

DECLARATION

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

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ABSTRACT

The construction industry has been recognised as the locomotive for development of any economy. However, the continuing decline in the performance of the industry and the increasing challenges facing the industry militate against the industry as the engine of growth. Lack of workers' motivation has been identified and this partly contributes to the steady decline in performance. Against this backdrop, the research was tailored to develop ways of improving productivity through appropriate motivational strategies. The study adopted the use of both qualitative and quantitative approach. Qualitative approach to the study involved the review of various literature on the subject area and unstructured interviews with vary informants. A questionnaire survey approach involving 41 construction firms in the Sekyere East District was used. The questionnaire sought to elicit response from various workers in the construction industry. Subsequently, the response data was subjected to descriptive statistics with relative importance index to examine the degree of importance of the various motivational strategies to the construction site work. Based on the overall sample the rankings revealed that "Monetary incentive", "Quality of life", "Providing effective reward system" and "Learning" were the four highly ranked motivational groups. However, the remaining two groups – "Creativity and Innovation" and "Empowerment" – were also considered important. It is recommended that provision of fringe benefits and the avoidance of delay payments to construction workers may help improve the persistent decline in the performance of the industry. This study reinforces other research works on motivational strategies conducted in the construction industry.

Keywords: Motivation, Construction industry, Performance, Motivational strategies

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CHAPTER ONE: INTRODUCTION

1.1 Background

The building industry is often described as an industry with many problems and a lack of efficiency (Kpamma, 2009). Several researchers have expressed concern about the continued decline in performance of the construction industry and the increasing challenges facing the industry (Alinaitwe, 2009). The role of management includes the organization of the human resources to achieve organizational objectives (Yankov and Kleiner, 2001). As a result of the nature of commercial enterprise organizational goals will include increase productivity and efficiency, and it is generally acknowledged that workforce motivation is an influencing factor in these areas.

Management as a discipline has evolved over time as new generations of managers have strived to increase organizational productivity with regard to human resources; different methods of control have implemented in order to influence the behavior of work force. There are a wide variety of different motivation theories or strategies available for modern business leaders to utilize as a means to reward positive and overall job related productivity. Some of these reward come in the form of flexible scheduling options, premium gifts elicited by company management or increase job related autonomy to create perceptions of trust in the employee and their competency to carry out their job role without managerial intervention or continuous assessment. Olomolaiye et al., (1998) claim that ‘motivation’, aptly described as an inner generator of actions and reactions, is of interest to managers as a means to an end. Definition of motivation tends to centre on how to provide something to a person to drive him (or her) to do something. Since 1950s many motivation theories have been advanced in the field of organizational behavior are categorized into two groups: content theories and process.

Content theories focus primarily on individual needs, attempting to explain the factors within a person that energize and stop behavior. They address the question, “what factors motivate people”? Examples of content theories are Maslow’s hierarchy of needs theory, (Maslow, 1954). Alderfer’s ERG theory (Alderfer, 1972), Herzberg’s two-factor theory and McClelland’s needs theory. However, process theories focus on “why” and “how” of motivation, which investigates formally into the thinking process through which people choose one action versus another in the workplace.

There does not appear to be a definitive model or specific series of incentives programmes which can guarantee continuous improvement or increase in productivity on construction sites.

Again (Olomolaiye et al., 1998) stated that the key to motivation employees is to find ways to satisfy their needs and each individual has different needs.

1.2 Problem Statement

Lack of workers’ motivation on construction sites has been identified and this has contributed the high employee turnover (Thomas et al., 2004). This has been a result of the difficulties in emphasizing the positive side of worker motivation. These have generated numerous attempts over the years to enhance workers’ motivation as it is essential to eliminate the negative side of motivation which may be more psychological. Borcharding and Oglesby (1974) commented that the important elements of job satisfaction for superintendents and for foremen were the challenge of running work, good management support enough information feedback, pride of workmanship and successful work and good crew relations on the contrary, poor coordination, poor engineering information, uncooperative workmen, and personal mistakes were serious factors leading to job dissatisfaction.

According to Shun (2004), management is often frustrated by lack of motivation generated

by the end of the year bonuses. Foremen, who form part of worker strength, are often unable to motivate the average craftsman today (Business Roundtable, 1989). There is therefore the need for craftsmen and other subordinates to be motivated by providing them with the right conditions and opportunity. A correlation exists between worker motivation and performance therefore; there is the need for worker to always feel motivated in order to increase performance.

According to Thomas et al., 2004, an unsatisfactory work environment can have an adverse effect on worker motivation that tends to make minimal effort towards work thereby lowering performance. This has contributed dwindling productivity that has been a major problem confronting the construction industry today which has led to the declining productivity every year for the past decades. Aggregate productivity measurements and studies have shown long-term decline with little improvement. The labour cost component of direct capital cost of large construction projects gives the indication that, there is the need for its maximum utilisation so as to be productive. This study thus seeks to explore the various motivational strategies and its relation to improving productivity.

1.3 Aim and Objectives

The aim of this research is to develop ways of improving productivity through varied motivational strategies.

The objectives of the above study include:

- i. To identify the key factors that affect construction site workers' motivation at the workplace.

- ii. To determine the effect of the identified motivational factors on perceived productivity at site.

1.4 Justification

The choice of D3K3 construction organizations was to identify the key factors that affect construction site workers' motivation at the workplace because D3K3 has the second least resource base and the weak organizational setup among the classes of construction firms. Due to the population size the target for the survey was all the D3K3 contractors registered with the Ministry of Water Resources Works and Housing. The construction industry has been directing considerable effort at improving productivity and reducing costs. Greater opportunities have been found to exist in increasing productivity through motivation. Empirical data from this study will provide insights into motivational strategies and its resultant impact on productivity. The research findings will equip construction site managers with the required tool to use to ensure that construction site workers are well motivated to achieve higher productivity on site. An increase in productivity on site in the construction industry will have a resultant effect of reducing delays most often associated with construction works. The study also contributes to the wide body of literature available on construction and motivational theory.

1.5 Methodology

The approach to data collection and analysis was done both qualitative and quantitative in design, in order to utilize statistical information gathered from the proposed research instruments as well as making a variety of subjective assessments of similar research data. The quantitative design methodology was involved the production of an appropriate questionnaire designed to elicit questions regarding motivation incentives for productivity and efficient job performance so as to generate data on the contemporary worker viewpoint of motivational rewards.

The qualitative approach to research was involved a review of pertinent literature in the area of motivational strategies and construction productivity. It is highly important to this study to gather the perspectives of both the modern worker as well as the contemporary manager, who could be considered expert advisors regarding the current nature of the business environment and its role in motivating performance. The questions were structured as closed-ended on the questionnaires and were also employed the use of the likert scale.

1.6 Scope of study

The study was focused on construction companies with classification D3K3 because such companies usually undertake large volumes of works and, hence, engage large number of workers. According to the classification guideline of Ministry of Water Resources Works and Housing, D3K3 contractors are companies that have demonstrated experience in building works. The study focuses on the motivational measures and performance of workers in Sekyere East District in Ashanti regions in Ghana with the attention on the complexities in achieving performance outcome. The purpose of the study takes an insight on the motivation measures available and what kind of motivational measure can be adopted to enhance worker productivity in the construction industries.

1.7 Structure of report

The report was structured into the following, The first chapter was elaborated the introduction of the topic, the background of the research, spells out the problem understudy, set out the objectives, scope of study, Limitation and methodology, Literature review, Data collection and Data Analysis, Recommendation and conclusion.

CHAPTER TWO LITERATURE REVIEW

2.1 Introduction

2.2 Theories of motivation

Most people probably intuitively know what motivation is but find it difficult to express in words. When motivation is defined by theoreticians, three words are frequently recurring: *Direction* (what people choose to do); *Effort*; and *Persistence* (Arnold and Schoonman, 2002; Hughes et al., 2009; Latham and Ernst, 2006). To put it simple: motivation is a short-term for choosing an activity to engage in, establishing a level of effort to put in it and determining the level of persistence over time (Hughes et al., 2009).

A manager's goal is to get results from the workforce that benefit the organization, as well as, the individuals. Herein lies the manager's challenge: how to motivate a crew of individuals, each with unique and complex needs, satisfiers, and desires, to achieve a goal beneficial to all involved. As a result of the study of this process of motivation, many differing theories have been developed and some of the more notable ones are presented here.

