

**Impact Of Perceived Leadership Behaviours Of Principal Partners On
Work Outcome Of
Graduate Quantity Surveyors**

BY

KNUST

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CERTIFICATE OF ORIGINALITY

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

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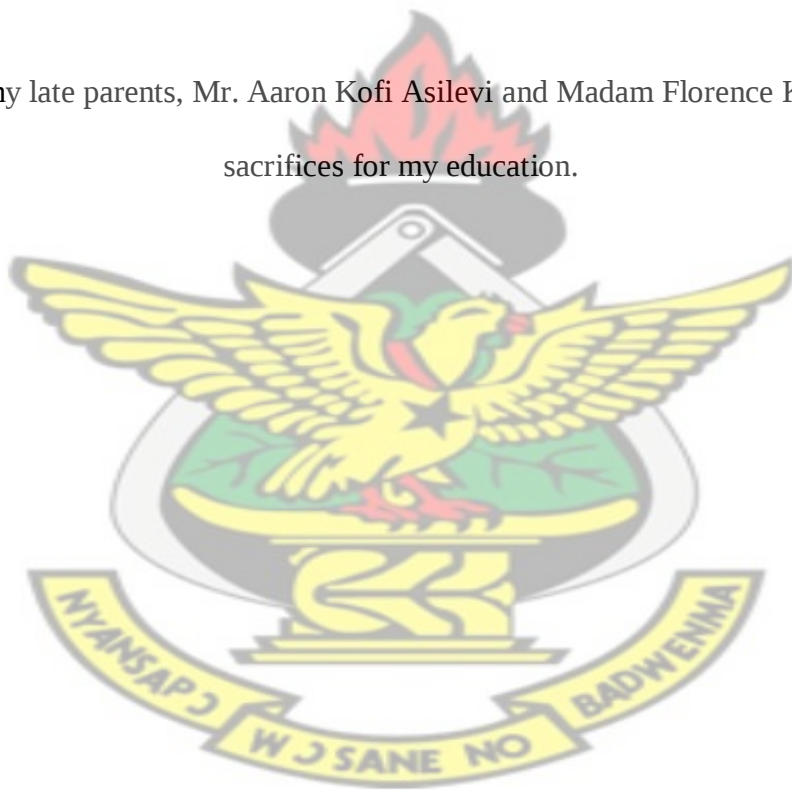
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DEDICATION

Dedicated to my late parents, Mr. Aaron Kofi Asilevi and Madam Florence Korleki for their sacrifices for my education.



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ABSTRACT

IMPACT OF PERCEIVED LEADERSHIP BEHAVIOURS OF HEADS ON WORK OUTCOMES OF GRADUATE QUANTITY SURVEYORS

The purpose of this study was to investigate the general perception of graduate quantity surveyors of the leadership behaviours of their supervisors and their effects on their work outcomes such as Job satisfaction, Organisational commitment, and Productivity.

Most researchers have evaluated leadership effectiveness with regards to the consequences of the leader's actions on followers and organizations. Literature on perceived leadership's impact on employee work outcomes in the construction sector appear limited, especially those that relate to Ghanaian graduate quantity surveyors. This problem is attributed to little understanding of construction experts for social science.

Questionnaires used included: Kouzes and Posner's (1987) Leadership Practices Inventory (LPI); Spector's (1983) Job Satisfaction Survey scale (JSS), Porter *et al.*'s (1974) Organisational Commitment Questionnaire (OCQ) scale; and McNeese-Smith's (1991) scale for Productivity. Also examined was the relationship between the demographic characteristics of the respondents and the outcomes. The respondents included 28 graduate surveyors selected through a combination of purposive and snowball sampling approaches from Architectural and Engineering Services Limited (AESL) in 9 regional offices of Ghana.

The results indicated that there were significant relationships between leadership behaviours and employee outcomes of Job satisfaction and Organisational commitment. However, the correlation between leadership behaviours and Productivity was low at the 0.05 significance level. While the job satisfaction and organizational outcomes related significantly, none of

the two related to the productivity outcome in any significant way. There was no significant relationship between demographic variables and employee outcomes.

Stepwise regression analysis was used to determine how the five leadership behaviours- Inspire a Shared Vision, Model the Way, Challenge the Process, Encourage the Heart and Enable Others to Act associated with the work outcomes. Encourage the Heart and Challenge the Process accounted for the greatest amount of variance ($R^2=56.1\%$) in the Job satisfaction model. Encourage the Heart explained the total variance ($R^2=41.9\%$) in employee commitment to the organisation. The leadership behaviours did not associate with graduate productivity significantly.

The survey was done on samples from 9 regional offices out of the 10 in Ghana. The sample size was small compared to the number of graduate quantity surveyors employed by AESL. An expanded sample covering all regions and more employees would have produced an increased understanding of the relationships.

This study showed that heads of AESL in the regions demonstrate only moderate knowledge of the practices of Kouzes and Posner's transformational leadership and calls for academic and professional bodies to incorporate leadership training in their curricula for graduate quantity surveyors and their heads.

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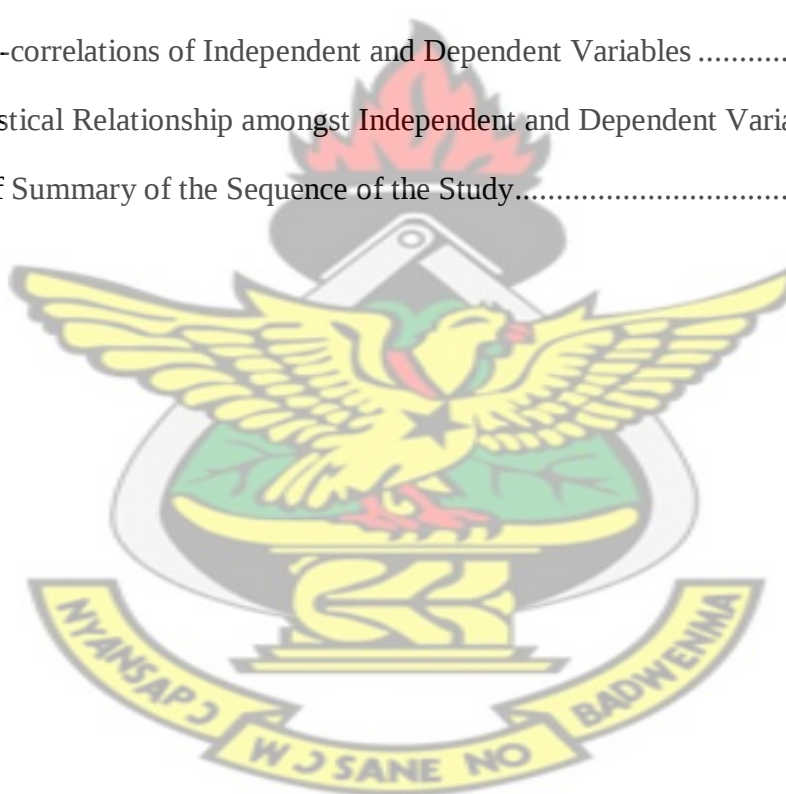
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CHAPTER ONE

BACKGROUND OF THE STUDY

1.0 Introduction

The construction industry makes a significant contribution to national economies (Zulu and Chilese, 2009). In terms of its performance, Chan and Chan (2005) suggest that it depends on building professions. Quantity surveying plays an essential role in the construction industry. Its work is very daunting. The quantity surveyor provides cost and contractual advice (Cheung et al., 2001) based on baseline designs that will have changed by the time the project gets done. Changes at the market place affect the quantity surveyor immensely. Leadership is needed in such difficult situations. Not only in this wise, the characteristic uncertainty and chaos of the construction industry, make leadership more crucial for the industry.

Businesses all over the world need leaders to deal with the effects of globalization which continuously pose new threats and opportunities. Effective leaders do not come by chance. By word of Colin (2001) (cited in Cobra 2007: 4), “there were very few leaders who could take their company from good to great”. McCroskey (2008) recognizes that through good leaders a competitive advantage can be gained through human resources. But the inadequacy of leadership in the construction industry has been of much concern to many a researcher. As a matter of fact, Nwachuku (1996) decries the lack of purposeful leadership in the construction industry.

As noted, leadership is about coping with changes (Cheung et al., 2001). The kind must be acceptable to both leader, followers and the organization in which task is performed. Tichy and Devanna (1990) (cited in Chan and Chan, 2005: 419) believe that transformational leadership “... should be able to work as a guide and framework for leadership throughout the organisation in times of change”. Bass (1985) also believes that transformational leadership leads to the achievement of followers’ motivation that makes the achievement of their higher order needs possible thus making

them become engaged fully in the process of work. However, Gardner (1990) asserts that leadership does not reside in one effective person called a leader and the situation but an involvement of members of a group. “Clearly, those who aspire to lead must embrace their constituents’ expectations” (Kouzes and Posner, 2002:23).

As leaders understand what people value, Horner (1997) reiterates they can impact people’s actions by defining what behaviours will produce desired outcomes. It follows as suggested by Rad (2006: xiii), that “By using appropriate leadership styles, managers can affect employee job satisfaction, commitment and productivity”. Empirically, it has been shown that, “transformational leadership makes it possible for leaders and followers to raise one another to higher levels of motivation and morality” (Burns, 1978:20). Both leader and followers gain out of the process thereby.

Kouzes and Posner’s (2002) transformational leadership model (1987, 2002) provides guidance on how to lead, as well as practical suggestions on how to become good leaders. McCroskey (2008) finds that Kouzes and Posner’s five practices of transformational leadership is a set of behaviours that leads to increased performance, higher retention rates, increased intrinsic motivation, and job satisfaction and have formulated the Leadership Inventory Practices (LPI) tool to assess how effective leaders are. Much application of Kouzes and Posner’s model is to the middle-class leaders in the west (Loke, 2001). There are few, however, (Loke, 2001; Zagorsek et al., 2004; Abu-Tineh et al., 2008) written in non-western context and are intended to narrow the gap. Supporting this, Tirimizi (2002) (cited in Abu-Tineh et al., 2008) argues that little scientific work on transformational leadership exists in the third world. There is limited evidence of the LPI’s application to studies in construction leadership in Ghana.

In the bid to closing the gap, this study employs the LPI to determine AESL heads’ leadership effects on graduate quantity surveyors’ work outcomes in Ghana. Over the years, the AESL have employed construction graduates to execute contracts of both government and private clients. It is

deemed that applicability of study to AESL will support the understanding of leadership in the construction industry.

1.2 Statement of the Problem

This study investigated the impact of perceived leadership behaviours of heads of AESL on work outcomes of graduate quantity surveyors. The AESL has been known to be government consultant over the years. Quite incidentally many other consultancy organizations have been involved in the same work and that implies the AESL have been losing on the front of government business.

One area of specialty of the AESL is in the field of quantity surveying. It is significant to note that the performance of the construction industry depends on its professionals (Chan and Chan (2005). While it is well known that the organisation's people are the most treasured it takes a lot of drive and decision to keep people in the organization satisfied and committed. Once this happens the organization can expect its people to be productive. Research on leadership can be traced to its importance or its impact on employees' outcomes especially those whose efforts service organisations depend on (McNeese-Smith, 1991, 1995; Loke, 2001). Studies have variously shown that leadership produces essential effects on work outcomes of their employees- namely job satisfaction, organizational commitment and productivity. Rad (2006: xiii), asserts that "By using appropriate leadership styles, managers can affect employee job satisfaction, commitment and productivity". Watson (2009) has identified positive relationship with immediate supervisors as the most significant determinant of continued job satisfaction and organisational commitment for employees while McNeese-Smith (1992) claims that leadership places the key to productivity on the ability of an organisation to maximize the effectiveness of its work force. Leader behaviours have thus been found to affect employee work outcomes in an organization because Cheung *et al.*(2001) have asserted that leaders can achieve effectiveness from (1) what the leader does, (2) the demands

of the job, and (3) the individuals who form the group. The organization itself has to play an important role to support leadership and employees. Loke (2001) stresses that managers need to provide recognition, support, and create a positive climate in the work environment for workers to be productive. Yoon and Beatty (2001) have also underscored the relevance of supportive management and service climate to service quality.

The inadequacy of leadership in the construction industry has been of much concern to many a researcher. As noted already, there is the lack of purposeful leadership in the construction industry. Emphatically McCroskey (2008) has stressed that through good leaders a competitive advantage can be gained through human resources. The AESL might have had their fair share of the turbulence of the construction industry but the essence of leadership is to manage the turbulence and the associated chaos.

Graduate quantity surveyors' perception of the leadership styles of their heads and what effects they create on their work outcomes will inform these heads as to how to conduct themselves towards greater organizational goals.

1.3 Research Questions

The following research questions will shed more light on how the research problem can be answered.

- What are the identifiable attributes or known leader behaviours that AESL Regional heads are associated with?
- What correlations exist between each individual attribute and each employee outcome?
- What is the nature of the associations amongst the attributes and employee outcomes?

- What roles do demographical factors such as age, education, sex etc. play in employee work outcomes?

1.4 Objectives of the Study

The following objectives guided the study:

- To determine the commonly practiced leadership behaviour(s) of the Regional heads of AESL.
- To determine the level of graduate quantity surveyors' job satisfaction
- To determine the level of graduate quantity surveyors' organizational commitment
- To determine the level of graduate quantity surveyors productivity
- To determine the relationships between the leadership behaviours and the employee outcomes
- To determine the relationship between demographical factors that affect employee work outcomes
- To draw conclusion

1.5 Rationale of the study

The timing of this study is significant to the construction industry which has limited research manual on practical leadership. Therefore the result of this study serves as starting point for research on how leadership affects employee work outcomes in the industry.

1.6 Scope of the Study

The study focuses on two things- The use of literature to underline the theoretical basis for the study and the employment of questionnaires to solicit relevant data. Sources of literature were journals, books, thesis, and the internet. The questionnaires were based on Kouzes and Posner's (2002) LPI,

Spector's (1985) Job Satisfaction Survey (JSS), Porter *et al.*'s(1974) Organisational commitment, and McNeese-Smith's (1995) Productivity. Data were collected, analyzed, and the results were discussed for relevant conclusions and recommendations.

The survey was extended to 9 regional offices of AESL: Greater Accra, Volta, Eastern, Ashanti, Cape Coast, Brong Ahafo, Western, Northern, Upper East, and Upper West Regions, generating 28 valid responses.

1.7 Limitations of the Study

The following limitations have been determined for the study:

- The study was based on AESL which is mainly a construction consultancy service organisation providing architectural, quantity surveying and engineering services to government and other client organisations in the 9 regional capitals of Ghana.
- The AESL is manned by Regional heads which are referred to in this study as supervisors or Regional heads. In dealing with leadership behaviours only perceived behaviours of their subordinate graduate quantity surveyors were considered.
- Data from the heads who responded were very few (=5). The geographical distances between the regional capitals in which AESL operates inhibited frequent physical presence in the follow-up for data collection.
- The validity of data was dependent on the co-operation of respondents and the kind of data that were made available. These were also affected by followers' disposition at the time of response. Only few responses were returned either because respondents feared the repercussions or doubted the intent of the research. This was in spite of the fact that respondents were assured of the research intentions and anonymity that was assured in the cover note to the questionnaires.

1.8 Definitions of Terms

1.8.1 Regional heads

Regional heads are the managers of AESL who supervise the staff of AESL in the 9 regions of Ghana. Their offices are the highest administrative positions in the regions.

1.8.2 Graduate Quantity Surveyors (GQS)

Graduate Quantity Surveyors respond to the Regional consultants and are employees who do professional work but are yet to be professional members of any recognized professional association.

1.8.3 Leadership behaviours

Leadership is difficult to evaluate, yet it can be expressed by the leader's behaviour (Cheung *et al*, 2001). Twenty years of research conducted by Kouzes and Posner culminated in a collection of practices and behaviours which the authors believe can make leaders accomplish their achievements or get extra ordinary things done (1995:19). According to McCroskey (2008), Kouzes and Posner's five practices is a set of behaviours that leads to increased performance, higher retention rates, increased intrinsic motivation, and job satisfaction. According to Kouzes and Posner (2002) the practices are:

- **Model the Way**

This is role modeling towards collective values. It achieves small wins to attract progress and makes leaders get involved and show their commitments.

- **Challenge the Process**

Exemplary leader searches and takes on challenging opportunities to engender growth, innovation and improvement in followers, by taking risks and learning from mistakes.

- **Inspire a Shared Vision**

Followers are enlisted in a shared vision, by taking actions that appeal to followers' values, interests, and aspirations, making them pursue that future.

- **Enable Others to Act**

Collaborative goals and building of mutual trust is facilitated by empowering followers. Effective leaders assign followers with relevant task and develop their competencies and provide them with support.

- **Encourage the Heart**

There is the chance for exemplary leaders to provide recognition for efforts of followers by praising them individually and regularly for any wins or achievements. They thereby create community spirit and make them not relent on failures.

1.9 Leadership Practices Inventory (LPI)

“The LPI was designed to measure leadership qualities” (Abu Tineh *et al.*, 2008; 652). The LPI (Kouzes and Posner, 1988) began in 1983 when the authors carried in-depth interviews to determine how leaders mobilized others to achieve extra-ordinary things in organisations.

1.9.1 Reliability

Loke (2001) discusses characteristics of the LPI scores indicating that they are:

- stable over time,

- unrelated to various demographic factors (age, marital status, years of experience and educational level), and
- related to organisational characteristics such as size, functional area, line and staff position.

Taylor (2002) describes the LPI as truly representative of highly effective leadership practices. According to McCroskey (2008), the LPI has a significant relationship with employee outcomes such as increased performance, higher retention rates, increase in intrinsic motivation, and job satisfaction in subordinates. The LPI instrument of 30 items has been administered to more than 350,000 in different disciplines (Kouzes and Posner, 2002). It is a product of volumes of articles, concepts, and number of training workshops, seminars, and publications (McCroskey, 2008). Noted with the LPI is a set of five practices (above) as a framework with psychometric characteristics.

The LPI consists of two components-The LPI-Other which is about a follower's perception of how employee's head behaves, these are from the graduate quantity surveyors; LPI-Self which comprises leaders' own responses. LPI-Other was used in this study. As supported by Waldam and Atwater (1998) self-perception is likely to be biased and has the tendency to overrate own skills. Also empirical studies by Harris and Schaubroeck (1988); Caicoppe and Albrecht (2000) affirm that peers and subordinates' assessments are more reliable, fair and impartial. Kouzes and Posner (2002) and Abu-Tineh *et al.* (2008) maintain that responses from constituents about their managers are an independent assessment which can eliminate potential self-report bias.

The researcher believes the LPI is characteristically dependable to be used as tool to measure the perception which graduate quantity surveyors have about the leadership behaviours of their supervisors.

1.10 Graduate Quantity Surveyors' Outcomes

Earlier studies (McNeese-Smith, 1991; Loke, 2001) applied the LPI on 3 factors that constituted nursing employees' outcomes. These are used as employee outcomes in this study for graduate quantity surveyors. They comprise:

1.10.1 Job satisfaction

Job satisfaction relates to a set of favorable or unfavorable feelings for the employees while they experience their work (Dressler, 2001; Davis and Newstrom, 2003). Job satisfaction is measured by 36 items on the Job Satisfaction Survey (JSS) instrument developed by Specter (1985). It is multi-faceted and divided into 9 sub-groups from which employee current state of job satisfaction and morale over life is determined either globally or by factors. Each of the nine sub-groups has 4 items.

1.10.2 Organisational commitment

Organisational commitment is the measure of the identification with and involvement in the goals of the organisation and a willingness to remain in the organisation or maintain its membership. It is also the psychological attachment of workers to their work places (Allen and Meyer, 1990; O'Reilly and Chatman, 1986). The organisational commitment is measured with 15 items on Organisational Commitment Questionnaire (OCQ) scale developed by Porter *et al.* (1974).

1.10.3 Productivity

Robbins and Judge (2009) maintain that an organisation is productive when it achieves its goals and does so transferring inputs to outputs at the lowest cost. The Productivity outcome is measured by productivity questionnaire comprising 15 items developed by McNeese-Smith (1995).

1.11 Organisation of the Study

The study is organized in 6 chapters: Chapter One provides background of leadership and basic information such as: statement of research, research problem, research questions and objectives, the rationale for the study, definition of terms, and limitations. It seeks to give an idea about what the project is about and introduces all chapters of the project. Chapter Two contains a review of related literature on leadership and work outcomes. This is to identify any knowledge gaps and keeps pace with any development in the field of study. It seeks to cover development of concepts of leadership, theoretical framework based on Kouzes and Posner's transformational model and the work outcomes of employee job satisfaction, organisational commitment, productivity, and employees' biographic backgrounds. Chapter Three presents the research method applied in this study. There is research design which specifies the methods and procedures for data collection and analyses for the study. Reasons and justifications are provided for the choice of method for data collection. Purposive survey technique is employed. This implies that the sample size is based on eligible responses. Questionnaires are used to solicit responses from graduate quantity surveyors. Most questionnaires have scales from which responses are recorded. Chapter Four affords the reasons that show the results from the data collected based on descriptive and inferential statistics. Chapter Five is where an understanding and interpretation of results from data are made through the instrumentality of Kouzes and Posner's (2002) LPI, Job Satisfaction Survey (JSS), Porter *et al.*'s (1974) Organisational Commitment Questionnaire, and McNeese-Smith's (1995) Productivity. Alongside is the use of relevant literature and experience of quantity surveying for the discussion. Chapter Six provides overview of steps taken in the study and the drawing of conclusion and recommendations to the research.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

In the preceding chapter, it was discovered that the choice of an appropriate leadership can affect employee work outcomes and that as leaders understand what people value they can impact people's actions. The researcher was not able to find literature that directly bears on the study either in Ghana or elsewhere. Much of this literature search came from sources such as journals, dissertations, and textbooks on leadership and employee outcomes. The literature provides theories and research evidence that will facilitate the formulation of an appropriate research design and methodology. The main sections are:

- Leadership theories
- Theoretical framework
- Motivation and job satisfaction
- Organisational commitment
- Productivity.

2.1 Leadership Theories

A rigorous study of leadership phenomenon began with Max Weber (Johnson, 2002). Zagorsek *et al.* (2004) state that theories of leadership exist according to what insights they contribute into the nature of the phenomenon. Loke (2001) believes that each study is a part of the continuous search for good leaders.

2.1.1 Traits

Traits as proposed by Thomas Carlyle (Timirizi, 2002) are who leaders are (Northouse, 2007). Traits approach has been unable to isolate who leaders are from followers (Lussier and Achua 2007). Despite the many reviews (Bird, 1940; Stodgill, 1948; Mann, 1959; Stewart, 1963) the traits approach showed lack of consensus regarding characteristics that differentiated leaders from non-leaders.

2.1.2 Behavioral leadership

Behaviour is about what leaders say or do (Lussier and Achua, 2007). Key research from 1950 to 1980 themed leadership behaviours on the leader's considerate and initiating structure in pursuance of his work. Behavioral studies largely ignored situational factors (Doyle and Smith, 2001). (Chermers, 2000) argues that the instrument to measure the behavioral studies - the Leader Behaviour Description Questionnaire (LBDQ) was not successful in predicting leader effectiveness of follower satisfaction and group performance.

2.1.3 Situational (contingency) leadership

This is largely a collection of leadership theories-Hersey and Blanchard's (1974) task-relevant maturity, Fiedler's (1964, 1967) situational favorability, Evan's (1970) and House's (1971) Path-goal. Contingency theories show how to cope with differences to achieve success (Fellows *et al.*, 2002). Leaders bring individual differences but situational differences are those that leaders find in a place (Dulaimi and Langford, 1999). Notwithstanding the contingency theories show that situations are not the same always.

