

THE MOTIVATIONAL FACTORS THAT AFFECT THE
PRODUCTIVITY OF THE WORKERS ON A
CONSTRUCTION SITE

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ABSTRACT

The construction industry is labour intensive in nature. People often work long hours in relatively disagreeable environments, far from their families. Even if workers are not happy to be working in a particular environment they find themselves obliged to work. Fearing reprimands from their superiors, they often find it difficult to express their ideas. It is therefore difficult for management to identify the factors of motivation that affect their workers' productivity in a work environment.

The aim of this study was to identify and evaluate motivational factors that affect the productivity of workers on construction sites in South Africa, focusing on skilled workers. For this, the scientific management approach and quantitative research methods were used.

The findings from this study revealed that the motivational theories apply to construction sites, and management needs to apply these theories wisely in order to achieve improved productivity.

DECLARATION

I declare that this research report is my own, unaided work. It is submitted in partial fulfillment of the requirements for the degree of Master of Science in Building to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other university.

(Signature of Candidate)

..... day of year.....

DEDICATION

I dedicate this to my mother, Francina Ramasela Mokobane, my late father Salthiel Kwena Mokobane and my nephew Thabo Mahira Masekwameng with whom I share a birth date.

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CHAPTER 1

INTRODUCTION

1.1 Introduction.

There is a need for human resource management in the construction industry. Activities on construction sites require both the physical and the mental strength of the workers.

Owing to the nature of the industry, workers spend long periods away from their families while engaged in projects far from their homes, which they manage to visit only once in a month, usually at the end of the month, or once a year, during the December holidays. Construction activities take place in an outdoor work environment, where workers are exposed to environmental hazards; such as dust, insect bites and environmental diseases. Malaria is a major problem in the Southern African region

The building industry is very sensitive to the interest rates. Lowered interest rates in the South African economy have led to the upward construction boom in the in South Africa, leading to an increased demand for skilled and motivated workers. There is currently a skills shortage in the country and

increased work availability (Povey in SAACE, 2005). For competitive reasons, construction companies will continue to require motivated workers, without whom the industry will not survive (Pike, 2001).

Skilled workers demand high wages and move from one employer to the other in search of higher financial incentives/rewards (Povey in SAACE, 2005). The paucity of trained or skilled construction workers in the South African region has led to a need requiring training of the local people (Galbraith in Southern African Building & Civil Engineering in Focus, Construction World, 1998). The level of education among construction workers is low.

The construction site activities are in most cases repetitive. It is often found that employees in a company do the same trade/work activity for the rest of their working lives; for example, a concrete worker will find himself pouring concrete in every project. The workers are often scared to express their views on matters related to their jobs, as they fear consequent punishment.

Supervisors generally do not involve the workers in the decision-making processes as they feel it to be unnecessary and believe that their function is to instruct and direct their working teams. They do not create an environment where workers discuss job-related issues and concerns with them. The result is lack of communication and, perhaps, a lack of understanding on the part of

the management about the workers they employ Platzky (in Southern African Building & Civil Engineering in focus, Construction World, 1998).

The traditional approach to motivation assumes that the workers will work harder if they are paid enough. The human relations approach to motivation emphasizes that the workers need to feel important and socially accepted, thus encouraging the view that these needs are more important than money. On the other hand, the human resources approach encourages employees or managers to create an environment where workers contribute to, and participate in the running and success of the business (Griffin, 1993).

1.2 The Statement of the Problem

The most widely used management style in the construction industry has involved management by threat, the Cussin's approach. Workers are often mistreated by their supervisors but they continue to work when it is difficult to find other employment. In South Africa today, this approach to workforce management might lead to labour - management disputes or a high labour turnover in an organization. The South African construction industry is currently experiencing a boom: to the extent that good, skilled workers will find it easy to change employers. Projects such as those involved in gearing

up for the soccer World Cup, the Gautrain development and the buildings of new pebble reactors by Eskom are just examples of increased construction activities in South Africa and the resultant demand for a motivated workforce in this sector.

Up to this point, management have generally concentrated on the 'hygiene' factors. When faced with a morale problem, the typical solution has been higher pay, more fringe benefits, and better working conditions. However, as has been pointed out, this simplistic solution has not really worked. The employers are often perplexed because they are paying high wages and salaries, offer excellent fringe benefit packages, and provide great working conditions, but their employees are still not motivated (Luthans, 2002).

This study proposes to identify and evaluate factors of motivation that affect the productivity of the workers on construction sites and to determine what measures can be taken to keep the morale of the workers high.