2.3 A historical overview of motivational theories

There are a vast number of motivational theories that have been put forward to explain the motivational factors that affect or influence the performance and the perception of individuals and what this perception does to the organizational performance. Theories of work motivation have, except from personality theory and human needs, traditionally included both individual and situational characteristics (Erez and Eden, 2001). Dwivedula and Bredillet (2010) divide work motivation into two other main threads - the content-based theories and the process-based theories. This separation is also acknowledged by Arnold and Schoonman (2002), who describe

content based theories as focused on what motivates people, while the process-based theories focus on how motivation operates. One of the pioneers within the work motivation field was Taylor and his concept Scientific Management was the starting point of the content-based work motivation theories. The commonly quoted researchers within the content-based thread are: Maslow, well-known for his Need Hierarchy Theory put forward in 1943; Herzberg and his The Motivation-Hygiene Theory developed in the 1950s; and McClelland (Dwivedula and Bredillet, 2010). The findings of Maslow and Herzberg have been thoroughly discussed in numerous papers and critique has been raised. For example, Adair (2006) argues that it since then has been shown that humans are not only motivated by inner needs but also by external factors, such as task and the people that surrounds us. Miner (2005) criticises that The Motivation-Hygiene Theory has not been tested since 1971 and moreover, that later theories have been able to explain job enrichment more thoroughly than Herzberg did. The content-based theories gave rise to Hackman's and Oldham's Job Characteristics Theory (Dwivedula and Bredillet, 2010).

The process-based theories gained status in the second half of the 1960's. They differ from the content-based theories in that they tend to have a cognitive orientation and view motivation as dynamic over time. The most prominent theorists within this thread are Vroom, Porter and Lawler, and Locke. The latter started develop The Goal-setting Theory in the 1960's with increasing support from Latham (Arnold and Schoonman, 2002; Dwivedula and Bredillet, 2010).

2.3.1 Maslow's Theory

Maslow states that the human desire to satisfy one's needs acts as a motivator influencing their performance positively. He represents these needs as a hierarchy of five categories: physiological, safety, love / social, self-esteem, and self-actualisation. Based on Maslow's theory, Schrader (1972) proposed a needs of construction workers and identified appropriate

techniques which could be included as a part of a motivational program. Hazeltine (1976) suggested that the lower level needs are mostly fulfilled and the higher level needs requires attention. He advocated that motivational potential inherent in construction work can be used to fulfill the higher level needs of workers. Shoura and Singh (1998) emphasised the importance of total self-development to fulfill the self-actualisation need for the engineering managers.

2.3.2 Herzberg's Theory

Herzberg's two factors theory suggests that the absence of hygiene factors cause job dissatisfaction and the presence of motivation factors result in job satisfaction. Borcharding (1977) presented matrix techniques to improve motivation and reduce demotivation of foremen and craftsmen. Moilwa and Langford (1990) and Ruthankoon and Ogunlana, (2003) investigated the applicability of Herzberg theory's for Botswana construction supervisors and Thai engineers respectively. Based on Herzberg's theory, Olomolaiye and Ogunlana (1988) quantified the motivation and de-motivation levels by measuring and multiplying the importance and gratification levels of workers. They applied this concept in the construction domain with the workers at Nigeria.

2.3.3 Expectancy Theory

The Expectancy theory was developed by Vroom (1964) and improved by Porter and Lawler (1968). This states that a person is motivated by the outcome of his performance. The theory estimates a numerical level of motivation based on expectancy, valance and instrumentality. Laufer and Jenkins (1983) illustrated the application of this theory in the construction industry and argued to link desired outcome to desired performance. Maloney and McFillen (1986) presented the "Expectancy Model of worker performance" and recommended for performance definition and performance encouragement be used to improve motivation levels.

2.3.4 The Job Characteristics Theory

As stated by Miner (2005,), the Job Characteristics Theory was originally developed by Rickard Hackman and Edward Lawler, but later further developed by Hackman and Greg Oldham who are more frequently associated with it. Latham and Ernst (2006) claim that the Job Characteristics theory is building upon the work of both Maslow and Herzberg in that it takes into account both human needs and motivating factors in the work environment, but instead of arguing that enriched jobs are for everyone, as Herzberg, Hackman and Oldham believed that job enrichment only motivates employees who have higher needs for autonomy, responsibility, task variety, feedback and recognition.

Boddy (2002) calls this theory *The Job Enrichment Model* and argues that it added to the work of earlier motivation theorists by proposing that managers could change the design of the tasks to motivate employees and enhance job satisfaction. During the 1970s this theory came to replace *The Motivation-Hygiene Theory* and according to Miner (2005) it remains the dominant position within the field of job enrichment up to this day. Although, as observed by Dviwedula and Bredillet (2010), the theory is very dominant in explaining work motivation in traditional functional organisations, there has not been much research on the concept of job design in a project-based organisation.

Hackman and Oldham (1980) developed a model with five factors that they called the core job characteristics cited by many, for example Boddy (2002) and Miner (2005). The five factors that contribute to the motivational potential of a job are: *Skill variety* – the extent to which a job makes use of a range of skills and experience; *Task identity* – whether a job involves a relatively complete operation; *Task significance* – how much the job matters to others; *Autonomy* – how

much freedom a person has in deciding how to do their work; and *Feedback* – the extent to which a person receives feedback on performance (Boddy, 2002).

The critique of this theory can be concluded into three main threads. Miner (2005) criticises that (1) little research has been conducted on how the theory works at group level; it might be harder to facilitate job enrichment at a group level than at the individual level. Moreover, as stated by Miner (2005), this theory fails to recognise the personality component and only looks at situational factors as a motivating force. This view is supported by Erez and Eden (2001), who use the expression *context based*, which means focused on the situation rather than the individual. Finally, The Job Characteristics Theory is what Dwivedula and Bredillet (2010) call content based, which means that it regards motivation as static rather than a time-related process.

2.3.5 The Goal-setting Theory

The Goal-setting theory was first formulated in the 1960s and has roots in both psychology and in management. It has, in contrast to many other motivational theories, succeeded into the applied area (Miner, 2005). Latham and Locke (2006) spent their last 40 years developing the goal-setting theory and according to them it was recently ranked No. 1 in importance among 73 management theories. This is supported by Arnold and Schoonman (2002) who argue that this theory is probably one of the most successful in increasing work performance. According to Latham and Locke (2006), the foundation of this theory is that goal-directed action is a vital part of human life, or as said by Arnold and Schoonman (2002), that people's behaviour is dictated by their goals and their intentions to achieve them.

Latham and Locke (2006) define that a goal is a regulatory mechanism for monitoring, evaluating, and adjusting behaviour. In an earlier publication, Locke (2001) states that personal

goals and self-efficacy are the motivational factors that are closest in deciding our actions, where self-efficacy is a cognitive judgment which is an estimate of capacity for performance. Latham and Ernst (2006) claim that goal-setting is such a powerful motivational technique that in regards to performance it overrides the effect of personality differences. This means that regardless of a person's goal orientation, setting a high, specific learning goal will be beneficial in discover specific procedures and methods for mastering a task.

According to Miner (2005) goals consist of two major attributes – content and intensity. The content represents the end that is sought and the intensity how important it is. These two factors will decide a direction and how much effort that is spent on achieving the goal. Miner (2005) also presents three factors that explain why goal-setting might work as a motivational force: Effort - Goals energise performance; Persistence - Goals motivate people to persist; and Direction – Goals direct people's attention and provide focus. Moreover, Latham and Locke (2006) argue that people use goals to appraise their performance. As a consequence, people do not experience success depending on their absolute level of performance, but in relation to their goals. Thus goals are related to motivation, because the greater success in achieving high goals seen as important, the greater the individuals subjective well-being, in terms of happiness, pleasure and satisfaction. Furthermore, when people perform well they do not only feel satisfied, they also let this feeling reflect upon the task and will thus like the task more than they did before. Finally, goal-setting can increase people's mental focus on a task and decrease boredom by providing purpose and meaning to an otherwise meaningless task. Purposefulness usually leads to a pleasurable feeling alone and by adding goal attainment people are given a sense of accomplishment.

2.3.6 Incentive Theory

According to the incentive theory, two categorical approaches have been put forward. The first is one that is focused on people who have strong implicit motivation within themselves (Lawrence & Jordan, 2009). In the implicitly motivated employee (Rabey, 2001), it is important that such things as being given new and challenging jobs, which will be an incentive for higher achievement reward the employees. Also the employment of praise can be employed to intrinsically motivate such individuals. To those who are not intrinsically motivated, but rather depend on extrinsic motivations (Levoy, 2009), the theory suggests that such people can be inspired and rewarded by being given job promotions as a form of power motivation (Lawrence & Jordan, 2009). The same people can be motivated in the event that they are given some bonuses at the end of the year as a motivation to their outstanding job (even if the job was not as satisfactory as it would have been expected). To a great extent, giving such people some celebratory lunches and throwing some dinner parties in recognition of their contribution is one great incentive as an affiliation motivation.

According to Levoy (2009), external motivators which might include monetary rewards, Recognition as well as being given praises in front of the other employees, were found to work miracles but only for a short time. To the author, it is rather unfortunate that the intended effect of the motivation does not last forever, as one might want it to last (Levoy, 2009). Levoy (2009) continues to argue out that practices which are normally done, like giving employees salaries which are above average, offering benefits for excellence as well as increasing the vacation time do not translate into employee motivators. Rather, instead of them motivating the employees to work harder, they tend to make the employees remain in the organization a little while longer

(Levoy, 2009). This fulfilment of basic needs makes the employee last a little while until their motivation fades away (Mancini, 2009).

