UNIVERSITY OF EDUCATION, WINNEBA
COLLEGE OF TECHNOLOGY EDUCATION, KUMASI

THE IMPACT OF MOTIVATION ON JOB SATISFACTION OF CRAFTSMEN IN THE CONSTRUCTION INDUSTRY IN GHANA

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SEPTEMBER, 2014.
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THE CONSTRUCTION INDUSTRY IN GHANA

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A Thesis in the Department of Construction and Wood Technology Education,
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University of Education, Winneba In Partial Fulfilment of the Requirement for the
Award of Master Philosophy (Construction Technology) Degree

SEPTEMBER, 2014
DECLARATION

STUDENT’S DECLARATION

I, Eric Acheampong, declare that this Thesis, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE........................................................................

DATE..............................................................................

SUPERVISOR’S DECLARATION

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of Thesis as laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: Dr. Nongiba Alkanan Kheni.

SIGNATURE........................................................................

DATE..............................................................................
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DEDICATION

I dedicate this work to my wife, Madam Janet Amoah and my children, Sylvia Boatema-Acheampong, Prince Sylvester Ayimadu-Acheampong, Claudia Damea-Acheampong and Gloria Amoah-Acheampong.
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ABSTRACT

The productivity of the construction industry has received much attention by researchers and policy makers; particularly in developed countries. The productivity of the construction industry in developing countries, particularly Ghana is abysmally low. Strategies need to be developed to stimulate and enhance the productivity of the industry through concerted research and development. In line with this, the purpose of the research reported here was to determine the impact of motivation on job satisfaction of craftsmen in the construction industry in Ghana. Drawing on Herzberg’s Two-factor theory, conceptual framework was developed and empirically tested using a sample group of 335 craftsmen. A biographical and Work Motivation and Job Satisfaction Questionnaire was administered to respondents and the resulting data were analyzed with the aid Statistical Package for the Social Sciences (SPSS). The results of the research indicated that there is a positive, direct and significant impact of motivation (motivator-hygiene factors) on job satisfaction. The results also revealed that women received the lowest form of motivation and satisfaction than their male counterparts. The research results further revealed how low motivator factors prevailed or are experienced by craftsmen in the construction industry. For this reason, the industry can be referred to as “a pay check” because hygiene factors are highly existent while motivator factors are low. The research supports the assumption that a well developed and functional motivational system can increase craftsmen motivation and satisfaction since “a one size fits all” approach is unacceptable and irrelevant in the Ghanaian construction industry today. The industry, therefore, can develop their motivation (motivator factors) system by including the craftsmen in the decision making process. Future research on the administrative/management staff could yield interesting insights into the different factors that motivate that category of construction workers.
CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

In Ghana, not much research has been done on Job satisfaction in the construction industry, therefore, the research topic may seem an attractive and logical idea, but one may be interested to find answers relating to this research topic that arise here: can motivation (motivator-hygiene factors) have a direct, positive and statistically significant impact on job satisfaction in the construction industry in Ghana? Which of the motivational factors prevail in the construction industry? And will the demographical/biographical background of respondents such as gender, marital status, age, etc., impact job satisfaction positively or otherwise?

However, such questions need further investigation and deeper analysis. Literature indicates that the root of this abstract view of motivation and job satisfaction stems out from the earlier study of Herzberg in 1959. One of the basic principles of this theory is that the worker is not a machine and motivation (motivator-hygiene factors) is a tool which propels the psycho-social conditions of work and is more important in promoting job satisfaction. Furthermore, job satisfaction and motivation can be affected by other work conditions such as job significance and responsibility (Parker & Wall, 1998).

In view of that, this study aims to examine the impact of motivation (motivator-hygiene factors) on job satisfaction using survey data from craftsmen as the study specifically aimed at investigating which of the motivational factors prevails or being experienced by the craftsmen. In addition, the study aimed at investigating the predictability of Motivation and Job Satisfaction based on craftsmen demographics (sex, marital status, age, job title, job grade, education and tenure).
The management of the construction industry is seriously adopting important strategies to increase performance in projects (Abdel Razak, Abd Elshakour & Abdel-Hamid, 2007) to enhance competitiveness (Loosemore, 2012) due to the extensive effects of globalization (Olomolaiye & Price, 1989). Therefore craftsmen, like management, expect their industries to provide fair pay, safe working conditions, fair treatment depending on the strength of their needs for security, status, involvement, challenge, power, responsibility, etc. Theories or frameworks not consistent with the context of the construction industry might not provide the required knowledge of motivation for construction workers (Hazeltine, 1976; Ruthankoon & Ogunlana, 2003).

1.1 Problem Statement

Job satisfaction is important to industries' success. Much research has been carried out into ways of improving job satisfaction of workers in various organizations of different sectors. This notwithstanding, in Ghana, not much research has been done on Job satisfaction in the construction industry (Fugar & Salaam 2007). Therefore, this study endeavors to address this literature gap.

The study was conducted in the construction industry in Ghana but was restricted to the craftsmen in general. The craftsmen form the largest working unit of the industry, but also one of the units that has low motivation and satisfaction programmes (Ahadzie, 1995). According to Gneezy, Meier and Rey-Biel (2011), low employee motivation is due to poor motivation strategies that mostly concentrate on financial rewards.

Dubois and Gadde (2002) stated that the industry has an infamous reputation for low productivity and satisfaction. Ahadzie (1995); Cox, Issa and Koblegard (2005)
also brought up evidence of low morale and motivation of craftsmen among others, as some of the important factors that affect craftsmen’s performance management. The reasons expressed by these authors suggest that the industry is, as a result, under constant pressure to revise its benefits offering to employees (craftsmen), which includes a motivation and job satisfaction programmes that employees are satisfied with and which is linked with the industry’s strategy; because behavioural indicators of the craftsmen are an overlooked area in nations (Durdyev & Mbatu, 2011; Ghoddousi & Hosseini, 2012; Guiene, Banaitis & Banaitienë, 2013).

This has informed many research studies that has been conducted recently to find out the main factors associated with productivity in several research models, current methods and systems to further ensure that motivation in the construction sector becomes relevant and necessary (Navarro, 2009). This study aims at analysing the Herzberg’s two-factor theory in addition to the other theories of motivation (process and content theories) and their impact on craftsmen’s job satisfaction since it focuses on the human resource aspect and means to enhance greater job satisfaction and performance.

1.2 Aims and Objectives of the Study

The overarching aim of this study is to assess the impact of Herzberg’s two-factor theory and process and content theories of motivation on craftsmen’s job satisfaction level.

To help achieve the aim, the following specific objectives were set;

- To examine the impact of motivators on craftsmen’s job satisfaction;
- To examine the impact of hygiene factors on craftsmen’s job satisfaction;
• To identify the form of motivation (motivator-hygiene factors) prevalent or experienced most by the craftsmen in order to improve job satisfaction;

• To determine the impact of demographical (biographical) variables on craftsmen’s motivation and job satisfaction.

1.3 Hypotheses of the Study

A hypothesis is defined as a proposal set out as a guide to explain the outcome specified in an event, either maintained as a provisional assumption to help in a research or obtained as highly probable in the event of facts discovered (Blumberg, Cooper, & Schindler, 2008).

To help achieve the objectives, the following hypotheses were stated:

H1: There is statistically significant impact of motivator factors (achievement, advancement, work content, recognition and growth) on job satisfaction in the construction industry in Ghana.

H1a: There is statistically significant impact of achievement on job satisfaction in the construction industry in Ghana.

H1b: There is statistically significant impact of advancement on job satisfaction in the construction industry in Ghana.

H1c: There is statistically significant impact of work content on job satisfaction in the construction industry in Ghana.

H1d: There is statistically significant impact of recognition on job satisfaction in the construction industry in Ghana.

H1e: There is statistically significant impact of growth on job satisfaction in the construction industry in Ghana.
H2: There is statistically significant impact of hygiene factors (company policy, relationship with peers, job security, and relationship with supervisor, money/salary and working conditions) on job satisfaction in the construction industry in Ghana.

H2a: There is statistically significant impact of company policy on job satisfaction in the construction industry in Ghana.

H2b: There is statistically significant impact of relationship with peers on job satisfaction in the construction industry in Ghana.

H2c: There is statistically significant impact of job security on job satisfaction in the construction industry in Ghana.

H2d: There is statistically significant impact of relationship with supervisor on job satisfaction in the construction industry in Ghana.

H2e: There is statistically significant impact of money/salary on job satisfaction in the construction industry in Ghana.

H2f: There is statistically significant impact of working conditions on job satisfaction in the construction industry in Ghana.

1.4 Research Process

This section describes the research process from beginning to conclusion. The section explains the systematic methodology that was used in order to answer the research questions. The objectives and scope of the study were determined in conjunction with some personnel working with the Building and Road Research Institute (BRRI) of the Council for Scientific and Industrial Research, Fumesua in Kumasi, some experienced supervisors/foremen and elite craftsmen working in reputable construction firms in the country.
The research hypotheses were formulated based on motivation and job satisfaction challenges encountered by craftsmen in the construction sector. Following the research hypotheses, an appropriate research design was selected. Literature review was performed in line with the data collected in order to develop a theoretical background connected to the research topic. Finally, the data was analyzed, discussed and conclusions as well as recommendations made.

![The research process diagram]

**Figure 1.1: The research process**

### 1.5 Significance of the Study

The results from this study will help to highlight the concept of group dynamics and employees, especially, craftsmen in the construction industry’s behaviour to work. Through such understanding, the administrative scope of the management could be broadened and this would put it in a better position to review and over-haul their orientation to administration in terms of motivating employees better and thus producing better results by fully utilizing the human resources potentials available.
It could also influence the industry to consider a more structured approach to motivation and job satisfaction that would enable the high productivity or performance culture it looks forward to achieve as the study seeks to relate motivation of craftsmen for high job satisfaction which eventually leads to high performance in the construction industry in Ghana. Furthermore, the findings of this study will help to highlight those areas where there are problems among craftsmen in the construction industry and therefore will be of great benefit to the management of industries and policy makers including the Ministry of Water Resources, Works and Housing, Association of Building and Civil Engineering Contractors in Ghana, Directors of construction companies, project managers and site supervisors to help contribute their best towards performing certain activities in a manner that will motivate workers in the industry so as to create in the workers a certain amount of satisfaction.

The results would hopefully be significant in the sense that it would enable both the management and labour union officials and representatives at the negotiation meeting when putting together their concerns or “basket of needs” to better understand how the various motivation variables could be harnessed to inspire employees to increase and sustain performance and satisfaction. An industry can use motivational factors as strategic measure to show employees that their contribution to the industry is recognised, and in so doing influence their motivation and job satisfaction which results in high productivity.

Based on the findings of the research too, the industry could improve and encourage the use of effective motivational factors to improve job satisfaction management system. Again, this study will be of immense benefit to policy makers in the human resources (HR) functions of industries.
It will assist management in other areas such as Formulating and establishing welfare incentives for the workforce; Helping the industry to come up with various types of needs and expectation of workers at work; Bringing out different approach to work motivation and Explaining the meaning and underlying concept of motivation. The study will help ensure that employees are presented with timely motivation or rewards at a value that goes with their efforts and contributions and finally, the study will be of great benefit to academic work and researchers.

1.6 Scope of the Study

The study aims at examining the impact of motivational factors on craftsmen’s job satisfaction which influences high productivity in the construction industry in Ghana. The relationship between the construction industry and its employees (craftsmen) is governed by what motivates them to work and the fulfilments they derive from it. The leader or supervisor needs to understand how to elicit the cooperation of craftsmen and direct their performance and satisfaction to achieving the goals and objectives of the organization.

This study was limited to the construction industry of Ghana. The work force covered within the context of the study included; masons (brick/blocklayers, concreters, and tillers), carpenters, electricians, painters, steel benders, draughtsmen, plumbers, etc. This study was further delimited in terms of the sample size.

1.7 Organisation of Chapters of the Study

The study has been organised into six chapters;

Chapter one is the introduction of the study. This includes background of the study, problem statement, objectives of the study, hypotheses, research process,
analysis of data, significance of the study (which explains the importance of the research), and scope of the study, limitation of the study and organization of the study.

Chapter two is the literature review of the topic under study (this section reviews relevant study done by different authors regarding the area under research through journals, text books, etc.

Chapter three is the methodology; it involves the research design, population of the study, sampling procedure and sample size, sources of data collection (primary data), administration of the instrument, reliability and validity of the instrument, secondary data, demographical/biographical questionnaire, motivation and job satisfaction questionnaire, dimensions of the questionnaire, questionnaire structure, statistical analysis (descriptive statistics including t-test), inferential statistics (Multiple Regression analyses and Kruskal-Wallis One-Way Anova).

Chapter four is the presentation, description/analyses of the result of data from questionnaire. Chapter five is the section that discusses the results of previous Chapter in a greater detail and where appropriate, existing literature will be integrated into the discussion.

Chapter six is the concluding chapter. It summarizes the study and its main findings. It highlights the contribution of this study to the theory. Finally, this chapter draws conclusion for the study and makes recommendations for future research which will help further improve job satisfaction of craftsmen thereby enhancing productivity in the construction industry. This chapter also includes the limitations of the study.
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The reason for adding the literature in research work is to confirm or substantiate what has been said or written (by renowned authors or persons who are authority) in relation to the area under study. The focus of this chapter is to provide insights to the theories that have shaped the understanding of motivation and job satisfaction by focusing on the content and process theories of motivation relevant to the construction industry and other literally work conducted by renowned authors both within and abroad.

Given the focus of this research study, it is important to have a sound understanding of the construction industry, theories of motivation (process and content), need for construction managers to study about motivation, theories of motivation relevant to the construction industry, definition of motivation, job satisfaction, etc., This chapter proceeds with an in-depth presentation of a conceptual framework/model version of Herzberg’s two-factor theory and its influence on job satisfaction.

2.1 The Construction Industry

Researchers in construction management have not been very enthusiastic about low motivation and job satisfaction in the industry but some efforts have been made to study and relate this concept to construction craftsmen and other professional in the industry. In order to increase our knowledge and further deepen into the subject, it seems relevant to review the work that has been done and consider the state-of-the art in this area.
In Ghana, the construction industry, like in every other country, is central to the economic welfare of the country. It is a huge industry that exists to contribute to the satisfaction of human needs and wants. Field and Ofori (1988) mentioned that the construction industry makes a significant contribution to the economic output of a country; it produces employment and incomes for the workers and because of this the effects of changes in the construction industry on the economy happen at all levels and in virtually all aspects of life (Chen, 1998; Rameezdeen, 2007). It accounts for a significant share of GDP and is currently the third largest economic sector after agriculture and government services and has a big potential to help accelerate economic growth in Ghana (Anaman & Osei-Amponsah, 2007).

Lange and Mills (1979) defined the construction industry as a group of firms with closely related activities involved in the construction of real estate, buildings, private and public infrastructure. Eyiah (2004) is reported to have shared the view that the construction industry is important in Ghana because infrastructure facilities required for improved living conditions are relatively under supplied; and it is the industry that organizes and effectively uses local human and material resources in the development and maintenance of housing and infrastructure to promote local employment and improve economic efficiency (Anaman & Amponsah, 2007). The Ministry of works and Housing and Water Resources in Ghana classify construction industries based on their level of output and financial capabilities. According to Eyiah and Cook (2003), the large firms are mainly foreign firms whiles the small firms are mostly Ghanaian businesses.

The construction industry is a labour-based sector of which labour plays the key role in achieving productivity as craftsmen are the main resources for the industry’s business activities. In spite of this, the industry is among those whose workers suffer
low motivation due to poor reward strategies that mostly concentrate on financial rewards (Gneezy et al., 2011). Kanungo & Jaeger (1990) confirms that industries in Ghana typically place more emphasis on traditional rewards that are typically extrinsic and monetary in nature in the bid to motivate the employees to achieve competitive advantage. Even though the Ghanaian worker, may be happy for getting a job in place of monetary rewards for survival, monetary rewards alone do not necessarily motivate the worker in employment to give up his best. Field and Ofori (1988) also mentioned that many academics believe that there are no benefits (motivation programmes) to this industry to encourage the craftsmen to make them work harder or to make extra contribution beyond the competitive pride.

This has arisen because construction management has low intention in the area of behavioural indicators of workers (Cox, Issa & Koblegard, 2005). The management of the industry often pays too much attention to financial rewards at the expense of non-financial rewards such as life balance, employee recognition, job enrichment, career development, job security, and sense of affiliation, which all bear relational and personal orientation to the work itself as indicated by Gneezy et al., (2011); Kanungo & Jaeger (1990). The issues of craftsmen’s motivation will critically decide industry’s success (Sunindijo, Hadikusumo & Ogunlana, 2007a; Enshassi et al., 2007a; Kazaz, Manisali & Ulubeyli, 2008; Khaled & Remon, 2013).

The above discussion gives rise to two important stances. First, it helps explain why construction industries are under constant pressure to enhance and improve their performance and are realising that an interdependent relationship exists between industrial performance and employee motivation and satisfaction. Second, it helps explain why many research works have been undertaken recently to find out the
most important factors of productivity in a wide several countries (Durdyev & Mbachu, 2011; Ghoddousi & Hosseini, 2012; Guiene, Banaitis & Banaitienë, 2013).

In the following section the focus will be on the motivational theories and the impact that these theories have on enhancing employee motivation and job satisfaction. Theories of motivation can be used to explain the behaviour and attitude of employees (Rowley, 1996; Weaver, 1998).

2.2 Theoretical Framework

The theoretical framework always centred on existing studies that have been proven before and the current research should conform to existing literature. Although, the researcher reviewed the two major sets of motivational theories-process and content theories, as well as others like McGregor’s theory X and Y. The study focused in detail on the content theories relevant to the construction industry and more particularly, the Herzberg’s two-factor theory. Variety of workplace motivation theories are classified as either process theory or context theory (Campbell et al., 1970; Lynne, 2012).

2.3 Process Theories

In contrast to content theories, process theories identify relationships among variables which make up motivation and involve works from Heider (1958), Vroom (1964), Adams (1965), Locke (1976), Lawler (1973), etc.

2.3.1 Adam’s Equity Theory

The important aspect of equity theory is that people make subjective judgment about fairness in the rewarding system related to inputs (such as their competencies,
qualifications and effort), in comparison of rewards of others. If they feel that they are not equitably treated they may be dissatisfied. If they feel that they are receiving more rewards, then they will improve their quantity and quality of work or they may discount their rewards. Although equity theory was originally concerned with differences in pay, it can be applied to other forms of tangible and intangible rewards in the workplace. The motivation process will be difficult if the input- output ratio is not in balance.