1.3 The Aims and Objectives of the Study

These were:

- To identify and evaluate factors of motivation that affect the productivity of workers on construction sites;

- To develop strategies that can help in ensuring that motivational factors are addressed;
- To gauge the effect of motivational factors on the productivity of workers;
- To determine what measures can be taken to keep workers motivated, and thereby produce at their best.

1.4 Hypothesis Formulation

The hypotheses of this research report are that:

The worker's main goal and objective of working is to make money: when a worker is given money, his/her production automatically rises;

More work is done when the supervisor yells or curses at his workforce in a workplace, and workers need strict supervision at all times;

Employment is not fixed in the industry, and this lowers the morale of the workers, as they are not sure of where they will at the end of each project;

The skilled workers look for the challenging tasks and career development; the workers also want to participate with their superiors in the management of the projects.

1.5 The Significance of the Study

The industry situation has changed to where most projects are fast-tracked. It has become expensive to prolong project duration so program times are being shortened. Due to tight programs the human resources involved in the industry experience much stress/pressure, leading to health problems, as they are chasing after time in order to avoid late project completion and penalties. To remedy the situation, the industry needs highly motivated, skilled workers.

According to Pike (2001), if people are highly motivated to work, they produce more results and business flourishes. If people are less motivated, a downward spiral in the performance and quality of the business develops, because there is a direct relationship between poor company management of people and the behaviour of the workers.

1.6 The Scope and Limitations of the Study

The research was aimed at studying the factors of motivation that affect the productivity of the workers on construction sites. It focused only on the following skilled workers: bricklayers, plasterers, plumbing technicians, electricians and the foremen/supervisors. These categories of workers were

selected as they are together regarded as the foundation and the pillars of construction projects on a construction site level.

The study evaluates the motivational factors of the workers, using scientific management approaches: the Traditional Approach, the Human Resource Approach and the Human Relations Approach.

Questionnaires were used as tools for collecting data.

The research sample was drawn from Gauteng Province only. Not all the construction companies operating within the country were covered. The workers were reluctant to complete the questionnaires, so their true feelings may not have been expressed. Most of the respondents were foremen.

The construction industry is male-dominated and therefore the research does not properly cover the motivational factors affecting females in the South African construction industry.

1.7 Outline of the Research Report

This report contains five chapters.

- **Chapter One.** In this chapter an attempt is made to give a general overview of the study. The reasons why the research was carried out are outlined .
- **Chapter Two.** This chapter deals with the literature which formed the base of this research. The literature is based on the scientific management approach to motivation of the workers in an organization.
- **Chapter Three.** Chapter Three describes the methodology followed in this research: how and where the study was carried out.
- **Chapter Four.** This chapter presents and interprets the findings and results of the research.
- **Chapter Five.** In Chapter Five the findings and recommendations are discussed.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The behavioural researcher, Robert H Warren, maintains that productivity and motivation are interdependent; that increased motivation can cause increased productivity (Halepota, 2005). Motivation involves the arousal, direction, and maintenance of behaviour towards a goal. Motivation cannot be seen, but only inferred on the basis of performance. It is a set of forces that cause people to behave in certain ways. The workers' remuneration plays a role in their motivation (Robbins, 1998). Motivational factors lead to positive mental health and challenge people to grow, contribute to the work environment, and invest themselves in the organization. Workers consider job security, a fair company policy that is implemented consistently, an important meaningful job, promotional opportunities and a good salary to be the most motivating factors (Keeley, 1999).

2.2 Theoretical framework

The research was based on the Traditional, Human Relations and Human Resources approach theories regarding motivation. The literature consulted is based on the Scientific Management approach to motivation.

2.2.1 Traditional approach

Frederick W. Taylor is one of the theorists behind the traditional approach. Assuming that money was everyone's primary motivation, he suggested the use of an incentive pay system. The traditional approach also assumed that work is inherently unpleasant for most people and that the money that the workers earn is more important than the nature of the job (Robbins, 1998). Hence, people could be expected to perform any kind of job if they were paid enough.

2.2.2 Human relations approach

This developed from the work of Elton Mayo and his associates. They emphasized the role of social processes in the workplace. Their basic assumptions were that employees want to feel useful and important and have strong social needs, which are more important than money in motivating employees (Robbins, 1998). This approach advises managers to

make workers feel important and allow them some degree of self-direction and self-control in carrying out routine activities.

2.2.3 Human Resource approach

This approach assumes that the people want to contribute and are able to make genuine contributions. Management's task is to encourage participation and create a work environment that makes full use of the human resources available (Robbins, 1998).