2.3.7 Motivation in the organisational context

Viewed from a historical perspective, motivation in organisations has changed focus from official residences and sports clubs, some decades ago, to promotion and prestige. In the modern society, many individuals are moving higher up in the need hierarchy towards the need of acquiring a high self-esteem. In times of financial crises, as cut-downs, insecure employments and minimal increases in salaries become more common, many employees withdraw from needs of self-esteem and self-actualisation to more basic needs, such as a roof over their heads and food on the table. This has led to a wider range of needs presented in the work-places (Whitmore, 2009).

Motivation in the organisation context has traditionally been related to issues such as: secured job, interesting job, ability to perform the job, recognition from others, adequate salary and feedback on performance (Dwivedula and Bredillet, 2010). People are motivated if they feel they are valued in the organisation, as stated by Project Management Institute (PMI) (2008). This value is demonstrated by the rewards that are given to them. The changes in focus mentioned above are starting to be reflected in the methods of rewards used by companies (Whitmore, 2009). Money has traditionally been, and is still generally, seen as a very concrete reward but there are other types of rewards that can be as, or even more, effective (PMI, 2008).

Whitmore (2009) claims that traditional managing methods are very poor adapted for fulfilling higher order needs and instead of increasing people's self-esteem they tend to damage it. Latham and Ernst (2006, pp. 191-192) predict that motivation in the future will be a collective

activity where all members of the organisation need to take responsibility for ensuring that the conditions necessary for high motivation exist.

In order for companies to keep up with their employees it is time for them to change focus. According to Whitmore (2009,) young employees have different expectations than their predecessors and want to have a job that is meaningful to them. They are not looking for an employment that lasts the rest of their life and if their needs are not satisfied they will leave the organisation. Their needs are based on factors that reinforce self-esteem and lead to self-actualisation. To conclude, this calls for companies that have a well thought-through ethical policy along with core values that conforms to the interests of all employees and stakeholders as well as the society in whole.

2.4 Organisational Productivity

The mid-nineteenth century saw a period of great change, otherwise referred to by some scholars as the great transformation, in the economy of Europe and America. The industrial revolution brought about mass-production which replaced handicrafts: factory workers replaced artisans and machines replaced hand tools.

Traditionally, the employee/employer relationship was characterized by suspicion. There was the belief that the employee sought to get big pay for little work done while the employer also tried to benefit from the labour of the employee with little pay. In order to solve this conflict of interest and achieve higher productivity, Frederick Taylor propounded the concept of Scientific Management. However, Hardy (1990) argued that the scientific management reduced work to carrying out simplified routines that any robot or well-trained animal could do. With the problem associated with the scientific management, there was the need to fashion out a better way of

organising work so that employees would be highly motivated to bring about the desired level of productivity. Iyaniwura and Osoba (1983) define productivity as the quantitative relationship between output and input. Thus the relationship between output of goods and services and inputs used in producing them such as land, capital and labour or all factors combined. Inputs used can be hours of labour, units of capital and quantities of raw materials compared with the consequent output. Other writers like Currie go a step further to elaborate that "productivity is the quantitative relationship between what we produce and ,the resources we use" (Currie 1972).

This definition is less controversial and enjoys general acceptability because of two reasons. In the first place, the definition suggests that productivity is conceived in the context of an organisation, an industry or an economy as a whole. Secondly, irrespective of the type of production, economic or political system this definition is relevant as long as the basic concept is the relationship between the quantity and the quality of goods and services produced and the quantity of resources used to produce them (Prokopenko, 1987). According to Asare-Bediako (2002), it is an indication of how efficiently an organisation uses its resources (inputs) to produce its output. By way of illustration, Amadi (1991) pictured productivity ratio as kilometres driven per gallon of petrol where petrol is the input and kilometers covered constitute the output.

NECA (1991) observes that it is common in productivity studies to lay emphasis on labour productivity. Worker productivity is the value of goods and services produced in a period of time divided by hours of labour used to produce them. Improving productivity means making efforts to get more out of what is put in. Productivity can be improved or increased by achieving more output from the same input or by achieving the same from less input. For business and industrial organisations productivity is very vital because it brings out the difference between success and failure. Production is not the same as productivity. Production refers to an increase in output over

a given period of time. Internal Labour Organization (1962) explains that increasing productivity means making more efficient use of all types of resources in employment, of using them to produce -as many goods and services as possible at the lowest possible real cost. Output include all goods and services which satisfies wants not only industrial and agricultural products but the services of doctors, teachers, those engaged in shops offices and transport undertakings. Therefore apart from the physical and the tangible aspect, productivity can also be deduced from turnover, profit or even the rate at which objectives are achieved. Inputs could also include the efforts and sacrifices of those who contribute to production. However, efforts and sacrifices are not statistically measurable. The attitude of employees toward higher productivity is influenced by what they expect to get out of it. Workers believe that they should have share in the benefits of higher productivity. Quinn, as quoted by Steers and Porter (1975), argued that three major perspectives complicate the concept of productivity. Economists view productivity as more yields to society from present resources and that efficient resource use is paramount. To the Administrator he is concerned with organisational effectiveness rather than with society at large and maximum resource utilisation of the economist. The industrial engineer also focuses more on those factors, which are more operational and quantifiable. Steers and Porter (1975) think that the level of productivity in an organisation largely depends on workers' performance and technical factors such as the quality of equipment utilised for production, quality of raw materials and the adoption of right methods.

2.4.1 Measurement of productivity

Productivity measurement is the quantification of both the output and input resources of a production system. The intent is to come up with a quantified monitoring index and to ensure productivity improvement. While productivity can be given a simple definition as the ratio

between input and output how it can be measured still remains controversial. Conceptually, measuring productivity may not be difficult. In practice, however, the measurement of both input and output brings out the problem of aggregation. For example the issue of how to aggregate different products, which do not have constant quality or features, should be addressed before Output could be measured. Aubrey et al (2006), perhaps, wanted to emphasise the difficulty in productivity measurement when he asserted that "productivity is not everything, but in the long run it is almost everything". In an attempt to measure productivity, attention is given to a single factor measurement and it is again common to see emphasis placed on labour' input because of the following reasons:

- (i) Labour is regarded as the most important factor of production
- (ii) Labour is the most easily quantifiable factor of production
- (iii) Labour is the only factor of production that the manager has conscious control over its contribution to production.

It should be noted, however, that productivity is more of a complex mix involving science, research, technology, labour and management among other interrelated influences. Productivity can be measured in different ways. For example in a factory it may be measured based on the number of hours it takes to produce a product while in the service sector productivity may be measured based on revenue generated by an employee divided by his or her salary. In the world of business, productivity is generally measured by the amount of goods and services produced the inputs, which were used in production.

Furthermore, if the orientation of the company is to make profit productivity can be obtained from the dividends declared at end of the year. One can also determine or quantify the number of

items produced in a given period and productivity could be determined when related to inputs. In as much as motivation can correlate productivity to a large extent, in certain situations they have little relationship. For example, a highly placed well paid employee with little or no complaint against the organisation could be unproductive if he should join a powerful clique, within the workplace, whose agenda is to oppose management by reducing productivity. On the other hand, issues like widespread unemployment could induce an unsatisfied worker to be productive if he sees that low performance could lead to loss of scarce job. Also a very cohesive work group that is very 'productive could influence dissatisfied members to conform to the group norm or risk losing social acceptance (Steers and Porter, 1975).

2.4.2 Efficiency and effectiveness

Efficiency means producing high-quality goods in the shortest possible time. It denotes the ability to make a change in the productivity ratio. Also, effectiveness refers more to the production of results. In the private sector for example, effectiveness could mean making profit and preserving future market share (Mishra et al., 1983). In measuring productivity, standard hours are compared to productive hours. This gives a perfect example of measuring efficiency as they give index of labour productivity as well as how well labour is being utilised. According to Scott (1983), efficiency and effectiveness are measures of performance just as productivity is equally a measure of performance. Those who champion efficiency measurement take into consideration those inputs and output which can either be converted into monetary sum or those that can be quantified in other ways. The less quantifiable but essential ingredients of successful organisation are left out. Normally, productivity and efficiency do not take into consideration certain issues relating to how people work. It is very clear that issues such as initiative, flexibility, co-operation and adaptability are not factored in the measurement of input. An

individual employee in his bid to achieve his target can refuse to cooperate with his colleagues. In the end he may maximize individual efficiency but not that of the entire organisation. To check such situation, Bowey, A.M. et al (1982), have offered the concept of effectiveness as a vital dimension of productivity and failure to take it into action can produce false assessment of the actual performance.