2.3.2 Goal-setting theory

Bottom line of this theory is that employee performance increases when they try to achieve some specific goals rather than pursuing general goals. Moreover by setting complex goals, employee motivation increases which results in increased performance. The proposition is that employees are motivated if goals are meaningful, challenging, clear, attainable and measurable. When employees are encouraged to set goals for themselves and supervisor reviews and approves them, they take challenges for achieving those targets. If goals are completely unrealistic, employees will become demotivated. Goal-setting theory helps a manager to design motivational strategies that match employees’ requirements. But it is not the only one method to managers. Tolchinsky and King in 1980 discovered that, while financial benefits influence job performance, the relationship is not mediated by goal-setting. That means goal-setting and monetary incentives have independent effect on job performance (Perry, Mesch & Paarl berg, 2006).
2.3.3 McGregor’s Theory X and Theory Y

This theory was developed by (McGregor, 1960). According to theory X, organization considers that its employees are very idle and lethargic. Moreover managers consider that their employees do not like to work, they usually avoid performing their duties, and they have no aim to flourish in life. According to theory Y, supervisors believe that employees are energetic, active; self determined and implement willpower. They assume that employees enjoy their job, they take it as a challenge, and they don’t take it as a burden, try their best to complete their tasks within the limited time and are goal oriented.

2.3.4 Fifty –Fifty theory

According to John Adair’s perception people motivate themselves by fifty percent and from the environment they are motivated by the remaining fifty percent. This environment includes work conditions, colleagues and especially leaders. The Fifty-Fifty rule recognizes that leaders have a key role in influencing motivation of employees at work. The relationship between leadership and motivation is crucial to determine employee’s motivation. But leaders alone cannot motivate the employees fully as they are self motivating in various degrees. These are the challenges that management face to stimulate employee motivation with the work environment (John, 2007; 38-41).

2.4 Content Theories

2.4.1 Maslow’s hierarchy of needs theory

The content theories are based on the assumption that people have individual needs, which motivate their actions. Theorists such as Maslow (1954), McClelland (1961), Herzberg (1966) and Alderfer (1969) are renowned for their works in this field.
2.4.1 Maslow’s hierarchy of needs theory

Abraham Maslow (1954) developed a theory called Hierarchy of Needs. He identified five levels of needs in the hierarchy and displayed these in the form of a pyramid with the most fundamental needs at the bottom and the need for self-actualization at the top of pyramid. It includes the physiological needs (food, shelter for living and certain material wants); safety and security needs (protection from physical and mental destruction); social needs (sense of affection, concern, belongingness and friendship with others); self-esteem (acknowledgement and admiration); and self-actualization need (to have those rights which a person deserves).

2.4.2 The Vroom’s expectancy theory

Victor Vroom is the father of Expectancy theory. He developed a model of motivation based on individual needs and motivation. He suggests that employees work for different reasons and these reasons can change over time. Therefore managers should design an environment for performance considering the differences in various situations. Expectancy theory is complex, but it is consistent with real life situations. According to the principle, workers choose the behavior that they expect will maximize their payoff. When this theory is applied to pay, an employee must believe that; Greater EFFORT will increase PERFORMANCE, Increased PERFORMANCE will lead to more PAY and more PAY is the reward that the employee wants most (World at work, 2006).

Expectancy theory points to the fact that workers are motivated by the promise of rewards that is linked to a specific goal. The theory is based on the knowledge that
there are huge differences among workers in their needs and as a result in the importance they attach to rewards (Lawler, 2003).

2.4.3 Alderfer's ERG model

Clayton Alderfer identified three categories of needs: existence needs, relatedness needs and growth needs. Existence needs are the desires for physical well being. Relatedness needs are the urges to satisfactorily relating to others by establishing and maintaining interpersonal relationships. Growth needs are the desires to self development, creativity, growth, and competence. According to Alderfer, one may be motivated by needs on several levels at the same time and when individuals are frustrated in meeting one level needs, they may concentrate on the next lower level needs.

2.4.3.1 Implications of Alderfer’s theory

Existence, Relatedness and Growth needs of Alderfer’s theory imply that individuals will be motivated to engage in behaviour that will satisfy one of the three sets of needs, as proposed by the theory. To predict what behaviour a person will be motivated to engage in would require an assessment of that person to determine which of the three needs are more salient. The individual should then be given opportunity to engage in tasks that would lead to the fulfilment of these salient needs (Arnold & Feldman, 1986). By comparing ERG to Maslow’s hierarchy of needs, there are some distinct differences between these theories. While Maslow stated that people would persevere to satisfy a need, Alderfer states that frustration of a higher need may result in a reversion to a lower need.
For example, an employee who does not get the relatedness needs of recognition and acknowledgement satisfied may revert to existence needs, such as demanding an increase in salary or benefits. Maslow believed that once a need has been met it does not continue to motivate the employee. Alderfer’s theory suggests that satisfaction of a need may increase its intensity. This creates a challenge for the offering of rewards and recognition in the workplace, in terms of being continually innovative and creative with such programmes (Schultz, 1982).

2.4.4 McClelland's Needs or Achievement Theory (1975)

C. McClelland, cited in Meshane and Glinow (2000), divided motivation into needs for power, affiliation, and achievement. People having need for Power seek positions of leadership. They always try to control or dominate others. They like to exercise their influencing power. They are forceful, argumentative, hardheaded, and outspoken. Affiliation motivated people usually get pleasure from being loved and socialized with others. Achievement motivated people have an intensive craving for attaining goals and success. They want to control the situations in which they are involved. They take moderate risks and set realistic targets. They want to be challenged and like to analyze problems.

2.4.5 Douglas Hall’s Age Theory of motivation

Hall’s theory on motivation relates more to an individual’s chronological age and that needs are largely dependent on the age, which relates to what stage the individual is at in their career. According to Hall’s theory, employees in their early career seek advancement, friendships, money and opportunities to develop skills (La Motta, 1995).
Employees under the age of thirty tend to rank “good salary” as first in an order of what is important on a job, while employees over fifty are more concerned with “interesting work”. Recognition for employees between forty and fifty-five would be to be left alone to do their jobs in the best possible way and to be self-directed. Quality rewards and recognition should therefore be geared towards the needs of differently aged employees. It is thus evident that a “one size fits all” approach to reward and recognition would not work (La Motta, 1995, p. 18).

2.4.6 Herzberg’s motivator-hygiene theory

Herzberg’s theory is rooted into two underlined parallel sets of needs namely men need as an animal to avoid pain and as a human the need for psychological growth. In his theory he listed a number of factors that are similar to Maslow’s hierarchy of needs, except his theory is more inclined to the working environment. He divided these factors into two major categories namely hygiene factors (dissatisfiers) and motivators (satisfiers). One set of needs is associated with what a person does while the other is concerned with the situation in which it is done.

2.4.6.1 Application of Herzberg’s Theory

2.4.6.1.1 Motivational Factors

Leaders or managers should be aware of the distinct issues workers need in their work in order to boost performance.

2.4.6.1.2 Dissatisfiers

Under the dissatisfiers/ hygiene factors he stated factors such as working conditions, company policies and administrative practices, salary and benefits,
supervision, status, job security, co-workers and personal life, etc. Working conditions require an organisation to provide a work environment that is conducive for workers to perform well. Policies and Administrative practices suggest that the kind of organisation policies and practices of administering the people should be one that encourages them to perform well. Provide salaries and other financial benefits to the workers that will encourage them to be committed to the work in the organisation.

The provision of adequate supervision to workers by the supervisors is important to enhance good performance. The kind of jobs that people possess should be able to make them feel of good status. This will help to encourage them to commit their time and efforts to work. People should be made to feel secure in their jobs. This helps them to work harder because they are not worried about the loss of their jobs. Provision of team work dynamics among workers is important to encourage them to place their efforts together towards the same purpose. People need to be given ample space to have their own personal life.

2.4.6.1.3 Satisfiers

The satisfiers/motivators include factors such as recognition, achievement, advancement, growth, responsibility, job challenge etc. Craftsmen need to feel that they are recognised by their superiors and the organisation for which they work. They need to feel their job helps them to achieve their aspirations. This in the end makes them develop a new energy to work and meet organisational objectives. Workers need to see prospects of advancement in their jobs. People need to grow in their jobs. People want to feel that sense of responsibility over their jobs. People want to do challenging jobs rather than those that have less challenge. In case the factors that
dissatisfy workers are not achieved, then the workers cannot be motivated by those factors that make jobs satisfying (Boere, 2006).

The motivators and hygiene factors are interconnected to motivation when they are offered by the industry leadership then the individual craftsmen will be encouraged by these positive motivation to develop a positive relation to his/her job therefore creating the necessary job satisfaction. Both the presence of these motivator-hygiene factors encourage those positive attitude towards work, hence motivation and the resultant good performance will be observed.

Frederick Herzberg’s hygiene theory is linked to the questions in the questionnaire that are related to the working conditions in the construction industry, money/salary and benefits, supervision, job security, interpersonal relationships while his theory of motivation is linked to the questions in the questionnaire that are concerned about the act of recognition, achievement in ones job, advancement in ones work, responsibility over ones job, work content, etc.

2.4.6.2 Critics of Herzberg’s Theory of Hygiene and Motivator Factors

While his theory was able to clearly point out some of the key work-related factors that are typical of an industry’s experience and particularly useful to managers and leaders/supervisors in manipulating workers positive performance, it has also been appreciated, partly because for the common man it provides an easy understanding based on real life concerns as opposed to academic abstractions and because it bears a lot of similarities with the greatly respected ideology of Maslow and McGregor (Armstrong, 2001, p.165). Herzberg’s prescriptions have had a few shortcomings. The research method used has been strongly opposed because it was
not able to measure the relationship between satisfaction and performance (Armstrong, 2001, p.164).

He is too specifically preconceived about his factors, leaving no room for flexibility yet human behaviour is complex. His theory is too ambitious; he states that all the hygiene factors should first be met, to ensure motivators are then derived. In practice this is not possible. His theory lacks a sense at change process and time factor.

2.5 Need for Construction Managers to Appreciate Motivation

In most construction industries today, craftsmen play a significant role in every aspect of construction work that takes place at the construction site. As a result, one of the ways for investigating increasing worker’s productivity has been in relation to enhancing the level of motivation of workers (Yi & Chan, 2013). Much evidence have supported the strong effects of the level of motivation of workers on their productivity within the construction context in a wide range of nations (Olomolaiye, 1990; Smithers & Walker, 2000; Ng et al., 2004; Enshassi et al., 2007b; Kazaz, Manisali & Ulubeyli, 2008; Jarkas & Bitar, 2012; Adedokun, Ibironke & Olanipekun, 2013; Khaled & Remon, 22013). The detailed explanation expatiated above support the key importance of managers acquiring the knowledge of different aspects of workers’ motivation (Mason, 1978; Maloney & McFillen, 1983; 1986b; Khan, 1993; Zakeri et al., 1997; Ng et al., 2004; Doloi, 2007).

2.6 Theories of Motivation Relevant to the Construction Industry

The three theories that have been predominantly used by construction researchers to investigate the motivation of workers are Maslow’s hierarchy of needs
theory, Vroom’s expectancy theory and Herzberg’s theory of motivation-hygiene (Ogunlana & Chang, 1998). However, some researchers have attempted to apply principles mostly developed outside the construction field to the motivation of occupational groups in the construction industry (Ogunlana & Chang, 1998). As suggested by Navarro (2009), two major criteria provide the basis for classifying the studies conducted on motivation in the construction industry.

Firstly, as stated in the earlier section, many studies, (e.g., Kazaz, Manisali & Ulubeyli, 2008) have asserted that three models have been deployed by construction researchers to describe the concept of motivation in the construction industry. Hence, studies could be classified based on the theory they have deployed to investigate the concept of motivation.

Secondly, from another perspective, one can consider the objectives of existing studies to study the existing treaties on motivation. Studies could be classified as those that attempt to test the motivation theories in the construction industry; and also studies aimed at ascertaining the motivators and de-motivators in different countries. The review only includes well known and recent studies focusing on the motivation and job satisfaction of construction craftsmen.

2.7 Definitions of Motivation

Definitions of motivation abound. “Desire”, ”want”, “wishes”, “aim”, ”goals”, ”needs”, and ”incentives” are words used interchangeably in definitions of motivation. Saraswathi (2011) defined motivation as the willingness to put high levels of effort, toward industrial goals, conditioned by the effort’s ability to satisfy some individual need. Three key elements in the definition are further provided as effort, organization goal, and need.
Fuller et al., (2008) defined motivation as a person’s intensity, direction and persistence of efforts to meet a specific objective. Intensity is how hard an individual tries to attain the specific objective while direction is the channel to intensity towards the correct objective; whereas persistence refers to how long someone maintains an effort to attain the specific objective. Several definitions of motivation contributed by various researchers apparently have some similar meanings as drive, energize and action.

2.8 Impact of Rewards (motivation) on Job Satisfaction

Effective, appropriate, timely, and worker-driven rewards can be motivational for managers and workers alike. Industries and supervisors usually get what they reward. If an industry values something very strongly, then workers’ behaviour will be driven by those values (Pohlman & Gardiner, 2000). It is especially important for human resource managers to understand workers in each location where the organization is and build a good relationship with them since this is critical for the industry’s success (Karadjova-Stoev & Mujtaba, 2009; Franklin & Mujtaba, 2007).

This recognition is important as industries try to retain their top talent and improve the performance of all workers. It is important that rewards are perceived as fair and just in the eyes of the beholder or those receiving it. Fairness in rewards appears to be the key factor in providing an environment that motivates workers to believe in their superior’s actions and policies. It is obvious that each manager would like to reward his or her productive employees, however, surveys show that top performers do not always receive top pay for their efforts and performance.

According to Carla Joinson (1996), a survey of more than 350,000 government employees showed that more than 50 percent believed that “some workers do most of
the work while others do just enough to get by.” Normally, workers with seniority are being paid higher than the new associates and this may not be very fair on jobs that do not need experience. It may even have a counterproductive effect on new associates who are high performers. Usually, high performers who are not recognized properly may reduce their standards to match the average standards, meaning they are going to do the minimum just to get by until a better position comes along.

2.9 Important Motivational Programmes

Motivation makes workers feel and look good and therefore motivated to achieve more (Romano, 2003). Industries therefore need to look beyond rewards, at what drives workers to succeed, and provide examples of how motivational factors can be harnessed as an effective motivational tool. When considering how to motivate employees’ cash is often the easiest option. The author argues however, that giving money would not generate the benefits that industries could achieve if they were to give more thought and consideration to recognition that is tailored to the individual (Wallsten, 1998).

Croce (2004) explained that managers should seek reasons and moments to recognise employees for increased effort, persistent positive attitude and peak performance, and recognise them for this. Empowered employees have increased responsibility and autonomy to act in the best interest of the industry. Supervisor’s challenge is thus to build adaptability into the controls of the organisation, thus providing employees with more flexibility and freedom to be innovative whilst directing their activities towards the common purpose of the organisation. The use of motivational factors can help influence desired employee behaviours in effective, yet non-directive ways.
Recognition has been found to be more effective during times of uncertainty. Hence, Nelson (1995) maintains that recognition also has potential for supervisors as they have usually satisfied their basic financial needs. Additional bonus may play a role though, personal incentives, such as recognition or achievement, become more important.

The author refers to Herzberg’s theories of satisfiers versus dissatisfiers in the workplace, which clearly establishes recognition as a satisfier or motivational factor. According to Herzberg’s theory, the extrinsic factors such as salary, supervision, working conditions and other work factors that are perceived by the craftsmen to be offered by the industry, will at best prevent employees from being dissatisfied. These factors focus largely on working conditions and working environments, which is to a large extent guided by legislation. Herzberg identified recognition as that which is received by an individual with the accomplishment of a task or job, and this could entail noticing and praising an individual.

2.10 Motivation that Influence Workers’ (Craftsmen) Job Satisfaction

Money alone cannot motivate employees. A variety of techniques are used for motivation. Many intrinsic rewards other than money work as psychological incentives. These rewards may be expressing, thanks, providing inputs, job rotation, job enlargement, management by objectives, and so on. Employees who are motivated intrinsically enjoy performing job-related tasks, such as influencing customers and learning about the company (Sujan, 1986, p.42).

Several techniques for increasing employee motivation are described below: Pay, salaries, “efficiency wages”, etc., direct monetary benefits, example, pension, life insurance policy, health insurance, allowances (clothing, housing, etc.), subsidies,
gain sharing, etc., indirect financial benefits such as subsidized meals or clothing or accommodation or transport, scholarships, tax breaks, deferred compensation such as seniority pay, etc., flexibility schedules, part-time or temporary work, sabbatical, study leave holidays, vacation etc., work environment or conditions, occupational health, safety, recreational facilities, amenities, school access, infrastructure, transport, etc., Job security; career or professional development or training opportunities; feedback, coaching, valued organization; solidarity, socializing, affection, passion; status, prestige, recognition; sense of duty, purpose mission; security, opportunities, stability risk (cited in UNDP, 2006).

2.11 Job Satisfaction

Job satisfaction today is a topic of major interest for many researchers and is an organizational variable that should be understood and constantly monitored for the welfare of any industry (Eyupoglu & Saner, 2009). It is important to an industry's success. A satisfied employee tends to be absent less often, to make positive contributions and to stay with the organization very eagerly (Hakim, 1993; Breed & Breda, 1997). But a non-satisfied employee may be absent more often, may experience stress that disrupts co-workers, and may be continually looking for another job.

Some studies have indicated that job satisfaction is influenced by gender and age (Mesh' al, 2001; Gazioglu, Tansel, 2006), or tenure and the level of education (Zhanh, Lam & Baum, 1999) and, of course, the level of income (Oshagbemi, 2000; Bender & Heywood, 2004, 2006; Janes & Sloane, 2007). Price (1997) defined job satisfaction as the degree to which employees have a positive affective orientation towards employment by the organization.
For example, Bender and Heywood (2006) found that university professors who receive high income—in comparison with other jobs—have low job satisfaction because they perceive that PhD holders who work in industry earn more than them. Such comparison may affect job satisfaction because of the feelings of injustice. The result was that the job satisfaction declines with high level of education. The theory suggests that education has a negative impact on job satisfaction because increased education is associated with higher expectations, such a person may become dissatisfied with performing the routine tasks required of most jobs even their salary might be higher than younger employees. Such studies may indicate that salary does not influence job satisfaction directly, but through other factors.

In another study by Clarke, Oswald and Warr (1996) on the relationship between age and salary and job satisfaction, found out that there is a direct correlation between job satisfaction and salary after controlling the age variable. This means that job satisfaction for the salary increases with age due to the low financial responsibilities with the growth of age.

When the researchers looked at a worker’s position/rank/grade in an industry, they found a strong link with job satisfaction and concluded that rank/grade increased happiness to a great extent when compared with higher salaries. The researchers explained this relationship and indicate that rank/grade influenced how proud employees were with their professional achievements. Other studies indicated that salary raise can only influence jobs with low level income but not the high level ones and in some cases raise might have negative effect on job satisfaction.

