | .2886 | .9074 |
| Evasion (Loosing attachments to stakeholders and their claims to protect themselves from allegations) | -5.784 | 50 | .000 | 99020 | -1.3341 | 6463 |
| Disclaimer (Ignoring stakeholder requirements) | -6.863 | 50 | .000 | -1.30392 | -1.6855 | 9223 |
| Influence (Shaping proactively the Stakeholder values and requests ; active data sharing and relationship building with stakeholders) | 5.360 | 50 | .000 | .63725 | .3985 | .8760 |

4.8 CHAPTER SUMMARY

This section focused on analysing and discussing the outcomes of the field survey. It started with a short debate of the survey questionnaires and answers and the descriptive statistics of the study 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.

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 main 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 stakeholder attributes in construction projects;
- 2. To identify the effects of stakeholder attributes on project delivery; and
- To identify decision-making strategies adopted by construction managers in managing stakeholders.

A methodological approach involving a method of literature review; a phase of questionnaire growth and administration and lastly a part of data analysis using mean score ranking and one sample test to rate the different variables. The study goals were revisited here to highlight the extent to which they were achieved through the different phases of the research.

Objective 1: To identify stakeholder behaviours in construction projects;

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. It was deduced that most of respondents encountered the Social or financial impacts on project claims by stakeholders more frequently than other behaviours. In the construction field, a broadly adopted classification of stakeholders' attributes is based on Mitchell et al. (1997)'s 'stakeholder salience model,' which considers that the accumulative number of stakeholders' power, legitimacy, and urgency can be used to decide the influence of stakeholders on a construction project (Olander, 2007).

Objective 2: To identify the effects of stakeholder attributes on project delivery

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 findings showed that most of respondents claim that the *Social or financial impacts of claims on projects by stakeholders impacted project delivery* more than the other variables by ranking it first and *Compelling by force of authority by stakeholders (Physical resources, such as ownership of products, services and cash, of force, violence or threat) as the last stakeholder attribute impacting project delivery*.). Four (4) stakeholders attributes are regarded to contribute to their salience (Nguyen et al., 2009). These include; Stakeholder Power, Stakeholder Legitimacy, Stakeholder Urgency and stakeholder proximity. The study found out that these attributes affects project delivery in numerous ways, causing delays and other problems in the industry.

Objective 3: To identify decision-making strategies adopted by construction managers in managing stakeholders.

This objective was achieved by calculating the mean score of each of the behaviours and also performing a one sample test to determine the significance of the decision-making strategies adopted by construction managers on stakeholder attributes. The results were analysed and discussed. The analysis revealed that most construction managers selected *Influence (Shaping* proactively the values and demands of stakeholders; actively sharing information and building relationships with stakeholders) as the most adopted decision-making strategy whereas Hold (the last ranked by participants was either battling against the claim of a stakeholder or withdrawing and ignoring it entirely). The stakeholder management decision-making approaches suggested or embraced in the field of General management and building management by previous scholars. Although distinct terms (positive or negative) are used to define "toughness levels" strategies, there are similarities between categories starting with the' mildest' approach, offense, influence, Compromise, collaboration, Participation, Accommodation, Trade off, Pro-action, Adaptation, Offense, Concession, defence, evasion and reaction, dismissal and hold. Holding is the most used management decision employed by project managers in managing construction stakeholders.

5.3 RECOMMENDATIONS

- Proper channels should be created for effective communication between construction managers and the various stakeholders involved in a construction project. Project managers should be able to negotiate with various stakeholders to reach a consensus to ensure successful implementation of projects.
- It is imperative for project managers to include stakeholders in the decision-making process at all stages of projects so as to foster good relations, resulting in successful project delivery. At all stages of the construction process, decisions are taken by project

managers, these decisions should be taken in consultation with various stakeholders to prevent conflicts which will result in delays or the termination of the construction process.

• Project managers should adopt a system in managing the behaviors of various stakeholders during the execution of construction projects. Various mechanisms should be set up to be able to handle the dominating behaviors of stakeholders.

5.4 LIMITATION OF THE RESEARCH

Recognizing the comparatively tiny sample size used for the research is essential. Analyses of the factors were therefore restricted by the reality that those variables with a mean lower than the hypothesized mean are subjective; and if a bigger sample size is selected, the mean results may alter.

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
- Also, a study should be conducted on the factors impacting relationship between construction managers and stakeholders of construction projects.