2.4.3 Factors affecting productivity

Large market size is repeatedly cited among factors, which account for high productivity. Productivity is also influenced by stability of markets. A highly unstable market requires constant changes in the rate of production. A period of depression or political instability is characterised by not only low production but by low productivity as well (LO, 1962).

2.4.4 Importance of productivity

To begin with, in the event that the employee is paid through commission (Emery, 2009), then, in the event that there is an increased productivity, then the employee can rest assured that the returns will be reflected in the payslip. If there were no set targets in achievement of an event, then there would be no sense in talking of production, as this would be a failing system. Given a short timeframe, the sales personnel (Emery, 2009) are able to meet their targets and this goes a long way in improving the sales and returns of the organization.

Secondly, when there is productivity in the organization, the organization's annual returns are increased hence more generation of revenue for the country economically through taxations. Due to the fact that the organizations have to be taxed, the organization's management make an effort to remain productive for the better part of the years so that they can have an increased net profitability at the end of every financial year (Daniel et al., 2006). This means that the

organization has to be aligned in its operation to take on the market with better products, which are more appealing to the customers hence, the drive for innovation (Emery, 2009) within the organizations.

2.4.5 Productivity and efficiency

A motivated employee is more likely to output more to the benefit of the organization (Shadare & Hammed, 2000). Shadare & Hammed, (2000) continues to argue that most of the successful people that are around, have been proved to be very efficient time managers. The efficiency of an organization is seen in its productivity.

An organization's production capacity is dependent on two important factors. The first is the machine production capacity (Shadare & Hammed, 2000). In the event that an organization acquires a machine that is meant to make, say one thousand yarns per hour, then if the machine can only make four hundred yarns, then it is not efficient. There is a lot of energy wasted as the machine consumption is still the same but the production is less. The machine might need motivation, which in this case would be servicing and replacing worn out parts, oiling and greasing to reduce friction and the like.

Looking at the second factor, which is the human capital, the production of an organization, is also dependent on individual efforts of the employees. Employees just need to be understood and revitalised to remain productive (Levoy, 2009). Employees who are efficient are those that have a constant maximum output regardless of the situations surrounding them as measured within a given time period.

2.5 Motivation in the construction industry

Motivation literature dealing within a construction setting is very limited compared to that in the purely psychological realm. A number of literature studies were found which examined construction workers in the U.S. and other countries. Cox et al., (2006) studied construction workers and low-level supervisory staff in large projects and found that an unplanned project that did not support the work force can have adverse effects on worker motivation. Doloi (2007) conducted research of construction worker motivation among operatives. They concluded that the primary means of influencing motivation is to make receipt of important job outcomes contingent on the performance or completion of the assigned task and, quite significantly, that the expectancy theory is a workable conceptual base for understanding the motivation of construction workers. Jilang (2005) surveyed construction tradeswomen and professionals and found that both were predominantly satisfied at work; all respondents agreed that construction projects are intrinsically satisfying. Although this study included construction professionals, it only aimed to investigate their job satisfaction. Ng et al. (2004) conducted a survey of construction workers in seven civil engineering projects in Hong Kong, aiming to improve worker productivity by identifying factors that were likely to induce the demotivation of workers. The study found that material availability, overcrowded work areas and rework were the most significant demotivators.

Chan (2003) conducted motivation research among Australian project managers, using McLelland's theory of need achievement and Herzberg's two factor theory. Chan found that Herzberg's theory was applicable for those with less experience and that the characteristic of experience widely equaled the characteristic of age. He also concluded that project size had generally no bearing on motivation. Smithers & Walker (2000) investigated the effect of the

workplace environment encountered on a construction site on motivation and demotivation of 58 construction professionals and concluded that the environment of a construction site such as long hours and poor planning as a result of unfair resource distribution did affect demotivation levels of site personnel.

2.6 Motivation strategies for productivity

The goal of motivating workers is to encourage or induce them to work more effectively and safely and to produce a product of suitable quality. These objectives are not accomplished by merely getting workers to exert more physical effort or requiring managers and staff to put in more hours. Instead, it is the application of all of one's mental and physical abilities and talents to think, plan, and execute tasks. It also means creating interest and involvement, which reduces absenteeism and turnover. To turn motivation into commitment, there must be a strong commitment and positive attitude from people at all levels in the organization (Oglesby, 2005).

Different people have very different interpretation of the various theory of motivation and the kind of motivational strategies that they employ are wanting. According to Coates et al (2004) there are as many different methods of motivating employees today as there are companies, institutions, organizations etc, operating in the global environment. Still, some strategies are prevalent across all organizations striving to improve employee motivation. The best employee motivation efforts will focus on what the employees deem to be important. It may be that employees within the same department of the same organization will have different motivators. Many organizations today find that flexibility in job design and reward systems has resulted in employees' increased longevity with the company, improved productivity, and better morale.

2.6.1 Providing effective reward system

To reward a person has some short – term effect on the motivation of the individual in the organization (Levoy, 2009). According to Emery (2009), there are two sources of the motivation drive. One of the drives is brought out by the fact that there is an internal need to gain resources as supported by the need theory. The second source of motivation is the commitment by an individual to external problems or might be the opportunities that are available elsewhere. The most important of all the factors is the fact that the employees share the same goals as their management as this would be a true measure of the strength of the organization (Emery, 2009).

A good reward system is one that has accountability as well as rewards being based on the performance as measured using the cross functional integrations (Emery, 2009). The effectiveness of a system is ordinarily judged as per the levels in which there is resolution of the individual in the event there is a conflict as well as the extent to which the individual is willing to go to have collaboration for equity (Emery, 2009). Reward system in the work places include having appraisals for employees as well as integration that is targeted at making improvements by making sure that there is clear flow of information to and from the employees in the organization.

To have an effective reward system, the focus should not be only financial (money – focused) but also behavioural focused reward system (Daniel et al., 2006). It has been noted that the payment of benefits to the employees has been and still remains to be very insufficient although it is a necessity in the organization (Emery, 2009).

A reward system is meant to bring positive reinforcement (Daniel et al., 2006) to the individuals and this should be addressed, as it ought to, for it to be termed as successful. For positive

reinforcement, there should be a number of factors that should be considered in the design process of a good and effective reward system. To start with, the reward system should be made in such a way as to replace the ordinarily used subjective performance measurement with the revolutionary objective performance measurement system (Daniel et al., 2006).

2.6.2 Empowerment

Giving employees more responsibility and decision-making authority increases their realm of control over the tasks for which they are held responsible and better equips them to carry out those tasks. As a result, feelings of frustration arising from being held accountable for something one does not have the resources to carry out are diminished. Energy is diverted from self-preservation to improved task accomplishment (Kazaz et al., 2008).

2.6.3 Creativity and Innovation

At many companies, organizations, institutions, employees with creative ideas do not express them to management for fear that their input will be ignored or ridiculed. Company or organization approval and toeing the company line have become so ingrained in some working environments that both the employee and the organization suffer. When the power to create in the organization is pushed down from the top to line personnel, employees who know a job, product, or service best are given the opportunity to use their ideas to improve it. The power to create motivates employees and benefits the organization in having a more flexible work force, using more wisely the experience of its employees, and increasing the exchange of ideas and information among employees and departments. These improvements also create an openness to change that can give a company the ability to respond quickly to market changes and sustain a first mover advantage in the marketplace or environment (Uwakweh, 2006).

2.6.4 Learning

If employees are given the tools and the opportunities to accomplish, most will take on the challenge. Companies can motivate employees to achieve more by committing to perpetual enhancement of employee skills. Accreditation and licensing programs for employees are an increasingly popular and effective way to bring about growth in employee knowledge and motivation. Often, these programs improve employees' attitudes toward the client and the company, while bolstering self-confidence. Supporting this assertion, an analysis of factors which influence motivation-to-learn found that it is directly related to the extent to which training participants believe that such participation will affect their job or career utility. In other words, if the body of knowledge gained can be applied to the work to be accomplished, then the acquisition of that knowledge will be a worthwhile event for the employee and employer (Kazaz et al., 2008).

2.6.5 Quality of life

The number of hours worked each week by American workers is on the rise, and many families have two adults working those increased hours. Under these circumstances, many workers are left wondering how to meet the demands of their lives beyond the workplace. Often, this concern occurs while at work and may reduce an employee's productivity and morale. Companies or institutions that have instituted flexible employee arrangements have gained motivated employees whose productivity has increased. Programs incorporating flextime, condensed workweeks, or job sharing, for example, have been successful in focusing overwhelmed employees toward the work to be done and away from the demands of their private lives, (Coates et al, 1994)

2.6.6 Monetary incentive

For all the championing of alternative motivators, money still occupies a major place in the mix of motivators. The sharing of a company's, organization, institutions profits gives incentive to employees to produce a quality product, perform a quality service, or improve the quality of a process within the company. What benefits the company directly benefits the employee. Monetary and other rewards are being given to employees for generating cost-savings or process-improving ideas, to boost productivity and reduce absenteeism. Money is effective when it is directly tied to an employee's ideas or accomplishments. Nevertheless, if not coupled with other, nonmonetary motivators, its motivating effects are short-lived. Further, monetary incentives can prove counterproductive if not made available to all members of the organization (Uwakweh, 2006).