Other studies indicate that salary amount is not important for job satisfaction but it rather the comparison income that the employees is setting up as referential point. Clark et al., (1996) study support this notion and indicated that job satisfaction
depends on income relative to a “comparison” or reference level but not the salary amount. This suggests that even when the salary of the employee is high compared with the level of salaries in the organization he or she works in, he or she will feel dissatisfied if he/she believed that others in other institutions who have similar qualifications and specifications take a higher salary amount than them.

A study conducted by Brown et al., (2007) supports this notion. Previous studies generally found that job satisfaction is associated with salary, occupational stress, empowerment, company and administrative policy, achievement, personal growth, relationship with others, and the overall working condition. The researchers surveyed 16266 workers and employees who work in more than 800 institutions to determine the factors of happiness at work. The results indicated that the level of salary minimally influenced job satisfaction. Rain, Lane and Steiner (1991) wrote that job satisfaction is connected to life satisfaction, whereby people who are satisfied with their jobs will tend to be happy with their lives as well, and vice versa. Industries put efforts and provide excellent conditions for satisfying their employees (Jain et al., 2011).

More importantly, satisfied workers not only perform better but also provide better service to customers, which could result in improving customer satisfaction. According to Dawson (2005), employee satisfaction is associated with positive employee behaviour. It is undeniable that satisfied workers generate customers who are satisfied and loyal. Various researchers who have investigated motivation and job satisfaction support this statement (Maidani, 1991; Tietjen & Myers, 1998; Robbins, 2001; Parsons & Broadbridge, 2006). Smith (1992) stated that job satisfaction can lead to cost reduction by reducing absences, task errors, and turnover. Therefore, both management theorists and practitioners are concerned with methods for improving job
satisfaction, because greater job satisfaction amounts to a better quality of life, better health, and potentially greater performance and productivity. Huselid (1995) believes that if workers are not motivated, turnover will increase and employees will become frustrated and unproductive.

Upon the above review, two conclusions might be addressed here. The first suggests that salary does not have a continuous linear relationship with job satisfaction. Second, job satisfaction does not increased by a single factor such as salary (as managers think) and there might be other factors that contribute more powerfully to job satisfaction level. It is assumed that motivation and satisfaction are very similar and that, in many cases, they are considered to be synonymous terms.

2.12 Removing Job Dissatisfaction

According to Herzberg (1987) supervisors need to remove the dissatisfaction through the following: Remove poor and obstructive company policies; make available effective, supportive and non-intrusive supervision; provide and encourage the culture of respect and dignity for all workers; ensure that wages and salaries are challenging enough; provide job security; and establish job status by providing reasonable work for all grades.

The above actions help in removing job dissatisfaction in our firms and there is no reason trying to motivate people or craftsmen until these issues are dealt with. Dealing with the above issues should not be an end in itself but rather supervisors are to be in the known because if someone is not dissatisfied does not necessarily mean one is satisfied either. It is important in the work area to identify conditions for job satisfaction.
2.13 Providing Conditions for Job Satisfaction

Herzberg (1987) mentioned it is important to address the motivating factors that go with work, this he referred to as job enrichment. The explanation he assigned was that every job should be scrutinized to know how it could be made better and more satisfying to the person doing it. Hence, supervisors need to put in place include:

- Providing opportunities for achievement;
- Recognizing workers inputs;
- Creating work that is rewarding and that matches the skills and abilities of the worker;
- Giving as much responsibility to each team member as possible;
- Providing opportunities to advance in the company through internal promotions;
- And offering training and development opportunities so that people can pursue the positions they want within the company.

2.14 Previous Study

Previous studies generally found that job satisfaction is associated with salary, occupational stress, empowerment, company and administrative policy, achievement, personal growth, relationship with others, and the overall working condition. It has been argued that an increase in job satisfaction increases worker productivity (Wright & Cropanzano, 1997; Shikdar & Das, 2003).

A study by Fugar and Salaam (2007) aimed at investigating the job satisfaction of construction workers on construction sites on the KNUST campus in Kumasi; found that the workers were neither satisfied nor dissatisfied when all aspects of the job were considered. The result indicated a slight positive feeling on the extrinsic satisfaction over the intrinsic satisfaction of workers was assessed.

According to Herzberg (1966), the factors associated with work considered to be motivators include: achievement; recognition; tasks (the work itself);
responsibility; advancement; and personal growth. The factors associated with work considered to be hygiene include: policies and administration; supervision/managerial relationships; salary; working conditions; status; security; and co-worker relationships. Other motivation theories have been studied extensively in the business literature, but they do not categorized the components of motivation as specifically as the Two-Factor Theory and consequently do not allow for such detailed analysis.

The essence of the Herzberg et al., (1959) theory, was that managers and supervisors could use factors known as ‘motivators’ to encourage workers to gain satisfaction and, subsequently, better performance in the workplace. Similarly, managers and supervisors could try to reduce those factors that increase job dissatisfaction, ‘hygiene factors’ or ‘hygiene’ for short. Increasing the motivators associated with their jobs could enhance workers’ job satisfaction.

Workers believe that when factors associated with hygiene drop below acceptable levels, job dissatisfaction grows. A salient point of the theory is that lack of satisfaction does not equate to dissatisfaction. Satisfaction and dissatisfaction are on two separate continua. This means that when workers do not perceive satisfaction among the motivators, they also may not perceive dissatisfaction among the hygiene. Employees may well be in a neutral state, where they are neither satisfied nor dissatisfied. This state does not encourage productivity for both workers and the industry, as it does not energized growth, creativity or innovation. Therefore, it is incumbent on managers and supervisors to take note of those aspects of the jobs within their purview that can promote satisfaction among workers and optimize them.

A great extent of empirical research has been conducted to define the factors of job satisfaction. For example, some studies have shown that job satisfaction is influenced by gender and age (Mesh'al, 2001; Gazioglu, Tansel, 2006), or tenure and
the level of education (Zhanh, Lam & Baum, 1999) and, of course, the level of income (Oshagbemi, 2000; Bender & Heywood, 2006; Janes & Sloane, 2007). For income, some studies noted that the level of the money/salary is a secondary variable that cannot stand alone and its influence may be limited when the work quality is unsatisfactory.

A study conducted by Brown et al., (2007) supports this notion. The researchers surveyed 16266 workers who work in more than 800 institutions to determine the factors of happiness at work. The results indicated that the level of salary minimally influenced job satisfaction. Ritter and Anker (2002) found workplace safety and job security issues were important to Brazilians, while Spector, Cooper, Poelmans and Allen (2004) found that Latin Americans in general had high job satisfaction. Barreto (2005) found hotel guest satisfaction in Bahia, Brazil increased when employee satisfaction programmes were implemented.

2.15 The Conceptual Framework

A conceptual framework was developed through a review of existing literature on motivation more especially Herzberg’ Two-factor theory. The Herzberg two-factor theory comprised motivators and hygiene factors. It forms the basis of the motivational system which is any process within the construction industry that encourages, reinforces or compensates workers for taking a particular set of actions leading to their job satisfaction. It integrated policies, processes and practices for rewarding its employees in accordance with their contribution and skill within the competence framework of an industry’s strategy (Amstrong, 2004). Motivational systems are the mechanisms that make the dream of the industry happen and included factors cited in Ruthankoon & Ogunlana (2003) as enumerated below;
According to Ruthankoon and Ogunlana (2003), the following are the motivators; these factors can only have effect on satisfaction one feels:

- **Achievement** - An example of positive achievement might be if an employee completes a task or project before the deadline and receives high reviews on the result, the satisfaction the employee feels would increase. However, if that same individual is unable to finish the project in time, or feels rushed and is unable to do the job well, the satisfaction level may decrease.

- **Advancement** - This refers to the expected or unexpected possibility of promotion. An example of negative advancement would be if an employee did not receive an expected promotion or demotion.

- **Work content** - This involves the employee’s perception of whether the work is too difficult or challenging, too easy, boring or interesting.

- **Recognition** - When the employee receives the acknowledgement they deserve for a job well done, the satisfaction will increase. If the employees work is overlooked or criticized it will have the opposite effect.

- **Growth** - This motivation factor includes the chance one might have for advancement within the company. This could also include the opportunity to learn a new skill or trade. When the possibility/opportunity for growth is lacking or if the employee has reached the peak or glass ceiling, as it is sometimes referred to, this could have a negative effect on the satisfaction the employee feels with their job and position.

According to Ruthankoon and Ogunlana (2003), the following are the hygiene factors, these factors can only have an effect on dissatisfaction one feels:
• Company Policy/Administration - An employee’s perception of whether the policies in place are good or bad or fair or not, changes the level of dissatisfaction that employee will feel.

• Relationship with peers- This is those relationships one engages in with their supervisors. How someone feels about the interaction and discussions that take place within the work environment can also effect dissatisfaction.

• Job Security - This is a pretty significant factor. The sense of job security within a position or organization as a whole relates to the dissatisfaction as well.

• Relationship with supervisors- This is those relationships one engages in with their supervisors. How someone feels about the interaction and discussions that take place within the work environment can also effect dissatisfaction.

• Money/Salary - This factor is fairly simple, the increase or decrease of wage or salary effects the dissatisfaction within a company a great deal.

• Working conditions - This includes the physical surroundings that one work within such as the facilities or location.
Craftsmen, as the main workforce, are an important and inseparable part of the construction in the country. Job satisfaction, resulting to productivity of work, mostly depends on qualified craftsmen because the construction in a developing country such as ours is labour intensive so boosting employee behavior means strengthening employee performance and ultimately benefiting the industry.

By creating a sense of affiliation within the industry, management can ensure higher levels of productivity and a higher satisfaction rate. There is a close relation between motivation and retention of employees in the organization. Demotivated and frustrated employees typically leave the job which has a negative impact on...
production. Money is not the ultimate solution, rather job enrichment, affiliation, and even simply expressing thanks can motivate employees and foster their performance.

It is evident that good motivational strategies such as motivators and hygiene factors can enhance craftsmen’s satisfaction and their willingness and desire to learn and improve their skills can lead to greater retention. This implies that satisfied employees are less likely to quit, change jobs, join unions, or be absent.

In summary, industries are better off when they provide craftsmen with a reward level that leads them to feel at least moderately satisfied (Lawler, 2003). Consistent in the literature is that, this is an area where a lot of study abound, many industries are still not utilizing the value that a well-develop motivator-hygiene programme could add. It would appear that many industries continue to make the mistake to have programmes that focuses primarily on hygiene factors, rather than a healthy balance of motivator-hygiene factors
CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The concept of methodology refers to the whole process of the research work. Hussey and Hussey (1997) stated that research methodology embraces the overall approach to the research process from the theoretical underpinning to the collection and analysis of the data. Jankowics (1991), in a related development, define methodology as the analysis of a rationale for the particular method or methods used in a given study. Therefore, it is clear from the above definitions that it is important for every research project to have an operation framework within which all the facts can be placed such that meaningful conclusion can be drawn from them.

The main approaches needed for the study are identified in this chapter. It identifies the population and the sample size for the study reflecting on the biographical or demographical data of the respondents, the measuring instrument used, and issues pertaining to its validity and reliability, the procedure followed to gather the data, the hypotheses and the statistical techniques used to analyse the data.

3.1 Research Design

Cooper and Schindler (2008, p.140) define research design as the blueprint for the collection, measurement and analysis of data, but warn that it is a wide-ranging concept. According to Welman and Kruger (2001, p. 46) the research design is the strategy or plan which is used to acquire participants or subjects, and how to collect what type of data from them, in order to arrive at conclusions about the initial research question.
The research design used in this study is basically descriptive. Descriptive research permits the explanation of phenomena as they naturally transpire and without intervention from the researcher (Leary, 2004). In effect, the motivational factors prevailing or being experienced by the craftsmen are described as they naturally occur within their respective workplaces. To enable such a description of motivation and job satisfaction, frequency and percentage distributions, along with means and standard deviations was used (Teddie & Tashakkori, 2008). Questionnaire was used as the measuring instrument to collect primary data. According to Leary (2004), the major advantages of questionnaires are that they can be administered to groups of workers simultaneously, and they are less costly and less time-consuming than other measuring instruments. The data collection techniques used included a biographical questionnaire and the Work Motivation and Satisfaction Questionnaire.

3.2 Population of the Study

Population is defined as “the entire group of workers, events or things of interest that the researcher wishes to investigate (Sekaran, 2001, p. 225).” The population for the study consisted of craftsmen working with contractors of good standing in the construction industry in the Greater Accra and Ashanti regions registered with the Association of Building and Civil Engineering Contractors of Ghana (ABCECG). The population of contractors in these two regions was 500; Greater Accra 350, Ashanti 150. Source: ABCECG (2014), Headquarters, Accra.

The reason for selecting these regions was that they constitute the two most densely populated regions in Ghana, 19.5% and 16.5% (Population and Housing Census, 2010) with the highest level of construction activity in Ghana; also they represent Northern and Southern sectors of the country respectively. They are
adjudged the commercial nerve centres of the country and listed as two mega cities where there are numerous construction projects executed by both private and public sector to meet the housing, and infrastructural requirement of the emerging mega cities (PHC, 2010).

Also the craftsmen form the largest working unit of the industry, but also one of the units that has low motivation programmes (Ahadzie, 1995). The outputs of this unit are significantly important as a support function to the industry. Its key functions include mixing, laying and concreting, plastering, plumbing, wiring, fixing, and any other technology that would ensure system efficiency and effectiveness of the industry. These functions often have to be performed under high levels of performance and against deadlines.

3.3 Sampling Procedure and Sample Size
Sampling is an element of data collection, and is defined by Bryman & Bell (2007, p.182) as the fragment or section of the population that is selected for the research process.

Random sampling procedure was employed to sample the population for the study. The sample size used in this study was 100 and represents 20% of the population (500) based upon Nwana (1992, cited in Agyedu et al., 2011) who suggests that if the population is several hundred (more than 100 but less than 1000), a 20% sample size will do.

Though this study is a survey which targets the opinion of all the craftsmen in the sampled construction industries, it may not be possible to get the opinions of every craftsman. The researcher, therefore, used random sampling to sample the opinions of craftsmen. 585 questionnaires were distributed.
The reason for distributing 585 questionnaires was that an average of five questionnaires were administered to the respondents; masons (brick/blocklayers, tillers and plumbers), electricians, steel benders, carpenters/joiners, painters, etc.,) in each firm. Out of a total of 585 questionnaires sent personally to respondents, a total of 335 respondents completed the questionnaire representing fifty-seven point three percent (57.3%) response rate. The response rate was adequate for the study because “response rates, in general, are low in the studies among construction contractors. The average response rate of a construction survey is 16% (Lahndt, 1999a)” and according to Sekaran (2001), a response rate of thirty percent (30%) is acceptable for most studies.

3.4 Sources of Data Collection

Both primary and secondary data sources were used in the study.

3.4.1 Primary data

The primary source of data refers to as first hand information obtained by the researcher through distribution of questionnaires and physical observation on how the construction industry in Ghana approach motivation (motivator-hygiene) programmes to increase performance and job satisfaction. An initial investigation has, however, been conducted to become familiar with the context of the study and also to ascertain the willingness of the industry to release the relevant data. Emphasis was placed on craftsmen’s motivation and satisfaction in the construction industry.

The researcher relied on the craftsmen of the various job classifications (masons, carpenters/joiners, steel benders, draughtsmen, electricians, etc.) in each firm to obtain the needed data through questionnaire. A closed-ended biographical
and Work Motivation and Satisfaction Questionnaire was used. The questionnaire was meant for the craftsmen to ensure that they chose the options with which they agree most. Respondents were given between 30 minutes and 24 hours within which they could complete the questionnaire. The cover letter (see Appendix 1) highlighted the purpose of the study, anonymity and confidentiality were assured the respondents that the study was for academic purpose and that the information provided will be treated as confidential. The letter also emphasised the fact that the study would benefit the craftsmen in the construction industry.

### 3.4.2 Administration of the instrument

To reach respondents to participate in the study, the researcher personally distributed the questionnaires to the respondents. Copies of questionnaires were given out to them to fill in for at least 30 minutes and at most, 24 hours. The respondents were contacted on one-on-one basis to ascertain information on the impact of motivational factors on job satisfaction in the construction industry in Ghana. It was necessary in some cases to seek official assistance in getting an offer to complete questionnaires. The official approval had to be sought to assure respondents that the study was for academic purpose and that the information provided will be treated as confidential.

### 3.4.3 Analysis of data

- The administered questionnaires were gathered and all data received were summarised. A critical analysis of summarised data was conducted by determining influential indices such as frequency, importance and severity on the various reviewed factors rated which enabled the researcher to:
• Establish the effect the motivational factors have on job satisfaction of craftsmen which amounts to productivity.

• Establish the motivational factors prevailing in the construction industry.

• Establish the impact of demography of respondents on the dependent variable.

• Recommend workable and suitable motivational strategies that will enhance job satisfaction and productivity.

3.4.4 Reliability and validity of the instrument

The reliability of a study is measured by how similar the results would be if another researcher conducted the same study (Kirk & Miller, 1986, p.13-14). Reliability, therefore, refers to the consistency or dependability of a measuring instrument.

Validity, on the other hand, refers to the “extent to which a measurement procedure actually measures what it is intended to measure rather than measuring something else, or nothing at all” (Leary, 2004, p. 69). Furthermore, Instruments validity pertains to the ability to accurately measure what it intends to measure based on objectives of the study. Due to this, the questionnaires that were sent out were discussed by the researcher with the respondents. The researcher gave explanation to the respondents before they answered the questionnaires. This was purposely done to achieve the meaning of data reliability.

A reliability test was performed to check the consistency and accuracy of the measurement scales and the results are presented in Table 3.1.
Table 3.1: Reliability with Cronbach’s coefficient alpha

<table>
<thead>
<tr>
<th>The job satisfaction factors</th>
<th>Number of items</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>(ACHI)</td>
<td>3</td>
</tr>
<tr>
<td>Advancement</td>
<td>(ADV)</td>
<td>2</td>
</tr>
<tr>
<td>Work content</td>
<td>(WCT)</td>
<td>3</td>
</tr>
<tr>
<td>Recognition</td>
<td>(RCN)</td>
<td>3</td>
</tr>
<tr>
<td>Growth</td>
<td>(GRW)</td>
<td>2</td>
</tr>
<tr>
<td>Company policy</td>
<td>(CMP)</td>
<td>3</td>
</tr>
<tr>
<td>Relationship with peers</td>
<td>(RLP)</td>
<td>3</td>
</tr>
<tr>
<td>Job security</td>
<td>(JSEC)</td>
<td>3</td>
</tr>
<tr>
<td>Relationship with supervisor</td>
<td>(RLS)</td>
<td>3</td>
</tr>
<tr>
<td>Money/Salary</td>
<td>(MSA)</td>
<td>3</td>
</tr>
<tr>
<td>Working Conditions</td>
<td>(WKD)</td>
<td>4</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>(JSAT)</td>
<td>3</td>
</tr>
<tr>
<td>All Likert scale items (except bio data)</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

The table shows that the results of overall Cronbach’s coefficient alphas ranging from 0.70 and 0.90 were satisfactory, indicating questions in each construct are measuring a similar concept. As suggested by Cronbach (1951) and Nunnally (1978), the reliability coefficients between 0.70–0.90 are generally found to be internally consistent. The overall reliability test (Cronbach’s alpha) conducted by the researcher was approximately 0.93. This result implies that inferential statistics could be conducted for the results.