2.1.4 Transformational leadership

Leadership paradigm changed when in the 1980s Burns' (1978) transforming leadership was developed into a conceptualized transformational leadership. Bass and Avolio (1990) view transformational leadership as that which brings improvement and full development in followers. Barling *et al*, (1990) also relates it to the attainment of higher levels of organisational commitment and business unit performance. Chan and Chan (2005: 419) find its relevance in leadership styles of building professionals. It tends to underline that when leaders are transactional they are ordinary and when transformational they are outstanding. Kark and Shamir (2002) have noted that transformational leadership has not fully explored the mechanisms by which transformational leaders exert their influence on followers and ultimately on performance.

2.1.5 Summary

Johnson (2002) has stated that leadership theories began with Max Weber. The traits approach, notably what leaders are was reviewed extensively but failed to agree on what separates leaders from followers. Behavioral studies looked for what leaders do in the quest for task performance so they tend to be considerate or inclined to be initiating structure. The use of contingency theories depends much on situations which are the same always. The contingency theories show how a leader copes with differences. Transformational leadership brings out improvement in followers and fully develops them although it is argued that it has not fully explored how leaders influence followers and their performance.

2.2 Theoretical Leadership Framework

2.2.1 Introduction

A theoretical model is a framework that shows the relationships of variables in a study (Darboe 2003). This study employs Kouzes and Posner's transformational model of 5 practices or behaviours (1987, 2002). Kouzes and Posner (2002) present transformational leader as visionary

and that which brings the change desired in groups and organisations. The model recommends what people need do in order to become effective leaders (Northouse, 2007). The elements of this framework are defined in the following sections.

2.2.2 Model the Way

In practice, leaders need be clear about their own values and philosophies (Northouse, 2007). According to Kouzes and Posner, exemplary leaders must clarify their personal values and set the example by aligning actions and shared visions, going first in setting the example daily and demonstrating that they are deeply committed to their beliefs. Modeling the way is essentially about the rights and the respect to lead through direct individual involvement and action. People first follow the person, then the plan (Kouzes and Posner, 2002).

Abu-Tineh *et al.* (2008) assert that while setting the example for others to follow, standards have to be maintained for the organisation, code be specified for the treatment of people, and the way for goal attainment should be showed to affirm the common values of leader and group. The associated commitments are: (1) Find your voice by clarifying your personal values, and (2) Set the example by aligning actions with shared values. With the first commitment leaders are to stand up for their beliefs hence must show the values they are prepared to stand up for. The second commitment as indicated by Kouzes and Posner (2002) is to provide people with the common language and make people loyal to their organisation. The result is increase in commitment, enthusiasm and creativity.

2.2.3 Inspire a Shared Vision

Kouzes and Posner (2002) clarify that followers view this character of effective leaders so compelling especially when such leaders present vivid communication of the vision. These leaders believe they can make a difference and are driven to the image which they see and believe the

organisation can become. A corporate sharing of the vision with followers challenges them beyond self-transcendence so they do things that benefit all. Vision is about the future and if indeed it is for all, then followers must be made to believe that there is something in it for them too. Blunt and Jones (1996) reiterate that vision should reconstitute or re-conceptualize the known or the familiar, recognize that its achievement depends on the contributions of others and that the leader himself must live and must be seen to believe in.

Inspiring a Shared Vision emerged as an important predictor for both job satisfaction and organisational commitment (Loke, 2001). Indeed, followers must want to see for a fact that the leader knows their needs, hopes and aspirations and values, and is assistive. The associated commitments are: (1) Envision the future by imagining exciting and ennobling possibilities, and (2) Enlist others in a common vision by appealing to shared aspirations.

2.2.4 Challenge the Process

Abu-Tineh *et al.* (2008) reiterate that Challenge the Process is a way of life for transformational leaders, making them create, recognize and support new ideas. Kouzes and Posner (2002) stress that such leaders seek out challenging opportunities, test their skills and abilities and look for innovative ways to improve their organisations, experiment and take risks with new approaches and encourage failure as a process of learning. McCroskey (2008) found that the leaders' ability to challenge the process positively affected job satisfaction. Challenge the Process has been found to have strong positive correlations with productivity, job satisfaction, and organisational commitment (Loke, 2001). The derivative commitments are: (1) Search for opportunities by seeking innovative ways to change, grow, and improve, and (2) Experiment and take risk by constantly generating small wins and learning from mistakes.

2.2.5 Enable Others to Act

Study by Abu-Tineh *et al.*, (2008) shows that the process of enabling others to act makes leaders involve and give followers freedom of choice, in the decision making process bringing out trust and collaboration and human dignity. Teamwork, cooperation, empowerment and diversity are noticeable in such leaders. People can feel good about their work and how it contributes to the greater community (Northouse, 2007). “Exemplary leaders enable others to act. ... They foster collaboration and build trust. ... They engage all those who must make the project work-and in some way, all who must live with the results” (Kouzes and Posner, 2002: 18). Beckon *et al.* (2004) (cited in McCroskey, 2008) show that participative decision making shows significant positive effects on job attributes such as involvement, satisfaction and commitment. The derivative commitments are: (1) Foster collaboration by promoting cooperative goals and building trust, and (2) Strengthen others by sharing power and discretion.

2.2.6 Encourage the Heart

When a leader recognizes the contribution of others by showing appreciation for individual excellence publicly through celebrations and rituals he will then be exhibiting a behavior of encouraging the heart. This behavior supports common identity and community spirit (Northouse, 2007). Kouzes and Posner (2002) assert that the behaviour exemplifies itself in frequent celebrations which are not merely fun making but a creation of culture and the means by which leaders encourage the hearts of their constituents. The effective leader must keep hope and determination alive while praising and celebrating accomplishment, praising people for jobs well done and appreciating the needs of others while encouraging them and celebrating regularly even small wins. Understandably, accomplishing extraordinary things in the organisation must emanate from hard work. When leaders exhibit Encourage the Heart behavior, they make people feel that they are part of the group and part of something significant. The derivative commitments are: (1)

Recognize contribution by showing appreciation for individual excellence, and (2) Celebrate the values and victories by creating a spirit of community.

2.2.7 Summary

In summary, Kouzes and Posner's transformational leadership model has application for businesses and research and is truly representative of highly effective leadership practices. The practices: 'Model the Way' shows exemplariness of leaders going first. Through 'Inspire a Shared Vision', a leader envisions the future creating opportunities and enlists others by appealing to shared aspirations. 'Challenge the Process' shows exemplary leaders seeking challenges and applying to followers' innovative abilities in dealing with challenges, giving room for failure. 'Enable Others to Act' is the means by which transformational leaders create human dignity and consider the needs of others, helping each person to be capable and empowered. A leader uses the behaviour of 'Encourage the Heart' in showing recognition for the contribution of others, appreciation, celebration for the efforts of constituents to make people feel they are part of the group.

2.3 Motivation and Job satisfaction

2.3.1 Introduction

In the opinion of Bowen *et al.*, (2008), job satisfaction research in the construction industry has largely dealt with a focus on construction worker motivation and there only is very little material on the motivation of professional staff. Leaders mediate between the organisation and individual employees through the influence of employee satisfaction, performance and personal identification with the organisation (<http://www.britannica.com/assessed7/19/2010> 4:21am. Motivation is anything that affects behaviour in pursuing a certain outcome (Lussier and Achua, 2004).

2.3.2 Background of Motivation

The earliest view of motivation relied on the concept of hedonism that is, the belief that people seek pleasure and avoid pain (Darboe 2003). Taylor (1911) ascribes worker satisfaction to the highest possible earnings that came from the least amount of fatigue. Darboe (2003), however, suggests that people work for a variety of reasons, not just money and subsistence but for social esteem needs in a job and social factors. Elton Mayo, Roethlisberger, and Dickson have used this as their main focus in 1927-36. Consequently the human relations' considerations changed direction of research to motivation of workers. One main example is the conditions under which people worked willingly and effectively to enhance organisation success. For this reason Yukl (2005) emphasizes that relations-oriented behaviours become the means by which human relations and human resources can be improved primarily.

2.3.3 Job satisfaction theories

Horner (1997) relates motivation theories to leadership because of their emphasis on the followers themselves and what causes them to act. Three theories of job satisfaction enunciated by Thomas *et al.* (1997) include: content theories, process theories, and situational theories. The perception of Lussier and Achua (2007) is that each theory stands alone and that one can adapt them to one's own situation. Each theory is discussed briefly.

- **Content theories**

Content theories (Bowen *et al.*, 2008; Cole, 1995) focus on *what* motivates the individual. In spite of the wide applicability to the construction industry (Bowen *et al.*, 2008) assert that content theories are largely criticized for lack of empirical support.

Human relation proponents-Maslow, McGregor, and Herzberg etc. first considered meeting the needs of employees (Lussier and Achua , 2007). Maslow's (1943, 1954) theory of Needs Hierarchy

is one of the more influential theories of motivation (Asad and Dainty, 2005). Maslow arranged human needs hierarchically on the premises basic needs have to be satisfied first before higher-order needs and on and on till self-actualization is reached as the most epic need. The base needs are externally generated but the higher-order ones are internally generated (Ogunlana and Chang, 1998). This theory underlies that 'a satisfied need does not motivate any longer'. According to Greenberg and Baron (2008), professional people have needs that are self-actualized because they can perform at their maximum levels of creativity, making them extremely valuable assets to their organisations.

McGregor extended Maslow's Hierarchy of Needs with his Theory X and Theory Y based on a self-fulfilling prophesy. Theory X manager sees workers as those that need be coerced and mostly not wanting to be responsible. Theory Y manager assumes that people work to meet their self-esteem and self-actualization needs.

Herzberg's Two Factor Theory (1959) is related to two dimensions of employee satisfaction- motivators and de-motivators that resulted from studies of 200 engineers and accountants in the US. Motivators are intrinsic or self-driven factors, for example a sense of accomplishment and pride in work. According to Barrett (1993) the existence of motivators leads to effort and growth. Motivators are known to generate from the job itself and include achievement, recognition for accomplishment, challenging work, increased responsibility and growth and development which set the condition for productive work. De-motivators are hygiene factors e.g. policies and administration, supervision, working conditions, interpersonal relations and money, status and security which are described by Barrett (1993) as drag factors. Coming from the environment, hygiene factors are well beyond the control of the individual employee. They do not create satisfaction, yet their absence causes dissatisfaction or impede the achievement of success (Barrett, 1993). Herzberg asserts that once de-motivators are taken care of, employee satisfaction can begin to show.

- **Process theories**

Bowen *et al.* (2008) and Cole (1995) have explained that process theories are those that focus on *how* motivation occurs. One theory-the Adams' Equity theory is about how people are motivated to seek social equity in the rewards they receive for their performance. The practice of the equity theory enables employees to judge their inputs in the organization in accordance with fairness or justice reward when they compare with what others receive. The positive aspect is that it then motivates them to work even harder to earn those rewards. Vroom's (1964) expectancy theory is based on three key variables-valence, instrumentality, and expectancy (Mullins, 2007). Valence denotes how much one wants a reward and the value which one places on it. Instrumentality refers to the belief that the performance will result in getting the reward while expectancy is the person's estimate of the probability that effort will result in successful performance. Mathematically: $\text{motivation} = \text{expectancy} \times \text{instrumentality} \times \text{valence}$. First of all, the theory looks at the individuality of the employee and regards his human dignity. Lussier and Achua (2007) believe that in using the expectancy theory to motivate a person, one has first to set an objective, perform it and reward it. Key point is in the employee valuing the reward and being assured that it will be securitized. Where necessary a pygmalion effect has to be created. Securitizing reinforces the employee's belief that a reward will truly be effected. Pygmalion effect is a positive instance of a self-fulfilling prophecy, in which people hold high expectations of another and tend to improve the individual's performance (Greenberg and Baron, 2008).

Locke's goal setting theory (Mullins, 2007) makes people strive to achieve goals for satisfaction of their emotions and desires, and use goals to guide responses and actions. The practical implications for the manager are to make goals that are specific, challenging and achievable, and that which require completion, and accuracy.

- **Situational theories**

Hoy and Miskel (1991) assert that an individual's job satisfaction is related to the combination of three characteristics found in an individual's work context and identify them as characteristics of the task, (autonomy, salary, and benefits, level of challenge, and variety of challenge), characteristics of the organisation, (leadership, supervision, feedback, organisational culture, and type of organisation), and the characteristics of the employee (level of education, gender, age, and motivation). Employee characteristics are considered in a later section.

Hackman and Oldham (1980) (cited in Darboe, 2003) have outlined task characteristics by the following: (1) skill variety-which is the degree to which a job requires a number of different skills and talents to complete a task; (2) task identity-visibly completing the task or being involved in the whole job; (3) task significance-the degree to which the task is important to the people inside and outside the work; (4) feedback-that provides the information from one's superiors and co-workers about the performance of the job; and (5) autonomy-which is the freedom to perform the work. Coming by these five features of job characteristics, Hackman and Oldham (1980) believe that they will both motivate performance and provide job satisfaction. Barrett (1993) asserts that skill variety is very often available to professionals. A typical example will be for a building surveyor easily, in one day, writing part of the specification, visiting the site to supervise some building work, measuring up some facet of the building and doing some drawing back at the office or taking charge of some correspondence with clients.

2.3.4 Job satisfaction and dissatisfaction

Job satisfaction relates to a set of favourable or unfavourable feelings for the employees while they experience their work (Davis and Newstrom, 2003; Dressler, 2001). Job satisfaction is not how hard one works or how well one works, but rather how much one likes a specific kind of job or work activity (Lussier and Achua 2007). In Bowen and Cattell (2008;267), quantity surveyors in South

Africa cite workplace characteristics such as “feelings of personal satisfaction in doing the work, undertaking challenging and creative work, doing varied and non-repetitive work, and being allowed to show initiative with a low degree of supervision are significantly associated with job satisfaction”.

Lussier and Achua (2007) have shown that when people show more satisfaction with their jobs they are likely to engage in organisational citizenship behaviour. Organisational behaviour is a behavior of helpfulness that others bring to the organisational members while doing their work. Darboe (2003) found that the causes of job satisfaction are multidimensional because a person may be satisfied with one dimension of the job, and be dissatisfied with another. Job satisfaction correlates with undesirable behaviour at work such as sabotage, stealing, doing work badly purposely, rumour-mongering and gossip with the idea to cause trouble (Mangoine and Quinn, 1975).

Bowen *et al.* (2008) used Maslow’s theory in a recent study of job satisfaction of quantity surveyors. From the 11 questions that were asked: self-actualization from the work done, low degree of supervision, participation in a team, challenging and creative work, recognition of achievements and feedback on past performance were found to be important in that order. Job security, money, job promotion, and social interaction were ranked least to very least in importance also in this order. Results of presence at work factors showed (in order of importance)-low degree of supervision and encouraged to show initiative, feelings of personal satisfaction and accomplishment, participation in a working team, varied and non-repetitive work. Salary, recognition for achievements and prospects for promotion and feedback on performance were of least importance to the respondents. Bowen *et al.* (2008) have found that the quantity surveyors’ overall feelings on job satisfaction on matters such as: ‘I love it’, ‘I like it very much’, ‘On the whole I like it’.... ‘I hate it’, showed 46 percent in favor of ‘On the whole I love it’ and 29 percent for ‘I like it very much’ while 1 percent said, ‘I hate it’. Twenty nine percent of the sample (n=141)

showed that they chose the career because of money; 24 percent say they have fulfillment from the career while the same percentage answered ('yes') they would want to recommend a career in quantity surveying. The essence of the South African study is that quantity surveying firms have to appreciate the role of self-actualization as a motivating factor. This concurs with Barrett (1993) on point of view of professionals aspiring for work that affords self-actualization.

Rad (2006) has cited among other factors, working with unskilled or inappropriately trained staff, laborious tasks such as documentation, repetition of duties, repetition of duties as sources of low satisfaction. Empirical conclusions (Bowen *et al.*, 2008) on dissatisfaction of quantity surveyors identified: measurements of builders' work, project administration, and preparation of final accounts; perceived incompetence of other colleague professionals, poor documentation and lack of faith in designers, government interferences and bureaucracy, contractual disputes, and dealing with incompetent contractors etc.

One possible way to prevent job dissatisfaction is to make the employer aware of their interests, skills and abilities (Darboe, 2003) at the time of hiring employees. The quality of the relationship between employees and their supervisor or employer (Michaelowa, 2002) is significant for job satisfaction. At the same time, superiors have also been found to consider aspects of dissatisfaction among subordinates. Dissatisfied employees may want to leave or stay or as suggested by Argyle (1987) want to adopt the minor forms of withdrawal first and leave the organization as the last action.

2.3.5 Empirical studies of Job satisfaction as related to other construction workers and professionals.

Bowen *et al.* (2008) find that quantity surveyors in South Africa regard salary as the main reason for choosing the career, and that personal satisfaction in doing work, a low degree of supervision,

participation in decision making, undertaking a challenging work, and receiving recognition for achievements were important in influencing their job satisfaction.

Harley-Nartey (2007) reports of a slump noted in job satisfaction in a Conference Board survey conducted in the year 2000. The slump was from 59 percent to 51 percent over five years prior to her study. She reported of Fahad's (2002) conclusions on different outcomes in a study of 406 managers in Saudi Arabia and 154 middle managers from North-East England in her literature. The Saudi Arabia findings included the level of job satisfaction having an effect on employees' attitudes towards the job and the organisation; job satisfaction having a weak correlation with motivational needs (need for achievement, need for affiliation, need for dominance, and lastly need for autonomy).

In a survey of supervisors behaviours and intrinsic and extrinsic motivating factors of 359 staff technologists, Watson (2009) found that the supervisors' job satisfaction and organisational commitment showed a strong positive relationship between supervisors' transformational and contingent rewards.

2.3.6 Demographic characteristics and Job satisfaction

Studies by Simeons *et al.* (2001) underline demographic characteristics, work environment, and job satisfaction as sources of employee turnover. In Yousef (1997), employees' age, educational level, monthly income, tenure in present organisation, tenure in present job, job level, marital status and an organisation's activity do contribute to the variations in satisfaction with job security among construction employees.

Fraser (2000) (citing Mustapha, 1990) stressed that a high qualification (a degree), membership of professional qualification, overseas experience and job satisfaction are relevant rather than long years spent in the industry and company when it comes to recruitment and selection.

2.3.7 Summary

In sum, the long time assertion has been that the intensity of the work and productivity of workers was because of money. The Hawthorne studies highlighted the importance of social considerations such as informal grouping and humane leadership leading to humanistic theorists concern for the provision of work conditions that will motivate people to work willingly. This resulted in the development of job satisfaction theories although most of them did not have empirical support. Job satisfaction satisfies various needs to different people and is how one likes or finds one's job fulfilling and challenging. Job satisfaction engenders organisational citizenship behaviour. Interpersonal relationship is essential to prevent job dissatisfaction. In all, leadership has a positive relationship with employee job satisfaction.

2.4 Organisational commitment

2.4.1 Introduction

Two approaches of human relation management saw the approach to people differently in the 1980s. Hardline Taylorism, took the view to technical needs of work and saw people as a resource to be spent. Softliners of human relation managers focused on employees as talents and made managers responsible for learning how best to attract and retain them. Putting tight controls on them was less attractive than giving them broader responsibilities and greater work place participation.

According to Ranya Nehmeh of Swiss Management Centre, committed human resources should be regarded as an organisation's competitive advantage. As illustrated in Figure 2.1, leadership is one of the key antecedents of organisational commitment. Commitment has been described as attachment and loyalty shown by individuals. Individuals show the attitude of commitment at various levels: their job, profession, boss or organisation.

2.4.2 Employee commitment and Organisational commitment

Shirbagi (2007) has stated that organisational commitment has received much significant attention in studies of the workplace because of it being the major determinant of organisational performance and effectiveness. Committed employees (Greenberg and Baron, 2008) are unlikely to withdraw and are willing to make sacrifices for their organisations. They do more than their jobs expect of them and make organisations successful (Robbins and Judge, 2009). Committed employees become valuable factors that managers use to achieve organisation's goals (Sutanto, 1999). Employee commitment is necessary for the organisation's competitive advantage and often features as an important resource in achieving performance in the organisation.

ANTECEDENTS

Tenure
Gender
Age
Education
Marital status
Skill variety
Task Identity
Task
Significance
Autonomy
Job Challenge
Power
Job Stress
Value Compatibility
Training
Perceptions of Support
Organisational Justice
HR Practices
Leadership

**Organisational
commitment**

CONSEQUENCES

Performance
Turnover
Intention to Leave
Absenteeism
Organisational Change
Feedback
Organisational
Citizenship

Figure 2.1: Leadership Challenge-for Educational Administrators

Sources: Author: McCroskey (2008).

On the other hand, organisational commitment shows itself in the attitude which employees express towards the organisations in which they work. According to Greenberg and Baron (2008), the

concept is concerned with the degree to which people are involved with their organisations and are interested in remaining within them. Sheldon (1974) defines organisational commitment as that which is about the belief in organisation's goals and the willingness to exert effort on behalf of the organisation and a definite desire to maintain organisation's membership. Stranglen (2009) argues that an employee can be dissatisfied with his work and still remains committed to the organisation.

Three classifications of organisational commitment (Porter *et al.*, 1974, Meyer and Allen, 1991 and Dunham *et al.*, 1994) are: affective, continuance, and normative. Affective commitment is about personal characteristics or what the employee contributes to the workplace. Affective commitment has been underlined by Mowday *et al.* (1997) as consisting of the following factors: (1) belief and acceptance in organisation's goals and values, (2) willingness to focus effort on helping the organisation achieve its goals, and (3) desire to maintain organisational membership. Continuance commitment refers to the strength of a person's desire to remain working for an organisation due to his or her belief that it may be costly to leave (Greenberg and Baron, 2008). Studies have shown that continuance commitment is related to a number of outcomes: transfer of skills (Allen and Meyer, 1990; Lee, 1992; Witney, 1998); education (Lee, 1992), retirement money, status, and job security (Whitener and Walz, 1993), employee performance (Meyer and Allen, 1997), outcome of employees' absence (Gellatly, 1995), the effect of investments and alternatives in employment opportunities, e.g. service benefits, money or effort (Allen and Meyer, 1990; Lee, 1992; Meyer *et al.*, 1991). Normative commitment is related to the psychological contract which is the belief that a person has about what will be exchanged between him or her and the organization to influence his obligation to the organisation (Meyer and Allen, 1997). According to van Rensberg (2004), it is the sum total of all written and unwritten, spoken and unspoken expectations of employee and employer and comes up when an employee wants to leave an organisation. Stordeur *et al.* (2001) seem to suggest that all the types of commitment have one thing in common and that has to do with staying with the organisation.

2.4.3 Employee identification and involvement

Mowday (1992) has noted that organisational commitment is based on identification and involvement. By identification, Stranglen (2009) implies the inclusion of employee's acceptance of the organisation's goals and values which is the employee's willingness to help the organisation to achieve, and the desire of the employee to remain with the organisation. Sutanto (1999) views identification to attitudes and behaviours towards satisfying a relationship with another person or group. Etzioni (1961) does believe that involvement deals with: (1) morality, where an employee becomes internalized to organisation's values, goals, and norms; (2) the calculative aspect which makes an employee consider the benefits that will accrue to him; and (3) the situation where employees alienate themselves from identifying with the organisation although they are still in it. Morality is a product of identification and internalization. For example, Bewley (1998) defines good morale as the willingness to cooperate with company objective, a sense of common purpose that is consistent with the firm's goals, enthusiasm for the job, happiness, tolerance for unpleasantness etc. Fry (2003:714) states, "people with a sense of calling and membership will become attached, loyal, and want to stay in organisation that have cultures based on the values of altruistic love.... Fry defines altruistic love as a sense of wholeness, harmony, and well-being produced through care, concern, and appreciation for both self and others". Podsakoff *et al.* (1990) suggest that employees engage in more altruism when: (1) they are not professionally oriented; (2) their tasks provide a lot of feedback and are intrinsically satisfying, and not routine; and (3) they work in cohesive groups. In Podsakoff *et al.* (1990), subordinates' characteristics contribute 23% of the variance in organisational commitment and that the most critical subordinate characteristic is indifference to organisational rewards which has a strong negative relationship with commitment.