2.6.7 Other Incentives

Study after study has found that the most effective motivators of workers are nonmonetary. Monetary systems are insufficient motivators, in part because expectations often exceed results and because disparity between salaried individuals may divide rather than unite employees. Proven nonmonetary positive motivators foster team spirit and include recognition, responsibility, and advancement. Managers, who recognize the "small wins" of employees, promote participatory environments, and treat employees with fairness and respect will find their employees to be more highly motivated. One company's managers brainstormed to come up with thirty powerful rewards that cost little or nothing to implement. The most effective rewards, such as letters of commendation and time off from work, enhanced personal fulfillment and self-respect. Over the longer term, sincere praise and personal gestures are far more effective and more economical than awards of money alone. In the end, a program that combines monetary

reward systems and satisfies intrinsic, self-actualizing needs may be the most potent employee motivator, (Coates *et al*, 2004).

2.7 Conclusion and general summary of chapter

This chapter explored the various motivational theories in literature. Extant literature shows that there are plethora of motivational theories largely classified under content theories and process theories. Literature on organisational productivity and the impact of productivity was also reviewed. Various motivational strategies were also presented in this chapter.

CHAPTER THREE RESEACH METHODOLOGY

3.1 INTRODUCTION

Jankowicz (2002) defines methodology as “the analysis of, and rationale for, particular method or methods used in a given study”. This chapter describes the researcher's general study approach, discussion and motivation of data collection methods employed. The methodology also informs the strategy and procedure to be employed in carrying out the research agenda and how the data collected is interpreted.

3.2 Research Design

Research design is a plan of information required to answer research problems and how such information can be collected (Frazer and Lawley, 2000). It is essentially a logical sequence of steps linking the initial research questions to the data collected and ultimately to a series of conclusions arising from the study (Yin, 2003). Al-Moghany [2006] and also argue that research design is an action plan for getting from ‘here’ to ‘there’ where ‘here’ may be defined as the initial set of questions to be answered, and ‘there’ is some set of conclusion (answers) about these questions. Between ‘here’ and ‘there’ there are a number of major steps, including the collection and analysis of relevant data.

According to Al-Moghany [2006], researchers cannot assume that people think in certain ways without asking them what they think. The design normally specifies which of the various types of research approach will be adopted and how the researcher plans to implement scientific controls to enhance the interpretability of the results [Polit and Hungler, 1999]. There are a variety of survey designs that can be used to accommodate different substantive needs and those problems are anticipated in the planning of the survey [Al-Moghany, 2006; Weisberg and Bowen, 1977].

A Cross Sectional design will be employed for this research. This was because the research comprised a wide variety of designs including: surveys; structured observations; content analysis; official statistics and documentation. The 'where', 'who' and 'what' questions asked by this research were answered by employing survey design methods: interviews and questionnaires. Additional questions including the 'hows' and 'whys' were answered by employing other designs including narrative analysis, content analysis, official statistics, and documents. Also, historical data (archival analysis) obtained from literature informed the research and aided in the design of the procedural framework. This provided a good platform to extensively exhaust the questions and provide appropriate answers to them.

3.3 Research Process

In choosing a research method for this study, the hierarchical model of research methodology by Saunders et al (2007) that describes the research process as the layers of the onion, with the outer one being the research philosophy was chosen. The research philosophy guided the research approaches and lead into the research strategy. The research strategy paved way for the choice of time horizons and data collection and data analysis (Saunders et al, 2007).

Research philosophy basically concerns the assumptions that a researcher brings to an investigation. Easterby-Smith *et al* (2003) points out that failure to consider and think through philosophical issues can have a detrimental effect on the quality of the research outcome. According to Easterby-Smith *et al* (2003), reference to research philosophies will enable the researcher to resolve the research question by identifying, adapting or even creating research design that projects beyond one's own experience and knowledge.

As set out by the aim and objectives, this research shows a theory confirming attempt to observe causal relationship resulting from complex interaction between motivational strategies and productivity on site. The parameters involved in the study were transformed into observables or indicators to facilitate quantitative empirical testing. The research was subjected to a scientific rigor and the independence of the researcher was maintained. It does involve human beings categorized as construction workers. The analysis of philosophical assumptions and positions of the research above established a positivism stance in epistemological undertakings, an objectivism stance in ontological assumptions, with a value-free axiological position. This philosophical positioning influenced the selection of appropriate research approach and strategy.

As per the positivist stance established, the research is more biased towards deductive approach. Therefore the deductive research approach was adopted as the research investigates causal relationships between variables. The literature on research methodology identifies experiments, survey, case study, grounded theory, and ethnography and action research as major research strategies within the spectrum from deductive to inductive research approaches (Saunders et al, 2003; Easterby Smith et al, 2002). From Sexton (2004), it can be seen that experiments and surveys are governed by positivist, objectivism and value free stances whereas case study, action research, ethnography and grounded theory are towards interpretivism and subjectivism stances.

From the positioning of this research a choice has to be made between experiments and survey as suitable approaches. With respect to survey, it does not require high control over the environment and are conducted on a wider population using economical data collection methods such as questionnaires (Saunders et al, 2003). Generally experiments are undertaken on the sample of the population and within a controlled environment to test whether there is causal

relationship between the variables under investigation (Baker, 2001). Therefore, the most appropriate research strategy for this study is survey.

The structured questionnaire is probably the most widely used data collection technique for conducting surveys to find out facts, opinions and views (Naoum, 1998). Interviews can be classified according to the degree to which they are structured. In an unstructured or nondirective type of interview the interviewer asks questions as they come to mind. On the other hand, in the structured or directive interview the questions are specified in advance [Dessler, 2000]. In a quantitative study, the steps involved in conducting an investigation are fairly standard [Al-Moghany, 2006]. In this study, structured questionnaire were used in the gathering of data. Semi structured interviews were adapted to collect detailed information about respondents experiences and impressions about factors that affect construction site workers motivation at the workplace. It was also used to collect preliminary information to help in structuring the questionnaires. The questionnaire survey was also adapted to get feedback on opinions of respondents about the effect of the identified motivational factors on perceived productivity at site in the Ghanaian construction industry.

3.4 Sources of Data

The study depended on both primary and secondary data. Primary data was made up of first-hand data collected by the candidate through the use of questionnaires, interviews. The secondary sources of data were obtained using relevant books, journals, magazines and research papers.

3.5 Research Instrument

According to Jankowics, [1991], the research problem and its purpose are the key parameters which identify the most appropriate research method and techniques to be adopted. This is entrenched by Creswell, [2003] that in order to organize a well-structured investigation of a certain research problem, it should be matched with the selection of a proper and appropriate research approach. Creswell [2003] saw qualitative research approach as ‘exploratory and very useful when the researcher does not know the important variables to examine or measure.

According to Saunders et al, [2007], research strategy determines the sources of data collection, considers different constraints related to the sources like time, location or budget. In addition, it is an overall plan of how the research questions will be answered which involves such decision as focusing on quantitative or qualitative analysis [Bryman and Bell, 2003] or choosing the research strategy itself. The choice of an appropriate and suitable research strategy is essentially important in conducting a meaningful research and to be able to answer and solve the research problem. The research data was collected mainly through questionnaires to gather data on increasing the productivity of workers through motivation.

3.5.1 Questionnaire Design

The questionnaire, which consisted of sets of closed-ended questions, was designed to identify key factors that affect construction site workers’ motivation at the workplace, the questionnaire further sought to establish the effect of the identified motivational factors on perceived productivity on site in the Ghanaian building industry. Semi-structured interviews were also used to obtain more specific information about increasing productivity through motivation.

3.5.2 Questionnaire

The questions were constructed using the Likert scale. The respondents were asked to rank on a scale of 1-4 factors that affect construction site workers' motivation at the workplace where 1= "Not at all important", 2= "Moderately Important", 3= "Important" and 4= "Very important". For each of the motivational factors, the respondents were asked to score the level of contribution to increasing productivity on the Likert scale of 1 to 4 where 1= "Not significant", 2= "Unsure", 3= "Significant", and 4= "Strongly Significant". They were asked to score the contribution of these factors with the likert scale against the following performance; timely completion of work; effective cost control; effective use of resources (plants, labour and materials) and promoting teamwork.

