INFLUENCE OF ORGANISATIONAL CULTURE ON PERFORMANCE OF CONSTRUCTION MANAGERS.

By

Emmanuel Senyo Dorkenoo

(B.Sc. Quantity Surveying and Construction Economics)

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DECLARATION

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any 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.

Emmanuel Senyo Dorkenoo
(PG 5054418) ……. …….
(Student) Signature Date

Certified by:

Dr. Emmanuel Adinyira ……. …….
(Supervisor) Signature Date

Certified by:

Professor Bernard K. Baiden ……. …….
(Head of Department) Signature Date

ABSTRACT

The personality of an individual is important as well as the culture of an organisation. Understanding the culture of an organisation is a first step to self-discovery by acknowledging its weakness and strength. Studies have suggested that, awareness of culture is an opportunity towards improving the effectiveness of the organisation. Performance of construction managers and the technical know-how assist in duty performed and results achieved. The aim of the study is to establish the contribution of organisational culture to the performance of construction managers. In a bid to achieve the stated aim the following objectives were set; to determine critical construction culture variables, to determine key indicators of construction manager's performance and to determine contribution of organisational culture to construction manager's performance. An extensive literature review was conducted through desk survey. The study employed quantitative approach and questionnaire survey as data collection instrument. The study achieved a respond rate of 77.69% of the sample size of 130 respondent and adopted descriptive statistics and mean score ranking to strategically analysed the data retrieved. The major findings of the study were the results achieved by construction firms that understood organisational culture and practiced same and training of employees to achieve organisations goal and competitiveness. The study recommends that management needs to make employees see the significances of organisational culture with respect with the organisation's mission, vision and purpose and Construction organisations like Ghana Institute of Contractors (GIOC), should organise more workshop for its members on importance of cultures at work place and its influence on company's image and the standard of work delivery.

Keywords: **Influence, Organisation, Culture, Construction Manager, Performance**

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LIST OF ABBREVIATION

CVF	Competing Value Framework
KPI	Key Performance Indicator
KRI	Key Result Indicator
OCAI	Organisational Culture Assessment Instrument
OCP	Organisational Culture Profile
PI	Performance Indicator
RI	Result Indicator
SMM	Standard Method Measurement

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This thesis is dedicated to my beloved parents Mr. Daniel Dorkenoo and Mrs. Georgina Dorkenoo for their unflinching support; overwhelming, never-ending reckless love towards me. God bless you and keep you!

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Culture is a significant factor in attempting to enhance the procedures and outputs of organisations in the building sector (Ankrah and Proverbs, 2004), and organisations must be prepared to evaluate and comprehend their own culture and the possible implications of their specific orientations. Culture in the construction industry, however, is an area characterized by a lack of studies and is only now starting to receive substantial systematic attention. A business organisation must meet the ever-changing requirements of its customers, its owners, its staff and society as a whole for long-term viability. It includes a strong knowledge of the role of the company as viewed by its own employees and the entities it deals with to handle the organisational culture of a company effectively (Schein, 1984).

Thomas et al. (2002) indicate that, since the ad-hoc nature of building job usually precludes the use of precise methodical performance measures, a more employee-focused inner orientation is widely predominant and more conducive to achievement, as this typically provides workers a high degree of professional liberty and flexibility and enables them to determine their own work-life equilibrium. This tends to provide a partnership strategy to problems concerning internal production and external relations with the business developing a self-motivated learning culture that is challenging rather than task-driven.

Culture is complex phenomenon, ranging from underlying beliefs and assumptions to visible structures and practices, some observers question whether culture can change in comparative sense (Fey and Denison, 2003). According to Cheung et al. (2012), Some

notable successful construction organisations have insightfully departed from the conventional ‘construction only’ business model. In reality, these forward-looking building organisations have realized their potential by moving away from engraved methods. This move includes, and can be dangerous, a form of cultural change. Changes, however, have brought these organisations to life by expanding their operational range and markets. Organisational culture is regarded within the construction industry itself to be about the features of the sector, building methods, the skills of craftsmen and individuals working in the sector, and the strategies, objectives and values of the organisations in which they operate (Abeysekera, 2002). This is compatible with the opinions expressed in Ankrah et al. (2005b) that it is suitable to focus on job methods or the 'methods' of building organisations rather than on key values or fundamental assumptions for the purposes of this study. Research proof demonstrates that there are more discernible variations in organisational procedures than in values or fundamental assumptions among organisations in any given nation (Hofstede et al., 1990).

Empirical studies of corporate culture were carried out in different nations and sectors (Dastmalchian et al., 2000) and in the building sector in the context of efficiency (Arditi and Mochtar, 2000), security (Lin and Mills, 2001), quality management (Yasamis et al., 2002), partnership (Wilson et al., 1995), women's function (Gale, 1994), human resource management (Druker et al., 2002). However, little is known about the specific features of corporate culture in the building sector as such. It is suggested that, the performance of every construction projects sprout from the organisations involved. Sambasivan and Soon (2007) indicated that improper planning, improper site management, inadequate contractor experience and subcontractors which causes delays are organisational related. Edum-Fotwe and McCaffer (2000) also asserted that, as there

is a gradual shift from the roles of a project manager, it is necessary and demanding for PM‟s to learn other competencies to their already acquired knowledge. Many researchers have indicated that, there is a correlation between organisational culture and construction performance or effectiveness in other jurisdictions conversely, all the performance related studies conducted over the past years in the Ghanaian construction industry have not considered the culture of the organisations (Fugar and Agyakwah-Baah, 2010).

1.2 Problem Statement

Despite that organisational culture has aroused much interest since the 1980s, it has remained a controversial topic. Particularly the question whether organisational culture can be managed has resulted in opposing views (Ogbonna and Harris, 1998; De Witte and van Muijen, 1999). Attention to cultural issues in the construction industry, both in the form of permanent and temporary project organisations, has gained significant momentum in recent times (Fellows, 2010). Moreover, the increasing internationalisation of construction also warrants better understanding of cross-national cultural practices (Tijhuis and Fellows, 2012). Industry reviews (Latham, 1994 and Egan 1998) have cited culture as an impediment to the industry's functioning and wellbeing. In the light of such reviews, researchers have focused on studying issues perceived as being connected to culture with the view to improving industry performance. However, the tendency to treat culture solely as a variable that can be manipulated for improvement is not an amenable enough conceptualisation of culture to shed meaningful insight into the ills of the construction industry (Green, 2012). Recent research in Australia also suggests the existence of a positive link between an organisation's culture and success through innovation (Gray et al., 2003) and better-quality management (Thomas et al., 2002). Based on a case study of two Dutch

contractors, Caerteling et al., (2006) found that dynamic and innovation-oriented contractors adopt more progressive policies in conducting their business. The study from Cheng and Liu (2007) also identified a significant correlation between success in implementing Total Quality Management and the clan culture of construction firms. More recently, Ozorhon et al. (2008) examined the extent to which the performance of an international joint venture is affected by the organisational cultures of the collaborating firms. These studies collectively identified that performance improvement in an organisation is a result of successfully translating values and beliefs into policies and practices. Despite the organisational culture assessment tools adopted in the above studies were not construction specific, the related findings studies indicate a close relationship between organisational culture and performance. Nonetheless, the nature of such relationship remains unanswered in the construction manager's performance context. Hence, the need for an investigation to establish the contribution of organisational culture to the performance of construction managers.

1.3 Aim

The aim of the study is to understand the contribution of organisational culture to the performance of construction managers

1.4 Research Objective

The overall goal of this study is to carry out a detailed investigation to evaluate the impact organisational culture has on construction manager's performance. In a bid to achieve this aim, the study fulfils the following objectives:

- To determine critical construction organisational culture variables.
- To determine key indicators of construction manager's performance.

- To outline the contribution of organisational culture to construction manager's performance.

1.5 Research Question

The following research questions are articulated based on identified knowledge gap to fulfil the

stated aim and objectives of the study:

- What are the critical variables of construction organisational culture?
- What are the key indicators of construction manager's performance?
- What is the contribution of organisational culture to construction manager's performance?

1.6 Research Methodology

In order to conduct a thorough and a robust research, the aim and objectives of the research was addressed by adopting a quantitative research and consisting of literature which was elaborated based on the objectives of the research. The extant literature was reviewed in assisting to discover the academic paradigms supporting the subject area and to identify the role construction project managers would play in minimising material wastage in building construction projects. The review was on credible and scientific data from the existing literature through journals, conference papers, publications of corporate bodies and textbooks. The quantitative research applied to both the fieldwork and desk study. This approach is also known to generate rich, detailed and valid data that contributes to in-depth understanding of the context of the research area (Fugar, 2008). Since the investigation was by quantitative research, the examination will utilize structured questionnaires to collect data from the respondents. The questionnaires will be self-administered to the sampled population. The statistical

Packages for Social Sciences (SPSS version 25) and Microsoft Excel were used for the analysis of the raw data.

1.7 Research Scope

Geographically, the scope of the study was restricted to selected construction companies in Accra Metropolis, the capital of Ghana. This is because majority of construction firms primarily operate in Accra. Also, given that economic growth is largely skewed towards the capital, more than 60% of the registered building contractors tend to operate officially in the Greater Accra region (Ahadzie, 2007; Ayisi, 2000). Hence, it is expected that the data to be obtained from the study would give a broader understanding of the influence of organisational culture on performance of construction managers. Construction firms that have registered with the Ministry of Water Resources Works and Housing specifically D1K1 and D2K2 construction companies was considered as qualified respondents in this study.

1.8 Importance of the Study

In fact, organisational culture has been identified as one of the essential factors that affect the efficiency and productivity of a firm (Alas et al., 2009). It has been strongly advocated that through cultivating and maintaining a culture that is conducive to stimulating performance improvement, the efficiency of firms and ultimately the construction industry can be improved (Gordon and DiTomaso, 1992). Furthermore, it is also proposed that further studies of organisational culture involving other stakeholders within the construction supply chain would extend the understanding of organisational culture in construction. This study will be of much significance to the construction industry. The study will establish the contribution of organisation culture on the performance of construction managers. Studies show that similarity between

individual and organisational culture contributes to higher levels of performance (Cameron and Quinn, 2006). Hence, the study will be of much importance to stakeholders in decision making based on findings emanating from the study towards higher performance. The study will also benefit the academia as it will motivate others to conduct further research in this area. It will also serve as a future reference material for researchers. Understanding the cultures of construction organisations in the construction industry will enable organisations to fine-tune their operations to compete in the global construction market. Organisational cultures serve two critically important functions: to integrate members so that they know how to relate to one another and to help the organisation adapt to the external environment (Daft, 2007). Knowledge about organisation cultures help construction managers to know the influential culture typologies and inform them about the way forward in adopting new practices of business and its likely effect on the organisation's environment.

1.9 Structure of the Study

This section describes the content of chapters. Chapter one provides the introduction, problem statement, the study aims and objectives, significance of the study, scope and limitation of the study, outline of the research methodology and organisation of the study. Chapter two gives a detailed review of the relevant literature and outlines theoretical considerations that are used in discussing the empirical findings of this study. Chapter three discusses the types and sources of data, sampling techniques, size and procedures for collection and analysis of data and chapter four is the analysis of data and discussions of the findings from the analysis. Chapter five represents the summary of findings of the study and draws conclusion. It answers specific objectives of the research and makes recommendations based on the findings.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

According to Hofstede (2005), an organisational culture can be defined as the communal training of the mentality that separates the associates of one organisation from others. The training of the mind of the members of the organisation make it intricate for accommodating any innovative execution programmes which could be valuable to the organisation, such as contribution of organisational culture to construction manager's performance. The chapter further review literature on the Ghanaian construction industry, organisational culture, critical organisational culture variables, organisational culture in Ghanaian construction industry, indicators of construction manager's performance and contribution of organisational culture to construction manager's performance.

2.2. The Ghanaian Construction Industry

The construction industry in Ghana, as in other parts of the world, is huge and a crucial segment in economic development. The Ghanaian Construction Industry is so much fragmented and segregated like the UK Construction Industry as described by Ankrah (2007) because it is instituted after the order of the UK Construction Industry. Construction activities are done in all sectors of the government as well as the private sector; Government is the main buyer or client of most construction activities which makes it the responsibility of government to regulate the technical parties within the industry (Tuuli et al., 2007). No matter what one does, there is construction, as it cuts across all sectors. Being among the top drivers of the Ghanaian economy, including agriculture, manufacturing and mining, its importance cannot be over emphasized, especially as the country is one of the most active economically in West Africa. The

sector grew by 10% in 2008 but registered a negative growth rate of 1% in 2009 due to the global economic recession (Gyadu-Asiedu, 2009). The key stakeholders in the construction industry in Ghana are clients, professional consultants and contractors (Gyadu-Asiedu, 2009). Two main sectors of government oversee the construction of infrastructure in Ghana; these are the Ministry of Water Resources, Works and Housing and the Ministry of Roads and Highways. These two ministries have gone through transformation under successive administrations since a constitutional government occupied the national seat in January 1993. These Ministries have different responsibilities in the Ghanaian Construction Industry. Ministry of Water Resources, Works and Housing the sole responsibility of overseeing infrastructure works that has to do with water systems, buildings and civil engineering works and register contractors in earlier mentioned categories of works. Ministry of Roads and Highways on the hands has the responsibility of effectively supervising the construction of the various type of roads that exist in our set up. Thus, highway, urban and feeder roads.