2.4.4 Organisational commitment and Turnover intentions

Sommer (1995) found that when people have lower levels of commitment they have higher levels of absenteeism. Blau and Boal (1987) have tended to link those with higher levels of commitment to lower levels of absenteeism and turnover and that those with lower levels of commitment are more likely to show intention of leaving the organization than their counterparts.

2.4.5 Empirical evidence on Organisational commitment of Professional men and retention

Shore and Martin (1989) (in Gouldner, 1957) found that cosmopolitans are low on loyalty to organisations. These people are also high on commitment to their specialized roles. Like professionals, Gouldner explains that cosmopolitans are less likely to be locals because of the skills acquired through extensive training. According to Stahl *et al.* (1978) cosmopolitans have greater education and as professionals, the tendency is for them to view a given job as a stepping stone while the non-professional will focus on a good job in existing organizations as long as it gives them some job security. Foremen have been found in Ogunlana and Chang (1998) and Maloney and MacFillen (1987) to be having a strong impact on worker motivation, performance and satisfaction. Those found to be familiar with their crews are more productive (Hinze and Kruechenmeister, 1981).

2.4.6 Leadership and Organisational commitment

Research reported by Watson (2009) has identified positive relationship with immediate supervisors as the most significant determinant of continued job satisfaction and organisational commitment for employees. Leader behaviours have been found to affect employee organisational commitment with various results (Table 2.1).

Table 2.1: Adopted from The Leadership Challenge for Educational Administrators originally compiled by McCroskey (2008).

Author(s)	Sample	Finding
Bycio, Hackett, and Allen (1995)	Registered nurses	The relationships were larger with affective organisational commitment (OC) than with continuance or normative OC. Positive correlation between normative OC and leadership
Barling, Weber, and Kelloway (1996)	Banking employees	Transformational leadership increases the affective OC to the organisation
Lowe (2000)	Fire service employees	Affective OC was increased by the leadership behaviours
Walumbwa, Orwa, Wang, and Lawler (2005)	Banking employees	Transformational leadership had a strong and positive effect on both affective OC and job satisfaction
Metscher (2005)	Organisations in multiple industries	There is a positive link between transformational leadership and affective OC

2.4.7 Developing employee and Organisational commitment

Job enrichment (Herzberg, 1968; Hackman and Oldham, 1980) has been found to be a means of employee development. Herzberg (1968, 1974) identified six factors of job enrichment: accountability, achievement, feedback, work place, and control over resources, personal growth and development. Job enrichment has also been found by Hackman and Oldham to have factors of: skill variety, task identity, task significance, autonomy, and feedback. Employees' organisational commitment can further be developed by: mentoring and influencing protégés level of commitment (Clutterbuck, 1997; Mowday *et al.*, 1979) (cited in vanRensburg, 2004), providing workers' job security (Lio, 1995) using acceptable manager's style (Koopman, 1990), and adopting top

management's overall culture and style (Nierhoff, 1990). Bishay (1996), (cited in Bull, 2005) postulates that satisfaction of employees with work unveils the employees' greater commitment.

2.4.8 Demographic characteristics and Organisational commitment

Various findings have been made with respect to demographic characteristics as outlined below:

- **Age**

Studies (Mowday *et al.*, 1982; Luthans, 1992; and Lok and Crawford, 1999) show that organisational commitment increases significantly with age. Bull (2005) asserts that older people have made greater investments with their organisations across time. Bull (2005) reiterates that younger ones have lower psychological investments in an organization and are more mobile.

- **Education**

Studies by Mowday *et al.*, (1982) and Luthans *et al.*, (1987) show that as people get more highly educated, levels of organisational commitment tend to be lower because highly educated people have high expectations and because they are committed to their professions they see themselves more marketable thus can opt for alternate employment. Such people have reduced levels of commitment.

- **Tenure**

An inverse relationship was found in a study by Reyes (2001) on 133 teachers when he tried to find the relationship between teachers work orientation and teacher outcomes. This implies that the longer teachers have been working in a school setting, the less committed they become.

- **Job level**

Mowday (1982) shows that occupational level is not related to organisational commitment. Luthans *et al.* (1987) have shown that individuals in higher positions in an organisation are more committed towards the organisation. The reason (Aryee and Heng, 1990) is that those in higher level are more likely to receive larger economic rewards and are more likely to perceive the system of authority as legitimate and therefore support it.

2.4.9 Summary

In sum, leadership affects organisational commitment and job satisfaction. Committed employees remain with organisations and sacrifices for them hence are valuable factors. Organisational commitment is the degree of involvement and maintenance of organisation's membership. The three types of commitment are empirically supported but all of the types are about having to stay with the organisation although these affect the organisation's performance. Organisational commitment is supported also by good morale and altruistic love. Aspects of commitment, for example, commitment and turnover, organisational commitment of professional men and retention, relationship between job satisfaction and organisational commitment, leadership and organisational commitment have been empirically investigated.

2.5 Productivity

2.5.1 Introduction

Clients expect that a firm must provide service of better quality, faster and at lower price than others. Any company that cannot deliver to its customers the product and service with better quality, and at a faster pace and a lower price than that of its global competitors may soon be out of business (Hammuda and Dulaimi 1997). High performance (Valdés-Flores and Campos-Rodriguez, 2008) has become a great necessity in organisations so they try to optimize their resources and achieve

strong internal and external competitiveness. Tukel and Rom (2001), Xiao and Proverbs (2003) (cited in Limsila and Ogunlana, 2007) posit that successful project depends on completion on time, completion within budget, and completion at the desired level of quality or technical specification.

2.5.2 Definition of Productivity

McNeese-Smith (1992) asserts that leadership places the key to productivity on the ability of an organisation to maximize the effectiveness of its work force. Loke (2001) defines productivity as the contribution made towards an organisation's end result in relation to the amount of resources consumed. The end result of quantity surveying practice is about how client has become satisfied with previous service and is a pointer to further commissions.

Productivity is determined by means of the relationship that exists between what is produced and the goods and the services utilized for production (Valdés-Flores and Campos-Rodriguez, 2008). Loke (2001) (citing Bain, 1982), emphasizes that productivity measures both quantitative and qualitative factors such as goal attainment and work accomplishment. It will be elusive when productivity is simply measured as output per input without talking about the quality of output and effectiveness of the input. Labour costs, hours and number of employees are factors that feature in the measurement of inputs. The quality of output is measured in terms of workmanship, adherence to standard and absence of complaints. For instance, quality of client service can be central to new job commissions and aspect of service satisfaction to employees. A high quotient will indicate that more is being achieved with little. In a study by Robbins and Judge (2009) an organisation is productive when it achieves its goals and does so transferring inputs to outputs at the lowest cost. The construction industry is notably a low productivity sector. While sites have ready hands for an activity they are often saddled by slack in essential deliveries.

2.5.3 Behaviours that create Productivity

Newcombe (1990a) states that the assumptions we hold shape social relations and managerial relationships in a work setting. Theory X and Theory Y are a clear example of what a manager's perception of a worker connotes. More clearly in the construction industry, organisations' managers need be conscious about how they relate to their workforce.

The lessons from the Hawthorne studies provide usefulness in the organisation of social interaction at the workplace. Newcombe *et al.*, (1990a) report that Mayo and colleagues found social interaction (grouping) produces great performance rather than the workplace lighting conditions, confirming the working environment as influential upon people's behaviour. Newcombe *et al.* (1990a) find the manipulation of the environment much easier than changing the individual's traits. By using the classic equation (Dawson, 1986): $\text{Performance} = f(\text{Ability, Motivation})$, Newcombe *et al.* (1990a) have stated that performance improvement comes from enhancing the ability by more training or develop motivation under which those activities are exercised. These two factors are interactive and not additive as performance determinants (Graeff, 1983). Organisations must strive to encourage employees to continuously develop new skills, retain them by offering challenging assignments and rewards. Laufer and Jenkins (1982) reiterate that improving the individual's ability to perform not only has a bearing on performance but also affects the individual's motivation level and, thus have a dual impact on performance. The lesson from Maslow is that people are motivated by inner drives or needs. Encouraging employee on challenging tasks has been pinpointed as crucial to their motivation to produce although McNeese-Smith (1992) emphasizes that Model the Way leadership behaviour is particularly important in achieving excellent productivity.

Employees can strongly contribute to an organisation's success by having a customer-centric approach in their work and in their work-related interactions (Bulgarella, 2005). Bulgarella (2005) provides two models (Figures 2.2 and 2.3) to explain this. One by Yoon *et al.* (2000) discusses the

antecedents of organisational support, perceived supervisory support and customer participation of employee service quality.

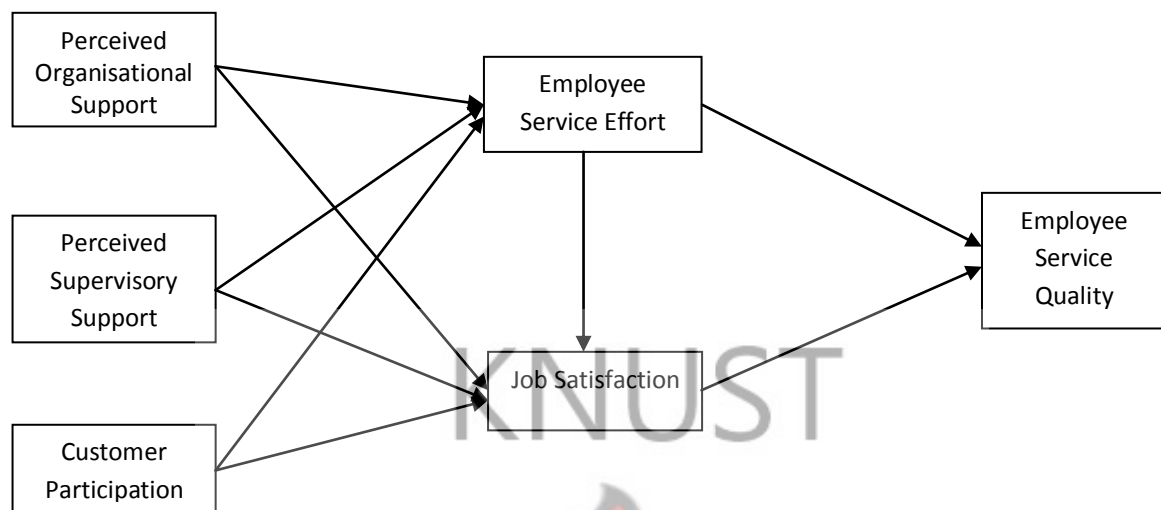


Figure 2.2: Model by Yoon and Beatty (2001).

Source: Guidestar-White Paper-February 2005. Author: Bulgerella (2005)

These antecedents moderate service quality through effort and perceived job satisfaction. The other by Yoon and Beatty (2001), lists supportive management and service climate as antecedents of service quality. Service quality has been identified by Zulu (2009:16) as the “consumers’ overall impression of the relative inferiority or superiority of the service... and impacts on fostering a firm’s competitive advantage”. Supportive management is the extent to which management is supportive of and shows concern for employees.

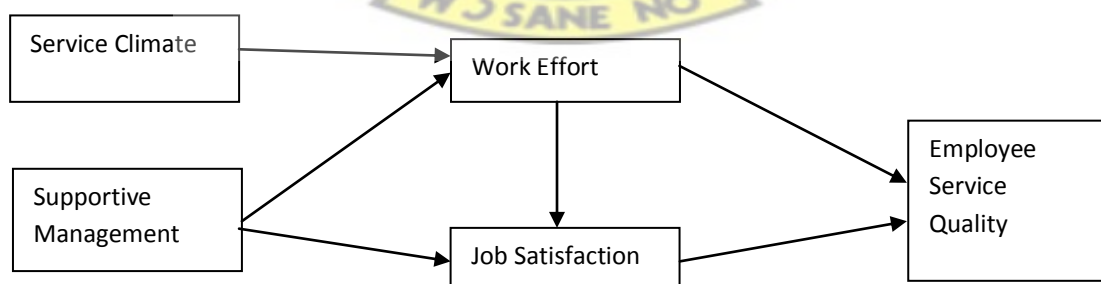


Figure 2.3: Model by Yoon et al (2000).

Source: Guidestar-White Paper-February 2005. Author: Bulgerella (2005)

2.5.4 Predictions of Job performance from behaviours of Managers

Loke (2001) has stressed that managers need to provide recognition, support, and create a positive climate in the work environment to make nurses become more productive. She mentioned criticism of staff, especially when they were under stress that makes nurses less productive. In Kelly (1982, cited by Argyle, 1987), it was found that job enlargement increased in terms of productivity per man hour of the order of 20 percent through eliminating delays in workers waiting time for materials and improving work methods such as the use of both hands and better desired work stations. Kelly observed additional productivity of 35% when pay was increased. It was also found that job satisfaction increased in some cases and in others it was only productivity that increased.

Productivity (or organisational effectiveness of meeting a larger market share of service provision, for instance) is much different from performance. Performance (Lussier and Achua, 2007) is behaviour directed toward the organisation's mission or goals or the products and services resulting from those behaviours. Sutanto (1999) notes that: (1) there is positive and significant relationship between commitment to supervisors and performance, implying that commitment to supervisors becomes a good predictor to job performance than commitment to organisations, (2) increasing performance in organisations, creating employee commitment to supervisors is more valuable than to organisations, and (3) committed employees have a vital role in organisation for its survival and its competing in the rapidly changing world. Baugh and Roberts (1994) also finds that those employees who were committed to both their organisation and their profession had high levels of job performance. Like professional quantity surveying institutions, life-long learning is mandatory. A quantity surveyor needs personal trait (intelligence) motivation, transferable skill, and availability of key resources (computer, production software and life-long learning) to show any inclination toward accomplishing organisational goals.

2.5.5 Factors of De-motivation and effect on Productivity

Ogunlana and Chang (1998) have found that time on the construction site can be a de-motivating factor and reduction in de-motivational factors appears to be the major effort required to improve employee productivity rather than focusing on increasing the presence of motivational factors. Citing Eckbald (1984) and Oxley (1978) to underpin this assertion, Ogunlana and Chang have suggested that when managers and employees share project objectives and encourage a co-operative spirit they increase productivity. A Theory Y manager for instance, while exhibiting participative tendencies can infuse internal motivation and rewards (Lussier and Achua, 2007).

In Luthans (2005), employees form evaluations about themselves with reference to self-esteem and these evaluations of employees have serious implications in organisations. At the organisational level, however, self-esteem reflects an employee's self-perceived level of ability to perform specific tasks. Self-esteem breeds a population of motivated individuals with organisational commitment.

Barrett (1993) suggests that a firm can adopt Continuing Professional Development (CPD) to building knowledge in a firm and reduce ability gap. To him knowledge has to be improved, challenged and increased constantly or it vanishes. Barrett suggests that this individual development must not be seen as a cost but investment across time. He calls it 'knowledge technology'. According to him knowledge technology is knowledge which the firm possesses overall with which individual knowledge must be coupled. 'Information technology' for example is a knowledge area that adds to competencies of knowledge workers. Construction professionals and others (teachers, lawyers, architects, quantity surveyors, physicians, nurses, engineers and scientists) use information technology in their professional job roles. Knowledge workers in today's workforce are recognizable individuals that have immense ability to interpret information within a special subject area applying their understanding of their specialties through focused analysis, design and/or development. One such area is the use of research skills to define problems and identify alternatives.

Drucker (1999) defines six factors of knowledge worker productivity in the following ways:

- Knowledge worker productivity demands that we ask the question: ‘What is the task?’
- It demands that we impose the responsibility for their productivity on the individual knowledge workers themselves. Knowledge workers have to manage themselves.
- Continuing innovation has to be part of the work, the task and the responsibility of knowledge workers.
- Knowledge work requires continuous learning on the part of the knowledge worker, but equally continuous teaching on the part of the knowledge worker.
- Productivity of the knowledge worker is **not** — at least not primarily — a matter of the quantity of output. Quality is at least as important.
- Finally, knowledge worker productivity requires that the knowledge worker is both seen and treated as an ‘asset’ rather than a ‘cost.’

Employee productivity has been found to depend on the amount of time an individual is physically present at a job and also the degree to which he or she is ‘mentally present’ or effectively functioning while present at a job (www.benefitsnews.com accessed 6th September, 2002). Wescott (2004: 34) has emphasized that “the value of productivity lies with the additional product produced within the time saved”. In order to maintain higher worker productivity, Goetzel and Ozminkowski (2002) advise companies to address strategies of satisfaction, health and morale.

2.5.6 Monitoring of Productivity of Managers

It is common observation to find the general workforce in Ghana performing under capacity. The researcher finds the extent of wanton wastage of sheets in the production of bills of quantities in a normal quantity surveying office and even more alarming is the amount of time spent on quantity surveying task performance. Drucker (1999) has suggested that to make knowledge workers

productive requires that there is change in attitude by both the individual knowledge worker and the whole organisation. McNeese-Smith (1991:91) made reference to Management-by-Objectives (MBO) having the advantage of focusing on expectations, fostering team work, setting time lines, recognizing the importance of process, and providing a basis for promotions and pay rises, guaranteeing it as a way of managing, and results in improved performance, lower costs, and development of abilities of subordinates. According to Drucker, MBO is a concept or the principle that ensures that everybody within the organisation has a clear understanding of the aims or objectives of that organisation, as well as awareness of their own roles and responsibilities in achieving those aims (<http://www.1000ventures.com/business.com> assessed on 14/09/2010). “Individuals who are clear on job objectives have improved performance over individual who are not clear” (McNeese-Smith, 1991: 91- 92).

2.5.7 Measurement of Productivity

The Likert multiple criteria cited in McNeese-Smith (1991) for the measurement of productivity and of effectiveness of management have been identified as inclusive of : productivity per work hour, meeting productivity goals, job satisfaction, turnover, absence, costs, scrap loss, and employee motivation. Bain (1982) has identified three means by which productivity is impacted: methods and equipment, maximizing the use of physical resources, and lastly the performance of the employees. Bain has emphasized that a quantifiable measure of productivity was only part of the equation. McNeese-Smith stated that quality or outputs and the timeliness of the availability are just as important as quantity measures (McNeese-Smith, 1991: 86).

2.5.8 Empowerment and Organisational performance

A study of nursing in Singapore found that good leaders empower their employees by involving them in decision making and making them feel their work is important, and giving them discretion

to 'do their own thing' (Avolio *et al.*, 2004 cited in Robbins and Judge, 2009: 113). Hammuda and Dulaimi (1997) in a study of the different approaches to empowerment in construction, service and manufacturing industries have advocated a management commitment to deal with the external forces which requires the removal of all conditions leading to powerlessness. This has been encapsulated in a model which behooves of management to handle fear and consider reward system and job structure. The resulting effects i.e. employee involvement; training and job involvement leads to high involvement in organisational performance and work unit management decision.

Job enrichment is one way in which Argyle (1989) sees white collar workers producing more positive results in productivity especially when typists were asked to change own computer tapes and correct own mistakes. It is understood that job enrichment techniques arouse intellectual and creative capabilities. Such capable employees need be retained and helped to learn new skills which in the end would lead to better performance. So Hammuda and Dulaimi recommend employee empowerment programs that foster change in the organisational environment, sharing information, autonomy, authority, trust and participation with the consequence of increasing motivation, loyalty, satisfaction and creativity of the employees. Thus management must show the willingness to involve employees in decision making for favorable outcomes in terms of quality and productivity (Hammuda and Dulaimi, 1997).

2.5.9 Empirical relationship between Job satisfaction and Performance

Studies are inconclusive in their support of relationship between job satisfaction and performance (e.g. Iaffaldano, and Muchinsky, 1985; Locke, 1976; Barbash, 1979; Smith, Kendall and Hulin, 1969). On the contrary, Waskiewicz (1999) found that job satisfaction may affect productivity indirectly through burnout, absenteeism, apathy, and turnover, all of which can lead to a lack of work continuity. Bullock (1984) (citing Castillo *et al.*, 1999) finds the relationship not strong, and Vroom (1964) did not find any correlation between them. Organ (1988) has noted in her study,

however, that job performance and job satisfaction relationship followed the 'social exchange theory'. The social exchange theory explains how power is gained and lost as reciprocal influence processes over time between leaders and followers in small groups (Lussier and Achua, 2007).

2.5.10 Productivity as it relates Employee satisfaction.

Study by Stern (2003) has shown that employee satisfaction does not necessarily contribute directly to productivity and that the link is passive. Iaffaldo and Muchinsky (1985) in 74 studies found an overall correlation of +0.15 for job satisfaction and productivity. In 8 out of these studies, Iaffaldo and Muchinsky find a correlation of +0.44 or above. The +0.44 correlation is attributed to supervisory or professional workers using self, peer or supervisory ratings of performance. In other studies, Petty *et al.* (1984) find that out of an over-all correlation of +0.23, +0.31 is attributed to supervisors and above. Correlation for lower level employees is +0.15. Finally Bhagat (1982) finds the overall correlation to be +0.35. As high as +0.60 is observed for work which is more voluntary.

Graham (1996) has revealed consequences and effects of employee satisfaction with employee productivity. Some of these findings include the following:

- Unhappy employees are less productive and more likely to have higher absence rates,
- Satisfied employees are more productive, innovative and loyal,
- Employee satisfaction leads to customer retention, and
- Increase in job satisfaction leads to increase in employee morale, which leads to increased employee productivity.

Alvarez *et al.* (1995) have suggested that productivity is an important element in the satisfaction process of the client's demands, in the optimal use of resources for this purpose and, therefore, obtaining high performance for the company, which constitutes one of its main objectives. Both job

satisfaction and productivity have been identified by Flores (2001); Flores *et al.*, (2001) as factors that can influence life in the workplace while Siliceo (1995) and Ciconne, (1998) consider it to be the reason of being of companies.

2.5.11 Participation and Productivity

Locke and Schweiger (1979) in a study of meta-analysis have shown evidence that supports the view that participation has effect on satisfaction and productivity. In another study by Ivancevich (1977), there is evidence that the relation between participation and satisfaction is stronger.

2.5.12 Demographic characteristics and Productivity

No particular evidence has been available for the purpose of relating demographic characteristics and its relationship with productivity.

2.5.13 Summary

In summary, productivity relates to resources consumed, measured in quantitative and quality factors and is about achieving much with what is at hand. The working environment is influential upon people's behaviour because it can affect the employee's ability and motivation which intend can be manipulated for purposes of employee's higher productivity. To reduce de-motivation, managers must communicate project objectives, give them challenging tasks, and adopt participative style at the workplace. Individual abilities sum up to form the ability of the organisation while employee productivity depends on the extent to which the employee shows his presence on the job. Quantity, quality and time of the output are important productivity factors. Studies are inconclusive about the relationship between job satisfaction and productivity; however, satisfied employees are productive, innovative, and loyal and help organisations to retain customers.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The preceding chapter sets the background that makes it possible for design of analytical framework selection of an appropriate design methodology which is the essential thing in this chapter. Consequently this chapter describes the procedures and steps that have been employed to facilitate the study. The procedures are outlined as follows:

- Analytical framework
- Approach and Choice of case
- Research Method
- Sampling Method
- Questionnaires
- Data Collection
- Research Design
- Hypotheses.

3.1 The Analytical framework

The basis for this framework was derived from Kouzes and Posner's (1987, 2002) five leadership practices and personal (demographic) characteristics of the employees considered as independent variables. It is assumed that graduate quantity surveyors' work outcomes are affected by leadership behaviours demonstrated by the leader. In this current study, the independent variables are the measures of the leadership behaviours. The work outcomes-graduate quantity surveyors' job satisfaction, organisational commitment and productivity. The theoretical relationship between the independent variables and dependent variables adopted as the author's construct is illustrated in

Figure 3.1. The sample is AESL Regional consultants whose perceived behaviours are being measured.