3.5 Target Population

The core target population for data collection using questionnaires consisted of contemporary managers' of Building firms and workers of such firms. The focus on the contemporary managers in the administration of the questionnaire was due to the key role managers' play in the motivation of their work force. Building construction organizations operating within Ghana register with the Ministry of Water Resource, Works and Housing (MWRWH) in four categories: classes D, K, E and G, based on the nature of work the organizations engage in - building, civil engineering construction, electrical and plumbing works as classified respectively. There are four financial sub-classifications within these categories - Class 1, 2, 3 and 4 - which set the limitations for companies in respect of their asset, plant and labour holdings, and the nature and size of the projects they can undertake. Class 1 has the highest resource base, decreasing through classes 2 and 3, to class 4 having the least resource base [MWRWH, 2011].

The study focused on D3K3 building construction organization registered with MWRWH in the Ashanti Region precisely Sekyere East District.

3.6 Sampling Procedure

This is another crucial area in data collection, analysis and aiding to draw valid and reliable conclusions in any study. The efficiency of studying a sample instead of the whole population is supported by numerous researchers [Cooper and Schindler, 2003; Bryman and Bell, 2003; Ghauri and Gronhaug, 2002; Saunders, et al., 2007; Sekaran, 2003]. According to Cooper and Schindler [2003] accurate sample should not have any biases and therefore cannot lead to a ‘systematic variance’ in the research. In addition sample should be precise enough in order to represent population characteristics as close as possible.

Sampling procedures informs on how the segment of the population involved in data collected was selected. The population of the research is the universe of units from which the sample is selected (Bryman, 2004). Survey research is concerned with making inferences about a population on the basis of information from a sample. The basic idea of sampling is to use appropriate techniques so that a sample can be drawn, which allows for statistical inference and generalization back to the population. The two main types of sampling method are probability sampling and non-probability sampling. A probability sampling is called a random sample that consists of simple random sample, systematic random sample and stratified random sample (Cooper and Schindler, 2001). Meanwhile, non-probability sampling is used when probability sampling is inappropriate and impossible to be used in particular research. Examples include convenience sample, judgmental samples, quota sampling and snowball sampling (Babbie, 1999).

As at 30th July, 2014, the Registry Department at the Sekyere East District Assembly indicated that, there are 41 registered D3K3 building construction organizations in the Sekyere East District of Ashanti Region of Ghana.

The choice of D3K3 construction organizations was to identify the key factors that affect construction site workers' motivation at the workplace because D3K3 has the third least resource base and the weak organizational setup among the classes of construction firms. Due to the population size the target for the survey was all the D3K3 contractors registered with the Ministry of Works and Housing and working within Sekyere East District. Thus 41 D3K3 construction organizations and workers of such firms in Sekyere East District were considered for the administration of the questionnaires.

3.7 Data Analysis

The completed questionnaires were edited to ensure completeness, consistency and readability. Once the data had been checked, they were arranged in a format that enabled easy analysis. Quantifiable data from the questionnaires was coded into the software for analysis. Statistical Package for Social Sciences (SPSS 16.0) was the software package used to analysed the data because it was considered to be user-friendly. Demographic data was analysed using descriptive statistics. The use of relative impotence index and cross tabulation were used to analysed the data. The results from these analysis provided the basis for finding out what patterns and common trends run through the responses with respect to identifying motivational factors on perceived productivity at site in Ghana. The four-point Likert scale scoring system mentioned earlier formed the basis of calculating the mean score for each of the factors; the relative ranking of the factors by all respondents, was then determined by comparing the individual mean score

and the standard deviation for each criterion. The basis for deviations from the common trends running through the responses was also established from the analysis.

3.8 Chapter Summary

This chapter presented the various methodologies available for the research and the reason for the adoption of the methodology used for this research. The main research instrument used in this study was the use of a questionnaire survey for collation of primary data. The chapter discussed the research process and covered issues such as; the study area, sources of data, questionnaire developments, content and design of the questionnaires, distribution of questionnaire, targeted respondents, the scope of questionnaire survey, sample size determination, and data analytical tools.

CHAPTER FOUR DATA PRESENTATION, ANALYSIS AND DISCUSSIONS

4.1 Introduction

This chapter presents the analysis of the collated results and its resultant discussions. The questionnaires were designed to meet the objectives of the study. The response rate of the questionnaire is first presented followed by the analysis of the demographic data. Descriptive analytical tools are employed to analyse the demographic data. Relative importance index is used to weight the most important motivational strategy.

4.2 Analysis of Demographic Data

This section sets out the analysis of the demographic data. A total of 41 questionnaires were sent out and 34 were retrieved. The high response rate is attributed to the follow ups that were regularly done and also on the insistence of the questionnaires to be answered when given rather than leaving it with the contractors to be collected later. The rapport established by the researcher with the survey individuals also enhanced the quick response by the individuals.

Table 4.1 Demographic Data .Source: Survey Data

Variable	Option	Frequency	Percentage (%)
Position held by company in company	site supervisor	4	11.76
	Materials officer	3	8.82
	Mason	10	29.41
	steel bender	6	17.65
	painter	7	20.59
	carpenter	1	2.94
	quantity surveyor	1	2.94
	driver	2	5.88
Highest level of educational qualification	First degree	1	2.94
	HND/ Diploma	6	17.65
	Technician (CTC I, CTC II, CTC III)	4	11.76
	JSS	12	35.29
	SHS	11	32.35
Age of respondent	18 - 30yrs	12	35.29
	31 - 40 yrs	17	50.00
	41 - 50yrs	5	14.71
Duration respondent has been working in the construction industry	0 - 5yrs	6	17.65
	6 - 10yrs	15	44.12
	11-15yrs	13	38.24

4 2.1 Position in Company

About 70% of the respondents were construction artisans working on site with the majority being masons. The least represented of the artisans were carpenters with only one answering the questions. The rest of the percentages of respondents were made of site supervisors, materials

officers and quantity surveyors. Only one quantity surveyor answered the question. The results are displayed in table 4.1

4.2.1 Length of Work in the Construction Industry

Over 80% of the respondents have already been working in the construction industry for more than 5 years. The results are displayed in table 4.1. With over 80% of the respondents working in the industry for more than 5 years means that the results from the survey represents what has been happening in the construction industry and not a new phenomenon. The age distribution of the survey respondents also shows that the survey were answered by experienced individuals. The results show that out of 34, 12 were below the age of 30, 17 between the ages of 31 and 40 and only 5 between the ages of 41 and 50. The results are not surprising as the construction work is mostly done by younger individuals.

4.1.3 Highest Level of Educational Qualification

The highest educational level that answered the questionnaires were those with below secondary education. This is not surprising as most construction site works have that level of education. However 11 individuals had tertiary education representing about 31% with one individual having a first degree.

4.2 Importance of Motivational Strategies

The next part of the questionnaire sought to find the level of importance of various motivational strategies to the construction site work. From the literature review 6 main motivational strategies were found; providing effective reward system, empowerment, creativity and innovation; learning; quality of life and monetary incentive.

The relative importance index as discussed in the methodology was used to weigh the factors to find out the one which is relatively more important. With the aid of the likert scale it was easy to weigh them as each rating corresponded to a weight. Each of the main identified 6 motivational strategy were subdivided to prevent ambiguity of the strategies and to make it easier for them to be rated. For example providing effective reward system was subdivided into appreciation based on appraisal for employees, payment of benefits to employees, recognition for work well done and promotion based on performance. None of the strategies were reported as either “not important” or “moderately important”. This shows that the all these factors are important and cannot be ignored in the motivation of site workers. It was also observed that all the strategies were either rated important or very important. This presents very useful information as it informs that construction site workers regard motivation as a very imperative. The construction site workers even rated more on very important than important stressing the fact that the construction workers regard motivation as key.

The highest rated strategy was Fringe benefits (allowance) and improved working conditions. The least rated activity being give more responsibility and providing adequate time and material resources to carry out a task. Despite these were rated least. The relative weighting assigned to them was 0.89 which is still high. Comparatively construction site workers regard fringe benefits (allowance) and improved working conditions than being give more responsibility and resources.