2.2 The Concept of Organisation Culture

2.2.1 Organisation

According to Allaire and Firsirotu (1984), organisations can be classified around three differing views, which are biological, anthropological or sociological. Biological implies that, an organisation can be related to every living organism which has a life cycle. The anthropological views organisations as human beings with distinct character and the sociology concept considers an organisation as a society. Organisations are established to operate with an ideology which defines their mandate in the society. Besides, organisations are regarded as a micro unit of the society (Allaire and Firsirotu, 1984), in other words is a smaller society in the larger community. Since the structures within the organisations are designed after the larger community. Though, Hofstede et

al. (1991) held the view that, organisations‟ nature differ from nation to nation. It could be concluded that, the difference might be in the governance of nations as opposed to organisations. Moreover, the context of their study informed the description of an organisation. According to McAuley et al. (2007), organisations exist as a stepping stone to help people combine their resources and most at times it arises as a result of a necessity because it creates the avenue for team work. An organisation is formed when there is an integration of human and other resources with the aim of attaining a set mission (Abiola-Falemu et al., 2010). Organisational studies are focused on the holistic activities which are executed in the organisation.

strategy, Mission and Purpose of organisation

The task of the organisation is to balance demand and supply on the labour market. The aim is to guarantee enhanced employment of workers, thus reducing the rate of unemployment, by reducing the cost of active measures (Somlea and Marian, 2012). The goals of the organisation are: to apply employment and training policies and to apply social protection policies for the unemployed. The approach of the organisation is: to modernize the organisation and adapt it to the norms of the European Union, to provide free facilities and adapt it to the true requirements of clients, to develop own staff, to use funds efficiently, to decentralize duties, to develop particular public relations infrastructure, database, statistical processing, sociological, object management The mission of the organisation is grasped, expressed in unambiguous terms from top to bottom and improved by everything the executives do, according to Somlea and Marian (2012). Without being punished, employees can discuss various issues they encounter. Communication at all levels of the organisation is accessible and appreciated, facilitating the motion of thoughts and suggestions. Depending on their

capacity to contribute to the task, employees are provided efficient power, and errors are seen as possibilities for learning rather than as a sign of private inadequacy. Numerous pervasive issues were empowered by HR to fix issues on a few events and to watch the effects of decisions made and to get crisp members in the association. Somlea and Marian (2012) hypothesized that the association is a piece of the open framework is portrayed by procedure culture giving criticism, not include chance, yet has the shortcoming administration. We can say that the association has the accompanying highlights: representatives share basic sense in accomplishing targets and qualities, feeling admirably on the grounds that they are individuals from the association; workers are administered practically alone, doing wilfully what they see they need to do, meddling with the variations of illuminating the undertakings or bugs; The organisation also has adverse patterns: individuals often justify the means by believing so much in what they do. Therefore, it follows that it is an organisation with a powerful organisational culture and this culture needs to be presented with conviction to fresh employees who need to acknowledge it as valid (Somlea and Marian, 2012). This method of transmitting organisational culture to fresh employees allows testing, ratification and validation of organisational culture.

2.2.2 Culture

Culture impacts the manner in which individuals process outer data and their abstract emotions. It leaves a blemish on their financial ideas. Individuals settle on decisions dependent on potential qualities. At that point culture influences human financial exercises (Williamson, 2000; Zheng, Ghoul, Guedhami, and Kwok, 2012). Culture prompts person's various view of the outside condition, which thus influences their basic leadership and conduct. Without related knowledge, individuals settle on choices dependent on supernatural convictions. At the point when societies are comparative,

the distraction convictions of various individuals will in general be reliable, and shared trust is escalated. This makes an arrangement without formal requirements (Guiso, Sapienza, and Zingales, 2006). Numerous experimental investigations demonstrate that culture influences corporate conduct (Han, Kang, Salter, and Yoo, 2010; Shane, 1993; Taylor and Wilson, 2012; Zheng et al., 2012). Culture is both a powerful wonder that encompasses us consistently, being always established and made by our associations with others and formed by administration conduct, and a lot of structures, schedules, principles, and standards that guide and oblige conduct (Schein, 2016). Social inheritances are incredible powers. They have profound roots and long lives. They endure, a great many ages, basically flawless, even as the financial and social and statistic conditions that generated them have disappeared, and they assume such a job in coordinating frames of mind and conduct that we can't comprehend our reality without them (Gladwell, 2008). A few references made to the general conditions of the condition that can affect disposition and human shows (Petrakis and Kostis, 2013). Harrison and Huntington (2000) focused on the job of religion, while Putnam (1993) widened the importance of social factors and trust as he relates them to the idea of social capital. Gasper (1996) points out that chips away at culture and advancement highly stress the significance of social contrasts inside social orders, while, all the more as of late, Guiso et al. (2015) demonstrate that culture assumes a significant job in clarifying tenacious contrasts in the financial achievement or disappointment of countries. In addition, culture is found to decide the degrees of independent work (Marcen, 2014), the size of government (Pham et al., 2018), and furthermore to influence SME profitability (Gaganis et al., 2019), securities exchanges (Zhou et al., 2019) just as the piece of the overall industry of remote banks (Xue and Cheng, 2013). In this manner,

monetary writing gives clear proof that culture can be viewed as a ground-breaking power forming human financial conduct (Throsby, 2001).

2.2.2.1 Importance of Culture to the organisation

Culture has penetrated through the organisational studies. Culture studies have gained root within the last three decades and continues to make strides in management studies. The remarkable idea about the concept of culture is its indelible contribution to the well-being of organisations. From a lay person point of view culture is said to give a group of people an identity which is not technically different from O'Donnell and Boyle (2008) view with regard to the importance of culture to the organisation. Besides, realization of culture and its typologies inform management to be circumspect since every style adapted in the running of the organisation corresponds to different expectations. Osibanjo and Adeniji (2013) in a study on Private Universities in Nigeria established that, there is a significant relationship between the culture of an organisation and its human resource because it is the people in the organisation who portray the beliefs, values and ideas to the external environment of the firm. Oney-Yazici et al. (2007) added that, culture is not only instrumental to the effectiveness of the organisation in the short-term but the long-term as well. Nifa and Ahmed (2010) proposed that, even partnership between organisations yields good outcome provided the entities involve have similar Organisational Culture.

2.3 Organisational Culture

Xiaoming and Junchen (2012) and O'Donnell and Boyle (2008) have emphatically stated that, there is no agreement on universally accepted definition as far as organisational culture is concerned. Which according to Keesing (1974), over 1000 definitions of culture exist in literature. Many definitions have emerged over time,

which the researcher thinks relate to the context in which the various authors referred as culture, because definitions in cultural studies relate to the perspective adapted. Allaire and Firsirotu (1984) pronounced that, adopting a specific definition for culture streamlines the work to fit a specific culture concept. Managers recognize and understand the existence of culture in their organisation (Abu-Jarad et al., (2010). For instance, Gajendran et al. (2012) argues that, the organisation itself stands for culture, because Olanipekun et al. (2014) believe it has expressions and defines the life of the people within. These facts might have directed. Albayrak and Albayrak (2014) to assert that, organisations are socio-cultural institutions, since culture is knitted in the social system. Ankrah and Langford (2005) posited that, in any organisation there is an established bond among employees and their organisation in totality and patterns which dictates the behaviours of them, understanding the *WHY*s and *HOW*s exposes one to the culture of the organisation. O'Donnell and Boyle (2008) opined that, Organisational Culture exists as a result of the background meaning the organisation experiences in the past sprouting from the accepted norms of doing business. Organisational Culture according to Rameezdeen and Gunarathna (2003), is also influenced by the external environment to fine-tune its belief as well as internal structures of the organisation. Implying that, the external factors result in the ability of the company to adapt to the beliefs of the external environment. Schein (2004) also advised that the genesis of Organisation Culture is embedded in leaders, because they transfer their believe in the execution of their duties. Organisational Culture is synonymous to the real self of an individual, which underpins the reason why Culture defers from one organisation to the other because every individual is unique (Atuahene, 2016). Oney-Yazici et al. (2007) defined organisational culture as the "shared assumptions, beliefs and normal behaviours (norms) present in an organisation". Organisational Culture was described

by Chilla et al. (2014) as the corporate belief of the individuals within an institution as well as their understanding on their belief. According to McKenna and Beech (2002), Organisational Culture is revealed in the ideas and thoughts of individuals in an organisation because it is a pre-requisite criterion set by an organisation in determining the selection of preferred job applicants. Schein (2004) defined Organisational Culture as "*a pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems".* Abiola-Falemu et al. (2010) simplified the definition of Organisational Culture as the push and pull factors that are acknowledged to be influential and essential in an organisation. Schein (2004) definitions reinforces McKenna and Beech (2002) assertion that, Organisational Culture is a learning or continual process which can be learnt by new members of a group and emanates from the history or traditions of an organisation. In simple terms, Hofstede et al. (1991) declared that, culture is a soft concept in organisations however, had causal link to strong consequences. Though, the consequences might have a positive or negative connotation nevertheless, it is accepted in the context of this study based on reasons credited to contribute to accomplishment of organisational goals.

2.3.1 Functions of Organisational Culture

Similarly, there is an exhibition of particular significant tasks that organisational culture maintains for any kind of social work. These functions are considered incidental as well as intentional. Following, working out and mapping the organisational culture structure is hard. There are certain conditions that enable the cultural structure to be established as well as strengthened and vice versa. There are some functional behavioural instincts. The following are organisational culture functions.

i. Behavioural control: this concerns the management of members' behaviours by the social organisational systems. It is always the ultimate objective to develop some type of hedge to assist in affecting other participants, without necessarily taking into account the nature or nature of an organisation that may be. Consequently, the organisations align certain laws, processes and norms for compliance as well as non-compliance. This depicts the organisation's official manner. However, without a fortified structure, there is an excessive rate of quality of the consistency of a person's character. It can be said that the cultural organisations are the ones responsible for offering casual patterns (Peterson and Mark 2004).

ii. Inspires safety: In an acceptable pace of social systems there is both replication and turning. Most organisations maintain certain similarities with their systems and thus modify their employees and leadership. Acknowledgments are somewhat booked by duties or profession at times. By using the source of uniqueness as well as the background of staff on the organisation's views and achievements, the individuals in the organisation know how to justify this (Peterson and Mark, 2004).

iii. Cultural liabilities: with strict methods and formative conditions to scrutinize the organisation's staff operations, a difficult culture is assumed to be directed towards the achievements of the organisation. A difficult culture, however, is focused on the methods executives use to define some severe issues. This occurs in a surprising manner. Maintaining updated information that can demonstrate behaviour even as it is culturally affected is very important, which would be free in a manner that is the same focus and staff systems are not sufficient that are sometimes no higher than the manufacturing norms that management wants.

Staff are mostly affected by group commanding forces in an effort to guard each other from managerial action (Peterson and Mark, 2004)

2.5 Critical Organisational Culture Variables

2.5.1 Organisational Culture Models

An important role of Organisational Culture study is its relationship with the performance of organisation. Due to that, researchers select typologies that are closely related to organisation performance and the activities of the organisations at large (Gajendran et al., 2012). Schein (2004) added that, culture is diverse and the possibility of having positive and negative culture exists. Hofstede (2011) added that, although there are dissenting views of modelling culture but most culture models or typologies or profiles concentrate on activities which have the potential on contributing to the economic and technological status of a society or organisation.

2.5.2 Denison Culture Model

Denison and Mishra (1995) propounded culture traits to measure the effectiveness of organisation by many researchers. The traits consist of four (4) main cultures which consist of twelve (12) variables. Each culture contains three (3) variables which measures the overarching culture. These cultures are mission, involvement, adaptability and consistency. The culture traits are further explained below;

2.5.2.1 Mission

Organisations are established to fulfil a specific purpose. The ideal purpose of construction organisations is to provide infrastructural developments to societies and countries at large. This trait focuses on the vision and the goals of the organisation (Mobley et al., 2005). According to Amah (2012), the mission trait is the genesis of identifying the culture of an organisation. During orientation and socialization,

management reveals the organisations‟ purpose to the new employees. Through that the goals are indoctrinated into their conscious and sub-conscious mind.

2.5.2.2 Involvement

The involvement culture of organisation was described by Mujeeb et al., (2011), as when employees in an organisation perceive or act on the premise that, they have a stake and their contributions and decisions are crucial for the well-being of the organisation. Furthermore, Mobley et al. (2005) opined that the responsibilities assigned to employees and harnessing their capabilities makes them integral part of the organisation.

2.5.2.3 Adaptability

The business environment, in which organisations are situated, influences the culture of the latter (Mobley et al., 2005). For instance, the concept of sustainability has taken form in the construction sector. As a result of that, architectural firms are designing to conform to energy efficient buildings whilst contracting organisations are using sustainable materials for construction. Mobley et al. (2005) and Amah (2012) further asserted that, business organisations are currently oriented to seek or attract the contribution of customers. Getting loyal customers are chiefly the aim of every successful or growing organisation because without the customers patronizing the services or products of the organisation, the latter will lose it purpose. In addition, Amah (2012) added that the adaptability trait also considers studying the capabilities of competitors and contextualizing them in the organisation. This is the situation where organisations have a closer look at its capability and its weakness and capitalize on the opportunities and minimizing its threat. Moreover, change in leadership style and the approach in solving internal problems with regard to the operations of the organisation

is also important to this trait. It could be understood that, internal and external orientation of the organisations matters. In an era of technological advancement, it has become imperative for organisations to tune their focus to what is required in the business environment. Succinctly, an organisation will cease to live up-to expectation if it limits itself to the conventional approach of doing business.

2.5.2.4 Consistency

This trait emphasizes on the internal arrangement made to strengthen the core beliefs of the organisation, for instance how the organisation arrive at a consensus and the commonalities between the units within the organisation (Mobley et al., 2005). But this trait has the tenacity of preventing innovations within the organisation since the core belief identifies the organisation from others thereby making it difficult to accept changes to it.