3.4.5 Secondary data

Secondary data, on the other hand, are information or data already collected by other researchers or institutions, usually for different purposes (Blumberg et al., 2008). The secondary data will enable the researcher to place the study in the context of existing knowledge as well as broadens the researcher’s understanding of the research topic (Blumberg et al., 2008). Impliedly, a thorough literature review was undertaken in order to explore the views of other researchers and authors on corporate motivation and job satisfaction systems.
3.4.6 Data and Statistical analyses

The software used for data analysis was SPSS version 16.0. Statistical analyses are used to describe an account for the observed variability in the behavioural data (Leary, 2004, p. 37). This involves the process of analysing the data that was collected. The purpose of statistics is to summarise and answer questions about the behavioural variability that is obtained in the research (Leary, 2004, p. 37).

Statistical analyses involve both descriptive and inferential statistics. The descriptive statistics utilized were based on frequency table illustrations to provide information on key demographical (biographical) variables in this study. This was followed with presentation of the inferential statistics based on examination of each hypothesis formulated for the research. The upper level of statistical significance for null hypothesis testing was set at 5%. All statistical test results was computed at the 2-tailed level of significance in accordance with the non-directional hypotheses presented (Sekaran, 2001). In order to test the research hypotheses, the inferential tests used included the Multiple Regression Analysis and Kruskal-Wallis One way Analysis of Variance (ANOVA).

3.4.6.1 Descriptive statistics

Descriptive statistics are used to describe and summarise the behaviour of the respondents in a study. They refer to the ways in which a large number of scores or observations are reduced to interpretable numbers such as averages and percentages (Leary, 2004).

The descriptive statistics utilized in this study were based on frequency tables and provided information on salient demographical/biographical variables, as well as the means and standard deviations for the responses on the Motivation and Job
Satisfaction Questionnaire. The mean is a measure of central tendency, and provides an arithmetic average for the distribution of scores. The standard deviation, on the other hand, is a measure of variability which is calculated as the square root of the variance (Leary, 2004). For the purpose of this study, the descriptive statistics was utilised to identify the motivational (motivator-hygiene) factors prevailing or experiencing most to craftsmen in the construction. It included Independent Sample T-test, which was used to analyse differences in job satisfaction between gender groups.

3.4.6.2 Inferential statistics

Inferential statistics are used to draw conclusions about the reliability and generalisability of the findings. According to Leary (2004, p. 38), inferential statistics are used to assist in answering questions such as “How likely is it that my findings are due to random extraneous factors rather than to the variables of central interest in the study? How representative are the findings of the larger population from which the sample was taken?” In order to test the research hypotheses, the inferential tests used included the Multiple Regression Analysis and Kruskal Wallis One-way analyses of variance by test ranks (H test) to determine Analysis of Variance (ANOVA).

- **Multiple regression analyses**

  Multiple Regression Analyses was used to determine the impact of motivator and hygiene factors on job satisfaction (Leary, 2004). Multiple regressions are a family of techniques that can be used to explore the relationship between one continuous dependent variable and a number of independent variables or predictors (usually continuous). The multiple regressions were used to test the hypotheses.
**Kruskal-Wallis One-way Analyses of variance by test ranks (H test)**

Analysis of Variance (ANOVA) is a statistical procedure used to analyse data from designs that involve more than two conditions. According to Leary (2004), ANOVA analyses the differences between all conditions in an experiment simultaneously. Due to the fact that it was difficult to achieve all the strict assumptions underlying the use of parametric ANOVA, a nonparametric Kruskal Wallis One-way analysis of variance by test ranks (H test) was used to determine whether there were impacts of motivation and job satisfaction based on the biographical/demographical characteristics of the sample.

Non-parametric techniques are in fact more appropriate for data of this nature; in particular the Kruskal-Wallis Test which is similar to the one-way between groups ANOVA. Whilst non-parametric techniques are acknowledged as less powerful than their parametric counterparts (Coakes & Steed, 1996), they are suitable where samples are small and also where data does not appear to be distributed normally (Norusis & SPSS, 1993).

### 3.4.6 Demographical (biographical) questionnaire

The biographical questionnaire is a self-developed questionnaire that consist the following personal information of the respondents; gender, marital status, age, job title/classification, education qualifications (i.e. middle/junior high school or less, technical/vocational school, senior high school/diploma), job grade and tenure. Participants were asked to select accordingly. Refer to Section A.
3.4.7 Work Motivation and Job Satisfaction Questionnaire

The researcher reviewed several survey questionnaires designed by astute authors pertaining to determinants of motivation and job satisfaction factors. Among those are De Beer (1987), Maidani (1991), Klassen, Usher, & Bong (2010) and Ruthankoon & Ogunlana (2003). The questionnaire consisted of eleven variables that impact employee motivation and job satisfaction based on Herzberg’s dual factor theory. Refer to Section B.

3.4.8 Dimensions of the questionnaire

The motivation and job satisfaction questionnaires were based on Ruthankoon and Ogunlana (2003), the following: Refer to Section B.

- Achievement - An example of positive achievement might be if an employee completes a task or project before the deadline and receives high reviews on the result, the satisfaction the employee feels would increase. However, if that same individual is unable to finish the project in time, or feels rushed and is unable to do the job well, the satisfaction level may decrease.

- Advancement - This refers to the expected or unexpected possibility of promotion. An example of negative advancement would be if an employee did not receive an expected promotion or demotion.

- Work content - This involves the employee’s perception of whether the work is too difficult or challenging, too easy, boring or interesting.

- Recognition - When the employee receives the acknowledgement they deserve for a job well done, the satisfaction will increase. If the employees work is overlooked or criticized it will have the opposite effect.
• Growth - This motivation factor includes the chance one might have for advancement within the company. This could also include the opportunity to learn a new skill or trade. When the possibility/opportunity for growth is lacking or if the employee has reached the peak or glass ceiling, as it is sometimes referred to, this could have a negative effect on the satisfaction the employee feels with their job and position.

• Company Policy/Administration - An employee’s perception of whether the policies in place are good or bad or fair or not, changes the level of dissatisfaction that employee will feel.

• Relationship with peers- This is those relationships one engages in with their supervisors. How someone feels about the interaction and discussions that take place within the work environment can also effect dissatisfaction.

• Job Security - This is a pretty significant factor. The sense of job security within a position or organization as a whole relates to the dissatisfaction as well.

• Relationship with supervisors- This is those relationships one engages in with their supervisors. How someone feels about the interaction and discussions that take place within the work environment can also effect dissatisfaction.

• Money/Salary - This factor is fairly simple, the increase or decrease of wage or salary affects the dissatisfaction within an industry a great deal.

• Working conditions - This includes the physical surroundings that one works within, such as the facilities or location.
3.4.9 Questionnaire structure

Each dimension had a number of possible responses from which the respondent could select the one which best suited their feeling or attitude at that given time.

The selected responses were indicated on a 5-point scale: 1=Strongly Disagree, 2=Disagree, 3= Uncertain/No opinion, 4=Agree, 5= Strongly Agree. The respondents were requested to mark/circle their chosen responses.
CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS OF RESULTS

4.0 Introduction

The cardinal driving fulcrum around which the researcher’s effort revolved all through the course of this study has remained the theme “the impact of motivational factors on craftsmen’s job satisfaction in the construction industry in Ghana.” This chapter provides the results of data from the questionnaires. Issues examined included the biographical characteristics of the respondents and the impact of motivator-hygiene factors prescribed by the Herzberg two-factor theory. All analyses used a significance level of 0.05 to test hypotheses for the study whiles all statistical test results were computed at the 2-tailed level of significance in accordance with the non-directional hypotheses presented (Sekaran, 2001).

4.1 Response Rate

The response rate of 57.3% (representing 335 out of 585 respondents) was adequate for the study because “response rates, in general, are low in the studies among construction contractors. The average response rate of a construction survey is 16% (Lahndt, 1999a)” and according to Sekaran (2001), a response rate of thirty percent (30%) is acceptable for most studies.

4.2 Biographical Sample Characteristics

The biographical information of the 335 respondents is represented in graphical/table format. Table 4.1 indicates the gender distribution of the sample of respondents from the construction firms from which the research was conducted. As
can be seen from the figure, the majority of the sample (n = 245) or 73% represented male, while the remaining 27% (n = 90) comprised of female respondents.

**Table 4.1: Respondents’ gender distribution**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Population (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>245</td>
<td>73</td>
</tr>
<tr>
<td>Female</td>
<td>90</td>
<td>27</td>
</tr>
</tbody>
</table>

Table 4.2 provides a graphical representation of the marital status of the respondents. As can be seen in Figure 4.2, the majority of the sample (n = 217) or 64.8% represents those who were single, while 28.1% (n = 94) represents those who were married, 5.4% (n = 18) was separated/divorced as well as 1.8% of the sample (n = 6) was widowed.

**Table 4.2 Respondents’ marital status**

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Population (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>217</td>
<td>64.8</td>
</tr>
<tr>
<td>Married</td>
<td>94</td>
<td>28.1</td>
</tr>
<tr>
<td>Separated/divorced</td>
<td>18</td>
<td>5.4</td>
</tr>
<tr>
<td>Widowed</td>
<td>6</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Table 4.3 presents the subjects’ responses with regard to their age categories. Table 4.3 shows that the majority of respondents in the sample, 60.6%, (n = 203), were between the ages of 18 and 27 years. This category is followed by the age group 28 and 37 years, into which 21.8% (n = 73) of the respondents’ fall, whilst 11% (n = 37) were between the ages of 38 and 47 years. Only twenty-two (n = 22) respondents (6.6%) were between 48 years of age and above.
Table 4.3 Respondents’ age categories

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Respondents (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-27</td>
<td>203</td>
<td>60.6</td>
</tr>
<tr>
<td>28-37</td>
<td>73</td>
<td>21.8</td>
</tr>
<tr>
<td>38-47</td>
<td>37</td>
<td>11.0</td>
</tr>
<tr>
<td>38-48</td>
<td>22</td>
<td>6.6</td>
</tr>
</tbody>
</table>

Table 4.4 presents the subjects’ responses with regard to their job title/classification. It indicates that the majority of respondents (n = 148) or 44.2% of the sample were masons/tillers/plumbers, while carpenters/joiners comprised 17.3% (n = 58) of the sample. Electricians constituted 14.6% of the sample (n = 49), as well as 14.6 (n = 49) were painters; 9.3% (n=31) were steel benders.

Table 4.4 Respondents’ job title/classification

<table>
<thead>
<tr>
<th>Job title</th>
<th>Respondents (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masons/tillers/plumbers</td>
<td>148</td>
<td>44.2</td>
</tr>
<tr>
<td>Carpenters/joiners</td>
<td>58</td>
<td>17.3</td>
</tr>
<tr>
<td>Electricians</td>
<td>49</td>
<td>14.6</td>
</tr>
<tr>
<td>Painters</td>
<td>49</td>
<td>14.6</td>
</tr>
<tr>
<td>Steel benders</td>
<td>31</td>
<td>9.3</td>
</tr>
</tbody>
</table>

In terms of Table 4.5, it can be seen that the educational qualification of the majority of respondents was less than JHS/MSLC (n = 127) or 37.9%. This is followed by respondents with a JHS/MSLC qualification (n = 109) or 32.5% and those with an NVTI/Technical qualification was (n = 81) or 24.2%. Those with SHS/Polytechnic qualifications comprised 5.4% (n = 18) of the sample.
Table 4.5: Respondents’ educational qualifications.

<table>
<thead>
<tr>
<th>Educational Qualification</th>
<th>Respondents (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than JHS/MSLC</td>
<td>127</td>
<td>37.9</td>
</tr>
<tr>
<td>JHS/MSLC</td>
<td>109</td>
<td>32.5</td>
</tr>
<tr>
<td>NVTI/ Technical</td>
<td>81</td>
<td>24.2</td>
</tr>
<tr>
<td>SHS/Polytechnic</td>
<td>18</td>
<td>5.4</td>
</tr>
</tbody>
</table>

Table 4.6 presents the subjects’ responses with regard to their job grades. Table 4.1.6 indicates that 5.7% (n = 19) of the sample were senior craftsmen employed within the industry, 10.4% (n = 35) are assistant senior craftsmen, whilst 29.0% (n = 97) of the respondents indicated junior craftsmen. The majority of the respondents 54.9% (n = 184) indicated ordinary craftsmen.

Table 4.6: Respondents’ job grades

<table>
<thead>
<tr>
<th>Job grade</th>
<th>Respondents (n)</th>
<th>Percentages (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior craftsmen</td>
<td>19</td>
<td>5.7</td>
</tr>
<tr>
<td>Assistant senior craftsman</td>
<td>35</td>
<td>10.5</td>
</tr>
<tr>
<td>Junior craftsmen</td>
<td>97</td>
<td>29.0</td>
</tr>
<tr>
<td>Ordinary craftsmen</td>
<td>184</td>
<td>54.9</td>
</tr>
</tbody>
</table>

Table 4.7: presents the subjects’ responses with regard to their tenure. Table 4.7 indicates that the majority of the respondents, 29.2% (n = 98), have worked for the company less than 1 year, while a further 27.5% (n = 92) have worked for the industry between 1 and 5 years. Twenty-six point six percent (26.6%, n = 89) of the respondents have worked for the industry between 6 and 10 years, 16.7% (n = 56) have worked for the construction industry 11 years and above.

Table 4.7: Respondents’ tenure

<table>
<thead>
<tr>
<th>Tenure</th>
<th>Respondents (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1year</td>
<td>98</td>
<td>29.2</td>
</tr>
<tr>
<td>1-5years</td>
<td>92</td>
<td>27.5</td>
</tr>
<tr>
<td>6-10years</td>
<td>89</td>
<td>26.6</td>
</tr>
<tr>
<td>11years and above</td>
<td>56</td>
<td>16.7</td>
</tr>
</tbody>
</table>
4.3 Objective 1: Multiple Regression Analysis: Impact of motivator factors on job satisfaction of craftsmen

In order to assess the impact of motivation factors on craftsmen’s job satisfaction, a multiple regression analysis was conducted. For this purpose, the dependent variable was Job Satisfaction (JSAT), which was measured with three items. There were five motivator factors as independent variables, namely Achievement (ACHI), Advancement (ADV), Work Content (WKT), Recognition (RCN) and Growth (GRW). These constructs were measured using multi-item scale.

The results of the multiple regressions are presented in Tables 4.8, 4.9 and 4.10. From the ANOVA Table (4.8), the overall model of five motivator factors is significant $F (5, 334) = 149.428, p < .05$, implying that all the factors included in the model together makes a significant model.

From the Model Summary in Table 4.9, the total variance explained by the model as a whole as reflected in adjusted $R$-square was $0.690$, $F (5, 334) = 149.428, p < .05$. This implies that the five motivator factors together explain 69.0% of job satisfaction.

Finally, Table 4.10 (Coefficient*) shows the contribution of the individual motivator independent variables in the final model. It indicates that all the five motivator factors were statistically significant, Achievement (beta = .134, $t = 2.531, p < .05$), Advancement (beta=.568, $t=10.787, p< .05$), Work Content (beta= -.188, $t = -5.371, p< .05$), Recognition (beta= -.090, $t = -2.455, p< .05$) and Growth (beta=.285, $t= 6.799, p< .05$). This implies that Job satisfaction of craftsmen are significantly influenced by Achievement, Advancement, Work content, Recognition and Growth independent motivator factor, contributing to about 69.0% of job satisfaction of craftsmen in the construction industry in Ghana.
The results imply that there is a statistically significant, direct and positive impact of motivators (achievement, advancement, work content, recognition and growth) on job satisfaction of craftsmen, F (5, 334) = 149.428, p < .05. This implies that if the motivators given to craftsmen were to change, then there would be a corresponding change in job satisfaction. The coefficient of determination, (R-squared (adjusted) = 0.69), implies that 69% of the variance in satisfaction of the sample can be attributed to motivator factors, and that the remaining 31% can be associated with other variables which were not included in this study. The hypothesis is, therefore, supported.

Table 4.8 ANOVA for impact of motivators on job satisfaction of craftsmen

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>2485.461</td>
<td>5</td>
<td>497.092</td>
<td>149.428</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>1094.462</td>
<td>329</td>
<td>3.327</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3579.922</td>
<td>334</td>
<td>3.327</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Growth combined, Work content combined, Recognition combined, Advancement combined, and Relationship with supervisor and Achievement combined.

b. Dependent Variable: Job Sat,

Table 4.9 Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>R Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.833*</td>
<td>.694</td>
<td>.690</td>
<td>1.82391</td>
<td>.839</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Growth combined, Work content combined, Recognition combined, Advancement combined, and Achievement combined.

b. Dependent Variable: Job Sat.
### Table 4.10 Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95% Confidence Interval for B</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>4.632</td>
<td>.980</td>
<td></td>
<td>4.725</td>
</tr>
<tr>
<td>Achievement combined</td>
<td>.190</td>
<td>.075</td>
<td>.134</td>
<td>2.531</td>
</tr>
<tr>
<td>Advancement combined</td>
<td>.844</td>
<td>.078</td>
<td>.568</td>
<td>10.787</td>
</tr>
<tr>
<td>Work content combined</td>
<td>-.205</td>
<td>.038</td>
<td>-.188</td>
<td>-5.371</td>
</tr>
<tr>
<td>Recognition combined</td>
<td>.071</td>
<td>-.090</td>
<td>-.245</td>
<td>.015</td>
</tr>
<tr>
<td>Growth combined</td>
<td>.581</td>
<td>.086</td>
<td>.285</td>
<td>6.799</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Job Sat.

### 4.4 Objective 2: Multiple Regression Analysis: Impact of Hygiene factors on job satisfaction of craftsmen

In order to assess the impact of hygiene factors on craftsmen’s job satisfaction; a multiple regression analysis was conducted. The dependent variable was Job Satisfaction (JSAT), which was measured with three items as stated earlier. The independent variables for the hygiene factors were six; namely, Company Policy (CMP), Relationship with peers (RLP), Job security (JSEC), Money/Salary (MSA), Relationship with supervisor (RLS) and Working conditions (WKCs). These constructs were also measured using multi-item scale.

The results of the multiple regressions are presented in Tables 4.11., 4.12 and 4.13. From the ANOVA table (4.11), the overall model of six hygiene factors is significant, F (6, 334) = 168.096, p < .05, imply that all the factors included in the model, makes a significant model.