Table 4.2: Importance of Motivational Strategy: Source: Survey Data

MOTIVATIONAL STRATEGY	1	2	3	4	Weight	RII	Rank	RII	Rank
Providing effective reward system									
Appreciation based on appraisal for employees	0	0	7	27	129	0.95	10	0.95	3
Payment of Benefits to employees	0	0	10	24	126	0.93	14		
Recognition for work well done	0	0	4	30	132	0.97	3		
Promotion based on performance	0	0	6	28	130	0.96	9		
Empowerment									
More Decision making authority	0	0	15	26	149	0.91	21	0.90	6
More responsibility	0	0	15	19	121	0.89	22		
Providing adequate time and material resources to carry out a task	0	0	15	19	121	0.89	22		
Creativity and Innovation									
Opportunity to bring innovations on task given	0	0	10	24	126	0.93	14	0.92	5
Opportunity to use different methods	0	0	11	23	125	0.92	17		
Opportunity to be creative at work	0	0	12	22	124	0.91	19		
Learning									
On the job training	0	0	5	29	131	0.96	5	0.94	4
Study Leave	0	0	10	24	126	0.93	14		
Off the job training	0	0	8	26	128	0.94	13		
Experience from Work	0	0	12	22	124	0.91	19		
Quality of Life									
Improved working Conditions	0	0	2	32	134	0.99	1	0.96	1
Good administrative policy	0	0	7	27	129	0.95	10		
Good work Relationship	0	0	7	27	129	0.95	10		
Proper Communication	0	0	5	29	131	0.96	5		
Job Security	0	0	4	30	132	0.97	3		
Monetary Incentive									

Salary paid on time or before time	0	0	5	29	131	0.96	5	0.96	1
Salary increment with increased work	0	0	11	23	125	0.92	17		
Good Salary	0	0	5	29	131	0.96	5		
Fringe Benefits	0	0	2	32	134	0.99	1		

Among the 6 identified motivational strategy the highest rated activity were monetary incentive and quality of life. It is interesting to note that construction workers regarded fringe benefits more important than even good salary. However the second most important motivation under monetary incentive was good salary and the prompt payment of salary with both having a relative importance index of 0.96. The least important money incentive was salary increment with increase work. Quality of life also had a high rating with improved working conditions have a high RII of 0.99. The survey showed that almost all the construction site workers agree that improved working conditions are a good motivator for work. Under quality of life the next important motivation was Job Security. This is not surprising as job security has been identified as an important motivator of work (Coates et al., 2004). Coates et al., (2004) showed that companies or institutions that inculcated values of improved quality of life had more motivated employees which increased productivity. All the strategies under Quality of life had very high RII and were all ranked in the top 10. These include good administrative policy (0.95), good work relationship (0.95) and proper communication (0.96).

The next ranked motivational strategy was providing effective reward system. This seems close to providing monetary incentive. This was however explained to the respondents that the reward system looks at effort being awarded and or honoured. The analysis shows that one of the most important activity to the construction site worker is being recognition for work well done (RII =

0.97) followed by being promoted based on performance. Various theories come into play here and one major theory is the Job Characteristics theory. This falls within Boddy's (2002) research who opined that among the five factors that contributed to the motivational potential of a job was feedback. The rest of the motivational strategies that falls under this section all had an RII of more than 0.92 with the least being payment of benefits to employees (RII=0.93)

Learning was the fourth ranked strategy. The various strategies were ranked as follows on-the-job training (0.96), off-the-job training (0.94), study leave (0.93) and gaining experience from work (0.91). The analysis reveal that most construction site workers regard on-the-job training a greater motivational factor than off-the-training and even more than study leave. This finding is understandable as most construction site workers have a basic education and hardly pursue higher education. Secondly this finding could be that most construction site workers are more tailored to learn quicker on-the-job than off-the-job.

The fifth rank strategy was creativity and innovation. These strategies were relatively ranked less than the previously mentioned other strategies. These strategies included opportunity to bring innovations on task given, opportunity to use different methods and opportunity to be creative at work ranked 14th, 17th and 19th respectively. Reason advanced for this may include that construction site workers are not really interested in innovations or creativity but more inclined to their traditional forms of working and relying on their past experience to get a task completed.

Empowerment was the relatively the least important motivational strategy. Empowerment strategies had an average relative importance of 0.90 and were ranked among the last two; more responsibility ranked 22nd with providing adequate resources and more decision making authority ranked 21st. It appears that the construction site workers are least motivated by giving

them more control over an activity. It seems they are more comfortable with being instructed on what to do.

4.3 Effects of Motivational Strategy on Productivity

The respondents were asked to rank the effect of motivational strategies on productivity in construction based on how significant they are. Four main aspects of productivity were looked at; team work, resources, cost of work and timely completion of work. The six main motivational strategies were further subdivided as discussed earlier. Table 4.3 shows the results of the motivational strategy on productivity. The table shows the average relative importance index of each motivational strategy on productivity. The details of the relative importance index for all the individual strategies are provided in the appendix on table 4.3

Table 4.3: Relative Importance Index of Motivational Strategies on Productivity

	Providing Effective Reward system	Empowerment	Creativity and Innovation	Learning	Quality of Life	Monetary Incentive
Team Work	0.84	0.81	0.87	0.89	0.91	0.92
Resources	0.84	0.84	0.86	0.84	0.90	0.89
Cost of work	0.87	0.80	0.79	0.82	0.85	0.87
Timely Completion of work	0.83	0.78	0.76	0.80	0.69	0.89
Average of all motivational strategy	0.85	0.81	0.82	0.84	0.84	0.89
Rank	2	4	5	3	3	1

From the table the highest impact of motivational strategy was on team work and least imparted was on the timely completion of work. This is understandable as the completion time of many projects is influenced by numerous factors. Fugar and Agyakwah-Baah (2010) in their study found out delay in construction projects in Ghana is influence mainly by finances i.e. delays in honouring certificates, difficulty in assessing bank credit and fluctuation in prices. However it should be noted that the timely completion of the work is based on monetary motivational strategy. This finding agrees with the study of Fugar and Agyakwah-Baah (2010). Finance thus plays a pivotal role in increasing the time construction work is completed. From the analysis,

teamwork was comparatively highly imparted with RII of 0.87, 0.89, 0.91 and 0.92 for creativity and innovation, learning, quality of life and monetary incentive respectively. The results show that monetary incentive also had a high impact on team work

Money incentive was ranked as the highest motivational strategy influencing productivity. The results show that incentives such as salary paid on time or before time, good salary and fringe benefits had a high influence on team work; cost of work and timely completion of work. This finding agrees with the study by Kazaz and Ulubeyi (2006). In their study they found that monetary factors are pre-eminent in influencing productivity

Providing effective reward system was ranked second and had a high impact on the cost of work being performed. Construction workers agree that if they are rewarded with recognition and honour they will be motivated to increase their productivity. This type of strategy falls in the category of physiological motivational factors advanced by Kazaz and Ulubeyi (2006). Kazaz and Ulubeyi (2006) found out that such factors are increasingly becoming important in developing countries.

Learning and Quality of life were both ranked 3rd in influencing productivity. The study found out the desire to learn had an impact on productivity. One of the key strategies being gaining experience was one of major factors that caused construction site workers to be interested in their work and to increase productivity. The study also showed that the quality of life also motivated construction site workers to work. From Table 4.3 it can be seen that the productive use of resources was largely influence by the quality of life more than any other factor. It can be argued that factors such as improve working conditions, good work relationship and job security motivated workers to use material resources productively. Through an informal discussion with

some of the site workers it was garnered that good working conditions prevent workers from pilfering materials on site.

Empowerment of individuals through strategies such as more decision making authority, more responsibility and having adequate resources does not significantly influence productivity as compared to other strategies. Despite having relative importance index of 0.81, 0.84, 0.80 and 0.78 on team work, resources, cost of work and timely completion of work, empowerment was ranked as fourth. Reasons advanced for relatively lower productivity increment being brought about by empowerment motivational strategies could be found in the low level of education of construction workers in Ghana. Their educational level which affects their confidence to undertake additional responsibilities and hence are not really motivated by the ability to make more decisions or responsibility

Creativity and Innovation was least ranked. The survey results show that being given the opportunity to be creative at work and innovate does not necessarily bring about productivity. As already mentioned most construction workers are more attached to the traditional way of carrying about their work and oppose to new developments. It is not surprising to see that creativity and innovation is ranked the lowest

4.4 CHAPTER SUMMARY

This chapter was devoted to the analysis and discussions of the results obtained from the field survey. It began with a brief discussion of the survey questionnaires and descriptive statistics of the results obtained from the field. The chapter concluded with relative importance index of the effects of motivational strategy on productivity. The relative importance index ranked monetary incentive as the highest importance factor influencing productivity on site

CHAPTER FIVE SUMMARY CONCLUSION AND RECOMMENDATION

5.1 Introduction

Increasing productivity on Ghanaian construction site is imperative. This research has explored motivational strategies that affect construction workers productivity on site. This study identified various motivational factors that influence productivity on site. The previous chapters presented have explained the theoretical, procedural and practical approaches for addressing the research agenda. This research ends here as this chapter summarizes the issues raised in the study. In addition, a summary of how the main objectives were achieved is explained and thereafter the main conclusions of this research. Finally, the chapter concludes with recommendations for further research that can be conducted based on the conclusions and limitations of the study. This chapter mainly focused on key finding of the research problem analysis, measures to be taken in order to improve and conclusion of the study. The recommendations constitute principally managerial level policies.

5.2 Attaining the research objectives

This research was initiated with the primary aim to develop ways of improving productivity through varied motivational strategies. In order to attain the specified aim, two research objectives were customary;

1. To identify the key factors that affect construction site workers' motivation at the workplace.
2. To determine the effect of the identified motivational factors on perceived productivity at site.