2.5.3 Organisational Culture Profile (OCP)

Geertz Hofstede contributed immensely to the OCP model. Among other great contributors are Charles O'Reilly, Jennifer Chatman as well as David Caldwell. These three people made immense contribution to organisational culture and behaviour and are therefore accredited to them, the OCP. Hence, together they are referred to as the trio of OCP. O'Reilly et al. (1991) identified fifty-four (54) constructs meant to elaborates the features of organisation. Nevertheless, a factor analysis trial displayed that thirty-three (33) have loadings >0.4 depending on a person's desire. These loadings were divided into (8) shapes. Another sorting of different loadings was also carried out, and the constructs were reduced to twenty-six (26) having only seven (7) profiles. This sorting done was to help validate the results obtained. Upon further notice, five (5) of the profiles remained unchanged after the

proof. These contains: team, detail, outcome orientation, aggressiveness and innovation. The seven (7) profiles of the organisation entails: invention, strength, admiration for persons, outcome orientation, attention, team and assertiveness.

2.5.3.1 Innovation

This is a model of the OCP. Innovation simply means bringing new things into existence. Its profile is geared towards the exploration of emerging trend in the organisation. O'Reilly et al. (1991) identified certain characteristics of the innovation to modify the OCP. These including: taken threat, making good use of the provided avenues, creativity, carefulness and conducting trials to provide the viability of a concept. Sarros et al. (2005) revised the factor loadings accordingly. According to Sarros et al. (2005. This was because the trial factor was not identified. Again, the two works therefore established that the innovation profile is anchored on building the external functioning of the firm.

2.5.3.2 Stability

For an organisation to be firm and fit for what it is intended for, the underlined criteria must be met. The criteria include: the ability to operate without flaws; providing work protection made available for employees; simple to give; and have no specific regulations (O'Reilly et al., 1991). Sarros et al. (2005) once again revised the aforementioned criteria by replacing *"easy to predict"* and *"no emphatic rules"* with "calm and low conflict". According to them, the revision was as a result of some factor loadings which never reflected the true nature of their profile. Keeping the "easy to predict" function is wise because it asserts the organisation's direction. Therefore, the investigator agrees with his omission and also the fact that it is a contrasting structure

against stability, job security and simple to predict. In addition, "no emphatic guidelines" has an incorrect item loading.

2.5.3.3 Respect for people

Respect for people as a connotation, stands to be a part of the essence of building any organisation for smooth and effective running of its affairs and therefore cannot be overlooked. Respect for people, once again, creates a long-lasting relationship between the workforce and their subordinates and empowers them to do what is needed. This profile is massive about the capacity of an organisation to respect its staff. Therefore, fairness should exist and the top management should tolerate their employees regardless of how horrible their behaviour may seem (O'Reilly et al., 1991).

2.5.3.4 Outcome orientation

There is always the need to realize the expected result after increasing the organisation to certain norms. These findings include readiness to reach their goals; high expectations; and action-oriented action and outcomes (O'Reilly et al., 1991). Moreover, the findings of these profiles were also updated with the factors classified as competitiveness and effectiveness. But it completely removed high expectations and action-oriented.

2.5.3.5 Attention

Attention describes the detailed analogy posed by members of an organisation in all diverse works. It describes an organisation whereby its members are ideally conscious of what they do, admire and stress that it is necessary to take into account precision as well as accuracy, thereby critically adhering to the purpose and every detail involved (O'Reilly et al., 1991). Hofstede (2011) opined that the attention profile relates to the process orientation.

2.5.3.6 Team

Team building is the very core mandate of every organisation, for the attainment of its goals and purposes. In this research, several teams were highlighted. Most of them were the accounting organisation, financial accountants and students of the MBA. The loading factor for this profile highlighted cooperation, the orientation of individuals and team (O'Reilly et al., 1991). This phase's general focus is on strengthening the organisation's members.

2.5.3.7 Aggressive

Organisations are poised to helping solve societal provisions needs of people using employment as well as other societal duties (McAuley et al., 2007). Unlike the attention profile, the aggressive profile describes the external conditions associated with business organisations. Factor loadings of this profile are aggressive competition and social responsibilities.

2.5.4 Hofstede's Organisational Culture Model

Hofstede has been instrumental with regard to culture studies in the national and organisation level. Hanna (2014) opined that if it had not been Hofstede, culture studies would have been relegated to anthropological studies. But now, culture studies in organisations have transcended through many recognised fields such as the financial, construction, health and others. In his research, Hofstede (2011) put forward six (6) significant cultural dimensions for businesses. The sizes include: programmed versus focused system; job-oriented versus employee-oriented system; professional versus parochial; open systems versus closed systems; tight control versus lose control; and pragmatic versus normative. Due to the contrasting characteristics, these dimensions are described to demonstrate the dichotomy between each dimension.

2.5.4.1 Process-oriented versus Result-Oriented

Hofstede (2011) explained process-oriented as dimension whereby Firms which focus mostly on the technical knowledge to repute the need for laid down procedures. On the other hand, results-oriented is skewed toward the outcome of the processes. Both process-oriented and result-oriented are embedded to help facilitate the possible goals of construction organisations. Hence, mitigating the issues listed above. It is appreciated that; an organisation might place much emphasis on a preferred dimension. However, the researcher thinks that, in the bid to achieve quality product and services to customers, due diligent must be observed in the processes involved. Therefore, it would have been appropriate to redefine this dimension to encapsulate its meaning and a review of the dimension's name.

2.5.4.2 Job-Oriented versus Employee-Oriented

For each company, workers are unique assets. The objectives of an organisation can never be accomplished without staff. Hofstede (2011) stated that some organisations tend to concentrate on the performance of their employees rather than their well-being, and vice versa. Job-oriented can be linked to the theories of scientific management while employee-oriented can be linked to the theories of behaviour. The purpose of this dimension is to improve the performance of the organisation.

2.5.4.3 Professional versus Parochial

This dimension involves classifying an organisation's members. The professional dimension is a means of classifying participants with regard to a certain professional body, whereas the parochial dimension emphasizes the works to which the participants belong. In terms of education, Hofstede (2011) has criticized this stage of cultural dimensions. For every rational being, the need for connection is very essential. This

dimension is tacitly linked to workers ' social requirements as suggested in Maslow's needs theory.

2.5.4.4 Open Systems versus Closed Systems

The survival of every organisation is hinged on the stream of communication. The environment within which an organisation works is a common factor (Hofstede, 2011). Information flows freely within the open system, but data in the closed system is very secretive. While data in the closed system is split among top management, the former widely stream information that is shared among all.

2.5.4.5 Tight versus Loose control

The formalities observed by all organisations are tight and loose dimensions (Hofstede, 2011). Both dimensions have principles laid down. The tight control principles include: following the process during scientific research; using, among other things, the Standard Measurement Method (SMM) to prepare Bills of Quantities for construction works. The loose control principles enable individuals to depend on the system they see fit to achieve a specified objective.

2.5.4.6 Pragmatic versus normative

Pragmatic deals with a flexible relationship that does not apply the legislation between customers and sellers. But where the provision of services to a customer requires to implement laws and laws, as is known to the normative. These dimensions are described by effective fellowship; bureaucracy; innovation of employees; input; understanding; humanity; and compliance with legislation and regulations.

2.5.5 Revised Organisational Culture Profile (ROCP) Model

As previously mentioned, the original OCP model has been updated and updated. Modification of O'Reilly et al. (1991) OCP model by Sarros et al. (2005). A total of

twenty-eight (28) constructs were reviewed and subsequently grouped into seven (7) profiles. These profiles were distinct from the already existing seven profiles. More groupings have been established that have streamlined the profiles into the setting, company and individuals. This was aimed at certifying the initial OCP model.

2.5.5.1 People culture

As organisations are set up with the profit-making agenda, the workers ' needs are also essential. The "people-oriented culture" defines organisations as those that reinforce their employees by offering them with the necessary training and growth, rewarding schemes, recognizing responsibilities and ensuring a friendly atmosphere for the leadership as a whole (Sarros et al., 2005).

2.5.5.2 Business culture

Competition is the greatest benefit of an organisation's business-oriented culture. Consequently, operating and functioning correctly without competition is a disadvantage for an organisation. Consequently, competition sets in movement each organisation to operate completely on company issues. Every organisation's benchmark is to operate efficiently and effectively. Current technologies and ideas have created multidisciplinary organisations, although organisations are confined to a specific program. That being said, business-oriented culture is the organisations with the forenamed characteristics (Sarros et al., 2005).

2.5.5.3 Environment culture

McAuley et al. (2007) asserted that, organisations are there for societal gains. The environment within which the organisation operates cannot be overemphasized. In addition, organisations are placed in environment to help carry out the societal norms. These include: legal, political, regulatory, among others. However, the status quo of

environmental oriented organisations is the willingness to address these pressures safely.

2.5.6 Organisational Culture Assessment Instrument

In each organisation, the OCAI articulates four (4) typologies of culture. The characteristics are: clan; market; adhocracy; and hierarchy as shown in Figure 2.1. The Competitive Value Framework (CVF) was created by Cameron and Quinn (2006). The OCAI derives its CVF base. The structure portrays culture from the outside to the inside dimension and more to the focus on less flexibility. The external to inner dimension classifies the organisation's culture on the basis of its company reaction. The more to less flexibility focuses on the measurement of the capacity of the organisation to adapt to new growth (Cameron et al., 2006).

2.5.6.1 Clan

According to Cameron and Quinn (2006), organisations ' friendly atmosphere is an enabler that generates a particular niche for the culture of the clan. In this context, each organisation has structures that promote cohesion between staff, staff and management, staff and the organisation, and lastly, the organisation and its clients. Figure 2.1 clearly shows the position of the clan culture. In addition to the structures, the clan culture is hinged on the following: teamwork; development of employees' capability; and human environment. Cameron and Quinn (2006) proclaimed that, the clan culture is an avenue where members of an organisation are committed, involved in every task and they are trusted. This avenue therefore affects the organisation's business performance positively. The clan culture is a concept of Elton Mayo's management theory. Olum (2004) analysis of management theories stated that the following factors are involved in enhancing efficiency: motivating casual groupings; excellent working atmosphere; interest of staff; and teamwork.

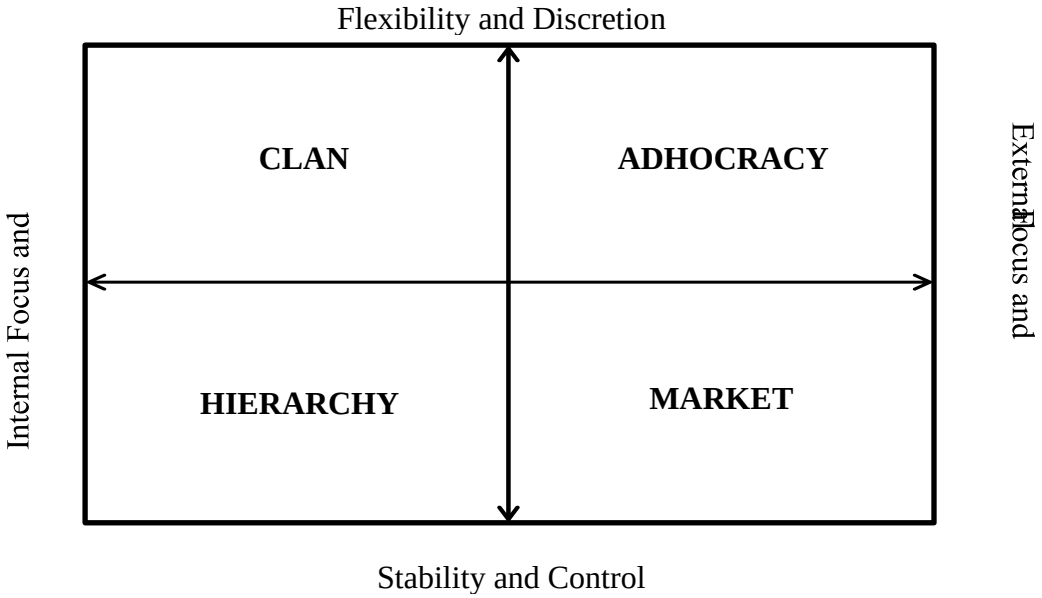

Figure 2.1 The Competing Values Framework (Cameron and Quinn, 2006)

In clan culture, communication plays a critical role (Albayrak and Albayrak, 2014). The lack of efficient communication within a family creates chaos in the setting. Effective communication adds to employers and workers ' happiness. Helping employers sell their vision to staff, solving inner disputes, and addressing the problems of staff are among other advantages. Ideally there is a relative difference between the clan and the culture of the market. This is due to the receiving method, so the market culture is towards clients as the clan connection is geared towards staff.

2.5.6.2 Hierarchy

Hierarchy is an important component for the forecasting of each organisation. In an organisation, the notion of hierarchy is connected with the impression that the focal point will be the "rigid structures." Here, therefore, employees are hierarchically categorized as owners, top managers, semi-managers and mere employees. The hierarchy method is to set up an authority line within an organisation. Cameron and Quinn (2006) argued that rigid buildings improve an organisation's stability, consistency, effectiveness, and predictability. Furthermore, there is always some sort

of distinction between operation and production. This is due to the specified regulations and authority line reporting order.

2.5.6.3 Adhocracy

Adaptability is the traditional significance of adhocracy. Cameron and Quinn (2006) felt that this culture could be interpreted as a temporary way to work an association with regard to "impromptu." The association is impacted inside nature by making things adaptable and casual, for smooth activity. For example, the development ventures throughout the decades have changed from a specialized field to business-arranged enterprises. Worrall (2012) opined that, this culture frames the premise of adjusting to changes in associations Cameron et al. (2006) demonstrate that development is a powerful way to deal with adhocracy culture. This culture framework ought to be related to the development association, since business the board ideas and other supportable ideas are penetrating the business.

2.5.6.4 Market

For this culture, the word "market" is very figurative. It's not, so to say, about purchasing and selling. The theory guiding organisation is to maximize profit and optimize manufacturing costs. In other words, organisation is set up to perform well in company efficiently. The cutting edge of market organisations fosters the capacity to compete sustainably in company in the age of aggressive company setting. The market situation is as indicated in Figure 2.1 by Cameron and Quinn (2006). Nevertheless, Albayrak and Albayrak (2014) believed that the organisation's clients must focus mainly on the root sense of competitive offers. Organisations will accomplish their organisational agenda and competition among organisations with clients on board. Organisation's customer loyalty is the hallmark of the market culture and the industry's organisation's aggressiveness.