From the Model Summary in Table 4.12, the total variance explained by the model as a whole as reflected in adjusted R-squared was 0.750, F (6.334, p < .05). This implies that the six hygiene factors together explained 75.0% of job satisfaction.
Finally, Table 4.13 shows the contribution of the individual independent variables in the final model. It indicates that the six hygiene factors, Relationship with supervisors, were statistically significant, Company policy (beta = .176, t= 4.503, p < .05), Relationship with peers (beta=.215, t= 4.224, p< .05), Job security (beta=.137, t= 3.919, p< .05), Relationship with supervisor (beta=.041, t=1.173, p < .05). Money/Salary (beta= .292, t= 7.454, p< .05) and Working Conditions (beta=.353, t= 7.474, p < .05). This implies that Job satisfaction of craftsmen is significantly influenced by independent hygiene factors (Company Policy, Relationship with peers, Job security, Money/Salary, Relationship with supervisor and Working conditions) contributing to about 75% of job satisfaction of craftsmen in the construction industry in Ghana.

The result implies that there is a statistically significant, direct and positive impact of hygiene factors (company policy, relationship with peers, job security, relationship with supervisor, money/salary and working conditions) on job satisfaction of craftsmen, F (6, 334) = 168.096, p < .05. This implies that if the hygiene factors given to craftsmen were to change, there would be a corresponding change in job satisfaction. The coefficient of determination, (R-squared (adjusted) = 0.75), implies that 75% of the variance in job satisfaction of the sample can be attributed to hygiene factors, and that the remaining 25% can be associated with other variables which were not included in this study. The hypothesis is supported.
Table 4.11 ANOVA for impact of hygiene factors on job satisfaction of craftsmen

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>2701.396</td>
<td>6</td>
<td>450.233</td>
<td>168.096</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>878.526</td>
<td>328</td>
<td>2.678</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3579.922</td>
<td>334</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Predictors: (Constant), Working conditions combined, Money/Salary combined, Job security combined, Relationship with supervisor combined, Company policy combined, Relationship with peers combined.
b. Dependent Variable: Job Sat,

Table 4.12 Model Summaryb

<table>
<thead>
<tr>
<th>Mode</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.869a</td>
<td>.755</td>
<td>1.63659</td>
<td>.622</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Working conditions combined, Money/Salary combined, Job Security combined, Relationship with supervision combined, Company policy combined, Relationship with peers.
b. Dependent Variable: Job Sat,

Table 4.13 Coefficientsa

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-14.645</td>
</tr>
<tr>
<td></td>
<td>Company policy combined</td>
<td>.207</td>
</tr>
<tr>
<td></td>
<td>Relationship with peers</td>
<td>.485</td>
</tr>
<tr>
<td></td>
<td>Job security combined</td>
<td>.143</td>
</tr>
<tr>
<td></td>
<td>Relationship with supervisor</td>
<td>.050</td>
</tr>
<tr>
<td></td>
<td>Money/Salary combined</td>
<td>.555</td>
</tr>
<tr>
<td></td>
<td>Working conditions combined</td>
<td>.670</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Job Sat,
4.5 Objective 3: Descriptive Statistics: Form of Motivational (motivators and hygiene) factors prevailed or experienced by craftsmen in the construction industry

Several motivating factors could be used to motivate workers, especially craftsmen in the construction industry, for several reasons. In this study, the respondents were asked to indicate their feelings about the form of motivator-hygiene factors prevailed or experienced most in the industry to serve as a means to provide job satisfaction and to improve upon performance on a scale ranging from strongly disagree to strongly agree, which were assigned values from 1 to 5 respectively. The results are summarized in Table 4.14 according to their relative importance (ranks) on the basis of their mean.

Table 4.14 Motivational (motivators and hygiene) factors

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Motivating factors</th>
<th>Mean</th>
<th>Std. D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Working conditions</td>
<td>15.42</td>
<td>1.73</td>
</tr>
<tr>
<td>2</td>
<td>Relationship with peers</td>
<td>13.66</td>
<td>1.45</td>
</tr>
<tr>
<td>3</td>
<td>Company policy</td>
<td>12.00</td>
<td>2.78</td>
</tr>
<tr>
<td>4</td>
<td>Work content</td>
<td>8.50</td>
<td>2.99</td>
</tr>
<tr>
<td>5</td>
<td>Job security</td>
<td>10.09</td>
<td>3.14</td>
</tr>
<tr>
<td>6</td>
<td>Relationship with supervisor</td>
<td>7.34</td>
<td>2.68</td>
</tr>
<tr>
<td>7</td>
<td>Growth</td>
<td>7.08</td>
<td>1.61</td>
</tr>
<tr>
<td>8</td>
<td>Achievement</td>
<td>7.02</td>
<td>2.32</td>
</tr>
<tr>
<td>9</td>
<td>Recognition</td>
<td>7.93</td>
<td>1.69</td>
</tr>
<tr>
<td>10</td>
<td>Money/Salary</td>
<td>5.76</td>
<td>1.72</td>
</tr>
<tr>
<td>11</td>
<td>Advancement</td>
<td>3.71</td>
<td>2.20</td>
</tr>
</tbody>
</table>

Note: Scale 1-5 (1=strongly disagree, 5= strongly agree); 335)

From Table 4.4, most of the respondents would seek working conditions, which was the highest ranked hygiene factor with Mean of 15.42 and Standard Deviation of 1.73. Relationship with peers was the second hygiene factor with a Mean of 13.66 and a Standard Deviation of 1.45 (n = 245), company policy
ranked third with a Mean of 12.00 and a Standard Deviation of 2.78 while work content (which is a motivator factor) followed for the fourth position with a Mean of 8.50 and a Standard Deviation of 2.99. Then job security, a hygiene factor, took the fifth position; its Mean was 10.09 and its Standard Deviation 3.14, whilsts relationship with supervisor, the last of the hygiene factors came sixth with a Mean of 7.34 and a Standard Deviation of 2.68.

For the motivator factors, Growth ranked the highest (seventh) factor with a Mean of 7.02 and a Standard Deviation of 2.32. Recognition was next (eighth factor) with a Mean value of 6.92 and 1.69 as the Standard Deviation. Money/Salary (a hygiene factor among motivators as tenth factor) followed with a Mean of 6.57 and a Standard Deviation of 1.72. The least important motivator factor was achievement (eleventh) with a Mean value of 3.71 and a Standard Deviation of 2.20. Therefore, as the hygiene factors ranked highest with larger values of mean and standard deviations, then the form of motivational factors most craftsmen in the Ghanaian construction industry experience is hygiene.

4.6 Objective 4: Descriptive Statistics: T-test and One-Way Analysis of Variance (ANOVA) Kruskal-Wallis (H tests): Influence of Biographical Sample Characteristics on job satisfaction

4.6(a) T-test: Difference between gender of respondents and job satisfaction

In summary, the findings indicate that there is a statistically significant difference between genders and job satisfaction.

From the group statistics in Table 4.15 the mean rating for satisfaction for males is 11.43 (n=245) and for females is 7.07 (n=90) which indicate that males are
more satisfied than their female counterparts in their job. The positive sign of the t-stats also seems to confirm that males are generally more satisfied than females (based on the sample results). As to whether the mean difference is significant or not, the analyses in Independent Samples Test Table 4.16, presents the independent sample test for the test of difference among males and females satisfaction.

From Independent Samples Test Table 4.6, the t-statistics 13.358 and 16.114, ‘p’ or significant values of 0.000 mean that there is a significant difference in job satisfaction between males and females. If there was a null hypothesis set, then the p-value of 0.000 which is lower than the default alpha value of 0.05 leads to a rejection of the null hypothesis of no difference. The significant value (p-value) indicates that the possibility that these results are due to chance is zero. The positive signs of the confidence interval for the difference between the means also are indicative of the fact that men are more satisfied than females.

4.6(b) T-test: Difference between gender of respondents and motivation of craftsmen

In summary, the findings indicate that there is a statically significant impact of gender on motivation.

From the group statistics in Table 4.15, the mean ratings for males (n = 245) are 34.600 and 7.0667 and females (n=90) are 29.4667 and 57.0889 respectively indicate that males are more motivated and satisfied than their female counterparts. The positive sign of the t-stats suggest that males are generally more motivated than females (based on the sample results). As to whether the mean difference is significant or not, the analyses in the Independent Samples Test Table 4.16, presents
the independent sample test for the test of difference among males and females motivation.

Table 4.15 Descriptive statistics for motivators, hygiene and job satisfaction construct

<table>
<thead>
<tr>
<th>Group Statistics</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction,</td>
<td>Male</td>
<td>245</td>
<td>11.4286</td>
<td>2.87014</td>
<td>.18337</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>90</td>
<td>7.0667</td>
<td>1.88906</td>
<td>.19912</td>
</tr>
<tr>
<td>Motivators</td>
<td>Male</td>
<td>245</td>
<td>34.6000</td>
<td>7.46434</td>
<td>.47688</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>90</td>
<td>29.4667</td>
<td>1.76864</td>
<td>.18643</td>
</tr>
<tr>
<td>Hygiene Factors</td>
<td>Male</td>
<td>245</td>
<td>68.0245</td>
<td>9.47729</td>
<td>.60548</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>90</td>
<td>57.0889</td>
<td>3.35752</td>
<td>.35391</td>
</tr>
</tbody>
</table>

From the Independent Samples Test Table 4.16, the t-statistics 13.385, 6.452 and 10.694 for males and 16.114, 10.026 and 15.593 for females respectively; ‘p’ or significant values of 0.000 mean that there is a significant difference between males and females and males are motivated more than females. If there was a null hypothesis set, then the p-value of 0.000 which is lower than the default alpha value of 0.05 leads to a rejection of the null hypothesis of no difference. The significant value (p-value) indicates that the possibility that these results are due to chance is zero. The positive signs of the confidence interval for the difference between the means also are indicative of the fact that men are more satisfied than females.
Table 4.16 Independent Samples Test

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances F</th>
<th>Sig.</th>
<th>T</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Diff.</th>
<th>Std. Err of Diff.</th>
<th>95% Confidence Interval of the Difference Lower</th>
<th>95% Confidence Interval of the Difference Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Sat,</td>
<td>Equal variances assumed</td>
<td>8.02</td>
<td>0.01</td>
<td>13.39</td>
<td>0.00</td>
<td>4.36</td>
<td>0.33</td>
<td>3.72</td>
<td>5.00</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>16.11</td>
<td>0.00</td>
<td>240.79</td>
<td>0.00</td>
<td>4.36</td>
<td>0.27</td>
<td>3.83</td>
<td>4.90</td>
</tr>
<tr>
<td>Motivators</td>
<td>Equal variances assumed</td>
<td>247.59</td>
<td>0.00</td>
<td>6.45</td>
<td>0.00</td>
<td>5.13</td>
<td>0.80</td>
<td>3.57</td>
<td>6.70</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>10.02</td>
<td>0.00</td>
<td>304.77</td>
<td>0.00</td>
<td>5.13</td>
<td>0.51</td>
<td>4.13</td>
<td>6.14</td>
</tr>
<tr>
<td>Hygiene Factors</td>
<td>Equal variances assumed</td>
<td>65.16</td>
<td>0.00</td>
<td>10.69</td>
<td>0.00</td>
<td>10.94</td>
<td>1.02</td>
<td>8.92</td>
<td>12.95</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>15.59</td>
<td>0.00</td>
<td>332.73</td>
<td>0.00</td>
<td>10.94</td>
<td>0.70</td>
<td>9.56</td>
<td>12.32</td>
</tr>
</tbody>
</table>

(c) Kruskal-Wallis H tests: Impact of marital status of respondents on Job satisfaction

From the Test Statistics Table 4.17, there is no statistically significant impact of marital status on job satisfaction (p > 0.05). From the Rank Table 4.18 shows that there are no statistically significant differences between marital status and job satisfaction (Single persons topped the low job satisfaction category (170.9), followed by married persons (169.77), then those with separated/divorced (134.92) and widowed (133.17).

(d) Kruskal-Wallis H tests: Impact of marital status of respondents on motivator factors combined

From the Test Statistics Table for 4.17 there is no statistically significant impact of motivator factors combined marital status (p > 0.05). From the Rank Table 4.18 shows that there is no impact of marital status on motivator factors [(Married persons
ranked the highest (177.72), followed by separated or divorced (174.53), then single status (163.57), widowed ranked the lowest (156.25).

(e) **Kruskal-Wallis H tests: Impact of marital status of respondents on hygiene factors combined**

From Test Statistics Table 4.17, there is no statistically significant impact of hygiene factors combined and marital status ($p > 0.05$). From the Rank Table 4.18 shows that there is no impact of marital status on hygiene factors. Single, 173.07), Married, 165.83, Separated/divorced, 126.81 and widowed, 142.17.

Table 4.17 Test Statistics$^{a,b}$

<table>
<thead>
<tr>
<th>Test Statistics $^{a,b}$</th>
<th>Job Sat</th>
<th>Motivators</th>
<th>Hygiene Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>3.369</td>
<td>1.583</td>
<td>4.340</td>
</tr>
<tr>
<td>df</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.338</td>
<td>.663</td>
<td>.227</td>
</tr>
</tbody>
</table>

a. Kruskal Wallis Test  
b. Grouping Variable: Marital Status Table

Table 4.18 Mean Ranks

<table>
<thead>
<tr>
<th>MaritalStatus</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Job Sat,</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>217</td>
<td>170.94</td>
</tr>
<tr>
<td>Married</td>
<td>94</td>
<td>169.77</td>
</tr>
<tr>
<td>Separated/Divorced</td>
<td>18</td>
<td>134.92</td>
</tr>
<tr>
<td>Widowed</td>
<td>6</td>
<td>133.17</td>
</tr>
<tr>
<td>Total</td>
<td>335</td>
<td></td>
</tr>
<tr>
<td><strong>Motivators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>217</td>
<td>163.57</td>
</tr>
<tr>
<td>Married</td>
<td>94</td>
<td>177.72</td>
</tr>
<tr>
<td>Separated/Divorced</td>
<td>18</td>
<td>174.53</td>
</tr>
<tr>
<td>Widowed</td>
<td>6</td>
<td>156.25</td>
</tr>
<tr>
<td>Total</td>
<td>335</td>
<td></td>
</tr>
<tr>
<td><strong>Hygiene Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>217</td>
<td>173.07</td>
</tr>
<tr>
<td>Married</td>
<td>94</td>
<td>165.83</td>
</tr>
<tr>
<td>Separated/Divorced</td>
<td>18</td>
<td>126.81</td>
</tr>
<tr>
<td>Widowed</td>
<td>6</td>
<td>142.17</td>
</tr>
<tr>
<td>Total</td>
<td>335</td>
<td></td>
</tr>
</tbody>
</table>
(f) Kruskal-Wallis H tests: Impact of age category of respondents on job satisfaction

From the Test Statistics Table 4.19, (p<0.05) there is a statistically significant impact of age on job satisfaction. From the Rank Table 4.20 shows that there is a statistically significant impact of age category on job satisfaction. Specifically, respondents between the ages of 18-27 years rated their job satisfaction highest, followed by those within the ages of 28-37 years, then 38-47 years and the least rated job satisfaction age group are those in the age group between 48 years and above.

(g) Kruskal-Wallis H tests: Impact of age category of respondents on motivator factors combined

From Test Statistics Table 4.19, there is a statistically significant impact of age on motivators combined (p< 0.05). From the Rank Table 4.20, it can be seen that there is a significant impact of age category on motivator factors combined. Respondents between the ages of 18-27 years rated their motivators highest, followed by those within the ages of 28-37 years, then 38-47 years and the least rated motivators fall between the ages of 48 years and above.

(h) Kruskal-Wallis tests: Impact of age category of respondents on hygiene factors combined

From Test Statistics Table 4.19, there is a statistically significant difference between age category and hygiene factors combined (p< 0.05). From the Rank Table 4.20 shows that there is a statistically significant impact of age category on hygiene factors. Respondents between the ages of 18-27 years rated their hygiene factors highest, followed by those within the ages of 28-37 years, then 38-47 years and the
least rated age category in terms of their hygiene factors is found between the ages of 48 years and above.

Table 4.19: Test Statistics\textsuperscript{a,b}

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Job Sat, Chi-Square</th>
<th>Motivators Chi-Square</th>
<th>Hygiene Factors Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>df</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.026</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Kruskal Wallis Test

b. Grouping Variable: Age Category

Table 4.20: Mean ranks

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Age Category</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Sat,</td>
<td>18-27</td>
<td>203</td>
<td>179.34</td>
</tr>
<tr>
<td></td>
<td>28-37</td>
<td>73</td>
<td>157.38</td>
</tr>
<tr>
<td></td>
<td>38-47</td>
<td>37</td>
<td>134.24</td>
</tr>
<tr>
<td></td>
<td>48-57</td>
<td>22</td>
<td>155.39</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>335</td>
<td></td>
</tr>
<tr>
<td>Motivators</td>
<td>18-27</td>
<td>203</td>
<td>186.42</td>
</tr>
<tr>
<td></td>
<td>28-37</td>
<td>73</td>
<td>162.29</td>
</tr>
<tr>
<td></td>
<td>38-47</td>
<td>37</td>
<td>129.18</td>
</tr>
<tr>
<td></td>
<td>48 years and above</td>
<td>22</td>
<td>82.30</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>335</td>
<td></td>
</tr>
<tr>
<td>Hygiene Factors</td>
<td>18-27</td>
<td>203</td>
<td>190.54</td>
</tr>
<tr>
<td></td>
<td>28-37</td>
<td>73</td>
<td>147.16</td>
</tr>
<tr>
<td></td>
<td>38-47</td>
<td>37</td>
<td>105.82</td>
</tr>
<tr>
<td></td>
<td>48-57</td>
<td>22</td>
<td>133.70</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>335</td>
<td></td>
</tr>
</tbody>
</table>

(i) Kruskal-Wallis H tests: Impact of job title/classification of respondents on job satisfaction

From the Test Statistics Table 4.21, there is a statistically significant impact of job title/classification of respondents on job satisfaction. From the Rank Table 4.22, there is a statically significant difference between the job classification and job satisfaction (p<0.05). Specifically, steel benders rated their job satisfaction highest (198.94), followed by electricians (196.91), then carpenters (179.18), next are painters...
(156.93) and the least rated job classification constitute masons/tillers and plumbers (151.11).

(j) **Kruskal-Wallis H tests: Impact of job title/classification of respondents on motivator factors combined**

From the Test Statistics Table 4.21, there is no statistically significant impact of job classification on motivator factors combined (p> 0.05). From the Rank Table 4.22, it is clearly seen that there is no statistically significant impact of job classification (steel benders [(180.74), carpenters (169.72), painters (167.92), mason/tillers/plumbers (165.75), electricians ranked the lowest (164.77)] on motivator factors.