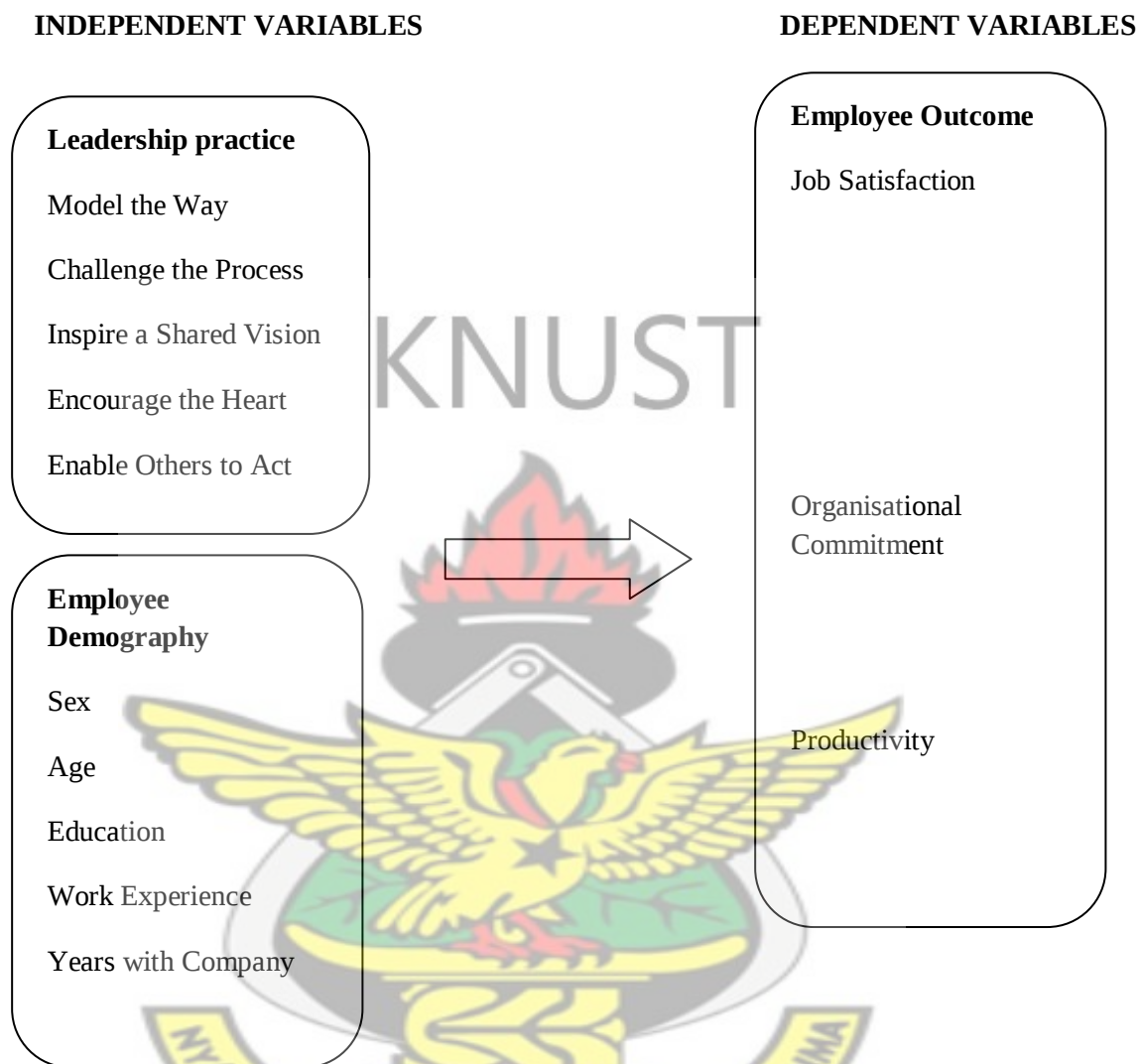


Figure 3.1: Analytical Framework

Source: Author's Construct, 2010

The work outcome variables have been generated from data from graduate quantity surveyors. The model has informed the choice of questionnaires used to obtain relevant data.

3.2 Choice of Respondents

The AESL has existed over decades and its effectiveness has been under critical observation. In addition the AESL has been employing graduates from tertiary institutions and has over the years been serving as government consultant in construction work. It was assumed that it could provide data for the purpose of this study more especially because:

- Of its representation across the 9 regions in the country with each region having a leader who have gained experience in consultancy practice;
- Since all the regional offices respond to the headquarters in Accra, structure and functions are the same in their operations therefore perceptions of employees might not differ;
- The AESL's key consultancy core practices are quantity surveying, architectural, and engineering and this choice reflects a good sample to represent what other private quantity surveyors typically do, this feature can generalize the findings;
- Other organisations that practice quantity surveying in the country do not have sufficient number of graduate quantity surveyors to generate the needed data for the survey let alone warrant any relevant feedback from the study; and
- The choice of AESL will allow the size to show the effect that will be more easily seen since it is a public liability company.

3.3 Research method

The study has prompted the use of a model (Figure 3.1) which suggested that it is more amenable to quantitative method. The transformational model applied was qualitative yet assessable quantitatively, using the Kouzes and Posner's LPI tool. This tool has world-wide applicability and is of verifiable usage (McNeese-Smith, 1991; Loke, 2001; Abu-Tineh *et al.*, 2008). The data intended

to be used are numerical, particularistic, objective and verifiable, and have the means of seeking the fact being sought for in the study (Blaxter *et al.*, 2008).

3.4 Sampling method

A combination of non probabilistic and probabilistic methods of purposive and snowball sampling were used. A purposive sampling is based entirely on the judgment of the researcher. In that sample is composed of elements which contain the most characteristics, representative or typical attributes of the population (Singleton *et al.* 1988). Snowball sampling on the other hand involves approaching a single case who is involved in the phenomenon to be investigated, to gain information as other similar persons. In turn this person is requested to identify further people who may make up the sample (Baker, 1988).

3.5 Research design

Instruments were used to collect data that were evaluated by correlation and multiple regression analyses to establish the relationships between the leadership behaviours and the levels of respective graduate work outcomes. “Multiple regression is a multivariate statistical technique used to examine the relationship between a single dependent variable and a set of independent variables” (Cheung *et al.*, 2001:423).

3.6 Instruments

Five questionnaires were used to solicit data. These included: the LPI scale, Job satisfaction scale, Organisational commitment scale, Productivity scale, and Demographic background. Guidelines for questions are that they must be purposeful, unambiguous, complete and factual for respondents to be able to answer them (van Rensberg, 2004). The questionnaires had wide coverage and precoded to make them less demanding on the respondents. Each instrument has questions that have response

options. DeVellis (1991) (cited in van Rensberg, 2004) suggests that the number of response options is to discriminate meaningfully between the responses. The instruments are briefly discussed in the next five sub-sections.

3.6.1 The LPI scale

The LPI introduced by Kouzes and Posner (1987) came out of surveys and in-depth interviews in search for how leaders mobilized others to want to get extraordinary things done in organisations (McCroskey, 2008). According to Kouzes and Posner (1993) (cited in Abu-Tineh *et al.*, 2008), the LPI scale is used to measure leader's effectiveness and their leadership behaviours. "Validation studies conducted consistently over a 10-year period have confirmed its reliability and validity" (Loke, 2001: 195). The LPI is used in this study to obtain feedback about the leadership practices of directors. The LPI-Other scale used in this study is shown in Appendix A. The scale has 30 items that take account of the 5 practices mentioned in the analytical framework. Each item is scored on 5-type Likert (1932) scale as:

- Rarely (1),
- Once in a while (2),
- Sometimes (3),
- Fairly often (4), and
- Very frequently (5).

There are reports on the construct validity and reliability by Kouzes and Posner (1988;1995); Carless (2004) and Abu Tineh *et al.* (2008). Kouzes and Posner's ranged from 0.81 to 0.85; Carless' ranged from 0.81 to 0.94, and Abu-Tineh *et al.*'s (2008) ranged from 0.81 to 0.92. Loke (2001) discusses characteristics of the LPI scores indicating that they are stable over time, unrelated to

various demographic factors (age, marital status, years of experience and educational level), and finally related to organisational characteristics such as size, functional area, line and staff position.

3.6.2 Employee Job satisfaction scale

Stranglen (2009) reports that the Job Satisfaction Survey (JSS) scale shown in Appendix C has 36 items. Stranglen (2009) asserts that the instrument meets the validity and reliability of tests. Six point Likert type scale was used to score responses. The lowest scored was 1 for the item 'disagree very much' and the highest item was scored 6 for the item 'agree very much'. The item was used for the current study as a scale to measure the dependent employee outcome of Job satisfaction.

3.6.3 Employee Organisational commitment scale

Porter *et al.* (1974) developed an instrument to measure the commitment level of subordinates called Organisational Commitment Questionnaire (OCQ). This is shown in Appendix D. The instrument consists of fifteen item statements, nine being positive and six being negative. Each respondent was required to rate each item on 7 point scale ranging from 1= 'strongly disagree' to 7= 'strongly agree'. Angle and Perry (1981) assert that the scale demonstrates good psychometric properties and has been used with a wide range of job categories. According to Loke (2001), the scale demonstrates internal consistency of alpha 0.82 to 0.93. Other researchers have found this instrument quite satisfactory. In this regard, the instrument was used to measure the dependent variable of employee Organisational commitment.

3.6.4 Employee Productivity scale

The productivity questionnaire which is shown in Appendix E was used. Developed by McNeese-Smith (1995), it comprises 15 items which are scored using a 5 point Likert-type scale. Each respondent was required to rate each item ranging from 1= 'Slight to...' to 5= 'Very high'. The

instrument was tested by Loke (2001) who reported that test-retest reliability demonstrated stability at $r=0.95$ and that of the Cronbach's alpha 0.90-0.93 demonstrated an internal consistency that compared with that of McNeese-Smith (1995). In this regard it has been used to measure the employee Productivity work outcome.

3.6.5 Demographic characteristics

The demographic questionnaire shown in Appendix F was adopted to collect background and general information about the participants. The participants were asked to provide information regarding their gender, age, education, work experience, years in position, years with company, and salary.

3.7 Data collection

The data were collected from graduate quantity surveyors from the 9 regions of Ghana. In all, the AESL operates in 10 regions of Ghana.

Questionnaires were distributed personally in most of the cases. In cases where it was not possible to meet respondents', questionnaires were left with colleagues for onward distribution. The fact of AESL being located at the regional capitals makes the locations more accessible to public transport and couriers. Each set of questionnaires, however was covered with a letter (Appendix G) that spelt out the purpose of the study and provided confidentiality and anonymity. This answered the ethical aspect normally required. No personal interviews were conducted. Although no time was fixed within which responses were to be returned it was expected that questionnaires would be returned 'as quickly as possible' for the purpose expressed in the letter. Reminders were made through phone calls when responses delayed. On certain occasions, the researcher called at various places to check on responses. The frequency of visits was limited by availability of funds. It is to be noted that the

demographic background questionnaire which formed the last of the questionnaires was concluded with appreciation. Table 3.1 reports the distribution and collection of data from the regional capitals.

Table 3.1 Data Distribution and collection

Regions	Questionnaires Alloted	Questionnaires Received
Greater Accra	5	2
Volta	5	3
Eastern	5	4
Central	4	4
Western	5	3
Northern	5	4
Upper East	5	3
Brong Ahafo	5	3
Ashanti	6	4
Total	45	30

3.8 Hypotheses

Zikmund (2003) (cited in Tyilana, 2005) defines hypothesis as an unproven proposition or supposition that explains certain facts or phenomena. Hypotheses are statements, assumptions or guesses about the nature of the world. In this study, the relationships are evaluated statistically. To find out the nature, strength or impact of leadership behaviours of Regional heads on graduate quantity surveyors' work outcomes. The following null hypotheses (H1=H18) are made.

- H1: Leadership behaviour-Encourage the Heart does not have any positive relationship with job satisfaction amongst followers.
- H2: Leadership behaviour-Encourage the Heart does not have any positive relationship with Organisational commitment amongst followers.

- H3: Leadership behaviour-Encourage the Heart does not have any positive relationship with Productivity amongst followers.
- H4: Leadership behaviour-Enable Others to Act does not have any positive relationship with Job satisfaction amongst followers.
- H5: Leadership behaviour-Enable Other to Act does not tend to create more Organisational commitment amongst followers.
- H6: Leadership behaviour-Enable Other to Act does not have any positive relationship with Organisational commitment amongst followers.
- H7: Leadership behaviour-Model the Way does not have any positive relationship with Job satisfaction amongst followers.
- H8: Leadership behaviour-Model the Way does not have any positive relationship with Organisational commitment amongst followers.
- H9: Leadership behaviour-Model the Way does not have any positive relationship with Productivity amongst followers.
- H10: Leadership behaviour-Inspire a Shared Vision does not have any positive relationship with Job satisfaction amongst followers.
- H11: Leadership behaviour-Inspire a Shared Vision does not have any positive relationship with Organisational commitment amongst followers.
- H12: Leadership behaviour-Inspire a Shared Vision does not tend to create more Productivity amongst followers.

- H13: Leadership behaviour-Challenge the Process does not have any positive relationship Job satisfaction amongst followers.
- H14: Leadership behaviour-Challenge the Process does not have any positive relationship with Organisational commitment amongst followers.
- H15: Leadership behaviour-Challenge the Process does not tend to create more Productivity amongst followers.
- H16: Leadership behaviour- Leadership Over-all does not have any positive relationship with Job satisfaction amongst followers.
- H17: Leadership behaviour-Leadership Over-all does not have any positive relationship with Organisational commitment amongst followers.
- H18: Leadership behaviour-Leadership Over-all does not have any positive relationship with Organisational commitment amongst followers. The Leadership Over-all behaviour is all the five leadership practices put together (see McNeese-Smith (1991); Abu-Tineh *et al.* (2008)) and is described as ‘composite leadership behaviours’ (Loke, 2001).

3.9 Data Analysis

The collected data were checked to see if all questionnaires were answered. Those that were not fully answered were struck out. Twenty eight responses were completed and analyzed with the SPSS (Version 16 for windows). It was to find results on:

- Means and standard deviations for the measurement of the observed degree to which Regional leaders practice Kouzes and Posner’s Transformational model. There was assessment as which behavior was predominant and which least predominantly practiced using the mean score of *Leaders Over-all* dimension.

- Pearson correlation and Regression analysis are used to test the respective associations as specified in the following:
 - Relationships between independent variables, and the independent outcomes, and
 - The validity of the hypotheses.

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CHAPTER FOUR

ANALYSIS OF DATA AND FINDINGS

4.0 Introduction

This chapter explores the impact of leadership behaviours on graduate quantity surveyors' work outcomes of Job satisfaction, Organisational commitment and Productivity. The quantitative method previously described helped in the analytical processes that took place in this chapter. The observed statements from the respondents are shown in tables and graphs as necessary.

4.1 Input of Data

All data from complete responses were edited and transferred to a spreadsheet to facilitate further processing using the SPSS.

4.1.1 The LPI data

The *LPI-Other* data were extracted from the 30 items and scored. All negative items were scored in a reverse manner in accordance with Sommer and Sommer(2002). Each of the five best practices was measured by the inventory total of 6 questions. 'Leaders Over-all', the sixth dimensions was measured by inventory total of 30 questions. This is supported byMcNeese-Smith (1991); Loke (2001). The dimensions extracted are as follows:

- Model the Way (items:-4, 9, 14, 19, 24, and 29)
- Inspire a Shared Vision(items:-2, 7, 12, 17, 22, and 27)
- Challenge the Process (items:-1, 6, 11, 16, 21, and 26)
- Enable Others to Act (items:- 3, 8, 13, 18, 23, and 28)

- Encourage the Heart (items:-5, 10, 15, 20, 25, and 30) and
- Leaders Over-all (items 1-30 inclusive).

Followers' data were classified as *LPI-Other*. The *LPI-Other* is about a follower's perception of how employee's head behaves. There was *LPI-Self* which comprised leaders' own responses which could have been considered alongside the *LPI-Other*. It was not considered for two reasons

- Because of size of data from Regional heads. Five responses were returned out of 10.
- Studies that justified acceptance of data from followers-Harris and Schaubroeck (1988); Caicoppe and Albrecht (2000) explain that peers and subordinates' assessments are more reliable, fair and impartial. Kouzes and Posner (2002) and Abu-Tineh *et al.* (2008) maintain that responses from constituents about their managers is an independent assessment which can eliminate potential self-report bias. Waldam and Atwater (1998) affirmed earlier that self-perception is biased and has the tendency to overrate own skills.

4.1.2 Job satisfaction data

Data were generated from 30 items on the *Job satisfaction* scale and were scored on Likert type scale of 1=least to 6=highest. Nineteen of the items were negative and were similarly reverse-scored.

4.1.3 Organisational commitment data

The *Organisational commitment* factors of 15 items that were scored on seven Likert type scale from 1=least to 7= highest. Nine negative items were reverse scored.

4.1.4 Productivity data

Data on Productivity were checked and scored on five Likert-type scales from least=1 to 5=highest. Nine items were negative and were reverse scored.

4.1.5 Demographic data

Employee demographic data resulted from items such as gender, age, level of education, years' of experience in current profession, years of work, and present salary.

4.2 Data analysis

Thirty respondents returned questionnaires out of the 45 that were sent out. Two out of the 30 responses were rejected because they were not fully completed. There was a sense of respondents having either hurriedly answered the questions or showing little interest in the exercise. The uncompleted questionnaires were discarded to avoid bias.

The response rate from the 28 respondents is 66.7 percent. Babbie (1973); Babbie and Mouton (2001) argue that a response rate of 50 per cent or better is adequate for analytical purposes. Response rates of 65 or 70 percent were found to be of good standards (Babbie (1973); Babbie and Mouton 2001). On the contrary, Denscombe (2007) has explained that a high non-response rate could make the researcher unable to know whether those who did not respond were in some way different from those who responded. Denscombe however indicated there could be the likelihood of results being different from what they could have been if all responses were answered. This made the response rate in this study acceptable. The data were inputted on the researcher's laptop and analyzed using the SPSS version 16 for windows.

4.2.1 Strategy

Statistical analyses were conducted step by step as follows:

- The LPI and employee work outcomes' data;
- One employee work outcome data against the other; and
- The demographic background data.

The analyses evolved from descriptive and inferential statistics. These are outlined as follows:

- Descriptive statistics
 - Cronbach's Alpha co-efficient tests on reliability
 - Mean and standard deviations of all the *LPI-Other* and *Leaders Over-all* scores to measure levels of Regional heads use of leadership behaviours.
- Inferential statistics
 - Pearson's(r) product-moment correlation co-efficient to ascertain relationship between Regional heads' use of leadership behaviours as perceived by graduate quantity surveyors.
 - Regression analysis to determine prediction of Regional heads' leadership behaviours as observed by Graduate Quantity Surveyors and their associations with work outcomes-Job Satisfaction, Organisational commitment and Productivity.
 - Testing of hypotheses. The hypothesis is tested using regression of each of the leadership behaviours with each employee outcome basing it on p-values (of $p \leq .05$). The decision rule for the acceptance or rejection is that "when $p > .05$, the hypothesis is accepted but when $p\text{-value} \leq .05$, the hypothesis is rejected" (Idiro, 2009:27).
 - Employees' demographic variables.

4.3 Results and Findings

The analysis of the data on 28 employees was made to verify internal reliabilities and adequacies of data on association of the leadership behaviours (independent) variables and the work outcomes' (dependent) variables.

4.3.1 Internal reliabilities of data

The Cronbach's Alpha internal reliabilities for the LPI scale ranged between 0.91 and 0.93. The range indicated extreme co-linearity among the independent variables. The values were found to be above those of Kouzes and Posner (1988), that is 0.81 and 0.94, Loke's (2001)- 0.82 and 0.92, and Abu-Tineh's (2008)- 0.81 and 0.93 respectively. Reliabilities- Job satisfaction scale (0.15), Organisational commitment scale (0.45) outcomes were not robust. That of the Productivity scale was (0.77). Colinearity of data is discussed further in a later section.

4.3.2 Adequacy of data of LPI and graduate quantity surveyors work outcomes

A further test was conducted on the adequacies or reliabilities of data solicited.

- **Adequacy of Job satisfaction data and graduate quantity surveyors work outcomes**

The adequacy of the findings regarding data of the leadership practices and the *Job satisfaction* outcome was determined on the assumption that the standardized residual was normally distributed with mean zero. This was supported by scatter plot and standardized distribution. According to Denscombe (2008:277), "A scatter plot is used to display the extent of a relationship between two variables. The more closely the points come together, the closer the relationship between the variables on the x axis and y axis". The scatter plot showed a constant variance ranging from -1.5 to 1 and was shown in Appendix H-1. It is shown in Appendix H-2 that normal distribution is around zero.

- **Adequacy of Organisational commitment data graduate quantity surveyors work outcomes**

Data of the LPI and Organisational commitment were also found to be adequate and were shown in Appendices I-1 and Appendix I-2 for normal distribution and scatter plot. The scatter plot showed similar pattern of a constant variance ranging from -2 to 2 and the distribution was normal around zero.

- **Adequacy of Productivity data graduate quantity surveyors work outcomes**

As was found in Table 4.5, the Productivity data were not adequate.

4.3.3 Demographic background

The demographic backgrounds of employees are reported in Table 4.1. From the number (N=28) of respondents analyzed (Table 4.1), 1 employee was a woman (3.6%) and 27 were men (96.4%). Employees from 18 to 29 years of age constituted 61 percent of the total number employed and 39 percent were above 40 -49 years old. Nearly 82 percent held tertiary education qualifications with majority (50%) being holders of a bachelor degree qualification and 32 percent being holders of HND.

Twelve of the people or 42.7 percent of the number employed have 5 or less years work experience with eight (28.6%) having 21 or more years of work experience. Thirty six percent of respondents were in their present employment for at least 3 years or less. Another 36 percent have spent 11 or more years of tenure.