In order to determine the motivational strategies that would improve productivity on site, an in depth review of literature was conducted. From the literature review 6 main motivational

strategies were found; providing effective reward system, empowerment, creativity and innovation; learning; quality of life and monetary incentive. Each of the main identified 6 motivational strategy were subdivided to prevent ambiguity of the strategies and to make it easier for them to be rated. For example providing effective reward system was subdivided into appreciation based on appraisal for employees, payment of benefits to employees, recognition for work well done and promotion based on performance.

The main aim of this research, as noted earlier, was to develop ways of improving productivity through varied motivational strategies. Subsequently research objectives were developed in order to collectively satisfy this aim. Here, the research objectives reconsidered to highlight the extent to which they were accomplished through the various phases of the research.

5.2.1 OBJECTIVE 1: Identification of the key factors that affect construction site workers' motivation at the workplace.

To achieve this objective having identified the motivational strategies the survey questionnaire sought to find the level of importance of various motivational strategies to the construction site work. The relative importance index was used to weigh the factors to find out the one which is relatively more important. The findings show that all the strategies were either rated important or very important reflecting the fact motivation is key to the construction site worker. Among the 6 identified motivational strategy the highest rated activity were monetary incentive and quality of life. The fifth rank strategy was creativity and innovation. Empowerment was the relatively the least important motivational strategy. The study shows that most construction site workers are least motivated by giving them more control over an activity and are more comfortable with being instructed on what to do.

5.2.2 OBJECTIVE 2: Establishment of the effect of the identified motivational factors on perceived productivity at site.

The second objective as stated above was achieved through the use of the survey questionnaire. Having identified the various motivational strategies the effect on productivity was investigated. For the study four aspects of productivity were looked at; team work, resources, cost of work and timely completion of work. The findings from the study indicated that money incentive was ranked as the highest motivational strategy influencing productivity. The results show that incentives such as salary paid on time or before time, good salary and fringe benefits had a high influence on team work; cost of work and timely completion of work. The study also showed that the least ranked effect of motivational strategy on productivity was creativity and innovation. The study found out that being given the opportunity to be creative at work and innovate does not necessarily bring about productivity.

5.3 RECOMMENDATIONS

It has already been indicated that construction delay is a major problem facing the Ghanaian construction industry. Coupled with time and cost overruns facing the industry productivity on Ghanaian construction site is thus imperative. Motivational strategies serve as one of the key ways in increasing productivity on site. Based on the research findings the following recommendations are made:

- Provision of fringe benefits to construction workers;

Fringe benefits or allowances must be put in place for various site workers for various tasks and expertise. A typical example is tools allowance for skilled workers

- Avoid payment delays to construction site workers

Despite the fact that this is not a new knowledge to most construction companies the payment of construction site workers on time goes a long way to impact the productivity of most workers.

- Improved working conditions of construction site workers

The adherence to health and safety requirements is one of the ways to improve working conditions. Good interpersonal relationship with site workers needs to be put in place

5.4 LIMITATIONS OF THE RESEARCH

As with every any study, certain limitations bound this research. First, due to the nature of the research scope dealing with only major stakeholders, the sample size was relatively small, which constraints some steps in the statistical analysis. There is a possibility that with a larger number of population, mean scores and odd ratios of borderline significance would become significant. The study focused on the perception of the construction site workers on productivity. However there are standard tools and frameworks available for the measurement of productivity. This was outside the scope of this study and restricts the findings of the study.

5.5 DIRECTION FOR FUTURE RESEARCH

This research exposes a number of areas, which need research attention. The following recommendations are therefore made for future research:

- Further recommendation for this study is to identify the direct impact of each motivational strategy on productivity
- This study used a cross sectional approach in studying motivational strategies for productivity. A longitudinal study will bring to fore more insights and better understanding to this research area.

- The use of standard tools and frameworks to measure productivity in relation to the identified motivational strategy is a research area worth studying into.

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APPENDIX A

QUESTIONNAIRES

EXPLORING APPROPRIATE MOTIVATIONAL STRATEGIES TO IMPROVE PRODUCTIVITY AMONG D3 CONSTRUCTION FIRMS IN GHANA

Dear Sir/Madam,

This questionnaire forms part of an MSc. research project which aims to develop ways of improving productivity through appropriate motivational strategies. With this background, kindly answer the questions in this study, the impact of motivational strategies on productivity among D3 construction firms in Ghana. It is expected that this research will help to improve productivity in construction firms in Ghana.

I would like to invite you to participate in the above project. Completion of the questionnaire is completely voluntary and returning the completed questionnaire will be considered as your consent to participate in the survey. The questionnaire will take you about 10 minutes to complete.

I appreciate that you are already busy and that participating in this survey will be another task to add to a busy schedule, but by contributing you will be providing important information. **All data held are purely for research purposes and will be treated as strictly confidential.**

If you wish to receive feedback on the research findings, please complete the slip below and return it together with your questionnaire.

In the event of questions or queries, please do not hesitate to contact us. Thank you for your time and valid contribution in advance.

Yours faithfully,

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Department of Building Technology
(Research Supervisor)

SECTION A: BACKGROUND INFORMATION

Please tick as appropriate

1. Position held in your company:

Site Supervisor ☐ Materials Officer ☐ Health and Safety Officer ☐ Others please specify

2. How long have you been working in the construction industry

0 – 5 yrs ☐ 6 -10 yrs ☐ 11 – 15 yrs ☐ 16 – 20 yrs ☐
21 yrs and above ☐

3. Age Group:

18–30 yrs ☐ 31-40 yrs ☐ 41-50yrs ☐ 51-60yrs ☐

4. What is your highest level of educational qualification?

Postgraduate ☐ First Degree ☐ HND/ Diploma ☐ Technician (CTC I, CTC II, CTC III) ☐ Others please specify

5. How do you consider site worker motivation in your company

Extremely Important ☐ Very important ☐ Important ☐ Less important ☐ Not Important ☐

SECTION B: MOTIVATIONAL STRATEGIES FOR PRODUCTIVITY

1. How important are the following factors to employee motivation? Please tick as appropriate.

Not at all important – (1); Somewhat important - (2); Moderately important – (3);
Important– (4); Very important – (5)

Motivational Strategy		1	2	3	4	5
Providing effective reward system		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Appreciation based on Appraisal for employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Payments of benefits to employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Recognition for work well done	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Promotion based on performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Empowerment						
	More decision making authority	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	More responsibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Providing adequate time and material resources to carry out a task	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creativity and Innovation						
	Opportunity to bring innovations on task given	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Opportunity to use different methods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Opportunity to be creative at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learning						
	On the job training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Study leave	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Off the job training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Experience from work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of Life						
	Improved working conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Good Administrative policy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Good work relationship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Proper communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Job security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monetary Incentive						
	Salary paid on time or before time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Salary increment with increased work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Good Salary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Fringe Benefits (Allowance)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others Please Specify below						
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION C: EFFECT OF MOTIVATIONAL STRATEGIES ON PRODUCTIVITY

Below are effects on motivational strategies on productivity in the construction industry A-D. From your experience please rate the degree of significance on your performance.

A-Timely completion of work. **B**-Effective cost control
C-Effective use of resources (plants, labour and materials) **D**-Promoting teamwork

The response scale is as follows from 1-5

Strongly not significant – (1); Not significant - (2); Average – (3);
 Significant – (4); strongly significant – (5)

Motivational Strategy			A	B	C	D
Providing effective reward system						
	Appreciation based on Appraisal for employees	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Payments of benefits to employees	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Recognition for work well done	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Promotion based on performance	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		4	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		5	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
Empowerment						
	More decision making authority	1	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		2	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		3	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		4	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		5	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
	More responsibility	1	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		2	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		3	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		4	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		5	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
	Providing adequate time and material resources to carry out a task	1	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		2	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		3	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		4	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		5	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
Creativity and Innovation						
	Opportunity to bring innovations on task given	1	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		2	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		3	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		4	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		5	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
	Opportunity to use different methods	1	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		2	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		3	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
		4	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>

		5	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
	Opportunity to be creative at work	1	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		2	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		3	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		4	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		5	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
Learning						
	On the job training	1	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		2	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		3	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		4	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		5	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
	Study leave	1	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		2	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		3	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		4	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		5	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
	Off the job training	1	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		2	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		3	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		4	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		5	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
	Experience from work	1	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		2	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		3	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		4	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>
		5	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>

Quality of Life						
	Improved working conditions	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Good Administrative policy	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Good work relationship	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Proper communication	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Job security	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monetary Incentive						
		1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Salary paid on time or before time	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Salary increment with increased work	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Good Salary	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Fringe Benefits (Allowance)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others Please Specify below						

2. Please do you have any recommendation for the improvement of productivity through employing a motivational strategy? Kindly indicate below

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THANK YOU VERY MUCH FOR YOUR TIME!!!