(k) **Kruskal-Wallis H tests: Impact of job title/classification of respondents on hygiene factors combined**

From the Test Statistics Table 4.21, there is a significant impact of job title/classification of respondents on hygiene factors (p<0.05). From the Rank Table 4.22 shows that there is a significant difference between the job classification and hygiene factors. Specifically, steel benders rated their job satisfaction highest (206.05), followed by electricians (187.13), then carpenters (179.18), then masons/tillers/plumbers (156.05) and the least rated hygiene factors constitute painters.

**Table 4.21 Test Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Job Sat</th>
<th>Motivators</th>
<th>Hygiene factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>14.615</td>
<td>.695</td>
<td>11.926</td>
</tr>
<tr>
<td>df</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.006</td>
<td>.952</td>
<td>.018</td>
</tr>
</tbody>
</table>

a. Kruskal Wallis Test  
b. Grouping Variable: Job Title
### Table 4.22 Mean Ranks

<table>
<thead>
<tr>
<th>Job Title</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Job Sat.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mason</td>
<td>148</td>
<td>151.11</td>
</tr>
<tr>
<td>Carpenter/Joiner</td>
<td>58</td>
<td>179.48</td>
</tr>
<tr>
<td>Electrician</td>
<td>49</td>
<td>196.91</td>
</tr>
<tr>
<td>Painter</td>
<td>49</td>
<td>156.93</td>
</tr>
<tr>
<td>Steel bender</td>
<td>31</td>
<td>198.94</td>
</tr>
<tr>
<td>Total</td>
<td>335</td>
<td></td>
</tr>
<tr>
<td><strong>Motivators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mason</td>
<td>148</td>
<td>165.75</td>
</tr>
<tr>
<td>Carpenter/Joiner</td>
<td>58</td>
<td>169.72</td>
</tr>
<tr>
<td>Electrician</td>
<td>49</td>
<td>164.77</td>
</tr>
<tr>
<td>Painter</td>
<td>49</td>
<td>167.92</td>
</tr>
<tr>
<td>Steel bender</td>
<td>31</td>
<td>180.74</td>
</tr>
<tr>
<td>Total</td>
<td>335</td>
<td></td>
</tr>
<tr>
<td><strong>Hygiene factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mason</td>
<td>148</td>
<td>156.05</td>
</tr>
<tr>
<td>Carpenter/Joiner</td>
<td>58</td>
<td>179.18</td>
</tr>
<tr>
<td>Electrician</td>
<td>49</td>
<td>187.13</td>
</tr>
<tr>
<td>Painter</td>
<td>49</td>
<td>147.64</td>
</tr>
<tr>
<td>Steel bender</td>
<td>31</td>
<td>206.05</td>
</tr>
<tr>
<td>Total</td>
<td>335</td>
<td></td>
</tr>
</tbody>
</table>

(l) **Kruskal-Wallis H test: Impact of educational classification of respondents on job satisfaction**

From the Test Statistics Table 4.23, there is no significant impact of educational qualification on job satisfaction (p<0.05). From the Rank Table 4.24 shows that there are no significant differences between job classification and job satisfaction. SHS/Polytechnic rated their job satisfaction highest (184.81), followed by those whose educational qualification is less than JHS/MSLC (174.63), and then JHS/MSLC (162.03), the least rated in terms of educational qualification comprised NVTI/Technical (161.90).
(m) Kruskal-Wallis H tests: Impact of educational classification of respondents on motivator factors combined

From the Test Statistics Table 4.23, there is no statistically significant impact of educational qualification on motivator factors combined (p > 0.05). From the Rank Table 4.24, it is obvious that there is no significant impact of educational qualification [(SHS/Polytechnic (183.50), then less than JHS/MSLC (166.99), followed by JHS/MSLC (165.88), the lowest educational qualification (NVTI/Technical) ranked the lowest (168.99)] on motivator factors combined.

(n) Kruskal-Wallis H tests: Impact of educational classification of respondents on hygiene factors combined

From the Test Statistics Table 4.23, there is no statistically significant impact of educational qualification/level on hygiene factors (p > 0.05). From the Rank Table 4.24, it is obvious that there is no impact of educational qualification on hygiene factors [(SHS/Polytechnic ranked the highest, (201.25), then less than JHS/MSLC (171.73), followed by NVTI/Technical (169.85), JHS/MSLC ranked the lowest (168.99)] hygiene.

Table 4.23: Test Statistics\textsuperscript{a,b}

<table>
<thead>
<tr>
<th></th>
<th>Job Sat,</th>
<th>Motivators</th>
<th>Hygiene Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>2.031</td>
<td>.540</td>
<td>3.814</td>
</tr>
<tr>
<td>df</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.566</td>
<td>.910</td>
<td>.282</td>
</tr>
</tbody>
</table>

a. Kruskal Wallis Test  
b. Grouping Variable: Educational Qualification
Table 4.24 Mean Ranks

<table>
<thead>
<tr>
<th>Educational Qualification</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Sat,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than JHS/MSLC</td>
<td>127</td>
<td>174.63</td>
</tr>
<tr>
<td>JHS/MSLC</td>
<td>109</td>
<td>162.03</td>
</tr>
<tr>
<td>NVTI/Technical</td>
<td>81</td>
<td>161.90</td>
</tr>
<tr>
<td>SHS/Polytechnic</td>
<td>18</td>
<td>184.81</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>335</td>
<td></td>
</tr>
<tr>
<td>Motivators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than JHS/MSLC</td>
<td>127</td>
<td>166.99</td>
</tr>
<tr>
<td>JHS/MSLC</td>
<td>109</td>
<td>165.88</td>
</tr>
<tr>
<td>NVTI/Technical</td>
<td>81</td>
<td>168.99</td>
</tr>
<tr>
<td>SHS/Polytechnic</td>
<td>18</td>
<td>183.50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>335</td>
<td></td>
</tr>
<tr>
<td>Hygiene factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than JHS/MSLC</td>
<td>127</td>
<td>171.73</td>
</tr>
<tr>
<td>JHS/MSLC</td>
<td>109</td>
<td>156.78</td>
</tr>
<tr>
<td>NVTI/Technical</td>
<td>81</td>
<td>169.85</td>
</tr>
<tr>
<td>SHS/Polytechnic</td>
<td>18</td>
<td>201.25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>335</td>
<td></td>
</tr>
</tbody>
</table>

*(p)*Kruskal-Wallis H tests: Impact of job grade of respondents on job satisfaction

From the Test Statistics Table 4.25, there is a statistically significant impact of job grade on job satisfaction (*p* < 0.05). From the Rank Table 4.26 shows that there are significant differences between job grade and job satisfaction. Senior craftsmen rated their job satisfaction highest (184.81), followed by assistant senior craftsmen (190.97), junior and ordinary craftsmen followed closely at the rates (161.87) and (161.40) respectively.

*(q)*Kruskal-Wallis H tests: Impact of job grade of respondents on motivator factors combined

From the Test Statistics Table 4.25, there is no statistically significance impact of educational qualification on motivator factors combined (*p* > 0.05). From the Rank Table 4.26, it is obvious that there are no significant impact of job grade [(senior
craftsmen rated their low motivator highest (174.05), followed by junior craftsmen (164.01), then ordinary craftsmen (171.32), assistant senior craftsmen are the least among the rest (158.34)] and motivator factors combined.

(r) **Kruskal-Wallis H test: Impact of job grade of respondents on hygiene factors combined**

From Table 4.25, there is a statistically significant impact of job grade and hygiene factors combined (p< 0.05). From Table 4.26, it is obvious that there are significant differences between job grade [(senior craftsmen rated their hygiene factors highest (219.13), followed by assistant senior craftsmen (175.91)], then ordinary craftsmen (165.35), junior craftsmen are the least among the rest (160.15)] and hygiene factors combined.

**Table 4.25: Test Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Job Sat</th>
<th>Motivators</th>
<th>Hygiene factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>9.632</td>
<td>.809</td>
<td>6.325</td>
</tr>
<tr>
<td>df</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.022</td>
<td>.847</td>
<td>.097</td>
</tr>
</tbody>
</table>

a. Kruskal Wallis Test  
b. Grouping Variable: Job Grade
Table 4.26: Mean Ranks

<table>
<thead>
<tr>
<th>Job Grade</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Sat,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior Craftsman</td>
<td>19</td>
<td>220.92</td>
</tr>
<tr>
<td>Assistant Senior Craftsman</td>
<td>35</td>
<td>190.97</td>
</tr>
<tr>
<td>Junior Craftsman</td>
<td>97</td>
<td>161.87</td>
</tr>
<tr>
<td>Ordinary Craftsman</td>
<td>184</td>
<td>161.40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>335</strong></td>
<td></td>
</tr>
<tr>
<td>Motivators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior Craftsman</td>
<td>19</td>
<td>174.05</td>
</tr>
<tr>
<td>Assistant Senior Craftsman</td>
<td>35</td>
<td>158.34</td>
</tr>
<tr>
<td>Junior Craftsman</td>
<td>97</td>
<td>164.01</td>
</tr>
<tr>
<td>Ordinary Craftsman</td>
<td>184</td>
<td>171.32</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>335</strong></td>
<td></td>
</tr>
<tr>
<td>Hygiene Factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior Craftsman</td>
<td>19</td>
<td>219.13</td>
</tr>
<tr>
<td>Assistant Senior Craftsman</td>
<td>35</td>
<td>175.91</td>
</tr>
<tr>
<td>Junior Craftsman</td>
<td>97</td>
<td>160.15</td>
</tr>
<tr>
<td>Ordinary Craftsman</td>
<td>184</td>
<td>165.35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>335</strong></td>
<td></td>
</tr>
</tbody>
</table>

(s) **Kruskal-Wallis H test: Impact of tenure of respondents on job satisfaction**

From the Test Statistics Table 4.27, there is a statistically significant impact of tenure on job satisfaction (p<0.05). From the Rank Table 4.28 shows that there are significant differences between tenure and job satisfaction. Those who have worked in the industry between 11 years and above rated their job satisfaction highest (199.86), followed by those who have worked between 6 and 10 years (178.57), those with between 1 and 5 years experience followed in the third rank at the rate of (167.64), last but not least is the category who have worked in the industry for less than one year (140.53).

(t) **Kruskal-Wallis H test: Impact of tenure of respondents on motivator factors combined**

From the Test Statistics Table 4.27, there is a statistically significance impact on tenure and motivator factors combined (p<0.05). From the Rank Table 4.28 shows that there is statistically significant impact of tenure on motivator factors combined.
Those who have worked in the industry between 11 years and above rated their job motivation (197.53), followed by those who have worked between 6 and 10 years (179.94), those with between 1 and 5 years experience followed in the third rank at the rate of (160.30), last but not least is the category who have worked in the industry for less than one year (147.51).

*(u)*Kruskal-Wallis *H* test: Impact of tenure of respondents on hygiene factors combined

From the Test Statistics Table 4.27, there is a statistically significant impact of tenure on hygiene factors combined (*p*<0.05). From the Rank Table 4.28 shows that there is a statistically significant impact of tenure on hygiene factors combined. Those who have worked in the industry between 11 years and above rated their hygiene factors highest (200.97), followed by those who have worked between 6 and 10 years (180.62), those with between 1 and 5 years experience followed in the third rank at the rate of (165.66), last but not least is the category who have worked in the industry for less than one year (139.89).

**Table 4.27: Test Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Job Sat</th>
<th>Motivators</th>
<th>Hygiene Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>16.265</td>
<td>11.614</td>
<td>16.364</td>
</tr>
<tr>
<td>df</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>.001</td>
<td>.009</td>
<td>.001</td>
</tr>
</tbody>
</table>

a. Kruskal Wallis Test

b. Grouping Variable: Tenure
<table>
<thead>
<tr>
<th>Tenure</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Job Sat,</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>98</td>
<td>140.53</td>
</tr>
<tr>
<td>1-5 years</td>
<td>92</td>
<td>167.64</td>
</tr>
<tr>
<td>6-10 years</td>
<td>89</td>
<td>178.57</td>
</tr>
<tr>
<td>11 yrs &amp; above</td>
<td>56</td>
<td>199.86</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>335</td>
<td></td>
</tr>
<tr>
<td><strong>Motivators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>98</td>
<td>147.51</td>
</tr>
<tr>
<td>1-5 years</td>
<td>92</td>
<td>160.30</td>
</tr>
<tr>
<td>6-10 years</td>
<td>89</td>
<td>179.94</td>
</tr>
<tr>
<td>11 yrs &amp; above</td>
<td>56</td>
<td>197.53</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>335</td>
<td></td>
</tr>
<tr>
<td><strong>Hygiene Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>98</td>
<td>139.89</td>
</tr>
<tr>
<td>1-5 years</td>
<td>92</td>
<td>165.66</td>
</tr>
<tr>
<td>6-10 years</td>
<td>89</td>
<td>180.62</td>
</tr>
<tr>
<td>11 yrs &amp; above</td>
<td>56</td>
<td>200.97</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>335</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER FIVE
DISCUSSION OF RESULTS

In this section the results described in Chapter 4 will be discussed in greater detail and where appropriate, existing literature will be integrated into the discussion. The limitations of the study and the implications for future research will be addressed. The chapter concludes with recommendations.

5.1 Introduction

The purpose of the present study was to determine the impact of motivation on job satisfaction of craftsmen in the construction industry in Ghana. The sample used in this study (335 respondents) was selected from 100 construction companies registered with the Association of Building Construction and Civil Engineering in Ghana, which comprises craftsmen only.

5.2.1 Discussion of Findings

5.2.1.1 General findings on five sub-dimensions of the motivator factors combined

Table 4.8 in Chapter 4 indicates that through regression analysis, there is a statistically significant, direct and positive impact of the five independent motivator variables (sub-dimensions) of the motivation and job satisfaction questionnaire; therefore the hypothesis (H1) is supported. The five sub-dimensions included achievement, advancement, work content, recognition and growth.

Mason’s (2001) survey confirms that there are a lot of factors that contribute to employee motivation and job satisfaction, but some factors are more highly
considered in their motivational influence than others. Table 4.10, indicates that although all five sub-dimensions have a positive impact, that craftsmen in the sample were motivated due to their advancement, growth and achievement among others. These results are in accordance with the findings of a large number of researchers who worked on work motivation of employees (Khan, Farooq, & Khan, December 2010; Rasheed, Aslam, & Sarwar, 2010; Goodin, 2003; Nadia, Syed, & Humera, 2011; Ken, 2000; Khojasteh, 1993; Egwuridi, 1981). The findings are also consistent with the survey findings of Mason (2001) that what makes people happy about their work is the opportunity for achievement, advancement, (both correlates with work content), leadership/supervision of management, followed by recognition.

Schulze and Steyn (2003) conducted similar research amongst primary school educators, also supports the findings of this study, and agree with previous research which reveals what satisfied educators were money, advancement, professional status and appreciation (recognition) of work well done. The present study confirms that there are a number of factors that impact motivation and job satisfaction, but that some of the factors could play a more defined role in motivating craftsmen and those factors are the motivators. According to Herzberg (1959) motivators provide true satisfaction since hygiene factors are of short-term duration and they could never be truly associated with work motivation, but whose absence does not necessarily result in dissatisfaction.

5.2.1.2 General findings on six sub-dimensions of the hygiene factors combined

Table 4.11 in Chapter 4 indicate that through regression analysis, there is a statistically significant, direct and positive impact of all of the six independent hygiene variables (sub-dimensions) of the motivation and job satisfaction
questionnaire; therefore the hypothesis is supported. The six sub-dimensions include, company policy, relationship with peers, job security, and relationship with supervisor, money/salary and working conditions.

The findings in (Table 4.11) are supported by the survey findings of Herzberg et al., (1959) which indicate that there are a number of situational factors that may either help accelerate the ‘growth’ of an employee or slow it down. Table 4.13, indicates that although all six dimensions have a positive impact, that craftsmen in the sample were most satisfied due to their working conditions, money/salary, company policy, among others. In fact, what is even more manageable is that an employee would be more motivated if the manager or the leader can actually convert an environment to encourage self-motivation within the individual. The studies illuminated the extent to which workers were affected by external factors of work.

Since a lot of research has been done on the impact of extrinsic motivation, especially in private sector firms worldwide, through these studies, it can be observed that there has been a consistent trend towards increase in motivation level of workers through extrinsic (hygiene factors) sources of motivation (Nadia, Syed, & Humera, 2011; Ajila & Abiola, 2004; Pratheepkanth, 2011; Mahamuda Parvin & Nurul Kabir, 2011; Chandrakesar, 2011; Bosompem, Adjei Kwarteng, & Obeng-Mensah, 2012). Current study was an attempt to consider the impact of same factors in construction industry in Ghana because very little research has been done on craftsmen motivation and satisfaction regarding their motivation level (Fugar & Salam, 2007).

The findings are also consistent with John Adair’s Fifty-Fifty perception theory that people motivate themselves by fifty percent and from the environment they are motivated by the remaining fifty percent. This environment includes work conditions, colleagues and especially, leaders. The Fifty-Fifty rule recognizes that
leaders have a key role in influencing motivation of employees at work. The relationship between leadership and motivation is crucial to determine employee’s motivation. But leaders alone cannot motivate the employees fully as they are self motivating in various degrees. These are the challenges that management face to stimulate employee motivation with the work environment (John, 2007, p. 38-41).

Schulze and Steyn (2003) confirm this study by acknowledging that there are a number of factors that have impact on motivation and job satisfaction, but that some of the factors could play a more defined role in motivating employees. According to the Goal setting theory, hygiene factors such as working conditions, company policy, supervision, salaries, poor lighting, poor ventilation, and poor supervisory, poor relationships, etc., contribute to employees’ motivation needs.

5.2.1.3 Findings of the motivational (motivator-hygiene) factors prevailed/ experienced most by craftsmen in order to achieve job satisfaction in the Ghanaian construction industry.

It is indicative of the above findings in Table 4.14 that most of the hygiene factors such as relationship with supervisor, working conditions, relationship with peers, company policy, job security, and relationship with supervisor have been met (since they ranked highest) and for that reason the efforts made to motivate by the motivators are bound to succeed. This conclusion is built on the emphasis made by Herzberg (1966) that in order to motivate people an organisation needs to first have the baseline, that is the hygiene factors, in place and then the motivators will be used to motivate and in absence of the base line motivation is not possible to achieve.

While on the other hand one of the hygiene factors, money/salary has not been met (raked with the motivator-factors) and this therefore implies that one of the
hygiene factors in the construction industry has not been satisfied and this in itself could act as a big hindrance to motivation or the salary component is perceived so important that it undoes all the other good initiatives. It cannot even be stated explicitly that the hygiene factors that have been met as stated above in absentia of money/salary could be able to create the baseline that will adequately motivate the workers through the motivators.

This therefore creates a dilemma as to whether the hygiene factors are sufficient enough to create a solid baseline that can have a solid impact on the motivators and job satisfaction. Nevertheless, there seems not to be much dissatisfaction in regards to motivation in the Ghanaian construction industry but whether performance is being achieved is an issue that needs critical examination.