2.6 Indicators of Construction Manager's Performance

2.6.1 Construction Manager

Hassan (2005) cites the use of a variety of job titles to describe the individual performing the responsibilities of construction managers in the sector. A building manager is a corporate entity that uses the project delivery system to encourage project management. According to Zwikael and Smyrk (2011), a manager who managed the building project is accountable for delivering the outputs of the project and meeting the constraint of the project. They can initiate, plan, execute, monitor and finish a project in its entirety or just part of a project. The term building manager is also used to describe individuals Practitioners who are part of a building management organisation. Building managers can be described as an individual (owner or employee) supervising the construction management of a project in the framework of this studies. Sufficient skills allow the construction manager to efficiently monitor and monitor the project's progress. One of a good construction manager's significant duty is to be able to deal efficiently with unexpected circumstances (Alias et al., 2014). The mandate of each construction manager is to have the skills, knowledge and behavioural skills needed (Crawford, 2000). The construction technique consists of five project management procedures that initiate, plan, implement, track and close and deal with separate participants (El-Gohary, Osman and El-Diraby, 2006). It is the construction manager's role to coordinate the activities with the employees within the project management process to ensure that they fulfil their duties at the right time as they respect them (Clements and Gido, 2012). A construction manager must guarantee that the suitable expertise and resources are available to those working on the project to fulfil their assigned duties (Sutton, 2011). A construction manager has some main goals, such as setting

achievable and efficient goals, tracking and managing the building project, and ensuring that the project is accomplished within budget and time limitations. The construction manager's generic operations consist of leadership; advice; support; budgeting; evaluation; evaluation; management; planning; recording; reporting and scheduling (Shaker, 2007). Alias et al. (2014) stated that the construction manager's responsibilities began right at the initial stage where the construction manager needed to assess and determine suitable building techniques and the most cost-effective plan and schedule was began. The remaining fundamental operations of the construction manager are summarized in Table 2.1

Table 2.1 Summary of Construction Manger's Roles

Project Management Processes	Generic construction manager's roles
Initiating	• Evaluate and determine appropriate construction methods and the most cost-effective plan and schedule
Planning	• Labour requirement is determined by construction manager including supervising the hiring and dismissal of them • Segregates all required construction site activities into logical steps and budgeting the time required to meet the deadlines. • Selecting trade contractors to complete specific pieces of the project.
Executing	• Directs and monitors the progress of construction activities. • Appraisals, weekly and monthly cost control, assist valuation, claims and payments
Monitoring	• Manage performance of all trade contractors and ensuring that all work is completed on schedule • Administer the materials, tools, plants and equipment delivery and usage; productivity of the workers, construction's quality and safety. • Review engineering and architectural drawings and specifications to monitor progress and ensure compliance with plans and schedules • Track and control construction cost against the project budget to avoid cost overruns. Prepare daily reports of progress and requirements for labour, material, machinery and equipment at the construction site

Closing	• Handling defect liability period (DLP) • Preparing for handing over of the project Final account

Source; (Adapted from Alias et al., 2014)

Crawford (2000) emphasized that construction managers are expected to have particular knowledge and understanding of their positions in order to perform satisfactorily. Therefore, building managers should combine the technical expertise and behaviours needed to promote efficient teamwork and communication to obtain outstanding results (Dainty et al., 2005). A skill can be described as a cluster of associated expertise, abilities and behaviours that influence a large portion of one's work, according to Cartwright and Yinger (2007) and Ahsan, Ho and Khan (2013). It can be assessed against well-accepted standards and can be improved by training and development. When applied to project leadership, skill is the capacity to expect and recognize norms to carry out operations within a project setting. Pellicer et al., (2012) stated that as the complexity magnitude of a building project rises, the construction manager now faces more problems, hence the need for additional skill. Ahsan et al. (2013) pointed out that construction manager meets the three dimensions of competence, effectiveness and personal skills. It conforms to the embedded competence model of Crawford (2005), which consists of aspects of understanding

and abilities, achievement and character. Figure 2.2 depicts the embedded skill model of Crawford (2005).

On the other side, Omran et al. (2012) described the notion of building manager abilities consisting of personal features (self-reflection; leadership / team management), attitudes (personal values; organisation / project / events), information abilities (organisational context, scope, quality, risk, value, time, price, equipment and human resource management) and competent abilities. Meanwhile, Edum-Fotwe and McCaffer (2000) categorized the building manager's competence into

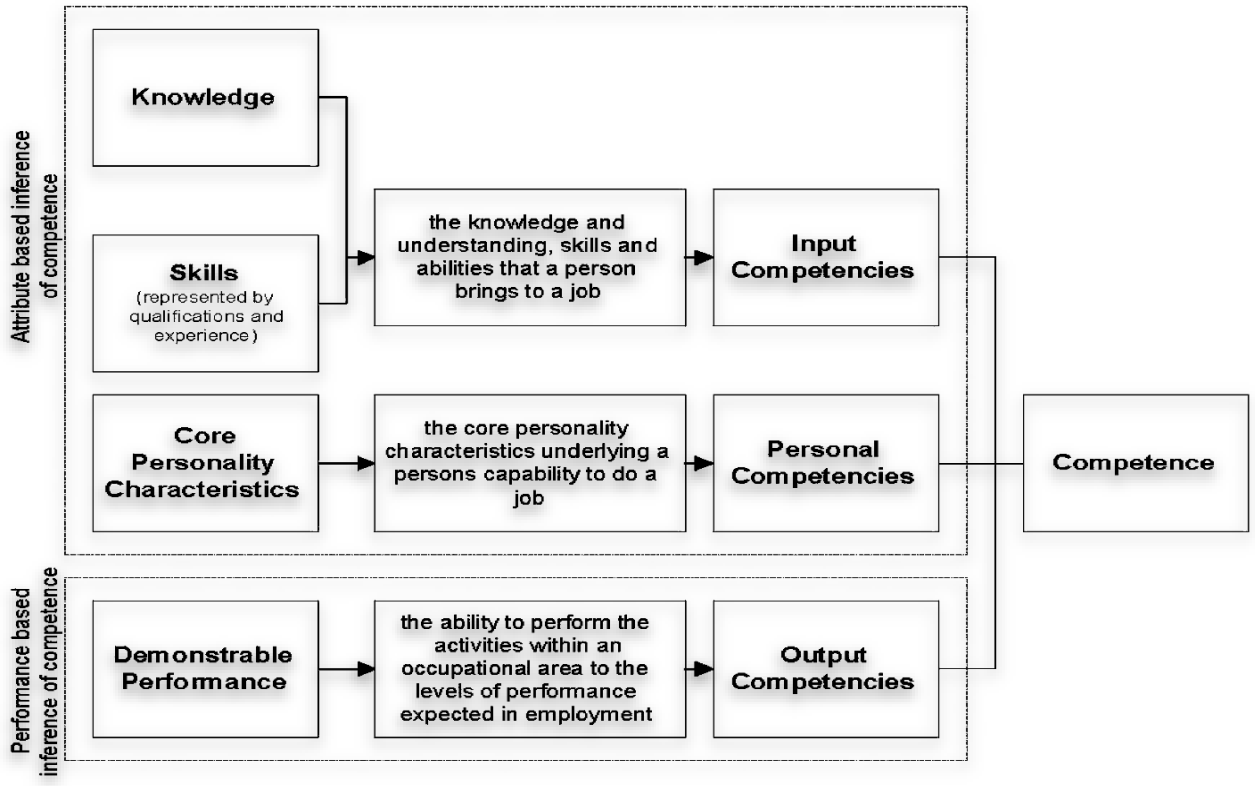

Figure 2.2 Integrated model of competence (Crawford, 2005)

primary and secondary; providing a project management activity under the category of expertise and abilities into several clusters.

2.6.2 Key Performance Indicators

Most of the business environment indices or key performance indicators (KPIs) are quantitative data; it shows a company's structures and procedures. KPIs are now

very essential for planning and managing through data support, transparency creation and leadership decision-making support (Meier, Lagemann, Morlock and Rathmann, 2013).

Lord Kelvin defined KPIs as "When you can measure what you're talking about and measure it in numbers, you know something about it, when you can't express it in numbers, your understanding is meagre and unsatisfactory; it might be the start of understanding, but you have barely developed to the science level in your ideas (Arora and Kaur, 2015). Many businesses work with incorrect policies, many of which are wrongly referred to as key performance indicators (KPIs). Very few organisations are monitoring their real KPIs. That's because few organisations, company leaders, authors, accountants, and advisors have been exploring and knowing what a KPI is. There are four types of performance measures;

i. Key Result Indicators (KRIs): it tells you how you have achieved in a perspective or critical success factor.
ii. Result Indicators (RIs): tell you what you have done.
iii. Performance Indicators (PIs): tell you what you must do.
iv. Key Performance Indicators (KPIs): tell you what to do to highly increase performance.

Description of the relationship between these four performance measures by using an onion analogy.

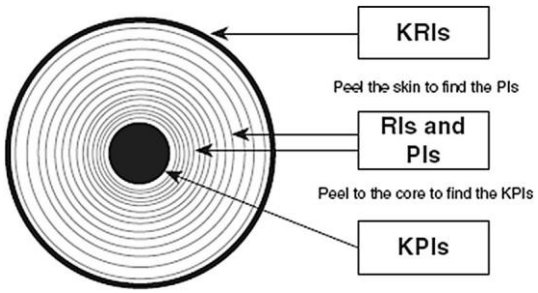

Figure 2.3 Four types of performance measure

The outer skin explains the general condition of the onion, the quantity of sun, water and nutrients it got, and how it was handled from the harvest to the shelf of the supermarket. The outer skin is a main measure of the consequence. However, we discover more data as we peel the layers off the onion. The layers constitute the different indices of performance and outcome, and the nucleus is the main measure of performance.

i. KPIs are overall performance indicators that concentrate on critical output or output elements. For periodic use, only a restricted, manageable amount of KPIs can be maintained. It can be time consuming and money consuming to have too many (and too complicated) KPIs.
ii. KPIs are systematically used as the value of KPIs is derived almost entirely from their continuous use over a number of projects.
iii. Collection of data must be as straightforward as possible.
iv. To decrease the effect of particular project factors, a large sample size is needed. KPIs should therefore be intended to be used on any construction project.
v. Measures or indicators must be recognized, understood and owned throughout the organisation in order for performance measurement to be efficient. KPIs are going to have to develop and a set of KPIs are likely to be subject to change and refinement.
vi. KPI graphic displays must be easy to design, easy to update, and easy to access.

With the above-mentioned factors in mind, a set of KPIs including objective indicators and subjective ones is developed to measure the performance of a construction project. Objective indicators include; construction time, speed of construction, time variation, percentage net variation over final cost, net present value, accident rate, environment

impact assessment and scores. Whiles subjective indicators include; quality, functionality, end-user's satisfaction, design team's satisfaction and construction team's satisfaction (Chan and Chan, 2004).

2.6.3 Performance Measurement

Performance measurement is the process whereby an organisation establishes the parameters within which programs, investments, and acquisitions are reaching the desired results (Yang et al., 2010). Neely et al. (2002) defined performance measurement as the process of quantifying the efficiency and effectiveness of past actions, and a performance measure was defined as a parameter used to quantify the efficiency and/or effectiveness of past actions. Bititci et al. (1997) clarified the difference between performance management and measurement and identified performance measurement as the method of determining how good organisations or people have achieved their goals, while performance management is a closed loop control system that implements policies and strategies and receives feedback from different levels in order to achieve them. The performance measurement method is generally determined by a number of factors, including both economic and non-financial indicators.

2.6.3.1 Importance of Performance Measurement

Performance measurement's primary aim is to assess and enhance performance effectiveness and quality and identify possibilities for progressive performance changes (Wegelius-Lehtonen, 2001). Pillai et al. (2002) claimed that project-based performance measurement can help assess a project's general performance at any stage in its life cycle. As mentioned in Yang et al. (2010), Maurel et al. (2008) asserted that measuring performance can help businesses define their strategies, quantify strategic performance,

and increase their competitive advantage. Ahadzie et al (2008a, b) regarded that project managers ' performance measurement could help predict project manager performance at the very start of the projects and provide the managers with a reference for improvement.

2.6.3.1.1 Team Building

Team building is implemented to meet an organisation's expectations. In this arena, some indicators are combined to assist maintain and stabilize the atmosphere of the project. This is performed primarily by the project manager. The indicators include: team formation and development (entering the team, adapting working methods and establishing great internal interactions); people management (appreciating team members ' strengths and weaknesses, listening to their problems and establishing a culture of mutual respect); low staff turnover (motivating teams and enjoying the job of the organisation).

2.6.3.1.2 Leadership

The indicator factors of leadership are paramount to realising a common goal within the organisation. They are therefore aligned by the project manager to allocate tasks and provide directions. The indicators include: *monitoring and evaluation* (evaluating project performance parameters to ensure that deficiencies are addressed quickly); *forward thinking* (foreseeing problem issues and taking action to avoid them); *responsibility* (taking responsibility for the tasks and not delegating blame, understanding individual’s needs, protecting team members’ interests); *direction* (offering guidance and providing help, advice and assistance as appropriate) ;*delegation* (delegating and empowering the right people with appropriate tasks and responsibilities, ensuring effective upstream reporting of task progress & performance);

assertiveness (having confidence to deal with problems; letting people know what you want in an effective manner); and *flexibility* (being able to adapt to different situations; understanding and appreciating different and opposing perspectives on issues).