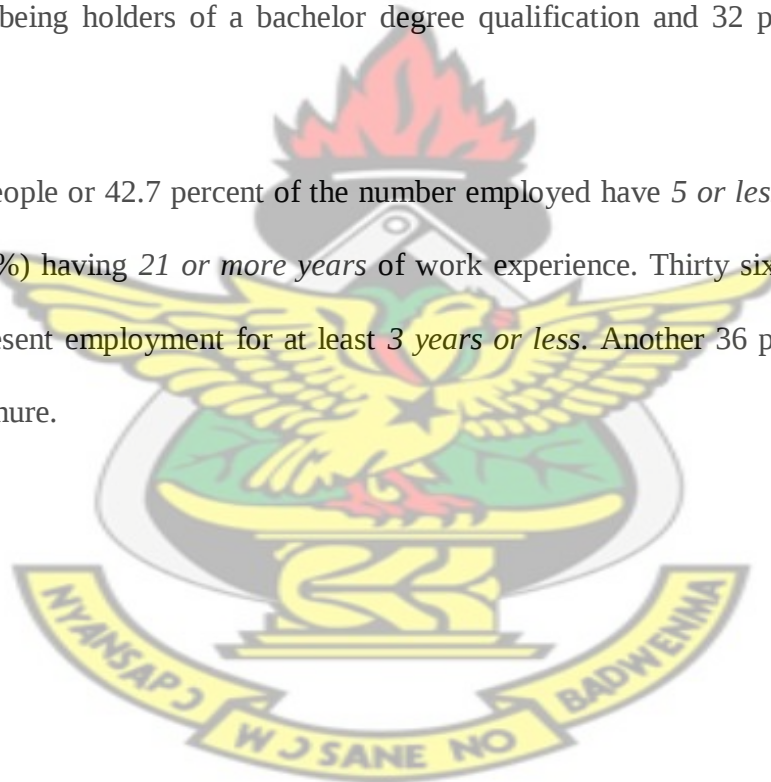


Table 4.1: Descriptive statistics of demographics of Graduate Quantity Surveyors

<i>Factors</i>	<i>Frequency PercentPercent</i>		<i>Job satisfaction</i>		<i>Organisational commitment</i>		<i>Productivity</i>	
			<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Sex								
Men	27	96.40	4.12	0.72	5.19	0.88	4.07	0.50
Women	1	3.60	3.50		4.00		4.00	
Age group								
18-29	9	32.10	4.17	0.77	5.00	1.12	4.19	0.37
30-39	8	28.60	4.03	0.89	5.13	1.13	4.19	0.25
40-49	6	21.4	3.95	0.62	5.00	-	3.78	0.82
50-59	5	17.90	4.24	0.57	5.60	0.55	4.02	0.44
Education								
High School	1	3.60	3.90	-	5.00	-	4.10	-
HND	9	32.1	4.36	4.36	5.44	1.01	3.94	0.66
Bachelor degree	14	50.00	3.91	0.56	4.93	0.92	4.04	0.38
Postgrad. Degree	2	7.10	4.50	0.71	5.50	0.71	4.60	0.50
Others	2	7.10	3.90	0.14	5.00	-	4.30	-
Work experience (yrs)								
5 or less	12	42.90	4.25	0.76	5.00	1.04	4.17	
6-10	5	17.90	3.76	0.85	5.00	1.22	4.16	0.38
11-20	5	17.9	3.76	0.85	5.00	1.22	4.16	0.15
21 or more	3	10.7	4.40	0.53	5.00	-	4.27	0.15
Years with company								
1-3	10	35.70	4.12	0.74	5.10	1.10	4.24	0.39
4-6	4	14.30	4.33	0.79	5.25	0.96	4.20	0.14
7-10	4	14.30	3.50	0.62	4.75	1.26	4.15	0.17
11 or more	10	35.7	4.21	0.67	5.30	0.48	3.82	0.66
Salary								
20,000 or below	21	75.00	4.13	0.65	5.14	0.85	4.13	0.40
20,001-29,999	1	3.60	3.00	-	5.00	-	2.40	-
30,000-39,999	3	10.7	4.40	0.56	5.67	0.58	4.03	0.21
40,000-49,999	1	3.60	2.60	-	3.00	-	4.00	-
50,000 or more	1	3.60	5.14	-	6.00	-	4.50	-
Other	1	3.60	4.00	-	5.00	-	4.30	-

Regression analysis (Table 4.2) has been conducted to establish any relationships between demographic characteristics and the work outcomes. The relationships explained or predicted by the values of R^2 are marginal values.

Table 4.2: Regression analysis of demographic characteristics with Graduate Quantity Surveyors work outcomes

<i>Variables</i>	<i>R</i>	<i>R²</i>	<i>SE</i>	<i>F</i>	<i>T</i>	<i>p-value</i>
Job satisfaction						
Sex	0.163	0.027	0.718	0.710	-0.843	0.407
Age	0.003	0.000	0.723	0.001	-0.024	0.081
Education	0.113	0.013	0.723	0.335	-0.058	0.568
Years in Profession	0.120	0.014	0.723	0.318	-0.617	0.543
Years in Company	0.114	0.000	0.728	0.005	-0.072	0.943
Salary	0.001	0.000	0.728	0.000	-0.006	0.995
Organisational commitment						
Sex	0.187	0.035	0.892	0.945	0.972	0.340
Age	0.251	0.063	0.879	1.754	-1.325	0.081
Education	0.105	0.011	0.903	0.290	-0.538	0.595
Years in Profession	0.225	0.051	0.885	1.384	1.176	0.250
Years in Company	0.063	0.004	0.906	0.104	0.322	0.750
Salary	0.022	0.000	0.908	0.012	-0.111	0.912
Sex	0.226	0.051	0.484	1.398	-1.183	0.248
Age	0.029	0.001	0.497	0.021	-0.146	0.885
Education	0.257	0.066	0.480	1.834	-1.354	0.187
Years in Profession	0.288	0.083	0.476	2.344	-1.531	0.138
Years in Company	0.369	0.136	0.402	4.086	-2.021	0.054
Salary	0.041	0.002	0.496	0.045	0.211	0.834

Significance at $p=0.05$

As depicted in Table 4.2 *Age* has marginal significance ($p=.081$) with *Job satisfaction*. Harley-Nartey (2007) has noted that a positive significant but moderately weak relationship existed between

job satisfaction and age, salary, working in the same organisation. Demographic variables-Age (.081) and *Years in Company* (.054) are marginally associated with *Organisational commitment*.

4.3.4 Descriptive statistics for identifiable or known leadership behaviours of Regional heads

The mean scores, standard deviations of all the six leader behaviours (including *Leader Over-all*) and the three employee outcomes are reported in Tables 4.3 and 4.4 respectively.

Table 4.3 Means and Standard deviations of assessment of LPI-Other including Leader Over-all scores for Graduate Quantity Surveyors.

<i>Variable</i>			
	<i>Mean</i>	<i>SD</i>	<i>Rank of Mean</i>
Model	4.06	0.83	2
Inspire	3.70	1.25	4
Challenge	3.67	0.84	5
Enable	4.25	0.98	1
Encourage	3.72	1.16	3
Leader Overall	4.16	1.010	0

The mean scores for the 6 dimensions of leadership behaviours are reported in Table 4.3. The highest mean is *Enable Others to Act* leadership behaviour (4.25). The mean is found to be above that of *Leaders Over-all*. Means of *Challenge the Process* behaviour (3.67), *Inspire a Shared Vision* (3.70), *Encourage the Heart* (3.72), and *Model the Way*(4.06) are the lowest with respect to *Leaders Over-all*. *Enable Others to Act* leadership behaviour was the most leadership observed behaviour practiced by the leaders. The variability of scores (SD) are highest in *Inspire a Shared Vision* (1.25) and *Encourage the Heart* (4.16) of all the dimensions.

Table 4.4 Means and Standard deviations of dependent variables of Job satisfaction, Organisational commitment and Productivity.

<i>Employee outcomes</i>	<i>Mean</i>	<i>Standard deviation (SD)</i>
Job satisfaction	4.10	0.73
Organisational commitment	5.14	0.89
Productivity	4.07	0.49

In Table 4.4, followers scored themselves high in *Organisational commitment* (5.14) followed by *Job satisfaction* (4.10), and *Productivity* (4.07) outcomes respectively. These could not be ranked because of the different scales used in scoring.

4.3.5 Inferential statistics of data of Regional heads use of leadership behaviors as noted by Graduate Quantity Surveyors

Table 4.5(a) reports the Pearson product-moment correlations (r) analysis among the leadership behaviours. There is relatively high degree of positive correlations among leadership behaviours which ranged from *Enable Others to Act* (.674) to *Encourage the Heart* (.903).

Table 4.5(a) Pearson product-moment correlation (r) matrix of Regional heads leadership behaviours and Graduate Quantity Surveyors work.

<i>Variables</i>	<i>Inspire</i>	<i>Challenge</i>	<i>Enable</i>	<i>Encourage</i>
Model	0.823**	0.718**	0.800**	0.730**
Inspire		0.829**	0.738**	0.904**
Challenge			0.715**	0.795**
Enable				0.674**

Notes: $p < 0.01$ level =** (2 tailed)

Table 4.5(b) Pearson product-moment correlation (r) of Regional heads leadership behaviours and Graduate Quantity Surveyors work outcomes

<i>Variables</i>	<i>Job satisfaction</i>	<i>Organisational commitment</i>	<i>Productivity</i>
Model	0.417*	0.626**	0.108
Inspire	0.554**	0.601**	0.121
Challenge	0.330*	0.454*	0.041
Enable	0.362*	0.531**	0.276
Encourage	0.670**	0.647**	0.233

Notes: $p < 0.01$ level = ** (2 tailed) $p < 0.05$ level = * (2 tailed).

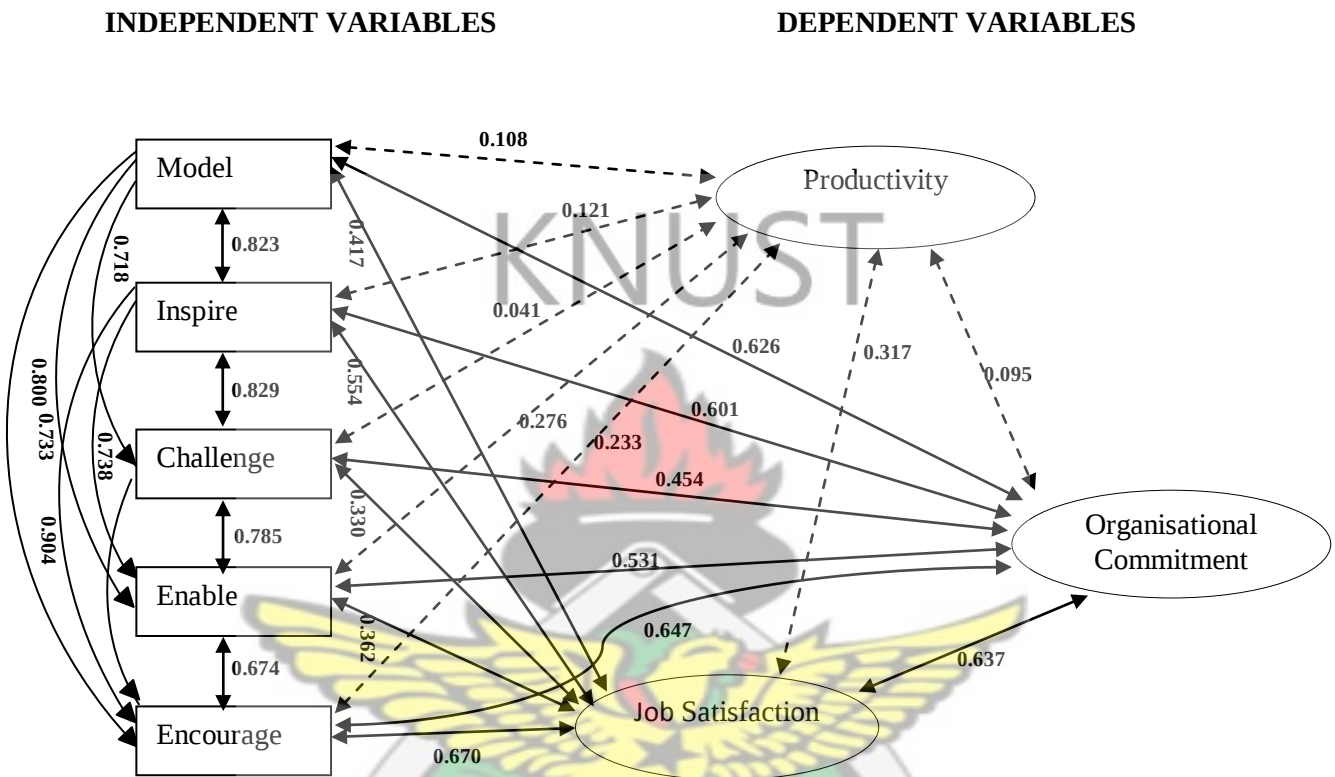
Table 4.5 (b) reports of the Pearson product-moment correlations (r) analysis amongst leadership behaviours and employee outcomes are varied. *Encourage the Heart* has the highest positive correlations with *Job satisfaction* and *Organisational commitment* and *Productivity*. Correlations with *Job satisfaction* (.670) and *Organisational commitment* (.647) are statistically significant ($p < .01$). *Challenge the Process* has the lowest positive correlations with all three outcomes-*Job satisfaction*, *Organisational commitment* and *Productivity*. *Challenge the Process* has moderate significance ($p < .05$) with both *Job satisfaction* (.330) and *Organisational commitment* (.454). All the leadership behaviours-*Model the Way* (.108), *Inspire a Shared Vision* (.121), *Challenge the Process* (.041), *Enable Others to Act* (.276), and *Encourage the Heart* (.233) have weak correlations with the outcomes.

Table 4.5(c) Pearson product-moment correlation (r) coefficient of Graduate Quantity Surveyors work outcomes

<i>Variables</i>	<i>Organisational commitment</i>	<i>Productivity</i>
Job satisfaction	0.637**	0.317
Organisational commitment		0.095

Notes: $p < .01$ level = ** (2 tailed) $p < .05$ level = * (2 tailed).

There existed positive, significant correlation between *Job satisfaction* and *Organisational commitment* (.637). Correlations with *Job satisfaction* and *Productivity* (.317) and *Organisational commitment* with *Productivity* (.095) were positive but low. Patterns of correlation are supported by Loke (2001). These results are illustrated in Figure 4.1.



Dotted line – Low positive correlations among variables
 Bold line – Significant positive correlations among variables

Figure 4.1 Inter-correlations of Independent and Dependent Variables

4.3.6 Nature of associations among Regional heads' attributes and Graduate Quantity Surveyors outcomes

Correlations are measures of linear association (Indiana State University, 2005) and reflect the extent to which two variables move together. Leedy and Ormrod (2005) and Chan and Chan (2005) reiterate that correlations do not explain the underlying relationship of variables but can only simply tell the nature of the relationship between variables. "... It cannot fully explain the underlying relationships of variables without using the regression analysis method" (Chan and Chan, 2005;

418). As a result the regression was performed using stepwise analysis (Cheung *et al.*, 2001) to enable predictive capability of the model to be examined (Loke, 2001).

- **The Leadership behaviours predicting Job satisfaction outcome**

Stepwise analysis procedure was used to find the most critical leadership behaviours that predict *Job satisfaction* of graduate quantity surveyors. The stepwise estimations are reported in Table 4.6 and Table 4.7 respectively.

Encourage the Heart is chosen in step-one regression because it has the highest correlation ($r=.6702$) with *Job satisfaction* dependent variable. The stepwise estimation is reported in Table 4.6. The total variance (R^2) of job satisfaction explained by the *Encourage the Heart* leadership behaviour is .4492 and the partial correlation is-.4513. The second leadership behaviour is selected for inclusion in the regression analysis. This was done from assessment of the partial correlations of remaining leadership behaviours. Partial correlation gives an idea of the measure of the variation of job satisfaction that has been accounted for by the remaining independent variables. In this regard, *Challenge the Process* leadership behaviour is chosen (with partial correlation factor of .4513 for $t=-2.5288$) for step-two regression. The t-value measures the significance of the partial correlation of the variable reflected in the regression coefficient (see Cheung *et al.*, 2001).

Table 4.6: Stepwise multiple regression step one between the leadership behaviour as independent variables and job satisfaction dependent variables

Variables entered on step number 1											
Included variable: Encourage the Heart											
Multiple R	.6702										
R²	.4492										
Adjusted R²	.4280										
Standard error	.5403										
<u>Analysis of Variance</u>											
	DF	Sum of Squares	Mean Square								
Regression	1.0000	6.1904	6.1904								
Residual	26.0000	7.5903	.2919								
F = 21.2047											
<u>Variables in equation</u>											
Variables	B	SE B	Beta	Tolerance	VIF	T	P – value				
Encourage the heart	.4114	.0894	.6702	.1740	5.7471	4.6049	.0001				
(Constant)	2.5631	.3478				7.7304	.0000				
<u>Variables not in equation</u>											
Variable	Beta In	Partial	Tolerance	VIF	Min tolerance	T	P – value				
Model the Way	-.1561	-.1437	.2390	4.1841		-.7259	.4747				
Inspire a Shared Vision	-.2843	-.1635	.1140	8.7719		-.8286	.4152				
Challenge the Process	-.5526	-.4513	.2790	3.5843		-2.5288	.0181				
Enable Others to Act	-.1646	-.1638	.3180	3.1447		-.8302	.4143				

Significance at p=.05

Table 4.7: Stepwise multiple regression-step two between the leadership behaviour as independent variables and job satisfaction dependent variables

Variable(s) entered on step number 2 included variables: Encourage the Heart, Challenge the Process											
Multiple R	.7493										
R ²	.5614										
Adjusted R ²	.5263										
Standard error	.4917										
Analysis of Variance											
	DF	Sum of Squares	Mean Square								
Regression	2.0000	7.7365	3.8682								
Residual	25.0000	6.0442	.2418								
F = 15.99966											
Variables in equation											
Variables	B	SE B	Beta	Tolerance	VIF	T	P - value				
Encourage the Heart	.6813	.1342	1.1098	.1740	5.7471	5.0782	.0000				
Challenge the Process	-.4675	.1849	-.5526	.2790	3.5842	-2.5288	.0181				
(Constant)	3.2753	.4237				7.7304	.0000				
Variables not in equation											
Variable	Beta In	Partial	Tolerance	VIF	Min tolerance	T	P - value				
Model the Way	.0064	.0062	.2390	4.1841		.0303	.9761				
Inspire a Shared Vision	.0586	.0342	.1140	8.7719		.1676	.8683				
Enable Others to Act	.0202	.0207	.3180	3.1447		.1013	.9202				

Significance at p=0.05

Table 4.7 is the report when *Challenge the Process* was regressed with *Job satisfaction*. The total variance (R^2) explained when *Challenge the Process* leadership behaviour was added after step one regression $[(1-.4492) \times (-.4513)^2]$ (Table 4.6) amounts to 11.22%. The R^2 of the resultant regression

equation is .5614. Beyond this threshold (2.000, DF=25, p=.05), the three remaining leadership behaviours could not have sufficient values to allow further regression. Using the variables in the equation (Table 4.7), the final regression equation for *Job satisfaction* is:

$$JS = 3.2752 + .6813Enc - .4675Chal$$

where 'JS' = *Job satisfaction* employee outcome

'Enc' = *Encourage the Heart* leadership behaviour

'Chal' = *Challenge the Process* leadership behaviour

The negative effect of *Challenge the Process* provides the tendency to diminish the final regression equation as shown above. Mc Neese-Smith (1991:214) suggests that "leaders must seek feedback from their followers to determine that followers are not reacting negatively in relation to some aspect of the group of behaviours".

- **The Leadership behaviours predicting Organisational commitment outcome**

The regression process-stepwise analysis which is to find the most critical leadership behaviours that predict *Organisational commitment* is repeated as above for job satisfaction. Regression of *Encourage the Heart* ($r=.6471$) as leadership behaviour variable with *Organisational commitment* dependent variable is reported in Table 4.8. The total variance (R^2) of *Organisational commitment* explained by *Encourage the Heart* leadership behaviour is .4188. At threshold (1.000, DF=26, $P=.05$), the values of four remaining leadership behaviour variables were not sufficient.

Table 4.8: Stepwise multiple regression- step one between the leadership behaviours as independent variables and organisational commitment as dependent variables.

Significance at p=0.05

The final regression equation for *Organisational commitment* is:

$$OC = 3.2994 + .4954Enc$$

where 'OC' = *Organisational commitment* leadership behaviour

'Enc' = *Encourage the Heart* leadership behaviour

- **The Leadership behaviours as independent variable predicting Productivity as dependent variable**

The correlations between the leadership behaviours and *Productivity* variable were weakest and non-significant ($r=.041$ to $r=.276$ for $p>.05$) (Table 4.5). No regression is reported.

- **Contribution of Leader Over-all behaviour as independent variable to employees' work outcomes**

The data of *Leader Over-all* independent variable was entered and analyzed separately with each of the graduate quantity surveyors' outcome: *Job satisfaction*, *Organisational commitment*, and *Productivity*. Table 4.9 illustrates the regression estimates. It was revealed that at least one of the independent variables was associating with the *Job satisfaction* dependent variable. Further investigation revealed that both *Encourage the Heart* and *Challenge the Process* associated with the outcome significantly. The total variance predicted by the model is $R^2=.253$. The total variance predicted by the leadership behaviours on *Encourage the Heart* is $R^2=.362$ although only *Encourage the Heart* has marginal association ($p=.072$) with the model. The association of the leadership variables was non-significant with *Productivity* ($R^2=.015$). These values are lower than the stepwise regression results (*Job satisfaction*, $R^2=.5614$; *Organisational commitment* $R^2=.4188$).

There seemed to be some differences in previous values of stepwise regression estimates (Tables 4.6-4.8) and simultaneous regression results (Table 4.9). There seems to be a strong dependence or multi-collinearity among the independent variables which affected the t- and p-values. Multi – collinearity is the inter-correlation of independent variables. According to McNeese-Smith (1991:

209), “The high degree of relationships among the leadership behaviours themselves indicate a ‘mega behaviour’ when some specific behaviours are operating in concert”. In this particular study, the regression coefficients and p- and t- values have been affected by multi-collinearity.

The degree of co linearity or otherwise is assessed using the variance inflation factor (VIF) values to calculate the tolerance level. Cheung *et al.* (2001) assert that a high tolerance value indicates little collinearity. On the other hand if VIF is substantially greater than one (1), multi-collinearity is severe. The VIF values are reported in Table 4.7 and calculations are shown in Appendix J. The mean VIF (5.086) is substantially greater than 1 and explains why *Encourage the Heart* leadership behaviour was only marginally significant ($p=.072$) in the simultaneous estimate (Table 4.9) contrary to the step-wise estimate ($p=.0002$) in Table 4.8.

Table 4.9: Regression showing effect of contributions of leadership behaviours on Graduate Quantity Surveyors work outcomes of Job satisfaction, Organisational commitment and Productivity outcomes.

<i>Variables</i>	<i>Beta</i>	<i>R²</i>	<i>T</i>	<i>p-value</i>
Job satisfaction		.253*	2.967*	.006*
Challenge	-.574		-2.149*	.043*
Inspire	-.069		-.165	.870
Model	-.028		-.095	.925
Enable	.023		.093	.927
Encourage	1.069		3.163*	.005*
Organisational commitment		.362*	3.842*	.001*
Challenge	-.314		-1.108	.280
Inspire	-.158		-1.356	.726
Model	.428		1.399	.176
Enable	.073		.274	.786
Encourage	.416		1.110	.072
Productivity		.015	.636	.530
Challenge	-.474		-1.355	.258
Inspire	-.417		-.417	.455
Model	-.258		-.683	.503
Enable	.619		1.889	.072
Encourage	.758		1.714	.101

Significance is at $p=.05$

4.3.7 Relationships among graduate employee outcomes of Job satisfaction, Organisational commitment and Productivity

- **Job satisfaction as independent variable predicting Productivity as dependent variable**

The regression analysis reported in Table 4.10 was not able to establish any significant association ($p > .05$) between the *Job satisfaction* and *Productivity* outcomes. *Organisational commitment* was excluded from the model at high significance with *Job satisfaction* (t-value 4.195; $p < .01$).

Table 4.10: Regression between Job satisfaction as independent variable and Productivity as dependent variable.

Variables	Coeff.	SE	R ²	T	p-value
Job satisfaction/ Productivity	.457	.692	.970	1.673	.106
Excluded Variables Not In Eqn.	Beta In				
Organisational commitment	.614			4.195*	.000*

Significance is at $p = .05$

- **Job satisfaction as independent variable predicting Organisational commitment as dependent variable**

The result of regression analysis between *Job satisfaction* as independent variable and *Organisational commitment* as dependent variable is reported in Table 4.10. It revealed a significant relationship between *Job satisfaction* and *Organisational commitment* outcomes for $p < .01$ and only a marginal significance with *Productivity*. The *Job satisfaction* variable has a statistical relationship with the *Organisational commitment* outcome (Table 4.11).

Table 4.11: Regression between Job satisfaction as independent variable and Organisational commitment as dependent variable

<i>Variables</i>	<i>Coeff.</i>	<i>SE</i>	<i>R2</i>	<i>T</i>	<i>p-value</i>
Job satisfaction/ Organisational commitment	.512	.561	.407	4.224*	.000*
Excluded Variables Not In Eqn.	<i>Beta In</i>				
Productivity	.253			1.733	.095

Significance is at $p=.05$

- **Organisational commitment as independent variable predicting Productivity as dependent variable.**

Like *Job satisfaction*, the correlation ($r=.095$) of *Job satisfaction* with *Productivity* outcomes was positive but weak. No regression analysis was reported.