The position of money/salary among the motivator factors further indicates that "Monetary rewards have seen to be the most important motivator for employees, no other reward contributes as effectively as money does (Rynes, Gerhart, & Minette, 2004). Kanungo and Jaeger (1990) in support of this finding also alluded to the fact that most industries in Ghana typically place more emphasis on traditional rewards that are typically extrinsic and monetary in nature in the bid to motivate the employees to achieve competitive advantage. Even though the Ghanaian worker, may be happy for getting a job in place of monetary rewards for survival, monetary rewards alone do not necessarily motivate the worker in employment to give up his best.

Furthermore, job satisfaction does not increase by a single factor such as salary (as mangers think) and there might be other factors that contribute more powerfully to job satisfaction level; according to Fuhrmann (2006), salary is not the only factor that
helps employees to get motivated; there are other factors as well e.g. advancement, feedback, participation in decision making etc.

From the same discussion in Table 4.14, the study established that the motivator such as sense of growth, achievement in ones job, recognition, advancement, responsibility, training, etc., are not quite adequately experienced by craftsmen in the construction industry. This, therefore, brings to light the realization that craftsmen are bound not to be motivated to perform well since the baseline (hygiene) is there but the motivators are not able to stimulate good performance and job satisfaction.

The findings are consistent with the earlier study that, in spite of the huge contribution generated by the industry in boosting the economies of countries, construction industries have famous reputation for low motivation/performance (Dubois & Gadde, 2002) to the extent that they have been ranked ‘low compared to all industries’ (Chinowsky & Songer, 2011). To further confirm the findings of low motivation in the industry, Field and Ofori (1988) stated that the industry is considered an important and highly seen contributor to the process of growth, yet many academics believe that there are no benefits (motivation programmes) to this industry to encourage the craftsmen to work harder or to make extra contribution beyond the competitive pride or personal job satisfaction of the individual.

In support of Field and Ofori (1988) after more than two decades, Gneezy et al., (2011) confirmed the findings of the current study that the construction industry is among the organizations whose employees suffer low motivation due to poor motivational strategies that mostly concentrate on financial rewards. Low motivation among craftsmen in the industry results in low output of work.

The study further revealed that Work content (which is a motivator factor) was found to exist prominently among the hygiene-factors. The reason for this is attributed
to the different job classification and workplaces involved in the research, attributed to lack of motivation, relaxed disciplinary procedures or the respondents are not aware that their work content is satisfactory. Also hygiene factors do not provide motivation so if work content if found amidst the hygiene factors then it still affirms the fact that there is low motivation among craftsmen in the construction industry in Ghana as indicated by (Ahadzie, 1995) and others. However the findings affirm the assumption of the study and are in support of the problem statement.

In conclusion, and to further confirm the study it can be said that “the Ghanaian construction industry is “a pay check” in that it falls in the category of “High hygiene + low motivation. Employees have few complaints but are not highly motivated.”’’ As discussed earlier, most of the research findings across variety of countries and industries have concluded that hygiene factors impact their respondents’ job satisfactions.

5.2.1.4 T-Test: Difference between gender of respondents and job satisfaction

As discussed in Table 4.15, the study indicates that males reported higher, (Mean = 7.667, t = 16.114) than females (Mean = 11.4286 t = 13.358) on the basis of job satisfaction. According to a study conducted by Kalantari (1995), this result could be attributed to a number of factors. His research found that there is substantial evidence to indicate that women have not been compensated fairly for their work when compared to men in similar positions. He found that traditionally women in the United States have played a different role to men in the labour force. Women have usually worked in low paying occupations with limited hours of work, and their income supplemented their husband’s earnings.
However, a new work environment has evolved for women, altering their attitude towards wages, with the result that one of the most important grievances of women has been the wage gap between themselves and their male counterparts. He found that there is substantial evidence to suggest that women have been underpaid compared to men, even for performing similar jobs (Kalantari, 1995).

To further support this finding, research conducted amongst teachers in South Africa by Schulze and Steyn (2003) found those female educators’ needs that were not satisfied included salary, biased evaluation of merit and for promotion, participation in decision-making and a fair workload. Factors that powerfully motivate the female educator were: relationships with learners, pride in their work, self-esteem and love of their particular subject.

5.2.1.5 T-test: Difference between gender of respondents and motivation (motivator-hygiene) of craftsmen

In summary, the findings indicate that there is a statically significant impact of gender on motivation. From the group statistics in Table 4.15, the mean rating for motivation for males is 34.6 and 68.02 (n = 245) respectively and for females is 29.47 and 57.09 respectively (n = 90), which indicate that males are more motivated than females. The positive sign of the t-stats suggest that males are generally more motivated than females (based on the sample results). As to whether the mean difference is significant or not, the Independent Samples Test analyses in Table 4.16, presents the test of difference among males and females motivation.

From the Independent Samples Test in Table 4.16, the t- statistics, 13.385, 6.452 and 10.69 for males and 16.114, 10.026 and 15.593 for females respectively, p-values or significant values of 0.000 mean that there is a significant difference in
motivation between males and females. The p-value of 0.000 which is lower than the default alpha value of 0.05 and it is also an indication of a significance difference between males and females on their motivation.

The significant value (p-value) indicates that the possibility that these results are due to chance is zero. The positive signs of the confidence interval for the difference between the means also indicate that men are more satisfied than females.

As discussed in Table 4.6, Males (Mean = 34.6, t = 6.452) than females (Mean = 29.4667, t = 10.026) on the basis of motivators; and Males (68.0245, t = 10.694) than females (57.0889, t = 15.593) on the basis of hygiene than their female counterparts. In supporting the findings, some studies reviewed by Herzberg et al., (1957) indicate that males are more satisfied with their jobs than females do.

According to a study conducted by Kalantari (1995), this finding could be attributed to a number of factors. His research found that there is substantial evidence to indicate that women have not been compensated fairly for their work when compared to men in similar positions. He found that traditionally women in the United States have played a different role to men in the labour force. Women have usually worked in low paying occupations with limited hours of work, and their income supplemented their husband’s earnings.

However, a new working condition has come for women, changing their attitude towards wages, with the result that one of the most important worries of women has been the wage gap between themselves and their male counterparts. He concluded that there is enough evidence to suggest that women have been underpaid compared to men, even for performing similar jobs (Kalantari, 1995).

In support of this finding, research conducted amongst teachers in South Africa by Schulze and Steyn (2003) found those female educators’ needs that were
not satisfied included salary, biased evaluation of merit and for promotion, participation in decision-making and a fair workload. Factors that powerfully motivate the female educator were: relationships with learners, pride in their work, self-esteem and love of their particular subject.

5.2.1.6 Impact of marital status on motivation and job satisfaction (motivator-hygiene) of craftsmen

The study found no statistically significant impact of marital status on both motivation and job satisfaction. The study revealed that craftsmen in the single category ranked the highest, widowed category ranked the lowest in terms of job satisfaction. Married category ranked the highest whiles widowed the lowest in terms of motivators and finally, single category ranked highest while the separated/divorced grouped ranked the lowest in terms of hygiene factors.

5.2.1.7 Impact of age on motivation (motivator-hygiene) and job satisfaction of craftsmen

The study found that there is a statistically significant impact of age on motivation and satisfaction of craftsmen. The study reported that those in the 18-27years group received the highest whiles those in the age group of 47years and above reported lowest motivation and satisfaction.

Hall’s Age Theory of motivation, confirmed the study and stated that employees between 40 and 55years would be left alone to do their jobs in the best possible way and to be self-directed. The changing of work environments and their resistance to change may result in the low level of motivation in the age group between 40 – 51 years (La Motta, 1995).
A study conducted by Schulze and Steyn (2003), which supports the findings of this study as well as Hall’s theory on motivation, found that the years between 40 and 47 were a time of disillusionment for many educators due to unfulfilled ambitions. From 47 to retirement it was found that educators generally resisted change and were fixed in values and purpose.

The findings of Schulze and Steyn (2003) indicate that there is a correlation between age and marriage and the motivation levels of respondents. They found that age had a major impact on the motivation levels of educators. For example, their study reported that between the ages of 20-27 years educators were committed to marriage, children or job mobility and were trying to build a stable future. Between 28–33 years it was found that educators deal with career issues, marriage and parenting. These factors influenced their motivation levels. Between 34-39 years educators questioned their accomplishment or lack thereof and this might result in some stress, which also impacts on motivation.

Another survey conducted in 2001 in the United States by research house Catalyst, shows that people born between 1964 and 1975 (26 – 37 years), the age group for which careers are expected to rise, are rejecting the stressors associated with high-powered jobs in favour of personal and family goals. This leaves organisations with the dilemma of coming up with unique ways in which to get people to perform at exceptional levels (Motivation, 2005).

### 5.2.1.8 Impact of job title/classification on motivation (motivator-hygiene) and job satisfaction of craftsmen

The study indicated that there is a statistically significant impact of job title/classification on motivation and satisfaction of craftsmen. The study found that
steel benders received the greatest while masons, electricians and painters received the lowest motivation and satisfaction in the industry.

5.2.1.9 Impact of educational qualification on motivation (motivator-hygiene) on job satisfaction of craftsmen

The study indicated no significant impact of educational qualifications on craftsmen motivation and satisfaction. The study revealed that graduates from Senior High Schools (SHSs) or Polytechnics received the highest motivation and job satisfaction while those whose level of education is below the levels of Junior High/Middle School (JHS/MSLC) received the lowest.

These findings are consistent with other researchers who have found this same conclusion (Bowen et al., 1994; Cano & Miller, 1992a; Cano & Miller, 1992b; Castillo & Cano, 1999; Castillo et al., 1999; Griffin, 1984; Herzberg et al., 1957). However, studies are inconclusive regarding whether or not workers increase or decrease their job satisfaction when they increase their educational level (Herzberg et al., 1957).

Contrary to the findings of this study and views expressed by the earlier researchers that there is no impact of educational qualification on job satisfaction, Andrews, 1990; Berns, 1989 and Zhanh, Lam and Baum, 1999, indicate that some studies do agree that increasing one’s educational level increases his or her level of job satisfaction.

The result of the current study is consistent with the revelation of Andrews, 1990; Berns, (1989); Zhanh, Lam and Baum (1999) since craftsmen with higher educational qualification (Senior High School (SHS)/Polytechnic) received the highest motivation and job satisfaction. It is also consistent with a study conducted by
Bender & Heywood (2006). The researchers found that PhD holders who work at universities feel unsatisfied with their jobs as compared with their peers in the industry. This result is also supported by a recent large survey conducted in Jordan (Al-Zoubi, 2012). This implies that are that the level of education of an employee can either influence his job satisfaction or cannot.

On the part of the low level education among craftsmen, the findings are consistent with the study of Fugar & Salam (2007) that ‘most Ghanaian construction site employees have low level of education. Studies in the industry especially in the area of job satisfaction and motivation have revealed a relatively high percentage of employees whose educational level is not above Junior High School or its equivalent. Indeed, some artisans were found not to have had any formal education. As a result, any human capital development strategy must include general skill training, such as, reading and writing. But it is unlikely that employers would be willing to invest their training budgets in general training which may not have direct impact to their current jobs.’

5.2.1.10 Impact of job grade on motivation and job satisfaction

The result indicated no significant impact of job grade on motivation and satisfaction of craftsmen. However, the study showed that senior craftsmen rated the highest while ordinary and junior craftsmen rated the lowest on the basis of their motivation and satisfaction.

In support of this finding, Carla Joison (1996) found that normally, workers with seniority are paid higher than the new associates. It may even have a counterproductive effect on new associates who are high performers.
Contrary to this finding, a research conducted by Coster (1992) concluded that an employee’s position in an industry had a strong link with job satisfaction and that rank/grade increased happiness to a great extent when compared with higher salaries. The researcher explained this relationship and indicated that rank/grade influenced how proud employees were with their professional achievements.

5.2.1.11 Impact of tenure on motivation (motivator-hygiene) on job satisfaction

The findings of the study indicate that there is a statistically significant impact of tenure on craftsman motivation and satisfaction. The study found that employees who have been working for the industry for between 1 and 5 years were the least motivated and satisfied on the basis of motivation and job satisfaction. Those who have worked in the industry for 11 years and more indicated the highest motivation and job satisfaction more than any other category of craftsmen, followed by those who have worked between 6-10 years. Schulze and Steyn’s (2003) research amongst educators found that the more experienced the educator, as determined by length of service, the more influenced they were by the motivational factors considered in the study, and therefore tended to be more easily motivated and satisfied.

The confronting issue facing for the industry is to determine the specific needs of every craftsman and develop a package that could motivate one to do more. As the category of craftsmen whose motivation and satisfaction level were low consisted of youth, (18-27) women, and those who have served with shorter service periods in the industry, management must adopt special motivation and satisfaction plans to motivate them since they may be the ones that the industry would want to retain. Indeed Herzberg, Mausner, Peterson, and Capwell (1957) identified several characteristics of satisfied/dissatisfied workers. They indicated that morale is high
when people first start their jobs. Morale decreases during the next few years and remains at a relatively low level until workers are in their late twenties or early thirties.

South African legislation such as the Employment Equity Act (1998) could provide a tremendous support to strengthen the position of females and other individuals in the workplace. Human Resources have a strategic role to play in addressing the needs of diverse groups of people in the industry and should not wait on legislation to force them to implement strategy that would bring a change. From this study, previous studies as well as literature on the subject, it is evident that properly designed motivation can be considered as the path between motivation and job satisfaction and improved productivity. Human Resources should thus assist in identifying the internal and external barriers that prevents the offering of critical motivation. This study again supports the literature as well as the Herzberg’s Two-factor theory that “a one size fits all” approach to motivation is not acceptable or relevant in most the construction industries today.

5.3 Hypotheses Testing

H1: There is statistically significant impact of motivator factors (achievement, advancement, work content, recognition and growth) on job satisfaction in the construction industry in Ghana.

The results of the multiple regressions are presented in Tables 4.8, 4.29 and 4.10. From the ANOVA Table (4.2.1), the overall model of five motivator factors is significant F (5, 334) = 149.428, p < .05, implying that all the factors included in the model together makes a significant model. Therefore, the H1 is supported.
A study conducted by Bosompem, Kwarteng, and Obeng-Mensah (2012) on the relationship between levels of motivation, job satisfaction, supervision, work conditions, recognition, promotion, involvement in goal setting among agricultural science teachers of selected Senior High Schools in the Central Region of Ghana, found that the best determinant of teacher motivation were recognition and working conditions.

$H_{1a}$: There is statistically significant impact of achievement on job satisfaction in the construction industry

The result of the multiple regressions in Model Summary (Anova$^b$) in Table 4.9 shows the contribution of the achievement in the final model. Table 4.10 (Coefficient$^a$) indicates that achievement was statistically significant (beta = .134, t =2.531, $p<0.05$) on job satisfaction. Therefore, the hypothesis $H_{1a}$ is supported.

$H_{1b}$: There is statistically significant impact of advancement on job satisfaction in the construction industry

The result of the multiple regressions in Model Summary (Anova$^b$) in Table 4.9 shows the contribution of the advancement in the final model. It indicates from Table 4.10 (Coefficient$^a$) that advancement had statistically significant effect on job satisfaction (beta = .568, $t =10.787$, $p<0.05$). Therefore, the hypothesis $H_{1b}$ is supported.
H₁c: There is statistically significant impact of work content on job satisfaction in the construction industry

The result of the multiple regressions in Model Summary (anova) in Table 4.9 shows the contribution of the in the final model. Table 4.10 (Coefficients) indicates that work content had statistically significant effect on job satisfaction (beta = -.188, t = -5.371, p < .05). Therefore, the hypothesis H₁c is supported.

H₁d: There is statistically significant impact of recognition on job satisfaction in the construction industry

The result of the multiple regressions in Model Summary (anova) in Table 4.9 shows the contribution of the recognition in the final model. Table 4.10 (Coefficients) indicates that recognition had statistically significant effect on job satisfaction (beta = .090, t = -2.455, p < .05). Therefore, the hypothesis H₁d is supported.

Manzoor (2012) supported this finding and concludes that empowerment and recognition have significant impact on employee motivation and job satisfaction. Bosompem et al., (2012) also found that the best determinant of teacher motivation were recognition and working conditions.

H₁e: There is statistically significant impact of growth on job satisfaction in the construction industry in Ghana.

The result of the multiple regressions in Model Summary (anova) in Table 4.9 shows the contribution of the advancement in the final model. Table 4.10 (Coefficients) indicates that growth had statistically significant effect on job satisfaction (beta = .285, t = -6.799, p < 0.05). Therefore, the hypothesis H₁e is supported.
H$_2$: *There is statistically significant impact of hygiene factors on job satisfaction in the construction industry in Ghana*

The results of the multiple regressions are presented in Tables 4.11., 4.12 and 4.13. From the ANOVA table (4.11), the overall model of six hygiene factors is significant $F (6, 335) = 168.096, p < .05$, implying that all the factors included in the model together makes a significant model. Therefore, the hypothesis (H$_2$) is supported.

Bosompem et al., (2012) investigated the relationship between levels of motivation, job satisfaction, supervision, work conditions, recognition, promotion, involvement in goal setting among, found that the best determinant of teacher motivation were recognition and working conditions.

H$_{2a}$: *There is statistically significant impact of company policy on job satisfaction in the construction industry in Ghana*

The result of the multiple regressions in Model Summary (anova$^b$) in Table 4.12 shows the contribution of the company policy in the final model. Table 4.13 (Coefficient$^a$) indicates that company policy had statistically significant effect on job satisfaction ($\beta = .176, t = 4.503, p < 0.05$). Therefore, the hypothesis H$_{2b}$ is supported.

H$_{2b}$: *There is statistically significant impact of relationship with peers on job satisfaction in the construction industry in Ghana*

The result of the multiple regressions in Model Summary (anova$^b$) in Table 4.12 shows the contribution of the relationship with peers in the final model. Table (Coefficient$^a$) 4.13 indicates that relationship with peers had statistically significant
effect on job satisfaction (beta = .215, t =4.224, p < 0.05). Therefore, the hypothesis H2b is supported.

The subject of the relations between co-workers’ relationship and job satisfaction, a research carried out in sixty international hotels by Lin and Lin (2011) has concluded a positive relationship between co-worker and job satisfactions. Ducharme and Martin (2000) conducted a large-scale investigation on the problems relating to job satisfaction issues targeted on the employees of international service providers, their studies found that the factors of work group interactions and co-workers' support have significant positive correlation to job satisfaction.

H2c. There is statistically significant impact of job security on job satisfaction in the construction industry in Ghana

The result of the multiple regressions in Model Summary (anova) in Table 4.12 shows the contribution of the job security in the final model. Table 4.13 (Coefficient) indicates that job security had statistically significant effect on job satisfaction (beta = .137, t =3.919, p < 0.05). Therefore, the hypothesis H2c is supported.