2.6.3.1.3 Decision-Making

Decision making is an essential component of contemporary administration. Every organisation, as its strong foundation, is based on making choices. When it comes to decision making, the project manager is the lead individual. The grouped indices therefore include the role of the project manager. These indicators include: clear decision-making approach (unbiased and objective decisions, understanding of when to make choices or take into account other people's comments; awareness of the wider impact of choices made); recognition of significant issues (prioritization of issues in line with their impact on project success); *Safety management and awareness (including health and safety risks and construction activities to ensure the well-being of those involved in the project) ; problem solving (taking a thorough and well-thought-out approach to solving unforeseen problems) ; risk management (including risks, discussing them with team members and dealing with them in a way that mitigates their impact).*

2.6.3.1.4 Mutuality and Approachability

A valid organisational-public relationship measurement scale can provide professionals and academics with a means of measuring relationships as they evolve. There are restricted indicators grouped within this facet. They only cover the role of keeping the team's good internal relationships of trust. The two indicators in this factor were: mutuality and trust (building a culture of mutual respect and trust with the team, promoting staff who want more accountability, involving people in decision-making

and autonomy); and accessibility (breaking down hierarchical barriers to ensuring open and honest relations between all team members).

2.6.3.1.5 Honesty and Integrity

Indicators grouped within this factor were related to those contained within factor 4 but were more strongly connected to the project manager's self-portrayal with the other project team members. The indicators include honesty (being frank with both the client and the project team; managing expectations properly); integrity (maintaining commitments and adhering to agreed behaviour); engagement (setting project objectives and organisational mission before personal preferences); and acknowledging faults (understanding faults and how to overcome them)

2.6.3.1.6 Communication

Communication depends on the underlying notion of enhancing organisational culture. Effective communication within a defined organisation must always be necessary both internally and externally. Included in this factor are: communication (explaining problems to others through written, verbal, and non-verbal communication media); and knowledge transfer (transferring knowledge to others within the team in an open and efficient manner to ensure project objectives are achieved).

2.6.3.1.7 Learning, Understanding and Application

Exemplified by indices grouped within this factor was the method by which project managers could assimilate information and use it to formulate appropriate actions. The indicators include: rapid understanding of conditions and problems (the ability to quickly understand and understand situations); learning from mistakes (learning from experience and relevant areas in future projects) ; problem identification (anticipation and recognition of potential issues, problem solving before escalation) ; company awareness (comprehension) ; thoroughness (to guarantee no loose ends, to show

completeness and attention to detail) ; and technical expertise (demonstrating technical skills and knowledge related to the production function).

2.6.3.1.8 Self-Efficacy

Self-efficacy relates to a person's ability to perform behaviours necessary to generate particular performance achievements (Bandura, 1977, 1986, 1997). Therefore, self-efficacy represents trust in the capacity to regulate one's own motivation, behaviour, and social environment. Indicators grouped within this factor were usually linked by the project manager to elements of self-management that affected their job efficiency. The indicators include: job motivation (motivated by the need for the project to attain a healthy outcome, showing true concern about working well or achieving a standard of excellence); dedication (showing loyalty and commitment to the project and the organisation through their work ethics and commitment) ; initiative (demonstrating the ability to generate creative solutions to improve project effectiveness).

2.6.3.1.9 External Relations

For each organisation, having mutual internal connection is a wise strategy. Therefore, the final factor includes indicators dealing with external relations with non-project team members. The sustainability indicators include: managing customer relationships (creating and maintaining beneficial, open relationships with customer representatives in a manner that promotes long-term productive interactions); presentation skills (efficient marketing and team presentation and employee skills); business acumen (comprehending the wider company environment in which their organisation works); (taking account of the wider business needs of the organisation and aligning project management approaches with longer-term strategic objectives).

Following the extraction of the factor structure and the factor group analysis, the nine performance criteria and their related performance indices were tabulated and submitted to construction managers in order to choose which performance indices really represent.

2.7 Contribution of Organisational Culture to Construction Manager's Performance

Component of Organisational Culture

- Problem-solving while coping with day-to-day duties and issues necessary for the completion of defined job requirements.
- Behaviours and activities considered beneficial to the organisation and routinely used over time.
- Education and training of new employees about desired behaviours during activities and personal interactions.
- Insights into organisational traditions and customs about the proper way to perceive, think, and feel about tasks and actions.

Brown (1985) finds the following outcomes in the literature: conflict reduction, co-ordination and control, uncertainty reduction, and a higher motivation among the employees. The evolvement of an organisational culture consistent with the vision and strategy leads to an effective and competitive organisation. It is difficult to describe this competitive advantage in hard business facts, because it differs from organisation to organisation.

Organisational culture is an elusive phenomenon that characterizes the quality of the organisation's social climate and determines all employees ' dominant job positions. The status of organisational culture can be punished comparatively easily immediately after entering the organisation, but it is hard to define the word because it reflects a

phenomenon that appeals more to an observer's feelings than reasonable factors (Mohelska and Sokolova, 2015).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter three of this study focuses on the methodological approach that is used in finding solutions to the research problem. Generally, it brings out the philosophical ideologies, approaches and paradigms that fits the study in question and goes with the research aim and objectives to be established. How data will be collected is also discussed through the research design. Moreover, the determination of the sample size as well as the processes for this research is also explained. The chapter is then concluded with how the data will be analysed.

3.2 Design of the study

3.2.1 Research Design

The research design is basically how the researcher coherently and logically handles the research in choosing an appropriate strategy for the study. Therefore, the research design should be well addressed by either employing descriptive or correlational where the former focuses on the "what" by describing and former on establishment of relation between variables. This includes the scheme and measurement for the collection of data and the analysis of those data. Nonetheless, the design to use or not depends on the research problem (Trochim, 2006). Research design is the discovery made and the analysis conducted on the relationship within the research variables in an ultimate decision to communicate the choice of a procedure for the research. The research design is therefore the masterplan that stipulates the details of how the research is conducted (Nenty, 2009).

The research design adopted for the study is correlational since the researcher seeks to establish the relationship between organisational culture and construction managers

performance with respect to the former influence on the latter by its contributions. According to Leedy and Ormond (2005), correlational research establishes the relationship between two or more variables and same variables in two population.

3.2.2 Research Strategy

According to Remenyi et al. (2003), research strategy is the processes and the path which the research study follows. This is said to be the general orientation of the research as explained by Bryman (2008). There is significantly large connection within research ways even though there are several strategies to select from (Saunders et al., 2009). Most importantly, the selection of the research strategy should be well suited to your research among case study, experimental and survey research strategies.

This research gathers numerical description of opinions and attitudes of a population through the study of a sample of the target population, thus, the survey approach is the best suited strategy for this research study. Therefore, a questionnaire survey was designed and distributed to the sample chosen for the study to collect data.

3.2.3 Research Approach

In the process of building or testing a theory in research, two approaches are normally discussed by literature for that purpose (Saunders et al., 2009). Choosing the right research approach therefore leads to choosing an appropriate research paradigm for the study (Saunders et al., 2009; Bryman, 2009). In a scientific research, to better draw a good conclusion the two-best route in research approaches are the deductive and inductive approaches (Babbie and Halley, 2007). Explained below are the two research approaches;

3.2.3.1 Deductive Research

The deductive research is established through the gathering of facts based on the perspective that, the deductions being made is operating from the general to the specific (Collis and Hussey, 2013; Burney, 2008). According to Richardson and Robinson (2007), the following procedure is adopted when deducing hypothesis from theory in deductive logic of research: the way to test the variables termed as operationalization of hypothesis to find out the connection between distinct thoughts as well as variables; examining the hypothesis; proofing as well as changing of the results and checking the theory with the application of the outcomes. This method of constructing theory and how the theory tested revealing to that ideal to trial questioning is more important than even the underlying the basics of the researcher's structure. There is always a connection between the positivist paradigm and the philosophical theories, therefore both are linked with the deductive approach (Gill and Johnson, 2002).

3.2.3.2 Inductive Approach

Inductive research may be used by the researcher to scrutinize the study with the idea of building a hypothesis to contribute to theories and knowledge by means of gathering as well as examining information. Gill and Johnson (2002) showed the way to adhere to the departure route; thus, the way by which social prodigy is formed with the intention of providing answers to results. The result therefore emphasises on the frameworks, build hypothesis and improve on the theories (Crowther and Lancaster, 2008).

3.2.3.3 Selected Research Approach

The researcher adopted quantitative research method in collecting data using questionnaire from respondents. This is because the researcher had to determine the

concepts that present significant aspects of the problem under investigation. These identified concepts were then transformed into observables to enhance quantitative empirical testing.

3.2.4 Research Methods

The research method used by the researcher in selecting a suitable method or process in the collection of data and how to analyse it (Silverman, 2004). These methods include the quantitative, the qualitative and the mixed method.

3.2.4.1 Quantitative research

According to Creswell and Creswell (2017), an inquiry into a human or social problem based on theory and hypothesis testing of variables that are measured using numbers and also the use of statistical procedures to analyse to confirm the truth within a particular theory or hypothesis is known as quantitative research. According to Kothari (2004), this method deals with the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion. Quantitative research is based on the measurement of quantity or amount (Coolican, 2017).

3.2.4.2 Qualitative Research

Denzin and Lincoln (2008) explains qualitative research deals with the relationship between the topics being studied and the investigator or researcher with an emphasis on the social meaning and construction on the aforementioned relationship. Accordingly, qualitative research is the metaphors, characteristics, definitions, meanings, concepts, descriptions and symbols of things (Berg, 2001).

3.2.4.3 Mixed Research Method

Mixed research is obtaining significant research through the triangulation of both quantitative and qualitative research methods through the provision of a richer

understanding of accounts and phenomena. Mixed research as a research design includes scientific inquiry into things and the philosophical assumptions made, (Tashakkori and Teddlie, 2003) and these philosophical assumptions guide the direction of the research in the collection and analysis of data and the combination of quantitative and qualitative research methods in the research problem and process phases of the study.

3.2.4.4 Adopted Research Method

This study uses the quantitative way of research in gathering of quantitative numerical information using questionnaires. The use of quantitative research for a study begins with data collection premised on theory or hypothesis and is followed with the application of descriptive or inferential statistics (Almalki, 2016). In a broader sense, it can also be referred to as comprising a collection of numerical data and as demonstrating a view of the relationship between theory and research as deductive, a predilection for a natural science approach (particularly inclusive of positivism), and as having an objectivist conception of social reality.

3.3 Research Data

According to Patton (2002), the use of primary and secondary sources in finding solution to the research problem gives the study a sense of credibility. Data is an inseparable part of the research process since result or conclusion arrived from the study emanate from it. Nenty (2009) also explained that, there is the need to consider the relationship that exist between variables to properly analyse it. Actually, the actual work of the researcher is based on how data is collected. Most at times, the selection of the data collection tool is based on the research approach adapted. Kothari (2004) added that the nature of enquiry, funds availability, time and precision contributes to the determination of the appropriate method.

3.3.1 Types of Data

3.3.1.1 Primary Data

Field survey has been the main source of collecting empirical data in when it comes to primary sources of gathering data. This field work is concerned with mainly three aspects: the problem solving, the case study and the survey approach (Naoum, 2007; Hagget and Frey, 1997). The survey approach of collecting data was chosen for this research. Primary data was collected from Contractors in the Ghanaian construction industry registered with the Ministry of Water Resources Works and Housing. The choice of this approach was due to the role they respondents play in the study. Thus, to provide the needed information for the research.

3.3.1.2 Secondary Source of Information

Secondary sources of information are very critical in any study as it sets the pace for developing your field survey instruments such as interviews and questionnaires. These secondary sources are research databases, books, articles, conference papers and technical journals (Owusu-Manu, 2008). This study applies mainly the external and internal secondary sources as explained below.

3.3.1.2.1 External secondary source

These sources normally contain original research and are mostly primary sources of literatures. Example of some of these sources are newspapers, textbooks, magazines, internet sources and technical journals.

3.3.1.2.2 Internal Secondary Source

Financial information memoranda, plant and equipment registers, financial reports, magazines, information booklets, brochures, and annual reports published within

organisations and companies are some of the examples of internal secondary sources that were used in this research.

3.3.2 Source of data

Data sources are mainly either primary or secondary. This study resorted to the use of primary data by adopting the quantitative research approach which mostly employs the use of survey questionnaires as the data collection tool. Secondary information for this study was obtained from undertaking an in-depth desk literature review and identifying pertinent variables which helps in establishing the influence of organisational culture on the performance of construction managers, critical construction organisational variables, key indicators of construction managers performance and the contribution of organisational culture to performance of construction managers. The variables obtained were strategically compounded into close-ended questionnaires which were distributed to the target population to solicit their matchless expertise in meeting the objectives of this study.

3.3.3 Data Collection Instrument

When a questionnaire is well designed, it allows the respondents to easily understand the questions or interviews and give the required information for better analysis and interpretation of the data (Crawford, 1997). Questionnaires are designed carefully to collect information that are statistically reliable for analysis on the topic of discussion. Questionnaires aids researchers in collecting useful information from the respondents with well-structured designed questions (Saunders et al., 2009, Neville, 2007).

The questionnaires developed for this study was carefully designed to answer the research objectives of the study. Effort was put in to make sure that they were clear and concise and especially straight to the point. The questions sent to the respondents, were structured in two parts. One part collecting general information and the other part

collecting answers for the objectives of the study. A five-point Likert scale was adopted in this study to measure the response of each respondent.

3.3.4 Analysis of Data

What to do with the results of a research process is a vital component of any study that is conducted. Actually, the purpose of research is to arrive at a finding which solves the problem(s) raised earlier. In arriving at a firm and credible finding the analytical tool adapted for the study should be thorough and robust. Kwofie (2015) opined that this process generally refers to how data are organised, examined, categorized, tabulated, interpreted and tested. There are several ways in which data is tested statistically. The decision to use one method over the other depends on the type of analysis, accuracy of work and the kind of information which the researcher want to get from the primary data. The various methods are also influenced by the research design, data distribution and type of variable. Mostly, normally distributed data uses the parametric tests while the non-normally distributed data adopts the non-parametric tests (Saunders et al., 2009).