4.3.8 Hypotheses

All the six leadership practices (including *Leader's Over-all*) are tested independently with the employee outcomes of *Job satisfaction*, *Organisational commitment* and *Productivity*. Where the statement is not proven the alternative is held to be valid. It being proven depended on the outcome being statistically significant. The results are reported in Tables 4.12-4.17 (for $N=28$). The results reveal the null hypotheses H1, H2, H4, H5, H8, H10, H11, H14, H16, and H17 as rejected ($p<.01$), the alternative hypotheses have been accepted. Null hypotheses H3, H6, H7, H9, H12 and H13, H15, and H18 have been accepted ($p<.01$), the alternative hypotheses are rejected. These decisions are reported in Tables 4.12 -4. 17.

Table 4.12: Hypotheses 1-3- The relationship between Encourage the Heart and Job satisfaction, Organisational commitment and Productivity outcomes

<i>Variables</i>	<i>Coeff.</i>	<i>Variance</i>	<i>p-value</i>	<i>Decision</i>
Job satisfaction	$r=.670$	$R^2=.449$	$p=.000$	Reject
Organisational commitment	$r=.647$	$R^2=.419$	$p=.000$	Reject
Productivity	$r=.233$	$R^2=.054$	$p=.233$	Accept

Table 4.13: Hypotheses 4-6- The relationship between Enable Others to Act and Job satisfaction, Organisational commitment and Productivity outcomes

<i>Variables</i>	<i>Coeff.</i>	<i>Variance</i>	<i>p-value</i>	<i>Decision</i>
Job satisfaction	$r=.362$	$R^2=.131$	$p=.027$	Reject
Organisational commitment	$r=.531$	$R^2=.282$	$p=.004$	Reject
Productivity	$r=.233$	$R^2=.076$	$p=.154$	Accept

Table 4.14: Hypotheses 7-9-The relationship between Model the Way and Job satisfaction, Organisational commitment and Productivity outcomes.

<i>Variables</i>	<i>Coeff.</i>	<i>Variance</i>	<i>p-value</i>	<i>Decision</i>
Job satisfaction	$r=.417$	$R^2=.174$	$p=.058$	Accept
Organisational commitment	$r=.626$	$R^2=.392$	$p=.000$	Reject
Productivity	$r=.108$	$R^2=.012$	$p=.585$	Accept

Table 4.15: Hypotheses 10-12-The relationship between Inspire a Shared Vision and Job satisfaction, Organisational commitment and Productivity outcomes.

<i>Variables</i>	<i>Coeff.</i>	<i>Variance</i>	<i>p-value</i>	<i>Decision</i>
Job satisfaction	$r=.554$	$R^2=.307$	$p=.002$	Reject
Organisational commitment	$r=.601$	$R^2=.361$	$p=.001$	Reject
Productivity	$r=.121$	$R^2=.015$	$p=.541$	Accept

Table 4.16: Hypotheses 13-15-The relationship between Challenge the Process and Job satisfaction, Organisational commitment and Productivity outcomes.

<i>Variables</i>	<i>Coeff.</i>	<i>Variance</i>	<i>p-value</i>	<i>Decision</i>
Job satisfaction	$r=.330$	$R^2=.0109$	$p=.086$	Accept
Organisational commitment	$r=.454$	$R^2=.206$	$p=.015$	Reject
Productivity	$r=.041$	$R^2=.002$	$p=.836$	Accept

Table 4.17: Hypotheses 16-18-The relationship between Leadership Over-all and Job satisfaction, Organisational commitment, and Productivity outcomes.

<i>Variables</i>	<i>Coeff.</i>	<i>Variance</i>	<i>p-value</i>	<i>Decision</i>
Job satisfaction	$r=.503$	$R^2=.253$	$p=.006$	Reject
Organisational commitment	$r=.602$	$R^2=.362$	$p=.001$	Reject
Productivity	$r=.124$	$R^2=.015$	$p=.530$	Accept

4.3.9 Summary

Analyzed Cronbach internal reliabilities regarding employees' data (N=28) were above those of Kouzes and Posner's. Employees' outcome reliabilities varied from .15 to .77 and were much lower than those of Kouzes and Posner.

Demographic backgrounds made no significant predictions on work outcomes when the factors were regressed. Only marginal effects were shown by *Years In Company* with *Organisational commitment* and age with *Job satisfaction* and *Organisational commitment*. The behaviour that scored the lowest mean is *Challenge the Process* and that which scored the highest mean is *Enable Others to Act*. With the dependent variables, the mean of *Organisational commitment* outcome was the highest. The outcome with the lowest mean score among the employee outcomes was Productivity.

Pearson moment correlations coefficients were all positive, significant and statistically high among the entire leadership practices. Correlations of leadership behaviours with employee outcomes ranged from low to high. The employee outcomes especially, *Job satisfaction* and *Organisational commitment* correlated strongly among themselves to show importance except with *Productivity*.

Regression reports showed two leadership behaviours-*Encourage the Heart* and *Challenge the Process* predicting *Job satisfaction* significantly. The t-value of *Challenge the Process* and *Job satisfaction* was negative. Regression report on leadership behaviours and *Organisational commitment* outcome revealed *Encourage the Heart* as the only leadership practice that related significantly and positively with the *Organisational commitment* outcome. No regression was reported of graduate employee *Productivity* with the leadership behaviours because of the relative weak correlations. The correlation between *Job satisfaction* and *Organisational commitment* outcomes was positive and significant and the highest. That between any of them and the *Productivity* outcome was also weak. Although correlation shows significance of relationship between two variables it is suggested by Loke (2001) that low correlation between variables is caused by extraneous factors. The weak conditions of correlations prevented any regression to be conducted.

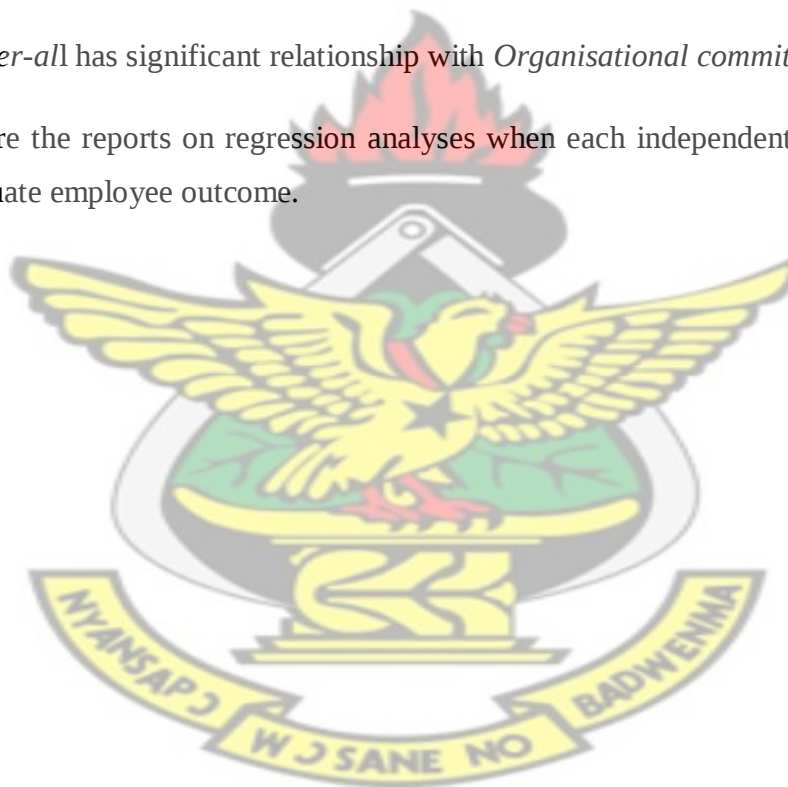
The *Leader Over-all* behaviour contributed variabilities to the model of *Job satisfaction*, *Organisational commitment* and *Productivity* outcomes as follows using the explanations provided by their respective R^2 -values of .253, .362, and .015.

Eighteen hypotheses have been tested from the six leader practices and three employee outcomes. Ten null hypotheses were rejected at $p=.05$ to prove that alternative leadership behaviours are true. They are explained as follows:

- *Encourage the Heart* has significant relationship with *Job satisfaction* (Table 4.11).
- *Encourage the Heart* has significant relationship with *Organisational commitment* (Table 4. 11).

- *Enable Others to Act* has significant relationship with *Organisational commitment* (Table 4.12).
- *Enable Others to Act* has significant relationship with *Job satisfaction* (Table 4.12).
- *Model the Way* has significant relationship with *Organisational commitment* (Table 4.13).
- *Inspire a Shared Vision* has significant relationship with *Job satisfaction* (Table 4.14).
- *Inspire a Shared Vision* has significant relationship with *Organisational commitment* (Table 4.14).
- *Challenge the Process* has significant relationship with *Organisational commitment* (Table 4.15).
- *Leaders Over-all* has significant relationship with *Job satisfaction* (Table 4.16).
- *Leaders Over-all* has significant relationship with *Organisational commitment* (Table 4.16).

These results are the reports on regression analyses when each independent variable was regressed with each graduate employee outcome.



CHAPTER FIVE

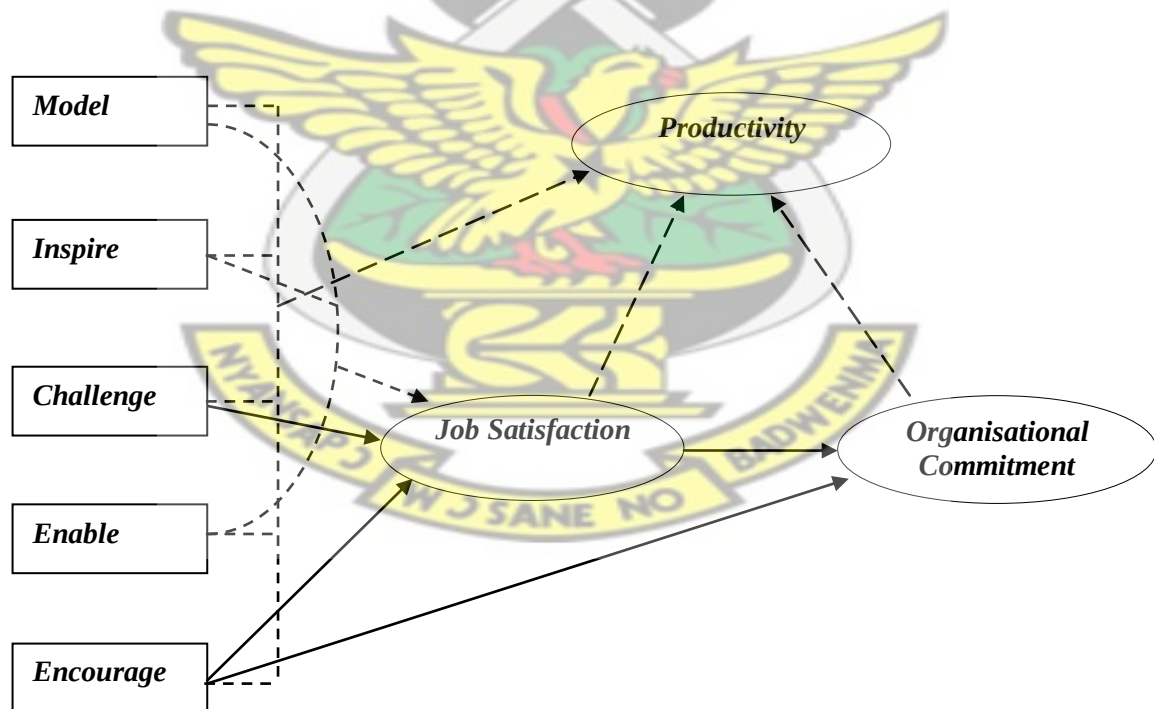
DISCUSSION OF THE RESULTS

5.0 Introduction

The case of little research understanding for construction leadership studies and the gap between western and non-western usage of transformational leadership models necessitated this research study. This study used Kouzes and Posner's (2002) Transformational leadership model. It is to be noted that the use of Kouzes and Posner's model in this study is exploratory. The researcher's experience as a quantity surveyor has also guided the discussion where necessary. The findings are summarized in Figure 5.1.

INDEPENDENT VARIABLES

DEPENDENT VARIABLES



Dotted line – No relationship among variables. Bold line – Relationship among variables

Figure 5.1: Statistical Relationship amongst Independent and Dependent Variables

5.1 Discussion of the Results

As can be seen from Figure 5.1, only two of the five leadership behaviours have effects on employee work outcomes. The discussion is conducted step by step in accordance with the study objectives.

5.1.1 Objective 1: Determining the dominant leadership practices of the Regional heads of AESL

Objective 1 seeks to identify the dominant leadership practices of the regional heads in AESL. The graduate quantity surveyors report that they observe their leaders strongly exercising the behaviour of *Enable Others to Act*. The least practiced leadership behaviours are *Model the Way*, *Encourage the Heart*, *Inspire a Shared Vision*, and *Challenge the Process*.

This result of highest leadership behaviour is corroborated by McNeese-Smith (1991) who applied Kouzes and Posner's model on nurses work outcomes in Seattle. This result could be justified because much of the basic practice of quantity surveying is measurement, bill production, writing tender reports and advising on progress payments. These are done at the subordinate level. Directors will often spend time at client-practice interface. It is possible for subordinates to have this perception because these roles that are assigned them. So long as directors are free they can then spend effort scouting for jobs. However, *Enable Others to Act* behaviour must be used in quantity surveying with much caution. Clients have aversion to subordinates doing their businesses. Since subordinates do not always have ready answers to clients' problems much mentoring is necessary. Therefore *Enable Others to Act* may be suggestible in lesser roles.

5.1.2 Objective 2: Determining the relationship between the leader behaviours and the graduate work outcomes

Objective 2 looks for the relationships between the leadership behaviours and the graduate work outcomes. The effects of independent variables on dependent variables are explained from reports on correlations and regression analyses. Earlier it was found that:

1. *Encourage the Heart* and *Challenge the Process* produced effects on the *Job satisfaction* work outcome.
2. *Encourage the Heart* leadership behaviour also produced effect on the *Organisational commitment* work outcome. Other findings were that:
3. None of the five leadership behaviours predicted graduate employee *Productivity*.
4. *Job satisfaction* as independent outcome predicted *Organisational commitment* as dependent variable.

These findings are considered in terms of:

- **Leadership behaviours that have direct effect on employee work outcomes:**

The leadership behaviours that impacted directly on employee work outcomes are dealt with in three sub-sections that follow.

1. *Encourage the Heart* leadership behaviour and employee *Job satisfaction*

The current study shows that *Encourage the Heart* leadership behaviour correlates positively ($r=.670$) and significantly ($p=0.01$) with the *Job satisfaction* work outcome. The correlation is the highest among the 5 leadership behaviours.

The finding corroborates other studies. Consistent with Brown (2003), it was found that foremen's considerate behaviour has positive correlation with employee job satisfaction. Studies have explained this relationship variously. According to Cheung *et al.* (2008), design consultants became more

satisfied with considerate and supportive leaders. According to McNeese-Smith (1991) draws attention to the fact that considerate behaviour should extend from participation to coaching and telling subordinates the next schedule. Loke (2001) and Abu-Tineh *et al.* (2008) believe that leaders must attach rewards and recognition to job performance. Explained differently, Kouzes and Posner's (2002: 320) state, "Eyes-and-heart-listening can't be from a distance Our constituents want to know who we are, how we feel, and whether we really care... encouragement is feedback and that it is a wonderful, personal feedback, ... a positive information that tells us that we're making progress, that's we're on the right track, that we're living up to the standard".

The researcher believes that site project progress and referrals made at previous progress meetings challenge the surveyor. Independent working will move the surveyor towards what Maslow has described as higher order needs or self-actualization. Herzberg's 5 satisfier factors make us also understand that achievement, recognition, work itself, responsibility and advancement (Fugar, 2005) play major role in employee satisfaction. Relative to quantity surveying, Bowen *et al.* (2008) find that quantity surveyors in South Africa are satisfied when being allowed to do the work, undertake challenging creative work and do varied and non-repetitive work including being allowed to show initiative with a low degree of supervision.

2. Challenge the Process leadership behaviour and employee Job satisfaction

The results from the current study show that *Challenge the Process* leadership behaviour correlates positively ($r=.330$) and significantly ($p=.05$) with the *Job satisfaction* work outcome.

This finding corroborates the finding of Shoemaker (1999) (cited in McCroskey, 2008). Shoemaker (1999) finds that sales peoples' job satisfaction is increased when leaders allow them to take risks in order to gain sales and receive reward as a result. Salesmanship and quantity surveying have some similarities. They all demonstrate ability to impress clients and success can be measured from

volume of sales. But to best of minds, responsibility of quantity surveying is more than that of sales business. The latter demands the buyer must be careful, the former demands duty of care to clients.

The finding is also consistent with Loke (2001) with *Challenge the process* leadership behaviour predicting the model negatively. Loke (2001) explains that the negative effect on the prediction of nurses' job satisfaction makes them less autonomous. Similar to Loke (2001), this leadership behaviour has negative effect on the model. Loke's (2001) assertion is also relevant to quantity surveying. In quantity surveying, surveyors learn from their own critical analysis of their performances on past projects in which they were involved. Then the lessons inform how they can handle the next projects. They get more responsible thereby. In nursing carelessness in health administration can lead to patient fatalities and culpability to the administration. These two professions call for ready actions and very little reference to seniors in some situations. It does happen that "... increased feelings of responsibility for work comes from autonomy (Fugar, 2005:96) (citing Herzberg, Mausner, and Synderman, 1959)". On the other hand, it is necessary to remark that quantity surveyors are employed to provide solutions to clients and any inadequacies have to be addressed to raise the confidence levels of all members of the practice. Chermers (2000:40) prescribes that "effective leaders must use the skills and abilities possessed by themselves and their followers to accomplish the group's mission". Consistent with quantity surveying, strengths of subordinates differ according to roles. On word by Kouzes and Posner (2002:205), "Leaders get to know the skills and motivations of their constituents..."

In this particular study however, the relative importance of *Encourage the Heart* and *Challenge the Process* to the model has been found to be in the ratio of 2:1 (from the beta values, 1.1098:.5526; Table 4.7). This information can serve as a guide as to what roles each of the leadership behaviours play on the predictive model. In this study, *Challenge the Process* contributes 11.2% to the variance, making *Encourage the Heart* more important than *Challenge the Process* when it comes to *Job satisfaction*.

3. *Encourage the Heart* leadership behaviour and employee *Organisational commitment*

The results from the current study show that *Encourage the Heart* leadership behaviour correlates positively ($r=.647$) and significantly ($p=.01$) with employee *Organisational commitment* work outcome. This leadership behaviour has also the highest correlation with *Organisational commitment*.

The finding is in accordance with McCrowskey (2008); Abu-Tineh *et al.*(2008). McCrowskey (2008) considers the celebration of the values and victories as that which creates a spirit of community while Abu-Tineh *et al.* (2008) suggests that achievement celebrations bring togetherness and make employees feel that they are part of the group and part of something significant. The commonality of these two studies on education to construction is that all yield results that rely on hard work. Best teachers get national awards in Ghana. Quantity surveyors are required to be proactive and provide solutions to clients readily. Teachers are intrinsically rewarded when their students perform very well in examinations. There is ‘National Best Teacher Day in Ghana. Construction awards the quantity surveyor much happiness intrinsically (his own critical assessment of his involvement and makes him transfer the skills learnt from previous projects) and extrinsically when out there the surveyor points to the project edifice that he has been part of.

- **Leadership behaviours that have no direct effect on employee work outcomes**

Leadership behaviours -*Model the Way*, *Inspire a Shared Vision*, and *Enable Others to Act* did not have any impact on the three employee work outcomes. Significantly, the correlation results failed to show any strong relationships between the leadership behaviours and employee *Productivity*. From Table 4.9, the variance explained by all the leadership behaviours put together was .015 on *Productivity* at $p=.532$.

This finding is supported by Loke (2001) when she asserts that the existence of low correlation between variables is thought to be caused by extraneous factors. In Chan and Chan (2005) (citing Howell and Dorfman, 1986) it has been explained that professionals are internally motivated by their own values and ethics and may to some extent diminish the possible effect of leadership on their work. More definitive is Cheung *et al.* (2001:427) who noted that “leadership behaviours not included in the final regression equation should not be conceived to mean that they do not contribute to an outcome”. This is corroborated in the current study. Notwithstanding the lack of significance at $p=.05$, Table 4.9 all the 5 leadership behaviours regressed, produced the total variance ($R^2=.015$ at $p=.530$). The leadership behaviours that do not have significant effects on the outcomes are briefly discussed:

1. *Model the Way*

Model the Way is “... leading through direct individual involvement and action” (Kouzes and Posner, 2002; 15). McNeese-Smith (1992) identifies the behaviour of *Model the Way* as instrumental for achievement of excellent productivity and also identifies that the key to productivity is the ability of an organisation to maximize the effectiveness of its workforce. Cheung *et al.* (2001) show that effectiveness of leaders could be achieved in three key areas: (1) what the leader does (2) the demands of the job, and (3) the individuals who form the group.

The lack of significance of *Model the Way* behaviour to the outcomes signifies followers not seeing heads lead the way as they trumpet and the non-adherence to organizational standard or values.

Studies have shown that *Model the Way* results from considerate behaviours (Abu-Tineh *et al.*, 2008); good morale (Bewley, 1998 and Goetzel and Ozminkowski, 2002); altruistic love and quality of relationship (Fry, 2003); and when job factors at the workplace are improved. Kouzes and Posner

(2002:371) describe work place altruism as “Celebration of doing good to others, pulling together to help others, promoting social change, showing appreciation to customers and clients”.

2. Inspire a Shared Vision

Contrary to Loke’s (2001) belief that *Inspired a Shared Vision* is an important predictor of job satisfaction and organisational commitment, this finding has proven otherwise. Indeed a shared vision shows up when people in the organization are brought together to work towards a shared future which they all seek to create (Abu-Tineh *et al.*, 2008) and a call that requires collective contributions of all. Fact of hard working subordinates living to become associates and directors of a practice should easily have generated an enthusiastic pull. Ogunlana and Chang (1998) have suggested that sharing project objectives encourages co-operative spirit thereby increasing productivity. Any well meaning employees should have to be concerned about globalization and the intense competition at the market place as reason to enhance productivity.

3. Enable Others to Act

Bekon *et al* (2004) have shown that participative decision making has significant positive effects on job attributes, satisfaction and commitment. There seems to be a situation of lack of subordinate involvement in key aspects of the work. When leaders *Enable Others to Act*, they empower and collaborate. At the same time while leaders get involved they must also give followers freedom of choice. Workers must be helped to make their work more meaningful to the community. Frost *et al.* (1974) and Anthony (1978) have reason to suggest involvement of workers at the workplace. They argue that employees have more complete knowledge of their work than management. Although self-actualization of professionals (Maslow, 1954) is desirable in quantity surveying tasks like contract provisions, measurement rules, bye-laws and professional ethics are a lot more directive. Tight controls therefore as noted by Hersey and Blanchard (1974) create less empowerment, low teamwork and mistrust.

5.1.3 Objective 3: Inter-relationships amongst graduate employee work outcomes

The relationships among employee outcomes showed a mix of strong, weak, and nearly negligible statistical results.

1. *Job satisfaction as independent variable predicting Organisational commitment as dependent variable.*

The results from the current study show that there existed a significant, positive relationship between *Job satisfaction* and *Organisational commitment* outcomes ($r=.637$ at $p=.01$). The total variance reported is $R^2=40.7$ percent at $p<.05$ on the model. The positive correlation shows that both job satisfaction and organizational commitment variables are important and as job satisfaction level rises so does organisational commitment of graduate quantity surveyors. This finding is supported by Porter and Steers (1973); Bishay (1996) (cited in Bull, 2005). Bull (2005:121) (citing Hirschman, 1970) has shown that “job satisfaction will show whether individuals are attached to an organisation; will only comply with the directives; or will quit the organisation”. Bishay (1996) tends to suggest that satisfaction of employees releases greater commitment.