A research by Saraswathi (2011) in India on Job security also concluded with significant effect on non-IT employees’ motivation and satisfaction factors. The factor of job security towards employees’ job satisfactions has been tested by Danish and Usman (2010). Rafikul and Ahmad (2008) also concluded the factor of job security has positive effect in motivating their respondents.
H$_{2d}$. **There is statistically significant impact of money/salary on job satisfaction in the construction industry in Ghana**

The result of the multiple regressions in Model Summary (anova) in Table 4.12 shows the contribution of the money/salary in the final model. Table 4.13 (Coefficient) indicates that money/salary had statistically significant effect on job satisfaction ($\beta = .292$, $t = 7.454$, $p < 0.05$). Therefore, the hypothesis H$_{2d}$ is supported.

H$_{2e}$. **There is statistically significant impact of working conditions on job satisfaction in the construction industry in Ghana**

The result of the multiple regressions in Model Summary (anova) in Table 4.12 shows the contribution of the money/salary in the final model. Table 4.13 (Coefficient) indicates that working conditions had statistically significant effect on job satisfaction ($\beta = .353$, $t = 7.474$, $p < 0.05$). Therefore, the hypothesis (H$_{2e}$) is supported. Edwards and Rothbard (1999) provided their statements in supporting strong social relations found within the work environment will enhance employees’ job satisfaction and productivity.

H$_{2e}$. **There is statistically significant impact of relationship with supervisor on job satisfaction in the construction industry in Ghana**

The result of the multiple regressions in Model Summary (anova) in Table 4.12 shows the contribution of the relationship with supervisor in the final model. Table 4.13 (Coefficient) indicates that relationship with supervisor had statistically significant effect on job satisfaction ($\beta = .041$, $t = 1.173$, $p < 0.05$). Therefore, the hypothesis (H$_{2e}$) is supported.
According to a research finding contributed by Lin and Lin (2011) on supervision, supervisory factors have revealed a positive relationship between leader-member interactions and job satisfactions. The respondents from the research have revealed strong satisfactions on their jobs when they experienced positive interactions with their supervisors.
CHAPTER SIX
SUMMARY, CONCLUSION AND RECOMMENDATION

6.0 Introduction
This chapter is the concluding chapter. It summarizes the study and its main findings.
It highlights the contribution of this study to theory and management of mot. Finally,
this chapter draws conclusion for the study and makes recommendations for future
research.

6.1 Summary of Study
For this study, the main purpose was to investigate the impact of motivation
(motivator-hygiene factors) on job satisfaction of craftsmen in the construction
industry in Ghana. Literature review covered areas such as the construction industry,
theories of motivation (content and process theories) etc. The literature review ends
with a conceptual framework and summary of literature for the study.

The study employs a quantitative methodology research design. It involved the
use of closed-ended structured questionnaire to collect primary data. In all 100
construction firms, involving 335 craftsmen, were included through random sampling
approach in the study. The respondents were: masons 44.2%, carpenters 17.3%,
electricians 14.6%, painters 14.6% and Steel benders 9.3%. Permission to administer
the questionnaires for the research work was sought from the management well in
advance and necessary appointments made in such a way that research activities did
not interfere with work on site.

The official approval had to be sought to assure respondents that the study was
for academic purpose and that the information provided will be treated as
confidential. The main statistical techniques used were descriptive statistical tools and
inferential statistics, [(Multiple regressions and Kruskal-Wallis One-Way Anova (H tests)] using SPSS Version 16.0 for windows 7 respectively. All analyses used a significance level of 0.05 to test hypotheses for the study. All statistical test results were computed at the 2-tailed level of significance in accordance with the non-directional hypotheses presented (Sekaran, 2001).

The responses highlighted a number of interesting issues. For example, the study found that craftsmen in the Ghanaian construction industry, in general, receive low motivation and satisfaction, females evidenced the lowest levels of motivation and satisfaction compared to their male counterparts while. Consideration should however, be given to the fact that female respondents were few (27%) compared to the number of male respondents. The findings of Gale (1990) that young women perceive the industry to be male dominated are substantiated by Pyke’s (1993) findings from research in Australia and are also consistent with the Ghanaian construction industry. Consideration should also be given to the fact that the majority of the respondents were males (73%).

Although the research was conducted in an industry which is male dominated, due to the fact that random sampling technique was used to sample the respondents from among 100 construction industries for the study, there was no significant under-representation of any respondent and that the researcher had no control over the gender or number of persons who participated in the study. The study may have produced significantly different results if a different sampling procedure was utilised.

6.2 Summary of Major Findings of the Study

After an objective analysis of the results, the following are the main findings of the study.
6.2.1 Research Objective One

To determine the impact of motivators on craftsmen’s job satisfaction in the construction industry

According to the results of the multiple regression analysis, there is a statistically significant, direct and positive impact of motivators (achievement, advancement, work content and growth) on job satisfaction of craftsmen. This implies that craftsmen satisfaction increases when motivation increases and this will lead to job satisfaction which eventually leads to high productivity. These factors contributed 69% of satisfaction. Depended variable for the study is job satisfaction.

6.2.2 Research Objective Two

To determine the impact of hygiene on craftsmen’s job satisfaction in the construction industry

According to the results of the multiple regression analysis, there is a statistically significant, direct and positive impact of hygiene factors (company policy, relationship with peers, job security, relationship with supervisor, money/salary and working conditions) on job satisfaction of craftsmen. This implies that craftsmen’s dissatisfaction increases when hygiene factors are low or absent. These factors contributed 75 % of satisfaction. Depended variable for the study remained job satisfaction.

6.2.3 Research Objective Three

To identify the motivational (motivator-hygiene) factors prevailed or experienced most by craftsmen to improve their satisfaction in the construction industry of Ghana.
According to the results of the descriptive analysis regarding the motivational factors experienced most by craftsmen in the construction industry, it was found that the craftsmen in the construction industry experiences hygiene factors more than motivators. For this reason, the construction industry can be considered “a pay check” because motivation is low while the hygiene is high (Ahadzie, 1995; Dubois & Gadde, 2002).

6.2.4 Research Objective Four

To determine the impact of demographical (biographical) variables on craftsmen’s job satisfaction and motivation (i.e., gender, marital status, age, job/classification, and educational qualification and tenure)

(i) Impact of gender of respondents on job satisfaction

The result of the study indicated a significant impact of gender on job satisfaction. The result also indicated that men were more satisfied than their female counterparts (Katankari, 1995; Shulze & Steyn, 2003).

(ii) Impact of gender of respondents on motivation (motivator-hygiene combined)

The result of the study indicated a significant impact of gender on motivation. The result also indicated that men were more motivated than their female counterparts (Katankari, 1995; Shulze & Steyn, 2003).

(iii) Impact of marital status on motivation and job satisfaction

The result of the study indicated no significant impact of marital status on motivation and job satisfaction. The study indicated that the single category rated the
highest while those in the category of separated/divorced and widowed rated the lowest on the basis of their motivation and satisfaction.

(iv) Impact of marital status on motivation and job satisfaction

The result of the study indicated no significant impact of marital status on motivation and job satisfaction. The study indicated that the single category rated the highest while those in the category of separated/divorced and widowed rated the lowest on the basis of their motivation and satisfaction.

(iv) Impact of age on motivation and job satisfaction

The result of the study indicated no significant impact of marital status on motivation and job satisfaction. The study revealed that those aged between 18-27 years rated the highest while those who are 47 years and above rated the lowest on the basis of their motivation and job satisfaction (La Motta, 1995; Schulze & Steyn, 2003).

(v) Impact of job title/classification on motivation and job satisfaction

The result of the study indicated no significant impact of job title/classification on motivation and job satisfaction. The study revealed that steel benders were craftsmen who received the highest while masons (brick/blocklayers, tillers and plumbers, concreters), electricians and painters received the lowest on the basis of their motivation and job satisfaction.
(vi) Impact of educational qualification on motivation and job satisfaction

The result of the study indicated no significant impact of educational level on motivation and job satisfaction. The study revealed that graduates from either Senior High School (SHS) or Polytechnics received the highest while those whose level of education is below the Junior High /Middle School received the lowest on the basis of their motivation and job satisfaction.

The study revealed that while some researchers, among who are Cano & Miller (1992a); Castillo et al., (1999), support the findings of this study, others such as Andrews (1990); Zhanh et al., (1999), also disagreed. The implications of these findings are that the level of education of an employee can either impact his job satisfaction or cannot.

(vii) Impact of job grade on motivation and job satisfaction

The result indicated no significant impact of job grade on motivation and satisfaction of craftsmen. However, the study showed that senior craftsmen rated the highest while ordinary and junior craftsmen rated the lowest on the basis of their motivation and satisfaction.

The study found contrary views. Carla (1996) supported the findings of this study while Coster (1992) disagreed with the finding. He argued that job grade had a strong link with job satisfaction. The meaning of these findings is that the position or grade of a worker can either impact his job satisfaction or cannot.

(vii) Impact of tenure on motivation and job satisfaction

The result of the study indicated a significant impact of tenure on motivation and job satisfaction. The study found that those who have worked in the industry for
forty-eight years and beyond reported the highest while those who have worked between one and five years reported the lowest on the basis of their motivation and job satisfaction. This finding is supported by Herzberg, Mausner, Peterson and Capwell (1957).

6.3 Summary of Major Contributions of the Research

This study makes the following significant contribution to the construction industry;

6.3.1 Contributions to the theory

i. One major contribution of the study is that it has validated the Herzberg’s Two-factor theory which explains that a “one size fits all” approach to motivation is not acceptable or relevant in most organizations.

ii. Another contribution of this study is that it has provided empirical evidence on the extent to which motivator-hygiene (Herzberg’ Two-factor theory) factors combined play a significant role in the satisfaction of craftsmen and the extent to which productivity could be enhanced in the Ghanaian construction industry.

iii. The research model tested implies that managers should not to be one-sided in considering factors to motivate employees but rather consider all the two factors in order to optimally motivate and satisfy employees to get the best out of them.

6.4 Conclusion of the Study

In conclusion, this study determined the impact of motivator-hygiene factors on craftsmen’s job satisfaction in the construction industry in Ghana. It used a quantitative survey approach as the methodology approach to arrive at the conclusions. It found that the construction industry in Ghana can be referred to as “a
pay check’’ industry since hygiene is rated high and motivation rated low: the workers then have few complaints but are not highly motivated.

This implies that the construction industry in Ghana is an interesting place to work but motivation is low. The findings are in accordance with Herzberg (1959) theory which states that intrinsic factors i.e. motivators tend to motivate individuals whereas presence of extrinsic factors prevents them from dissatisfaction. So, in order to increase craftsmen’s level of motivation, they must be recognized for their work through promotions, salary raises etc. and must be provided with good and comfortable working conditions.

It further concludes that a “one size fits all” approach to motivation and satisfaction, as it is in the case of the Ghanaian construction industry, will not be sufficient to motivate craftsmen who are inherently different, due to their personality characteristics, but also due to cultural characteristics. Through this study, it can be inferred that in the Ghanaian construction sector, intrinsic motivation is low.

6.5 Limitations of the Study

One area of constraint in carrying out this research was the difficulty of circulating the research instrument throughout the country due to the high level of cost surrounding my travel and also the time involved; the difficulty of circulating the research instrument in the different branches of the industry due to the high level of security surrounding the work areas and offices and also for the fact that there were branches scattered almost all over the sampled cities in Ghana.

One challenge also was the general apathy among Ghanaian culture towards research work which hinders accessibility to prospective respondents who were to provide the needed data. Another limitation was the difficulty some craftsmen,
especially, the illiterate ones, had with reading and understanding the questions posed in the questionnaire. This difficulty arose from the fact that the language of the questionnaire was English. The study was, as a result, focused on two regions of Ghana which means that the sample-size was limited. Furthermore, limitations were set on theories used to analyse the level of motivation and job satisfaction. However, considering the number and size of construction industries sampled for the survey the result reflected and represented the totality of the construction industry in Ghana.

6.6 Recommendations

6.6.1 Recommendations for managers/supervisors

A further effort to motivate craftsmen is required by the industry. Issues to be addressed include:

- There is the necessity to improve on the preconditions as stated by Herzberg, which therefore calls for improving certain specific motivator factors such as work content, achievement, advancement, recognition, growth and any other motivator factors that would bring about job satisfaction in the industry. The hygiene factors such as working environment, supervision, job security, etc., should as well be improved equally. Once all the hygiene factors are improved then the motivators, as stated by Herzberg, will have an increased impact than they already have.

- Managers or Supervisors of the construction industry should scrutinize their workers to know how they could be made better and more satisfying by providing opportunities for achievement; recognizing craftsmen inputs; creating work that is rewarding and that matches the skills and abilities of the craftsmen; giving as much responsibility to each team member as possible;
providing opportunities to advance in the industry through internal promotions; and offering training and development opportunities so that they can pursue the positions they want within the company.

- The industry can develop these motivation (motivator factors) system by including the craftsmen in the decision making process; Dorsey and Minkarah (1993) agree with Gale (1990) in their findings that pride in the job, recognition, training, safety, inclusion in decisions, fair pay and consistent employment are equally important to male and female employees of the industry.

6.6.2 Recommendations for future studies

Current literature of motivational factors on job satisfaction has not sufficiently dealt with the issues of management staff (accountants, typists, receptionists, supervisors, etc.) in the construction industry and the impact that it could have on the motivation and satisfaction levels of these professionals. Therefore, further research on the impact of motivation and satisfaction for this group of professionals could be beneficial to the industry. Research should focus on the wider scope of diversity categories including, gender, marital status, disability, age, tenure, job title/grade, educational level, etc., should also be looked into. Further studies could also incorporate qualitative research as the present study only used quantitative research methodology. The results of such studies could yield some interesting findings and could also significantly impact the delivery of meaningful motivation to diverse groups of people in the construction industry, especially, management staff.
REFERENCES


Lynne, Whatmore, (2012). *Raising Performance through Motivation Part One: Content Theories*


APPENDIX 1

July 2014

Dear Colleague

REQUEST FOR ASSISTANCE WITH A RESEARCH WORK

I am in the process of completing my Master's degree in Construction Technology at the University of Education, Winneba, Kumasi Campus. I have to conduct research for my thesis, focusing on the relationship between motivation (motivators and hygiene factors) and job satisfaction of craftsmen in the Construction Industry of Ghana. The aim of the study is to determine the relationship between motivation and job satisfaction of craftsmen in the construction industry. The results could assist your industry in improving your motivation (motivators and hygiene factors) and job satisfaction among workers in order to achieve high productivity. Craftsmen needs vary in terms of expectations in the various areas of their lives. The attached document contains questions related to specific aspects of your job in order for me to determine your feelings about these aspects. There is no right or wrong answers. I have kept the questionnaire short and it should not take you more than 30 minutes or 24 hours to complete. Please be assured that your response will be treated as confidential.

I trust that the completion of my studies will afford me the opportunity to contribute towards creating a better work environment for all in the industry.

Thank you for your co-operation.

Yours sincerely,

ERIC ACHEAPONG (Tel :(024) 3360245

MPHIL IN CONSTRUCTION TECHNOLOGY
Section A

Biographical (Demographical) Information

CONFIDENTIAL

Please mark/circle the following questions which alternative is closest to your opinion.

1. What is your gender?
   (a) Male    (b) Female

2. What is your marital status?
   (a) Single (b) Married  (c) Separated/Divorced  (d) Widowed

3. What is the age category you belong?
   (a) 18-27  (b) 28-37 years  (c) 38-47 years  (d) 48 years and above

4. What is your current job title/classification?
   (a) Mason/Tiller/Plumber   (b) Carpenter/Joiner   (c) Electrician (d) Painter (e) Steel bender

5. What is your Educational Qualification?
   (a) Less than JHS/MSLC (b) JHS/MSLC (c) NVTI/Technical Institute  (d) SHS/Polytechnic

6. What is your job grade?
   (a) Senior craftsman (b) Assistant senior craftsman (c) Junior craftsman (d) Ordinary craftsman

7. How long have you been working in this industry?
   (a) Less than 1 year (b) 1-5 years (c) 6-10 years (d) 16 years and above
Section B

Work Motivation and Job Satisfaction Questionnaire for craftsmen

Introduction

It is fairly obvious that craftsmen differ from one another in what they need and expect to get from different areas of their lives. Please think about the work you do and because most jobs are not perfect, consider what would make it better from your point of view.

2. Method for answering questions

With each question, you have a choice of selecting your opinion from a 5-point Likert-type rating scale: 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Uncertain/No Opinion (U/N), 4 = Agree (A) or 5 = Strongly Agree (SA).

Choose one of the following: 1 = SD, 2 = D, 3 = U/N, 4 = A or 5 = SA

Please mark/circle the following questions which alternative is closest to your opinion

3. Motivators

SA

3.1 Achievement:

I am proud to work in this industry because it recognizes my achievements

1 2 3 4 5

I feel satisfied with my job because it gives me feeling of accomplishment

1 2 3 4 5

I feel I have contributed toward my industry in a positive manner

1 2 3 4 5
3.2 Advancement:
I will choose career advancement rather than monetary incentives 1 2 3 4 5
My job allows me to learn new skills for career advancement 1 2 3 4 5

3.3 Work content
My work is thrilling and I have a lot of variety in tasks that I do 1 2 3 4 5
I am empowered enough to do my work 1 2 3 4 5
My work is challenging and exciting 1 2 3 4 5

3.4 Recognition:
I feel appreciated when I complete a task 1 2 3 4 5
My supervisor always thanks me for a job well done 1 2 3 4 5
I receive adequate recognition for doing my job well 1 2 3 4 5

3.5 Growth:
I am proud to work in my industry because I feel I have grown as a person 1 2 3 4 5
My job allows me to grow and develop as a person 1 2 3 4 5
I completely understand the mission of my company 1 2 3 4 5

Hygiene Factors
3.6 Company policy:
The attitude of the administration is very accommodative in my industry 1 2 3 4 5
I am proud to work for this industry because it is favorable for its workers 1 2 3 4 5
I completely understand the mission of my industry 1 2 3 4 5

3.7 Relationship with peers:
It is easy to get along with colleagues 1 2 3 4 5
My colleagues are helpful and friendly

Colleagues are important to me

3.8 Job security:

I believe my work is secure

I believe safe working at my workplace

My workplace is located in an area where I feel comfortable

3.9 Relationship with my supervisor:

I feel my performance has improved because of the support from my supervisor

I feel satisfied at work because of my relationship with my supervisor

My supervisors are strong and trustworthy leaders

3.10 Money/Salary:

I am encouraged to work harder because of my salary

I believe my salary is fair

3.11 Working conditions:

I feel satisfied because of the comfort I am provided at work

I am proud to work for my industry because of the pleasant working conditions

Job Satisfaction:

I am satisfied with my job

I am satisfied with treatment from colleagues and supervisors

I feel generally pleased and excited at work

Thank you Please check to make sure that you have missed any question.