3.4 Sampling

The research involves the collection of primary data from professionals associated with the study. These professionals were carefully selected or sampled as further described below;

3.4.1 Population of the Study

The study had one target respondent namely the construction mangers. This research is basically set around construction projects which is the job of top management, specifically construction managers in the Ghanaian construction industry. The population of the study is therefore the D1/K1 and D2/K2 contractors in the Ghanaian Construction Industry. The sample frame comprises the number of registered

contractors with the Ministry of Water Resources Works and Housing within the category division. From the ministry the sample frame is three hundred and fifty-seven (357) within the Accra Metropolis.

3.4.2 Sampling Technique

The act of choosing a part of a population in place of the whole population and the outcome from the selected of the group (Burns and Groves, 1997). Among many benefits of selecting a sample are; less costly and time saving as compared to collecting information from a group of respondents. The selected sample should correspond to the population under study. This therefore must pave way for a general principle for the results to define the population (Burns and Groves, 1997). Probability and non-probability are the two kinds of sampling (Burns and Groves, 1997).

Probability sampling techniques are those cases whereby each individual in the population has an equal chance or likelihood of being selected. It is mostly used when the population is known. Probability sampling technique gives us the opportunity to calculate for confidence interval and margin of errors (Bryman, 2004). Though this approach is flout as being very costly and time consuming, it is seen to be superior to the nonprobability sampling technique because of the odds of any unit to be selected can be calculated, but they do not have to be the same though. Examples of probability sampling techniques are, cluster sampling, simple random sampling, systematic sampling, stratified random sampling, and multi-stage random sampling (Saunders et al., 2009).

Non-probability sampling techniques are those cases whereby it is impossible for each individual in the population to be selected by chance. Non-probability sampling technique does not give us the opportunity to calculate confidence interval and margin of errors, but this approach is seen as very easy and cost-effective (Bryman, 2004).

Example of nonprobability sampling techniques are: quota sampling, convenience sampling, purposive sampling, self-selection sampling and snowball sampling. Though researchers who adopts quantitative research approach may see the use of this technique as inferior, it comes out to be very useful for exploratory researches where we prove a theory whose existence have already been confirmed in literature. This is the case for this study. Thus, this study adopted the use of purposive sampling technique, which is a non-probabilistic sampling tool.

3.4.2.1 Simple random Sampling

This research uses the simple random sampling in determining the sample size of the population from among the 357 contractors within the Ghanaian construction industry. The 357 includes Engineers, Architects, Quantity surveyors etc. who have that responsibility of managing construction works. The Sample size determination is illustrated as follows;

In determining the sample size for this study, the Yamane's Formulae was used to arrive at an appropriate and reachable number of construction managers for the study;

Yamane's Formulae (n)= $\frac{N}{1+N\,(e)^2}$

Where = N is the population (357) and = e is the percentage of precision (± 7%)

Yamane's Formulae (n) $= \frac{357}{1+357\,(0.07)^2}$

$= 129.851$

The targeted respondents are approximately = 130

3.4.2.2 Purposive Sampling

The purposive sampling technique, also called judgment sampling, is the deliberate choice of a participant due to the qualities the participant possesses. It is a non-random

technique that does not need underlying theories or a set number of participants (Etikan et al., 2016). Simply put, the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience Bernard (2002). It is typically used in quantitative research to identify and select the information-rich cases for the most proper utilization of available resources (Patton, 2002).

3.5 Validity of the Study

Researchers in the social sciences study complex constructs for which valid and reliable measures are needed. The measure should be brief, clear and easy to administer. The measure must be appropriate for the use of the targeted population.

3.5.1 Validity

There are three validity kinds that can be proved; validity of construct, content, and criterion. The validity of the content refers to the extent to which the items on a measure evaluate the same content or the sampling of the content material in the measure (Rubio, Berg-Weger, Tebb, Lee and Rauch, 2003). Validity of content can be characterized as facial validity-where the measure appears to be true "on the face" or logical validity-where strict processes are engaged, such as using expert panels to assess the validity of a measure's content. The validity of the criterion is shown by discovering a statistically significant connection between the measure and the criterion. The validity of the criterion is regarded a gold standard and a correlation is generally used to evaluate the statistical connection. Postdictive, predictive and simultaneous are the three kinds of criterion validity. If the criterion has taken place, the validity is postdictive. If the criterion exists at the same time as the measured construct, the validity is concurrent. Validity of the construct is described as the extent to which a theoretical construct or trait can be measured by the test (Anastasi and Urbina, 1997). Factorial, recognized

groups and convergent and discriminant (divergent) validity are three types of construct validity. Factorial validity can be evaluated by conducting an exploratory factor analysis. The validity of the known group is determined by discovering statistically significant distinctions in the score between a group with known ownership of a measure and a group with no characteristic and convergent and discriminating validity using multitrait-multimethod matrix (Rubio et al., 2003).

The study adopted the criterion validity to measure the how organisational culture influences construction managers performance. The study adopted a correlational research design to achieve the stated aim of the study and since criterion validity has correlation in its process of measure.

3.6 Chapter Summary

This chapter has discussed the methodology that was used in delivery this research. The design used for this has been discussed so as the processes of the research. The approach and strategy in the selection of an appropriate method was also reviewed in this chapter. The data collection method appropriate for this study was also discussed. The chapter also included topics such as the sources of data, population and sample size as well as the data analysis method, the questions were reframed and corrected for data collection.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter comprises data analysis from the results obtained from the respondents using questionnaires. It consists of four sections, the first section displayed and results discussed on the demographic of respondents, critical construction organisational cultures variables have been discussed, the third section discussed the key indicators of construction managers performance and final section delved into the contributions of organisational culture to the performance of construction managers.

Due to the study been hinged on quantitative research method, descriptive statistics and mean score ranking were employed.

4.2 Demographic Information

This section was mainly added to the questionnaire to validate the responses that would be obtained. The data obtained was principally primary data from the retrieval of distributed questionnaires online and personally. According to Rea and Parker, (1997), the correctness or accuracy of the survey results and its interpretations is dependent on the response level attained during the survey. It makes it key to note the number of responses against your sample size before proceeding to analyse the data. Also, it is key to conduct data screening that is taking out responses from people who didn't meet the criteria for sampling. The sample size for the quantity surveying practitioners was 130, but after data screening the response received, the number being analysed is 101 representing 77.69% response rate. The response rate was considered appropriate for analysis, because according to the avowal of Moser and Kalton (1979), the results of a survey could be considered as insufficient and biased if the return rate is lower than 30 – 40% of the totals distributed or sampled. Hence, there is the need to provide a

screen to limit or abhor incompetent respondent from carrying out the survey. Thus, giving out the purpose for strategically adding up this section and purposefully asking the questions which were set out under this section. It must be reiterated that, if the response is validated, then there is no wrong or right answer to the response that the expert gave, but it would merely show the characteristics or features of the target population who took up the survey. The demographic analysis of the respondents is analysed in the sections under section 4.2 in descriptive tables and figures.

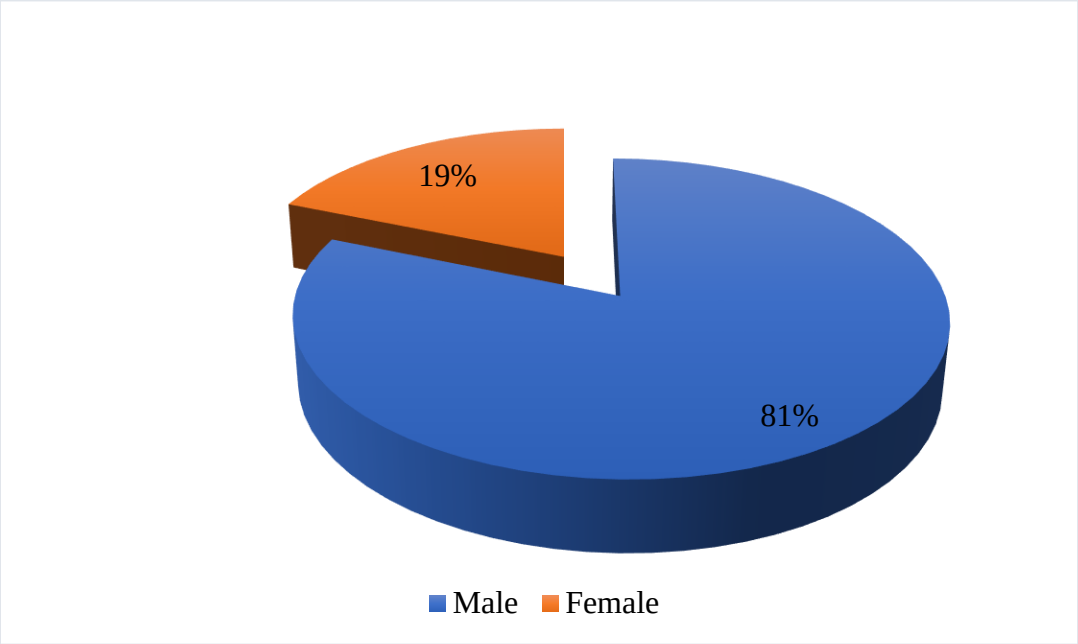

Figure 4.1 Gender of Respondents

Source: Field survey (2019)

The challenges of male dominants in the construction industries is faced mostly by advanced nations due to gender equality. Hence, this concept gives the impression that the construction industries are largely male dominated (Aulin and Jingmond, 2011; Sang and Powell, 2012). It is ideally nice to recognize this reality, that in nature building is masculine and females are a tiny proportion of their workers and professionals. Figure 4.1 shows that a male-dominated sector is the construction industry. One hundred and thirty (130) survey questionnaires were distributed; however, a total of

101 were retrieved, out of which eighty-two (82) were male, representing 81%, whiles nineteen females (19) respondents representing 19%.Ginige et al.(2007) propounded a theory which stated “in UK, the percentage of women in construction with respect to the part of management is less than the entire construction workforce. The results obtained clearly attest to this fact. According to Martin and Barnard (2013), the organisational structure in the construction industry is slowed by the involvement of females into males. The study confirmed the situation in Ghana and has agreed with Ayarkwa et al. (2012) that the construction industry is male dominated in Ghanaian.

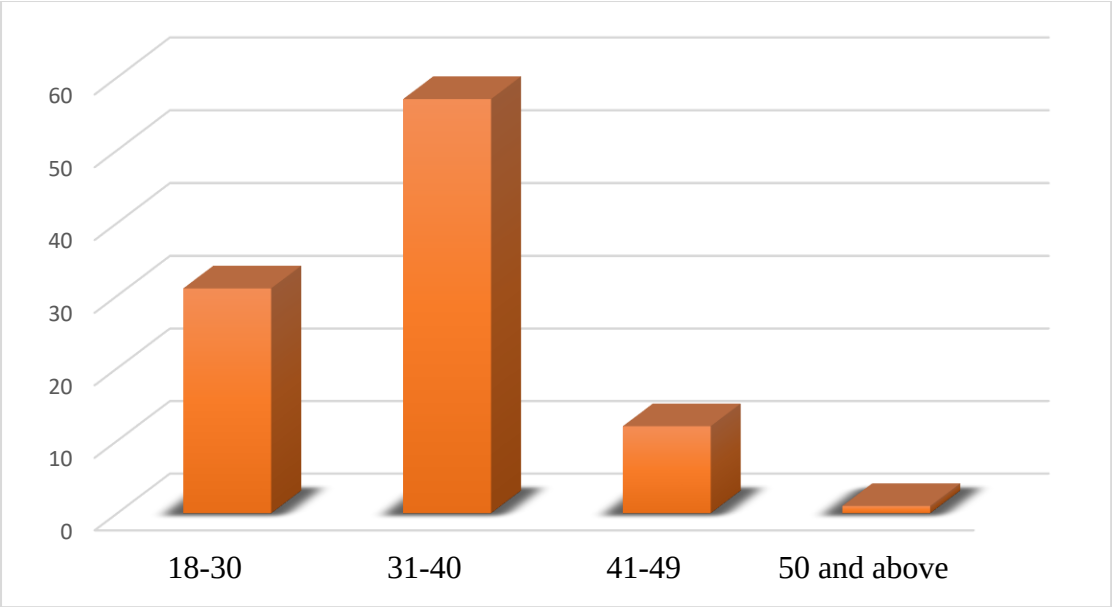

Figure 5 Age Group of Respondents

Source: Field survey (2019)

As shown in figure 4.2 above, the survey reveals that 31 of the respondents are 18-30 years representing 30.7%, 56.4% representing 57 respondents aged between 31-40. 11.9% represents 12 respondents of age within 41-49 whiles 50 and above had one respondent representing 1%. Proving beyond undisputable facts, it is seen that people who are of the ages between 31-40 are more energetic and have decisive experience in construction-wise to carry out their responsibilities without flaws.