This empirical finding may have some interpretations for the Ghanaian situation. Job satisfaction is not likely to exist when project funds are inadequate. As always, the quantity surveyor does work and re-does them in anticipation that funds will be available soon. The high graduate unemployment rate in the country presently could have explained why graduates are still at post in this study. Professionals are generally low on loyalty due to the skills they acquire through extensive training (Stahl *et al*, 1978). The commitments of these graduates are more of normative, only hoping that the situation improves (Stranglen, 2009).

Empirical conclusions by Bowen *et al*. (2008) highlight factors of quantity surveyors’ dissatisfaction. Factors of the job form job characteristics. Three characteristics suggested by Ting (1997) include- job characteristics, organisational characteristics and individual characteristics. The organisational

characteristics may add to the attributes of co-workers and interpersonal relations between subordinates and their supervisors. This issue is discussed later.

2. *Job satisfaction and Organisational commitment* as independent variables not predicting *Productivity* as dependent variable

- *Job satisfaction* not predicting dependent *Productivity*.**

The result in this study shows that there is correlation between *Job satisfaction* as an independent variable and *Productivity* as dependent variable. The correlation is the highest ($r=.317$) among the employee work outcomes. This satisfaction level is low. If workers derived satisfaction from the work there must have been an increase in productivity (Cheung *et al.*, 2001). This finding corroborates Stern (2003). Stern (2003) shows that employee satisfaction does not necessarily contribute directly to productivity and that the link is passive. On word by Waskiewicz (1999), job satisfaction affects productivity indirectly through burnout, absenteeism, apathy, and turnover, all of which can lead to a lack of work continuity. But absenteeism affects the work of the quantity surveyor in that he will not be able to meet clients' deadlines.

In a recent study by Bowen *et al.* (2008), it is learnt that dissatisfaction of South African quantity surveyors came from measurements of builders' work, project administration, and preparation of final account; perceived incompetence of other colleague professionals, poor documentation and lack of faith in designers, government interferences and bureaucracy, contractual disputes, and dealing with incompetent contractors constitute dissatisfaction among quantity surveyors. It is possible variety of task can improve employee satisfaction the tasks stated above are often the quantity surveyors' core competences. Effects of co-workers (Hawthorne effect); relationships with supervisors (Watson, 2009); strategies of satisfaction, health and morale (Goetzel and Ozminkowski, 2002) change in attitude by both the individual knowledge worker and the whole organization (Drucker, 1999) can all help generate higher worker productivity. To enhance performance, Ting

(1997) has also argued that organizations should eliminate task uncertainty that employees experience and provide them with necessary information about the job and cause of action needed to perform them.

Job satisfaction is also enhanced by individual professional's self-actualisation efforts (Sylvia and Hutchinson, 1985; Barrett, 1993; Fugar, 2005), all in concert with Maslow's Hierarchy of Needs (1954). Ting (1997) has suggested two options open to organisations in pursuit of productivity- either by opting for a change in individual traits or undertaking a proper harnessing of equipment and the maximization of physical resources and taking care of employee motivation (Dawson, 1986) (cited in Newcombe, 1990a).

- **Organisational commitment not predicting Productivity**

The results of this study shows that correlation between *Job satisfaction* as an independent variable and *Productivity* as dependent variable is extremely weak ($r=.095$). This is unlike the interpretation given by Baugh and Roberts (1994) which implied that employees who were committed to both their organisation and their profession have high levels of job performance. The low level of productivity although positive only means that the likely employee commitment to the organization is virtually normative. Normative commitment is evidential of the willingness to leave the organization (Stordeur *et al.* 2001). General belief is that all the commitments are associated with staying with the firm.

McNeese-Smith (1992) has reckoned that the key to productivity is placed on the ability of an organisation being able to maximize the effectiveness of its workforce. Similarly, effective employees can play an important role in quantity surveying. Productivity is doing more with less. Alternatively it is doing much with resources saved. Free competition is the norm in today's

globalized market. Anyone therefore who offers less for same skills carries the day. Low fees need high productivity to cut down on project and administrative overheads.

It is the belief of Clutterbuck (1997) that the employee's organisational commitment can be enhanced by mentoring and influencing the protégé. Professional institutions require continuous-life-long studies for all categories of members. Of more relevance will be when these studies are individually focused.

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Objective 4: Demographic characteristics relative to the work outcomes

The demographic report (Table 4.1) showed that 50 percent of employees hold Bachelor degree. This category of employees reported least commitment. This could be that they are only regarding this work as a stepping stone. Kouzes and Posner's (2006) showed that the various demographic factors are in-significant in explaining leadership behaviours. Except for gender ($p=.01$) and race ($p=.04$), recent study by Bowen and Cattell (2008) provides support for the above.

Those over 50 years scored the highest mean (4.24) in *Job satisfaction* followed by the young group of 18-29 years (4.17) and 30-39 years (4.03) of ages. The least mean (3.95) was scored by those between 40-49 years of age. This observation assumed a 'u' shaped formation as evidenced in Clark and Oswald (1996) and Uppal (2005).

Tenure showed the same effect rising steadily from 4.12 with the *less than* 3 years of age people to 4.33 in the case of those who are 6 years old, stabilizing for those who are 7 years to rise for those whose tenure is above 11 years old. HND holders tended to be happier than their bachelor degree counterparts. As noted, the mean score of bachelor degree holders (3.91) fell below that of HND holders (4.36) and is only slightly above High School holders (3.90).

As in the case of *Organisational commitment*, the least mean score (5.00) was reported for those in 18-29 years and 40-49 years of ages rising steadily and respectively with those in 30-39 years (5.13) and to the highest in the case of those who are of ages of 50-59 years (5.60). People with postgraduate qualification scored the highest mean (5.50) followed by those with HND (5.44) and high school qualification (5.00). Bachelor degree holders showed least commitment (4.93) because of likely mobility and possibility of getting alternative jobs. This concurs with cosmopolitan workers or professionals who may stay on a job as a stepping stone. Those with 21 or more years experience and 11 or more years with company scored the highest means in their respective groups and possibly the sector of employees that can show involvement in the aspirations of the organisation. It is important to note that new entrants to company (1-3) years with company with mean score of 5.10 and 4-6 years with company show an indication of commitment in their earlier years of recruitment but are likely as shown in the case of 7-10 years of company, to show less affectivity (4.75) to the organisation. People do not work at the same organisation or job throughout their lifetime and committed people need be given needed attention. The bulk of workers (75%) show a mean score of 5.14 and these indicate initial commitment.

The Productivity outcome shows the same relationships with age, education, and work experience as with the first two outcomes. In the *Years with company* situation, *Productivity* declines from the means of 4.24 to 3.82 for those in the category of 1-3 years to those in 11 or more. The *Productivity* mean for those in the salary range of 50, 000 or more (4.50) is highest followed by those in the categories of *Other* (4.30) and 20,000 or below (4.30) respectively.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS.

6.0 Introduction

The study is brought to its conclusion by first considering the following:

- Summary and review of the study
- Results and Conclusion
- Implications from the study, and
- Recommendations.

6.1 Summary of the sequence of the study

The sequence of the process of the study is illustrated briefly in Figure 6.1.

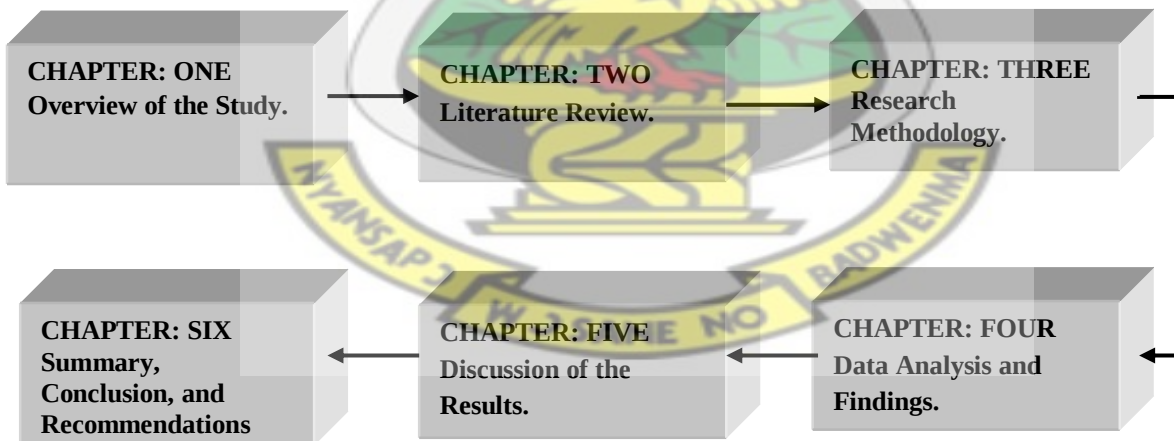


Figure 6.1: Brief Summary of the Sequence of the Study.

6.1.1 Chapter One: Overview of the Study

The aim of the study was to determine the perceived impact of leadership behaviours of heads on work outcomes of graduate quantity surveyors in AESL. The following were consequently considered:

- The identifiable attributes or known transformational leader behaviours that AESL Regional heads are associated with that impact Graduate Quantity Surveyors.
- Attributes of Regional heads that are quantifiable.
- Correlations that exist between each individual attribute and each employee outcome.
- The strengths of the association amongst the attributes and employee outcomes.

The main objective was to find the perceived effect of Kouzes and Posner's transformational leadership model on the work outcomes of graduate quantity surveyors-job satisfaction, organisational commitment, and productivity.

6.1.2 Chapter Two: Literature Review

The theoretical leadership background and underlining research evidences for the key leadership behaviours and the work outcomes were provided. The leadership framework was derived from Kouzes and Posner's (2002) five best leadership practices: Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart. Also considered was the demographic background that affected work outcomes of job satisfaction, organisational commitment, and productivity. The secondary objective was to establish concepts of employee outcomes-job satisfaction, organisational commitment and productivity and separately describe the relationships between the leadership behaviours and each of the work outcomes. The chapter culminated in the analytical framework upon which choice of instruments were made for the research design.

6.1.3 Chapter Three: Research Methodology

The literature facilitated the research design and methodology in which use was made of instruments with verified reliabilities to solicit data from AESL population. As is necessary, descriptive and inferential statistics were used.

Kouzes and Posner's (1993) LPI-Other was the leadership instrument that was used. The other instruments included with the SPSS tool:

- Spector's (1985) Job Satisfaction Survey,
- Porter *et al.*'s (1974) Organisational Commitment Questionnaire,
- McNeese-Smith's (1995) Productivity.

These instruments were used to generate 28 valid data from 9 out of the 10 AESL regional offices. The data were collated and inputted onto the researcher's laptop and analyzed using SSPS (Version 16) for windows. The computing process included:

- Cronbach's internal reliability tests,
- Descriptive measures,
- Inferential statistics that included Pearson product-moment correlations coefficient, Multiple regression analysis from which it was possible to have informed empirical discussions.

6.1.4 Chapter Four: Data Analysis and Findings

The internal reliabilities of the five leadership behaviours ranged between .91 and .93 and were found to be above recent reliabilities of Loke (2001) and Abu-Tineh *et al.* (2008). The reliabilities for the employee outcomes ranged from .15 to .77. The Pearson coefficient (r) among the leadership practices ranged between $r=.674$ to $r=.901$.

The Pearson correlation (r) between the leadership behaviours and the graduate work outcomes ranged from low to moderate and was positive and significantly high with two of the outcomes of

Job satisfaction and *Organisational commitment* (at $p < .01$). That between the leadership behaviours and graduate *Productivity* outcome was positive but non-significant to report. The correlations among the outcomes themselves ranged between $r = .095$ to $r = .637$.

Causal associations among the leadership behaviours and the employees' outcomes were tested by regression process. In all, eighteen hypotheses were developed and tested using each of the five best practices and *Leaders' Over-all* data against each of the three employee outcomes. Earlier, testing of causality between demographic backgrounds and employee outcomes failed to show any significant influence on the outcomes.

The demographic analysis however revealed that composition of women was 3.64 percent and men 96.4 percent. Sixty one percent of the number employed was in the youthful (18-40 years) bracket and 39 percent were above 40 years old. Nearly 82 percent of the people held tertiary qualification with majority (50%) holding the HND qualification. Forty-two percent of the number employed has up to 5 years work experience and 28.6 percent have at least 21 years of work experience. Thirty-six percent of the employed have spent 3 years tenure and another 36 percent have 11 or more year's tenure.

The basic leadership behaviour rated by quantity surveyors was *Enable Others to Act*. The rest were below the mean of *Leaders' Over-all* leadership behaviour.

Findings show that there was a high statistically significant positive relationships amongst the leadership behaviours themselves showing strong inter-correlations of $r = .674$ to $r = .904$. There was high colinearity in the leadership behaviours and thus affected the regressions when these were simultaneously analyzed. Correlations among the work outcomes were low to significant ($r = .095$ to $r = .637$) positively.

Encourage the Heart and *Challenge the Heart* leadership behaviours prediction (R^2) on *Job satisfaction* outcome was 56.1%. The total variance explained by *Encourage the Heart* leadership behaviour (R^2) was 44.9 percent and that explained by *Challenge the Process* was 11.2 percent. The following observations were also made:

Inspire a Shared Vision, *Model the Way*, and *Enable Others to Act* leadership behaviours showed individual significant relationships with *Job satisfaction* outcome but were unable to show effects in the stepwise regression. This could have been the cause of multi-collinearity.

- Forty-one percent of the total variance is predicted by *Encourage the Heart* to the prediction of *Organisational commitment*. The rest of the leadership behaviours did not have any significant relationships with the outcomes.
- The percentage predictions explained by *Leader Over-all* behaviour on *Job satisfaction*, *Organisational commitment*, and *Productivity* models are 25.3 percent, 36.2 percent, and 1.50 percent respectively.
- Ten null hypotheses were rejected and 8 were accepted implying acceptance of 10 and a rejection of 8 at significance level of $p=.05$. The variances accounted for are in the range of .002 to .449.

6.1.5 Chapter Five: Discussion of the Results

The main findings showed that combined leadership practice (*Leaders Over-all*) accounted for 25.3 percent of the variations of *Job satisfaction*, 36.2 percent of *Organisational commitment* and 1.5 percent of *Productivity* outcomes.

Encourage the Heart practice has singularly accounted for (R^2) 44.9 percent of *Job satisfaction*. Total variance accounted for by *Encourage the Heart* and *Challenge the Process* was 56.1 percent when stepwise regression was conducted.

Encourage the Heart singularly impacted *Organisational commitment* by accounting for 41.9 percent of the total variance. *Model the Way, Enable Others to Act, and Inspire a Shared Vision* practices have not predicted any of the outcomes significantly.

Job Satisfaction accounted for 40.7 percent of the variability of *Organisational commitment* outcome.

6.1.6 Conclusion

Research on leadership can be traced to its importance or its impact on employees' outcomes especially those whose efforts service organisations depend on (McNeese-Smith, 1991, 1995; Loke, 2001). Consequently, this study shows that leadership behaviours should be applied with regard to how they can influence desired employee outcomes in a construction profession. The following observations have come from the study:

- 1 The findings show that heads of graduate quantity surveyors in AESL showed little impact and have moderate knowledge of the Kouzes and Posner's leadership practices. The findings, however, have shown the evidence that transformational leadership can be found in the construction industry in Ghana and that the perception of subordinates is critical for leadership performance.
- 2 The study has shown that graduate quantity surveyors' job satisfaction can be contributed by leaders who encourage the heart and give tasks that are challenging. These relationships are significant. It was also found that graduate quantity surveyors' organizational commitment can be contributed by leaders who encourage the heart. This is a relevant feedback for leaders from subordinates as leaders now know how their actions affect their employees.
- 3 The graduate quantity surveyors' scores of job satisfaction and organisational commitment can be calculated based on the equations derived in the study. As graduate quantity surveyors

become more affiliated with such leaders their satisfaction and commitment levels are increased as well.

- 4 The study reveals that AESL leadership and their graduate employee quantity surveyors show only moderate knowledge of the practices. Researchers (Kouzes and Posner, 2006) assert that the five leadership behaviours combine to truly reflect exemplary leadership that makes the workplace highly effective.
- 5 From Kouzes and Posner's Notes on Encouraging the Heart, "the real way to tell if someone is a leader is by how many constituents become leaders themselves". Further, the most appropriate leader is one who can lead others to lead themselves (Manz and Sims, 1991). Through leadership, Kouzes and Posner expect that ordinary people can bring forth the best from people. It follows that when a leader is established the organisation is established (Maxwell, 2002).
- 6 Graduate employee productivity was not impacted.
8. Demographic backgrounds have no significant effects on employee work outcomes.
9. Finally, this study has given some explanations to the understanding of leadership practices in the Ghanaian construction industry.

6.2 Theoretical implication

The study confirms theoretically that some aspects of Kouzes and Posner's transformational model could lead to job satisfaction and organisational commitment of graduate quantity surveyors in Ghana and that from a theoretical standpoint, the findings of this study show that AESL leaders demonstrate little knowledge in the use of Kouzes and Posner's (2002) Transformational model.

Though proven that most of the empirical research on Kouzes and Posner's (2002) model has been applied across cultures and in widely different sectors-nursing, education and industrial fields, its

applicability to construction research is limited. The study however provides evidence that the practice of Kouzes and Posner's Transformational leadership exists in the construction industry.

Further investigation is necessary for many reasons to:

- validate external generalizability or validity of the findings;
- establish the reality of productivity of quantity surveyors in both private and public consultancy firms in relation to *Model the Way* leadership behaviour dimension;
- examine the reliability of the questionnaire on productivity as it was developed for a study in the health sector and in a different class;
- investigate the applicability of Kouzes and Posner's five best leadership practices in general or redesign the wordings of the Likert scales to make them more understandable. The current responses appear too ambiguous for a sample that uses English as a second language;
- research on wider areas of quantity surveying (both public and private) and/or other professions like engineering, architecture, and project management.

6.3 Practical implication

The relevance of this study shows that complexity in leadership behaviours and their effects on work outcomes could be explained in construction as well. Construction industry is much affected by the external sporadic and internal environments. The results will practically prompt quantity surveying practitioners to adjust their leadership behaviours in order to generate reasonable subordinates' outcomes. Indeed leaders should spend sometime in understanding in learning more about their own behaviours and how their attitudes can affect their followers. Employees, especially the committed ones, are said to be the most important resource of every organization. Loke's (2001) study debunks the notion that the leadership practices are fashioned in the context that suits the West. This current study has its relevance to Ghana which is a non-western culture. It indicates, however, the beginning

of getting employee and organizational data to formulate the development of a model for leadership that can be implemented easily and successfully in the construction sector of Ghana.

6.4 Recommendations

Recommendations are made as follows:

- Frequent training and retreats for quantity surveyors and leaders to update their knowledge in the leadership practices. Kouzes and Posner say, 'leadership is learnable. When leaders know what is right to do they will create conditions for others to do likewise'.
- Leaders of quantity surveying practices must self-explore and seek honest feedback from subordinates to be able to have accurate self-awareness or objective measures of themselves. Kouzes and Posner advise that leaders practice the 5 skills or practices with commitment.
- The 82 percent of the employed in this study coming from the tertiary institutions and 50 percent holding the bachelor degree qualification indicates that tertiary institutions hold themselves as main sources of manpower supply, and thence likely regional heads. Consequently, academia and industry must foster a collaboration to meet job maturity needs of the graduates. Streeten (1994) (cited in van Rensberg, 2004) asserts that the effect of human development has to be focussed upon in order to achieve higher productivity and better equipped people.
- To arrest the absence of leadership effects on productivity requires that organisations make the commitment of:
 - Re-design of work and more explaining of work that subordinates are less able to perform.
 - Establishment of the level at which commitment exists to pay attention to individual or group loyalty for purposes of synergy.
 - An enabling and motivating environment is provided by leadership to keep productivity above any lack-luster level. Individual abilities and motivations must be tapped by assigning subordinates challenging tasks and voice at the workplace, providing feedback on performances

no matter how small, generating high morale and workplace altruism with and including securitizing any equitable reward system that is provided.

- Leaders must share project objectives with employees to elicit community spirit.

The study has originated in Ghana but can be replicated in different professions like engineering and architecture to cross-check the results of the leadership behaviours on employee outcomes.

6.5 Limitations

This study was typified by multi-colinearity among the independent variables. Loke's (2001) study underlined that the high inter-correlation among the leadership practices hindered to some extent the prediction of effects of individual leadership behaviours' on employee work outcomes.

Other limitations which might explain why generalization could be limited are that:

- The sample population of graduate employees (Ghana) could not compare to the middle European-American class (Loke, 2001) on which Kouzes and Posner's LPI was originally based.
- Funding was limited and this affected the coverage of data collection and consequently absolute generalisation.
- Generalisability has also been affected because the sample was from only one typical consultancy quantity surveying service organisation.
- Although participation was voluntary possibility is that obtained results might be biased (Loke, 2001). Notable was also the fact of data collected from nine regions of Ghana. A study could be conducted to include the other region(s).
- Research should be replicated with expanded sample size that may include public and private sector quantity surveyors and where possible other categories of construction consultants.
- The findings therefore need be interpreted with caution.

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APPENDICES

APPENDIX A

FOLLOWERS PERCEPTION OF THEIR REGIONAL CONSULTANTS LEADERSHIP QUESTIONNAIRE (LPI- OTHER)

Please think about the Regional Consultant of your company and respond to this CONFIDENTIAL questionnaire. To what extent would you say this person engages in the following actions and behaviours. Tick the number that applies to each statement.

No.	Description	Rarely	Once in a while	Sometimes	Fairly often	Very frequently
1.0	Seeks out challenging opportunities that test his/her skills and abilities					
2.0	Describes the kind of future he/she would like for us to create together					
3.0	Involves others in planning the actions that will be taken					
4.0	Is clear about his/her own philosophy of leadership					
5.0	Takes the time to celebrate accomplishments when project milestones are reached					
6.0	Stays up-to-date on the most recent developments affecting our company					
7.0	Appeals to others to share his/her dream of the future as their own					
8.0	Treats others with dignity and respect					
9.0	Makes certain that the projects she/he manages are broken down into manageable chunks.					
10.0	Makes sure that people are recognized for their contributions to the success of our projects					
11.0	I challenge the way we do things at work					
12.0	Clearly communicates a positive and hopeful outlook for the future of our company					
13.0	Gives people a lot of discretion to make their own decisions					
14.0	Spends time and energy making certain that people adhere to the values that have been agreed on					
15.0	Praises people for a job well done					

16.0	Looks for innovative ways we can improve what we do in this company					
17.0	Shows others how their long-term future interests can be realized by enlisting in a common vision					
18.0	Develops cooperative relationships with the people she/he works with					
19.0	Lets others know her/his beliefs on how to best run the company he/she leads					
20.0	Gives the members of the team lots of appreciation and support for their contributions					
21.0	Asks "what can we learn?" when things do not go as expected					
22.0	Looks ahead and forecasts what he/she expects the future to be like					
23.0	Creates an atmosphere of mutual trust in the projects he/she leads					
24.0	Is consistent in practicing the values I espouse					
25.0	Finds ways to celebrate accomplishments					
26.0	Experiments and take risks with new approaches to her/his work even when there is a chance of failure					
27.0	Is contagiously excited and enthusiastic about future possibilities					
28.0	Gets others to feel a sense of ownership for the projects they work on					
29.0	Makes sure the work group sets clear goals, make plans, and establishes milestones for the projects he/she leads					
30.0	Makes it a point to tell the rest of the company about the good work done by her/his group.					