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APPENDIX

KWAME NKRUMAH UNIVERSITY OF SCIENCE & TECHNOLOGY, KUMASI-GHANA

COLLEGE OF ART AND BUILT ENVIRONMENT

FACULTY OF BUILT ENVIRONMENT

DEPARTMENT OF CONSTRUCTION TECH. & MANAGEMENT

Dear Respondent,

INVITATION TO PARTICIPATE IN A STUDY

Please, I would kindly request that you complete this questionnaire for my research project which is on the topic: *EXPLORING STAKEHOLDER BEHAVIOURS AND DECISION-MAKING STRATEGIES IN CONSTRUCTION PROJECTS.*

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 Behaviour 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.

QUESTIONNAIRE

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.

- 1) Kindly indicate your sex.
- a. Male []
- b. Female []
- 2) Kindly indicate your professional background.

| a. | Project manager | [] |
|----|-------------------|----|
| b. | Quantity surveyor | [] |
| c. | Architect | [] |
| d. | Civil engineer | [] |

- If other, please state
- 3) For how long have you been in professional practice?

| a) | Less than 5 years | [] |
|----|-------------------|----|
| b) | 5 – 10 years | [] |
| c) | 11 – 20 years | [] |

- d) Above 20 years []
- 4) What is the type of projects executed by your organization?

| a. | Building | [] |
|----|----------------|----|
| b. | Civil | [] |
| c. | Building/Civil | [] |
| d. | Other | [] |

PART TWO

SECTION A

From your own technical experience, rank the following Stakeholder Behaviors according to how often you encounter them.

Please answer by ticking $(\sqrt{})$ the corresponding boxes.

| 1= Not often | 2= Less Often | 3= Neutral | 4=More often | 5= Very Often |
|--------------|---------------|------------|--------------|---------------|
|--------------|---------------|------------|--------------|---------------|

| No. | Stakeholder Behaviour |] | Level | of agre | eemen | t |
|-----------|---|---|-------|---------|-------|---|
| 1. | Compelling by force of authority (physical resources of force, violence, or threat, e.g., possession of goods, services, and money) | | | | | |
| 2. | Ability to practically use material or financial resources (e.g., possession of goods, services, and money) | | | | | |
| 3. | Assesses customer's capacity before processing claim | | | | | |
| 4. | Relation to society and its members with symbolic resources (e.g., prestige, esteem, love, and acceptance) | | | | | |
| 5. | social or economic influences of stakeholders' claims on the projects | | | | | |
| If any ot | her, state and rank | | | | | |
| 6. | | | | | | |
| 7. | | | | | | |
| | | | | | | |

SECTION B

From your own technical experience, rank the following Stakeholder Behaviors based on their impact on project delivery.

Please answer by ticking $(\sqrt{})$ the corresponding boxes.

| 1= Not Se | vere 2= Less Severe | 2= Less Severe 3= Not sure 4= | | | 5= Very Severe | | | |
|-----------|---|--|---------|--------------------|----------------|--|--|--|
| No. | Stakeholder Behaviour | | L | Level of agreement | | | | |
| 8. | Compelling by force of author resources of force, violence, of possession of goods, services, | rity (physical or threat, e.g., , and money) | | | | | | |
| 9. | Ability to practically use mate resources (e.g., possession of and money) | erial or financial goods, services, | | | | | | |
| 10. | Assesses customer's capacity claim | before processin | lg □ | | | | | |
| 11. | Relation to society and its me symbolic resources (e.g., pres and acceptance) | mbers with tige, esteem, lov | □ e, | | | | | |
| 12. | social or economic influences claims on the projects | of stakeholders' | | | | | | |
| If any ot | her, state and rank | | | | | | | |
| 13. | | | | | | | | |
| 14. | | | | | | | | |
| | | | | | | | | |

SECTION C

From your own technical experience, rank the following decision-making strategies adopted by construction managers on stakeholder management and how often you use them.

Please answer by ticking $(\sqrt{})$ the corresponding boxes.

| 1= Not often 2= Less Often 3= Neutral 4=More often 5= Very |
|--|
|--|

| No. | Decision making strategies | Level of agreement | | | | | |
|-----|---|--------------------|---|---|---|---|--|
| | | 1 | 2 | 3 | 4 | 5 | |
| 1. | Hold (Either fighting against a stakeholder's claim or completely withdrawing and ignoring) | | | | | | |

| 2. | Defense (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 stakeholders) | | | |
| 16. | Influence (Shaping proactively the values and demands of stakeholders; actively sharing information and building relationships with stakeholders) | | | |
| If any oth | her, state and rank | | | |
| 17. | | | | |
| 18. | | | | |