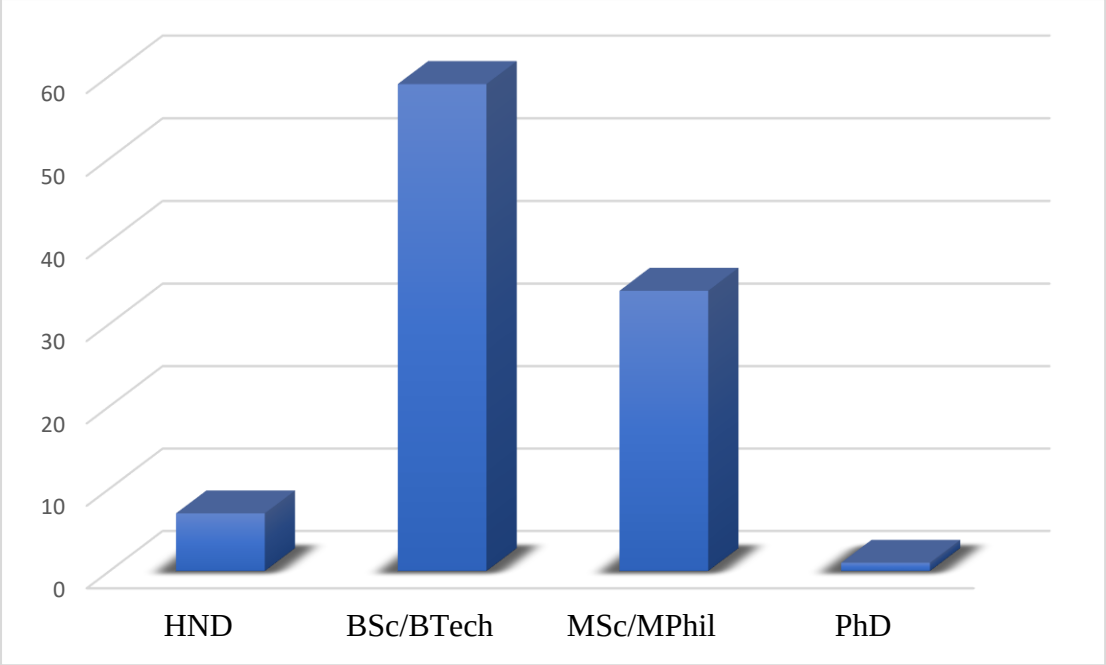

Figure 6 Level of education of respondents

Source: *Field survey (2019)*

The respondents who participated in the questionnaire survey have their educational levels attained reported in Figure 4.3. Educational level ranged from CTC, WASSCE, HND, BSc/BTech, MSc/MPhil and PhD. A total of 59 respondents had BSc/BTech degree representing 58.4%. 34 respondents representing 33.7% had MSc/MPhil degree, 6.9% of the respondents had HND diploma of 7 numbers and 1 of the respondent education level attained was PhD representing 1%. Is quite unfortunate that author had no respondents representing CTC and WASSCE.

94 participants of 101survey replies have graduated from the University, representing a larger portion of participants. Based on their understanding, they can give a proper sound decoding to both dependent and independent variables.

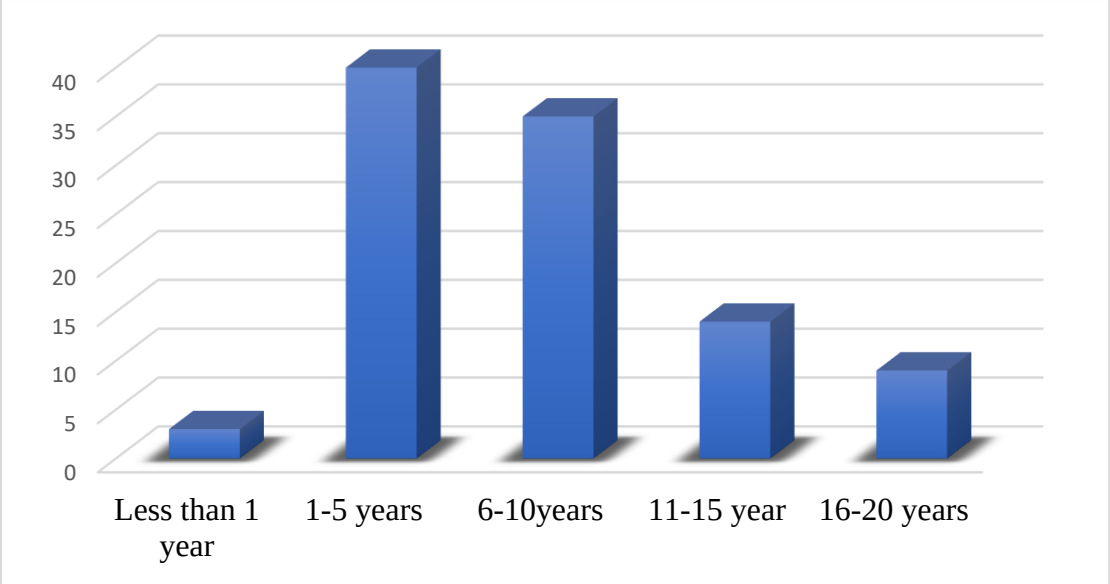

Figure 7 Experience of respondents

Source: Field survey (2019)

From Figure 4.4, the expertise of the participants that took part of the solicit shows participants with less than 1 year of experience totalling 3 representing 3%. 1-5 years of experience (40 respondents) representing 39.6%, 6-10 years of experience with the organisation had 35 respondents participating in the survey representing 34.7%, 14 respondents were within the 11-15 years of experience representing 13.9% and a total of 9 respondents representing 8.9% had between 16-20 years of experience with their current organisations.

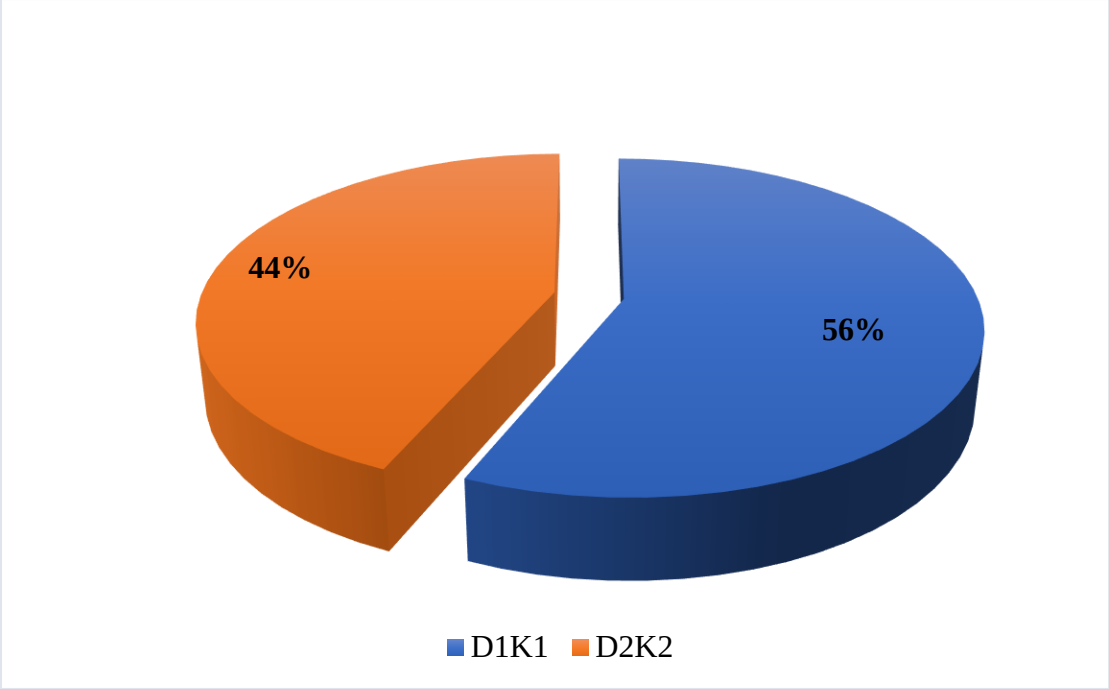

Figure 8 Firm classification

Source: Field survey (2019)

Figure 4.5 reveals the total number of D1K1 and D2K2 companies that have registered with the Ministry of Water Resource Works and Housing that have participated in the questionnaire survey. It also confirms the technical and financial status of these firms and the influence of the respondent's responses.

4.3 Mean Score Ranking

The mean score rankings of the various variables, indicators and contributions under each dimension is well-displayed in Table 4.1, 4.2 and 4.3. The variables, indicators and contributions are arranged in descending order of means, with the highest mean being ranked first and the next highest following suit chronologically under each section. Overall, the mean of each section is provided and ranked in Table 4.1, 4.2 and 4.3. Ahadzie (2007) opined that where two or more variables have the same mean, the one with the lowest standard deviation is given the highest priority in terms of ranking. This is because standard deviation measures the consistency of agreement between the

respondents' interpretation, and hence, the smaller the standard deviation figure the better (Owusu-Manu et al., 2018). Yi (2011) was of the view that a standard deviation less than 2.000 is considered as the best, because it shows a small degree of variation, but a high level of agreement between how the respondents interprets the variables. Inspecting Table 4.1, 4.2 and 4.3, it can be concluded that all the variables had a standard deviation less than 2.000, hence depicting and confirming that the respondents of this survey clearly interpreted all the variables analogously.

4.4 Critical Construction Organisation Culture Variables

In quest to achieve the aim of the study, critical construction organisational culture variables identified through extant literature have been subjected to rating, using five-point Likert scale of 1-5 and have been analysed using mean score ranking.

Table 4.1: Critical Construction Organisational Culture Variables

Descriptive Statistics				
Variables	N	Mean	Std. Deviation	Score Ranking
Decision making rules	101	4.0891	1.02077	1st
Delivery speed and time	101	4.0792	0.98674	2nd
Setting of targets for employees	101	4.0792	1.03618	3rd
Access to timely and accurate information	101	4.0594	1.01805	4th
Internal and external expectations	101	4.0396	0.97899	5th
Prioritized customer satisfaction	101	4.0198	1.11338	6th
Language (style of communicating, written or spoken)	101	4.0000	0.98995	7th
Image (organisation's general impression presents to the public)	101	3.9901	0.89994	8th
Gender sensitivity (respect for the individual regardless of sex)	101	3.9901	1.11799	9th
Level of education and literacy	101	3.9802	1.02937	10th
Boss-subordinate teamwork	101	3.9604	1.11284	11th
Employment regulations (respect for nation's established policies)	101	3.9406	1.15604	12th
Employees involvement	101	3.9406	1.07538	13th
Entrepreneurship	101	3.9307	1.11586	14th
Social responsibility acceptance	101	3.9109	1.00099	15th
Delegation (assigning task to employee)	101	3.9109	1.04975	16th
Sustainability	101	3.9109	1.14104	17th
Acceptance of change	101	3.9010	1.07243	18th
Risk taking	101	3.8614	1.02985	19th
Authority to employees to correct	101	3.8515	1.07132	20th
Product distribution system	101	3.8317	1.01064	21st
Separation of powers	101	3.8119	1.17229	22nd
Norms and customs	101	3.8119	1.06502	23rd
Uncertainty avoidance	101	3.7822	1.06399	24th
Number of employees	101	3.7525	0.96339	25th
Religion (respect for individuals' belief)	101	3.7327	1.24009	26th
Dress sense and clothes fashion	101	3.6238	1.05690	27th

Source: *Field Survey (2019)*

From Table 4.1, critical construction organisational culture variables that have been found after extensive extant literature review stood at twenty-seven (27). These

variables have been subjected to analysis through Mean Score ranking and the results displayed in Table 4.1. In descending order, Decision making Rule was ranked 1st with a mean score of 4.0891, followed by delivery speed and time, setting of targets for employee, access to timely and accurate information and Internal and External expectations were ranked as the top first five critical variables with a mean score of 4.0792, 4.0792, 4.0594 and 4.0396 respectively. The bottom last five critical variables after having been analysed by mean score ranking were norms and customs, uncertainty avoidance, number of employees, religion and dress sense and clothes fashion with mean score of 3.8119, 3.7822, 3.7525, 3.7327 and 3.6238 respectively. Critical variables for construction organisational culture is very important in ensuring the influence on construction managers performance within the Ghanaian construction industry.

4.5 Key Indicators of Construction Manager's Performance

In achieving the influence of organisational culture on the performance of construction managers, is imperative to identify the key indicators of construction manager's performance couple with the critical construction organisational variables. This study has achieved that by review extant literature and eight (8) constructs have been identified namely: team building, leadership, decision making, mutuality and approachability, honesty and integrity, communication, self-efficacy and external relation. The key indicators totalling forty-one (41) have been found out these constructs. The descriptive statistics of these key indicators are outline in Table 4.2.

Table 4.2: Key Indicators of construction Managers Performance

Key Indicators	Mean	Std. Deviation	Score Ranking
Technical expertise	4.3366	0.72494	1st
Commitment	4.2970	0.71477	2nd
Problem solving	4.2871	0.76598	3rd
Managing client relations	4.2673	0.83536	4th
Integrity	4.2376	0.77651	5th
Self-discipline	4.2376	0.83843	6th
Responsibility	4.2277	0.77306	7th
Delegation	4.2277	0.66153	8th
Recognizing key issues	4.2178	0.84385	9th
Time management	4.2079	0.91997	10th
Understanding organisational objectives	4.1980	0.64838	11th
Dedication	4.1980	0.67852	12th
Honesty	4.1782	0.94230	13th
Achieving production targets	4.1683	0.83749	14th
Clear decision making	4.1584	0.79665	15th
Risk management	4.1485	0.88754	16th
Enthusiasm	4.1485	0.84126	17th
Safety management and awareness	4.1287	1.03599	18th
Co-ordinating skills	4.1188	0.63698	19th
Forward thinking	4.1188	0.82810	20th
Problem identification	4.1089	0.77332	21st
Direction	4.0990	0.76818	22nd

Approachability	4.0990	0.72808	23rd
Monitoring and evaluation	4.0990	0.87755	24th
Presentation skills	4.0891	0.69425	25th
Thoroughness	4.0792	0.80849	26th
Learning from mistakes	4.0693	0.95139	27th
Task motivation	4.0594	0.83453	28th
Initiative	4.0495	0.81702	29th
Commercial awareness	4.0297	0.81799	30th
Ambition	4.0099	0.79366	31st
Team formation and development	4.0000	0.80000	32nd
People management	4.0000	0.66332	33rd
Mutuality and trust	3.9703	0.81799	34th
Supportiveness	3.9604	0.89354	35th
Assertiveness	3.9406	0.79777	36th
Flexibility	3.9406	0.89243	37th
Rapid understanding of situations and issues	3.9208	0.78337	38th
Business acumen	3.9010	0.81860	39th
Admitting weakness	3.7327	1.08527	40th
Maintaining low staff turnover	3.4554	1.06325	41st

Source: *Field Survey (2019)*

From Table 4.2, the first ten (10) indicators ranked by the respondents have at least one indicator drown from the eight constructs which is good news to this study because it has confirmed that the constructs are importance when it comes to key indicators of construction manager's performance. The mean score of 4.3366 was ranked 1st representing technical expertise and commitment was ranked 2nd with score of 4.2970. Problem solving, managing client relation, integrity, self-discipline, responsibility, delegation, recognising key issues and time management were ranked 3rd, 4th, 5th, 6th, 7th, 8th, 9th and 10th with mean score ranking of 4.2871, 4.2673, 4.2376, 4.2376, 4.2277, 4.2277, 4.2178 and 4.2079 respectively. The respondent ranked maintaining low staff turnover as the 41st indicator with man score ranking of 3.4554.