APPENDIX B

REGIONAL CONSULTANTS LEADERSHIP QUESTIONNAIRE (LPI- SELF)

Please think about the Regional Consultant of your company and respond to this CONFIDENTIAL questionnaire. To what extent would you say this person engages in the following actions and behaviours. Tick the number that applies to each statement.

No.	Description	Rarely	Once in a while	Sometimes	Fairly often	Very frequently
1.0	Seeks out challenging opportunities that test his/her skills and abilities					
2.0	Describes the kind of future he/she would like for us to create together					
3.0	Involves others in planning the actions that will be taken					
4.0	Is clear about his/her own philosophy of leadership					
5.0	Takes the time to celebrate accomplishments when project milestones are reached					
6.0	Stays up-to-date on the most recent developments affecting our company					
7.0	Appeals to others to share his/her dream of the future as their own					
8.0	Treats others with dignity and respect					
9.0	Makes certain that the projects she/he manages are broken down into manageable chunks.					
10.0	Makes sure that people are recognized for their contributions to the success of our projects					
11.0	I challenge the way we do things at work					
12.0	Clearly communicates a positive and hopeful outlook for the future of our company					
13.0	Gives people a lot of discretion to make their own decisions					
14.0	Spends time and energy making certain that people adhere to the values that have been agreed on					
15.0	Praises people for a job well done					
16.0	Looks for innovative ways we can improve what we do in this company					

17.0	Shows others how their long-term future interests can be realized by enlisting in a common vision					
18.0	Develops cooperative relationships with the people she/he works with					
19.0	Lets others know her/his beliefs on how to best run the company he/she leads					
20.0	Gives the members of the team lots of appreciation and support for their contributions					
21.0	Asks "what can we learn?" when things do not go as expected					
22.0	Looks ahead and forecasts what he/she expects the future to be like					
23.0	Creates an atmosphere of mutual trust in the projects he/she leads					
24.0	Is consistent in practicing the values I espouse					
25.0	Finds ways to celebrate accomplishments					
26.0	Experiments and take risks with new approaches to her/his work even when there is a chance of failure					
27.0	Is contagiously excited and enthusiastic about future possibilities					
28.0	Gets others to feel a sense of ownership for the projects they work on					
29.0	Makes sure the work group sets clear goals, make plans, and establishes milestones for the projects he/she leads					
30.0	Makes it a point to tell the rest of the company about the good work done by her/his group.					

APPENDIX C

FOLLOWERS' FACTORS OF JOB SATISFACTION

For each of the following items, please check the response which appropriately represents your level of job satisfaction or dissatisfaction.

No.	Factors of Job Satisfaction	Disagree Very Much	Disagree Moderately	Agree slightly	Agree moderately	Agree very much
1.0	I feel I am being paid a fair amount for the work I do					
2.0	There is really too little chance for promotion on my job					
3.0	My supervisor is quite competent in doing his/her job					
4.0	I am not satisfied with the benefits I receive (Social security, health insurance and retirement benefits)					
5.0	When I do a good job, I receive the recognition for it that I should receive					
6.0	Many of our rules and procedures make doing a good job difficult					
7.0	like the people I work with					
8.0	I sometimes feel my job is meaningless					
9.0	Communications seems good within the company					
10.0	Pay raises are too few and far between					
11.0	Those that do well on the job stand a fair chance of being promoted					
12.0	My supervisor is unfair to me					
13.0	The benefits we receive are as good as most other companies offer					
14.0	I do not feel that the work I do is appreciated.					
15.0	My efforts to do a good job are not often blocked by procedures					
16.0	I find I have to work harder at my job because of the incompetence of people I work with					

17.0	I like doing the things I do at work					
18.0	The goals of this company are not clear to me					
19.0	I feel unappreciated by the company when I think about what they pay me					
20.0	Workers in this company are promoted as fast as in other companies					
21.0	My supervisor shows too little interest in the feelings of subordinates					
22.0	The benefit package we have is equitable					
23.0	There are few rewards for those who work here					
24.0	I have too much work to do at work					
25.0	I enjoy my co-workers					
26.0	I often feel that I do not know what is going on with the company					
27.0	I feel a sense of pride in doing job					
28.0	I feel satisfied with my chances for salary increases					
29.0	There are benefits we do not have which we should have					
30.0	I like my supervisor					
31.0	I am asked to do other things that are not directly related to my job					
32.0	I don't feel my efforts are rewarded the way they should be					
33.0	I am satisfied with my chances for promotion					
34.0	There is too much bickering and fighting at work					
35.0	My job is enjoyable					
36.0	My daily assignments is not fully explained to me					

APPENDIX D

FOLLOWERS' FACTORS OF ORGANISATIONAL COMMITMENT

For each of the following items, please check the response which appropriately represents your level of job satisfaction or dissatisfaction and commitment to your organisation

No.	Commitment Factors for Individual Surveyors	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly agree	Agree	Strongly Agree
1.0	I am willing to put in a great deal of effort beyond that normally expected in order to help this company be successful							
2.0	I talk about this company to my friends as a great company to work for							
3.0	I feel very little loyalty to this company							
4.0	I would accept almost any type of job assignment in order to keep working for this company							
5.0	I find that my values and the company's values are very similar							
6.0	I am proud to tell others that I am part of this company							
7.0	I could just as well be working for a different company as long as the types of work were similar							
8.0	This company really inspires the very best in me in the way of job performance							
9.0	It would take very little change in my present circumstances to cause me to leave this company							
10.0	I am extremely glad that I chose this company to work for, over others I was considering at the time I joined							
11.0	There is not too much to be gained by sticking with this company indefinitely							
12.0	Often, I find it difficult to agree with this company's policies on important matters relating to its employees							
13.0	I really care about the fate of this company							
14.0	For me, this is the best of all possible companies for which to work							
15.0	Deciding to work for this company was a definite mistake on my part.							

APPENDIX E

FOLLOWERS FACTORS OF PRODUCTIVITY

As an employee of AESL, you have many responsibilities. Following are just a few that major may not have been important. Please tick the number indicating the contribution you feel you have been able to make to your company in each area in the past year. Please try to answer accurately, and remember that no one but the researcher will see your anonymous response

No.	Factors of Productivity	Slight	Some	Medium	High	Very High
1.0	Helping to meet overall company goals					
2.0	Helping to meet the goals of my section					
3.0	Helping to keep cost of supplies down in my section					
4.0	Helping to keep cost of labor down in my department					
5.0	Providing a high quality of service in my section					
6.0	Helping to support professional/educational growth of all employees in my section					
7.0	Assisting my section to set useful goals					
8.0	Assisting my section to meet its productivity goals					
9.0	Helping my section to meet deadlines					
10.0	Helping to accomplish a large amount of work in my section					
11.0	Being well organized					
12.0	Helping my section to be accurate or free of errors					
13.0	Keeping my sick leave usage low					
14.0	Helping to minimize resignations in my section					
15.0	Helping my section to solve its problem					

APPENDIX F

DEMOGRAPHIC CHARACTERISTICS

Lastly, please answer the following questions about yourself for statistical purposes only

DIRECTIONS: Please circle the number of the answer in which you or your situation is best described.

What is your sex?

1. Male 2. Female

What is your age?

1. 18-29 2. 30-39 3. 40-49 4. 50-59 5. 60 or above

What is your highest level of educational background?

1. High school 2. HND 3. University Graduate degree 4. Postgraduate degree 5. Other, please state

How many years of experience in your present profession?

1. Five or less 2. Six to ten 3. Eleven to twenty 4. Twenty-one or more

How many years have you worked at this present company?

1. Less than one 2. One to three 3. Four to six 4. Seven to ten

5. Eleven and more

What is your present salary?

1. GH¢20,000 or below 2. GH¢20,002 to 29,999 3. GH¢30,000 to 49,999
4. GH¢40,000 to 49,999 5. GH¢50,000 or above

Thank you very much for completing this survey.

APPENDIX G

SCANNED COPY OF LETTER COVERING QUESTIONNAIRES

Development Office
Kwame Nkrumah University of Science and
Technology
Kumasi.

Email: asilevialex@yahoo.com
Mob.: (0)20 8168629
Tel(Res)(0)51 61290/61529

25th February 2008

KNUST

Dear Colleague

I am a part-time M.Phil student of the Department of Building Technology of the Kwame Nkrumah University of Science and Technology, Kumasi.

I am writing to ask for your help in the above research programme by requesting that you answer the attached confidential questionnaires and return them to me. I hope you will find the questionnaires easy to answer and that you will be able to return to me as quickly as possible.

I assure you that your response will be treated with the necessary confidentiality. You may leave out your name as well.

Thank you for sparing time to respond.

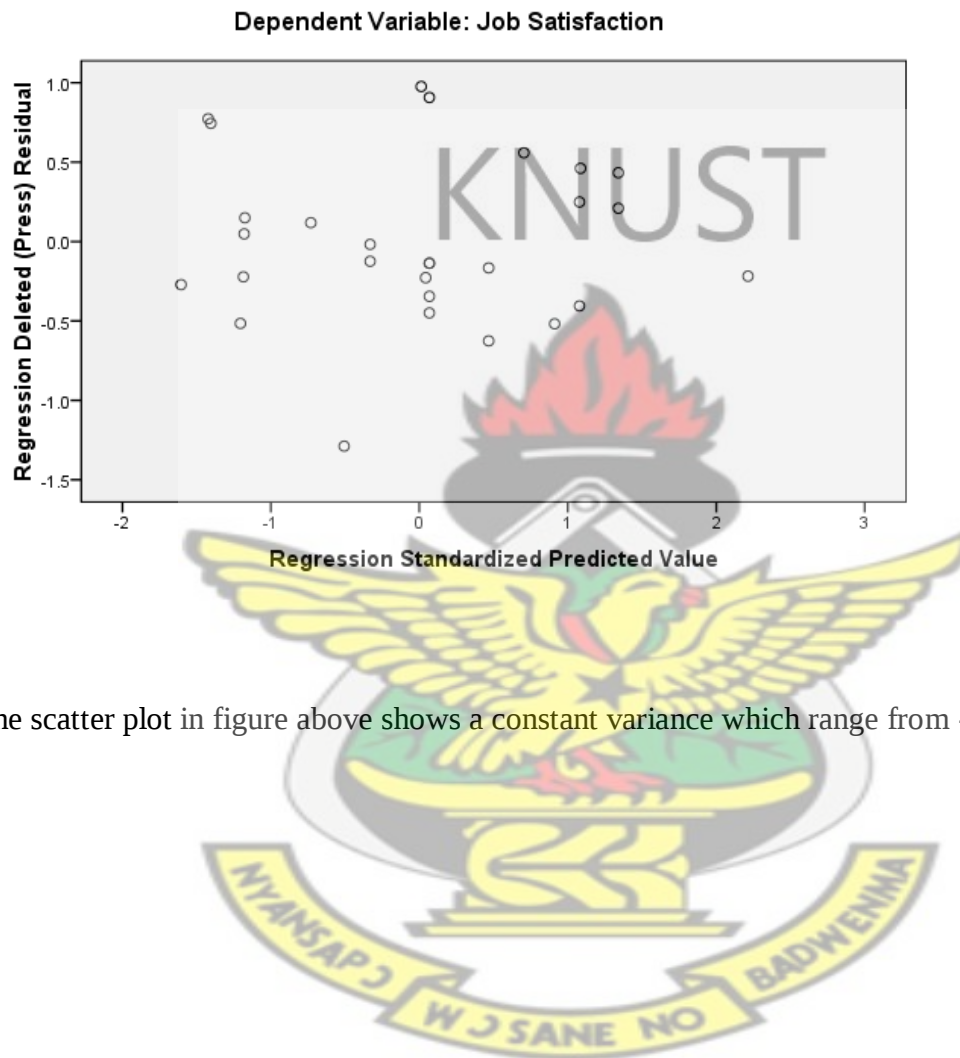

A.Y. Asilevi
Chartered Quantity Surveyor.

Cc Rev Dr. F.D.K. Fugar-Thesis Supervisor
Dean
Faculty of Architecture and Building Technology
KNUST
Kumasi.

APPENDIX H-1

ADEQUACY OF DEPENDENT VARIABLE – JOB SATISFACTION

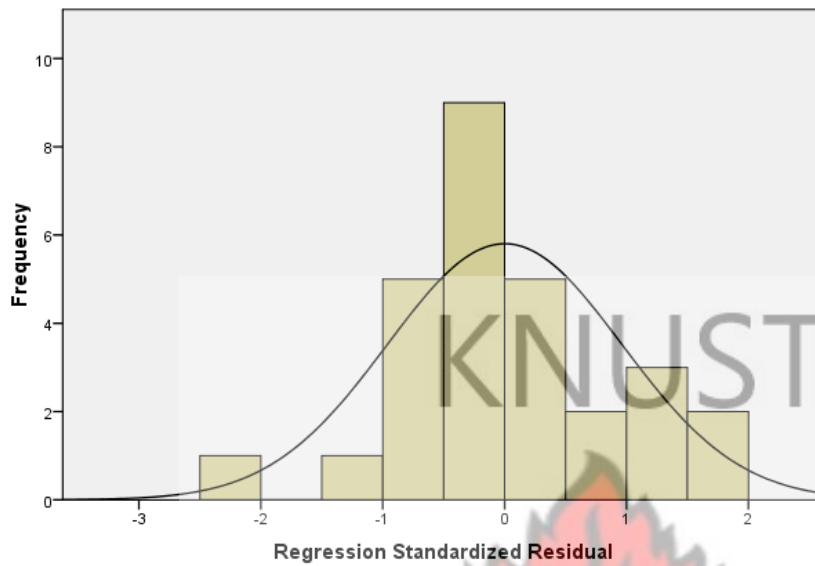
Scatterplot



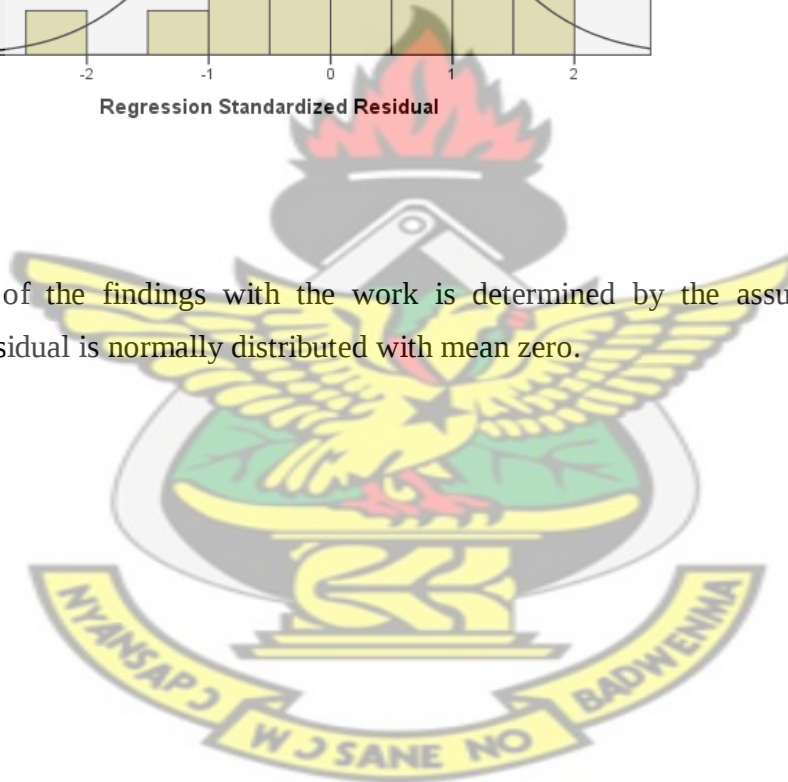
The scatter plot in figure above shows a constant variance which range from -1.5 to 1.

APPENDIX H-2

The distribution of Standardized Residual



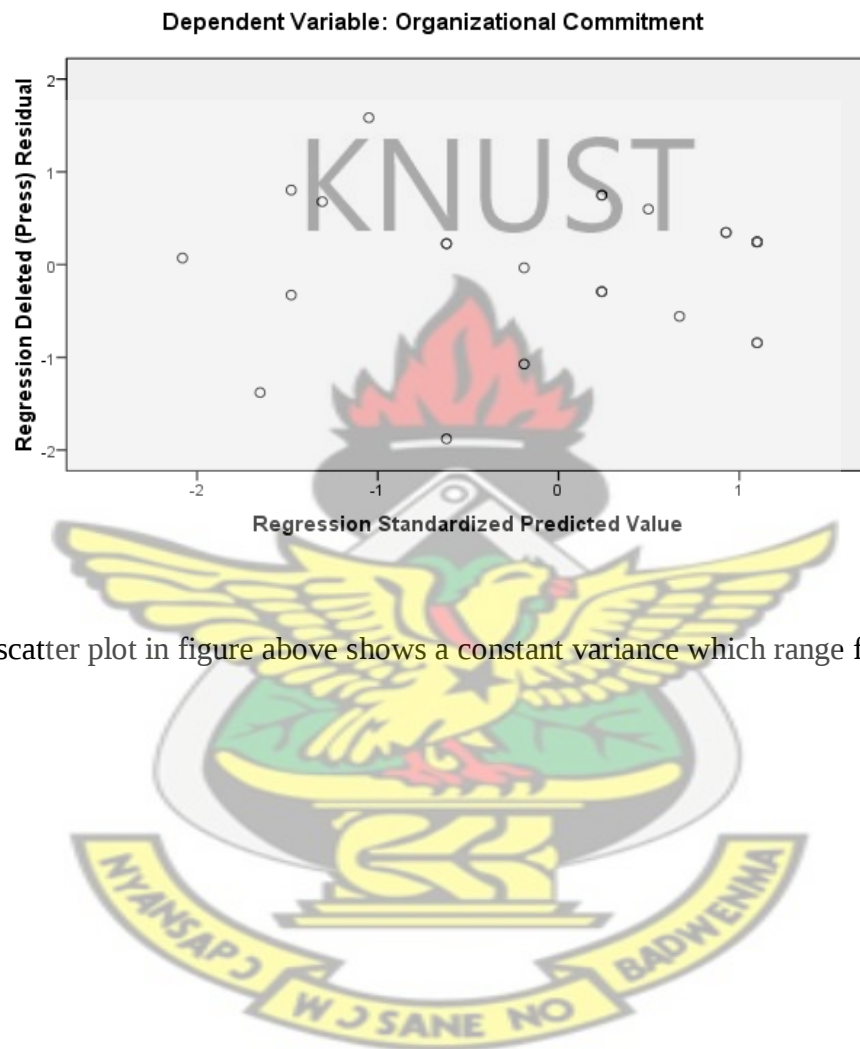
The adequacy of the findings with the work is determined by the assumption that the standardized residual is normally distributed with mean zero.



APPENDIX I-1

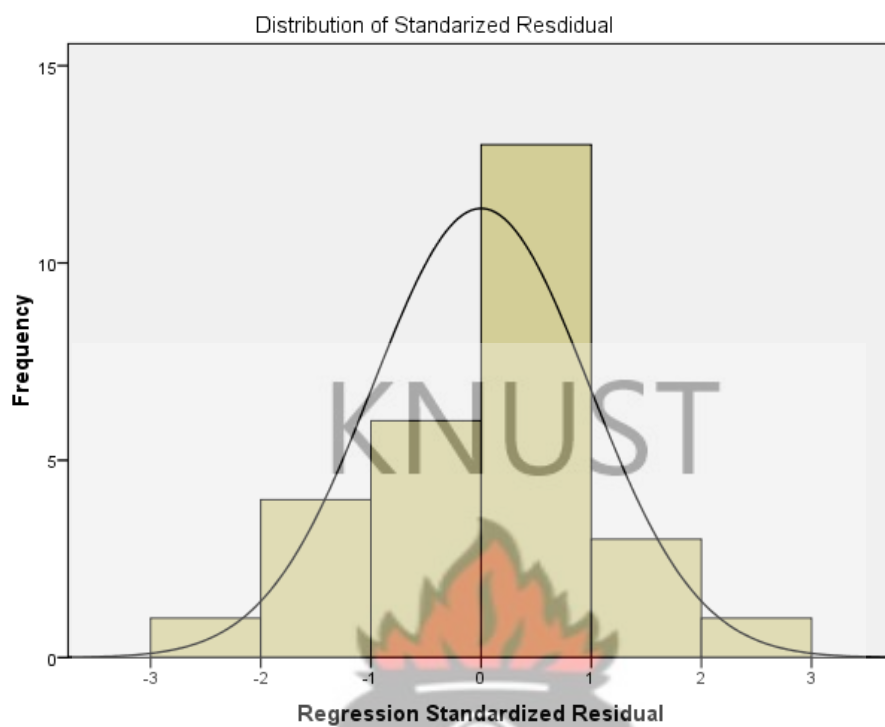
ADEQUACY OF DEPENDENT VARIABLE – ORGANISATIONAL COMMITMENT

Scatterplot

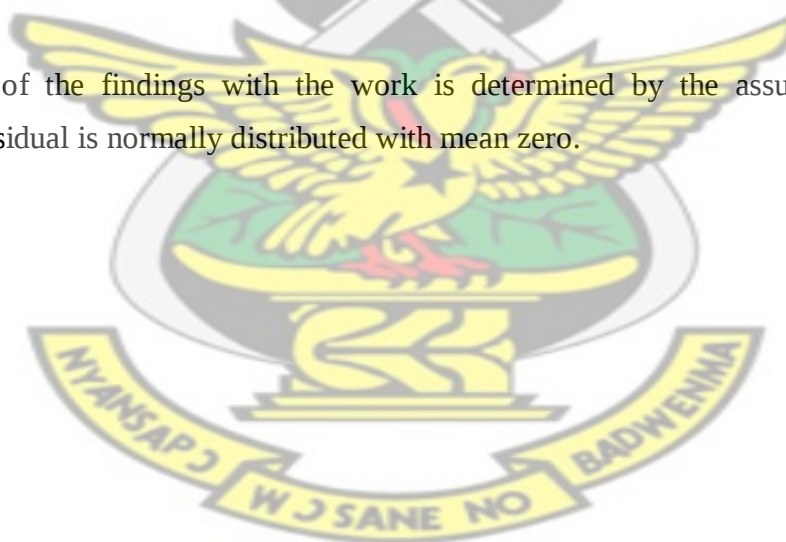


The scatter plot in figure above shows a constant variance which range from -2 to 2.

APPENDIX I-2



The adequacy of the findings with the work is determined by the assumption that the standardized residual is normally distributed with mean zero.



APPENDIX J

CALCULATIONS OF VARIANCE INFLATION FACTORS (VIF)

VIF $= 1/(1-R_j^2)$ where VIF is Variance inflation factor
 R_j is the Variance variable for j-th variable-
 leadership behaviour

$$\begin{aligned} \text{VIF (Challenge)} &= 1/(1-.721) \\ &= 1/.279 \\ &= \underline{\underline{3.5842}} \end{aligned}$$

$$\begin{aligned} \text{VIF (Encourage)} &= 1/(1-.826) \\ &= 1/.174 \\ &= \underline{\underline{5.7471}} \end{aligned}$$

$$\begin{aligned} \text{VIF (Enable)} &= 1/(1-.682) \\ &= 1/.318 \\ &= \underline{\underline{3.1447}} \end{aligned}$$

$$\begin{aligned} \text{VIF (Inspire)} &= 1/(1-.886) \\ &= 1/.114 \\ &= \underline{\underline{8.7719}} \end{aligned}$$

$$\begin{aligned} \text{VIF (Model)} &= 1/(1-.761) \\ &= 1/.239 \\ &= \underline{\underline{4.1841}} \end{aligned}$$

$$\begin{aligned} \text{The Mean VIF} &= (3.5842 + 5.7471 + 3.1447 + 8.7719 + 4.1841)/5 \\ &= \underline{\underline{5.0864}} \end{aligned}$$