4.6 Contribution of Organisational Culture to Construction Manager's Performance

According to Ravasi and Schultz (2006), organisational culture intertwines with communal perceptions guiding the happenings inside the organisation throughout substantial and appropriate behaviour for different outcomes.

Table 2.3: Contribution of Organisational Culture to Construction Managers' Performance

Contributions	Mean	Std. Deviation	Ranking
Achievement of results	4.2772	0.81386	1st
Enhances implementation of policies	4.1485	0.87620	2nd
Gives room for employee training	4.1188	0.89763	3rd
Brings about innovation	4.1188	1.05154	4th
Makes organisation distinct from others	4.1089	0.98895	5th
Enhance competitive	4.0990	0.80629	6th
Serves as guidelines for employees	4.0990	0.80629	7th
Brings out the best in employees	4.0693	1.02233	8th
Promotes healthy competition	4.0594	0.91457	9th
Improves reporting system at workplace	4.0495	1.01367	10th
Boosts performance of workers	4.0297	1.10865	11th
Unites employees from different backgrounds	3.9703	0.91055	12th
Improves punctuality	3.9703	0.97422	13th
Increases loyalty and motivation to firm	3.9604	1.08555	14th

Source: Field Survey (2019)

From Table 4.3, achievement of results appeared to be paramount and confirming the fact that every organisation seeks to maximise profit. Hence, achievement of results was ranked 1st with a mean score of 4.2772. Again, respondents confirmed the importance of policy through organisational culture by ranking implementation of policies 2nd (mean score = 4.1485). To be able to achieve the results of an organisation through policy implementation, is vital to pay attention to the people involve in these processes and one of the ways to do that is through career development. As a result, the

respondent who participated in the survey ranked gives room for employee training 3rd with a mean score of 4.1188. Chronologically, brings about innovation was ranked 4th with mean score of 4.1188. Though, both 3rd and 4th ranked contributions had the same mean score, the standard deviation was used in determining which one comes closer to "enhances implementation of policies" in terms of importance. The 3rd ranked contribution (gives room for employee training) had a standard deviation of 0.89763 which is much better in importance than the 4th ranked contribution (brings about innovation) with a standard deviation of 1.05154. The respondents ranked makes organisation distinct from others, enhance competitive, serves as guidelines for employees, brings out the best in employees, promotes healthy competition, improves reporting system at workplace, boosts performance of workers, unites employees from different backgrounds, improve punctuality and increases loyalty and motivation to firm 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th and 14th with mean score of 4.1089, 4.0990, 4.0990, 4.0693, 4.0594, 4.0495, 4.0297, 3.9703, 3.9703 and 3.9604 respectively.

4.7 Chapter Summary

This section analysis the information as well as the discussion of the information received from the field data. This part begun with questionnaire survey as well as descriptive statistics as a result of the data collected. A mean score rating was utilized to analyse specific objectives of the study. The study concludes with the analysis of the contribution of organisational culture to construction managers performance using the mean score ranking.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This research was undertaken to establish influence of organisational culture on performance of construction managers. The main aim for this study was to establish the contribution of organisational culture to the performance of construction managers through determination of critical construction organisation culture variables, key indicators of construction manager's performance and the contribution of organisational culture to construction manager's performance. This dissertation was divided into five main comprehensive chapters which were strategically formulated in helping the study achieve its main objectives.

Chapter one was a general introduction to the study, and it shows a synopsis of the whole study. Some key aspects of this chapter was the background to the study which provided a summary of literature on the topic under consideration; the problem statement which harnessed on the gap in literature the study intended to fill; the research aim, and objectives of the study which set out the vision and purpose for the study, and the research methods and scope which provided guides for attaining the aim of the study. Chapter two was where theoretical review, conceptual and empirical review of the organisational culture were dealt. This section was geared towards providing literature on the research objectives and generally keeping abreast with literature in the study area. Chapter three focused on the research methodology of the study. This section of the study was considered as very key to the entire research because it determines how the research is to be conducted, and it influences the type of data which is to be collected and the analysis which must be used. Hence, a good review of methods stands at the core of the entire study and influences the several sectors of the study. The

chapter four was left to the analysis of the findings of data retrieved from the survey and discussions of the findings thereof. In this study, the mean score ranking of descriptive statistics were employed as the analytical tools. This final chapter (Chapter five) presents a summary of the whole findings of the study, conclusions, limitations, recommendations and any directions for future researches in this area.

5.2 Research Objective Review

The aim of this study was to establish the contribution of organisational culture to the performance of construction managers. In order to achieve this aim, three strategic objectives were formulated. The achievement of these three exciting relevant objectives are discussed below:

5.2.1 Objective one: To determination of critical construction organisation culture variables.

The knowledge obtained from literature aided in the design of twenty-seven (27) critical construction organisational culture variables and tested on a number of construction managers. The question focused on the critical construction organisation culture variables. The data obtained was analysed using mean score ranking. The decision-making rule, delivery speed and time, setting of targets for employee, access to timely and accurate information and Internal and External expectations were ranked as the top first five critical variables which influence construction managers performance within the Ghanaian construction Industry.

5.2.2 Objective two: key indicators of construction manager's performance

With 41 key indicators of construction managers performance derived after the review of literature, a questionnaire was designed and answered by a number of construction managers to point out the key indicators of construction manager's performance. The data obtained was analysed using one sample t-test. Technical expertise and

commitment, Problem solving, managing client relation, integrity, self-discipline, responsibility, delegation, recognising key issues and time management were ranked as the most key indicators to construction management performance. The respondent ranked maintaining low staff turnover as the least of indicators to construction managers performance.

5.2.3 Objective three: contribution of organisational culture to construction manager's performance

With background knowledge from literature, a questionnaire was designed with 14 variables tested and tested on a number of construction professionals. The questions focused on the contribution of organisational culture to construction manager's performance. Mean score ranking was used to analyse the data. Achievement of results, enhances the implementation of policies, gives room to employee training and brings about innovation were ranked as the most of contribution to organisational culture to construction manager's performance while increasing loyalty and motivation to firm was ranked as the least.

5.4 Recommendation

Based on the findings of the research, the study recommends that construction managers should pay critical attention to the critical construction organisation culture variables as this could lead to management success as well as improve upon the quality-management. Below are some recommendations made

- Management needs to integrate organisational culture in the company's plans to achieve results and stay more competitive in the construction industry.
- Management needs to make employees see the significances of organisational culture with respect with the organisation's mission, vision and purpose.

- Construction managers should be willing to participate in exercise that will assist in identifying distinct construction organisational culture variables.
- Construction organisations like Ghana Institute of Contractors (GIOC), should organise more workshop for its members on importance of cultures at work place and its influence on company's image and the standard of work delivery.

5.6 Limitation of the Research

The main limitation for this study is the geographical scope because it only focused on the Greater Accra region and the methodological approach. The major limitation encountered during the study was mainly with the collection of data. The construction managers had very busy schedules hence some of them had little or no time to answer the questionnaires. Regardless of this difficulty encountered the validity and accuracy of the data obtained was not affected.

5.7 Direction for future Research

Attention is drawn to the need to further research into this area:

- How the Key indicators of construction management performance can create a positive link between an organisation's culture and success.

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APPENDIX

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
COLLEGE OF ART AND BUILT ENVIRONMENT
FACULTY OF BUILT ENVIRONMENT
DEPARTMENT OF CONSTRUCTION TECHNOLOGY AND MANAGEMENT

Dear Sir/Madam,

INVITATION TO PARTICIPATE IN A MASTER OF SCIENCE (MSc) RESEARCH ON *"Influence of Organisational Culture on Performance of Construction Managers".*

The Ghanaian construction industry has begun to ascertain the organisational culture in successful execution of construction projects. I am currently undertaking a study aim at establish the contribution of organisational culture to the performance of construction managers.

In addressing the stated aim, I am conducting a questionnaire survey to solicit information from building construction organisations (contractors) in Ghana. This study will help outline influences of organisational culture on the performance of construction managers in the Ghanaian Construction Industry.

This study is solely for academic purposes and your responses will be treated as STRICTLY CONFIDENTIAL. Participating individuals will be provided with the findings of the study upon request.

I would like to thank you for accepting to assist and cooperate towards this study.

Yours Sincerely,

Emmanuel Senyo Dorkenoo
MSc Student
0209026663
senyokweku.sk@gamil.com

Dr. Emmanuel Adinyira
Project Supervisor
eadinyira.cap@knust.edu.gh

SECTION A: DEMOGRAPHIC INFORMATION

(please check box where applicable)

Position of respondent……..…….

1. Gender:

- Male **[ ]**
- Female **[ ]**

2. Which **age group** do you belong?

- 18- 30 **[ ]**
- 31-40 **[ ]**
- 41-49 **[ ]**
- 50 and above [**]**

3. What is your **Level of Education**

- Senior High **[ ]**
- Polytechnics **[ ]**
- University **[ ]**

5. How long have you been working in this organisation?

- 0-5 years **[ ]**
- 6-10years **[ ]**
- 11-15 year **[ ]**
- 16-20 years **[ ]**
- Above 20 years **[ ]**

6. Which classification does your firm operates?

- D1K1 **[ ]**
- D2K2 **[ ]**

SECTION B: Critical Construction Organisation Culture Variables

On a scale of 1 to 5, kindly rank how the under listed variables relates to the practices of your organisation, using;

1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree & 5 = Strongly agree

S/N	VARIABLES	1	2	3	4	5
1	Separation of powers					
2	Image (organisation's general impression presents to the public)					
3	Dress sense and clothes fashion					
4	Product distribution system					
5	Number of employees					
6	Language (style of communicating, written or spoken)					
7	(respect for individuals' belief)					
8	Delivery speed and time					
9	Level of education and literacy					
10	Internal and external expectations					
11	Employment regulations (respect for nation's established policies)					
12	Decision making rules					
13	Gender sensitivity (respect for the individual regardless of sex)					
14	Norms and customs					
15	Employees involvement					
16	Social responsibility acceptance					
17	Acceptance of change					
18	Risk taking					
19	Delegation (assigning task to employee)					
20	Authority to employees to correct					
21	Boss-subordinate teamwork					
22	Access to timely and accurate information					
23	Prioritized customer satisfaction					
24	Setting of targets for employees					
25	Sustainability					
26	Entrepreneurship					
27	Uncertainty avoidance					
	Any Others (please specify and rank)					

SECTION C: Key Indicators of Construction Manager's Performance

The alternatives are indicators of performance. Kindly rank the indicators according to how you experience it in your organisation, using

1 = Highly not similar to our firm

2 = Not similar to our firm

3 = Neutral

4 = Similar to our firm

5 = Highly similar to our firm

S/N	INDICATORS	1	2	3	4	5
	Team building					
1	Team formation and development					
2	People management					
3	Maintaining low staff turnover					
4	Supportiveness					
	Leadership					
5	Monitoring and evaluation					
6	Forward thinking					
7	Responsibility					
8	Direction					
9	Delegation					
10	Assertiveness					
11	Flexibility					
	Decision-Making					
12	Clear decision making					
13	Recognizing key issues					
14	Safety management and awareness					
15	Problem solving					
16	Risk management					
17	Achieving production targets					
18	Co-ordinating skills					
	Mutuality and approachability					
19	Mutuality and trust					
20	Approachability					
	Honesty and Integrity					
21	Honesty					
22	Integrity					
23	Commitment					
24	Admitting weakness					
	Communication					
25	Rapid understanding of situations and issues					
26	Learning from mistakes					
27	Problem identification					
28	Commercial awareness					
39	Thoroughness					

30	Technical expertise					
	Self-efficacy					
31	Task motivation					
32	Dedication					
33	Initiative					
34	Enthusiasm					
35	Self-discipline					
36	Time management					
37	Ambition					
	External Relations					
38	Managing client relations					
39	Presentation skills					
40	Business acumen					
41	Understanding organisational objectives					
	Any Others (please specify and rank)					

SECTION D: Contribution of Organisational Culture to Construction Manager's Performance

On a scale of 1 to 5, kindly rank how the under listed variables relates to the practices of your organisation, using;

1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree & 5 = Strongly agree

S/N	CONTRIBUTION	1	2	3	4	5
1	Enhance competitive					
2	Achievement of results					
3	Gives room for employee training					
4	Increases loyalty and motivation to firm					
5	Promotes healthy competition					
6	Boosts performance of workers					
7	Serves as guidelines for employees					
8	Makes organisation distinct from others					
9	Unites employees from different backgrounds					
10	Improves punctuality					
11	Enhances implementation of policies					
12	Brings out the best in employees					
13	Improves reporting system at workplace					
14	Brings about innovation					
	Any Others (please specify and rank)					

END OF QUESTIONNAIRE SURVEY

THANK YOU