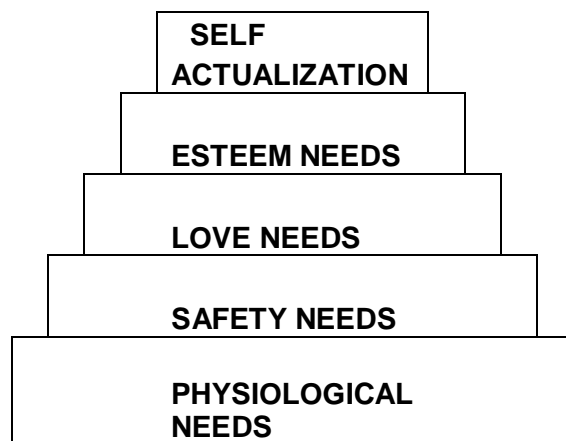
2.3 Needs

Abraham Maslow, on the basis of his clinical experience, thought that one of the difficulties in motivating workers is that they are all different, and react differently to the same kind of change or action. Maslow identified five levels in his need hierarchy (see Figure 2.1), (Luthans, 2002):

1. *Physiological needs* The most basic level in the hierarchy. The needs of hunger, thirst, sleep, and sex are some examples. According to the theory, once these basic needs are satisfied, they no longer motivate.
2. *Safety needs* This second level of needs is roughly equivalent to the security need. Maslow stressed the importance of emotional, as well as physical, safety. According to him, once these safety needs are satisfied, they no longer motivate.

3. *Love needs* This level of needs loosely corresponds to the affection and affiliation needs.
4. *Esteem needs*. The esteem level represents the higher needs of human beings. The needs for power, achievement, and status can be considered part of this level.
5. *Self- actualization*. This level represents the culmination of all the lower, intermediate, and higher needs of humans. People who have become self-actualized are self-fulfilled and have realized all their potential. In effect, the desire for self-actualization provides the person's motivation to transform perception into reality.

Figure 2.1. Maslow's hierarchy of needs



Many researchers into motivation have agreed that managers can create a positive motivational atmosphere that can help in motivating workers toward

higher productivity but they will probably not motivate everyone, because everyone is motivated by different things (Halepota, 2005).

Schrader (1972) applied Maslow's hierarchy theory to construction workers. He wanted to identify the levels of need that should be addressed to improve the motivation of workers and, ultimately, their productivity. Schrader concluded that the lower-level needs, like physiological and safety needs, were no longer motivating factors for the construction workers. This conclusion was based on the fact that the construction workers earned good wages and could therefore fulfil their physiological needs. Through unions they could also maintain a relatively smooth level of employment, thus fulfilling their safety needs regarding job security (Halepota, 2005). Schrader also believed that the nature of work environments in which construction workers were involved helped development of co-worker relationships, which, in turn, fulfilled their social needs.

In an attempt to motivate construction workers, Schrader proposed that the management needed to focus on Maslow's higher-level hierarchy theory needs. In order to fulfil these, Schrader suggested, employees should be involved in discussions about method improvement practices. He believed the key issues to be use of a participative decision process and team building. He further suggested that esteem needs and self-actualization needs of construction workers could be fulfilled through praise, listening and involvement (Halepota, 2005).

2.4 Reward and motivation

Many surveys show that workers become motivated when they are congratulated for doing a job well. An incentive program that uses reward and recognition elements formalizes the relationship between tangible business goals; such as productivity, customer satisfaction and profitability, and the warm fuzzy factors; such as feeling appreciated. As a management tool, the right reward program can motivate the entire staff, from manual labourers to senior management (Archives, 2005).

The real benefit of reward programs, for an organization's management, is that if they are well designed, they will ultimately pay for themselves. The increase in productivity and therefore productivity will more than cover the utility costs as well as the costs of the rewards (Archives, 2005). To be motivated, people need to receive differentiated rewards and recognition, writes Jack Welch in book; *Winning* (Kenedy, 2006). Staff feels more appreciated and more willing to go an extra mile when their achievements are rewarded (Archives, 2005).

A commentator from the London School of Economics suggested in *The Financial Times* that workers are unlikely to feel fairly treated when they see the widening gap between boardroom rewards and their own pay, especially

when directors' pensions are being 'fattened up' and the general company pension scheme is inadequately funded (Kennedy, 2006).

According to Tony Italiano of Nashua, N.H., obstacles to the employee's success can be removed by implementing proper business delivery processes. He suggests that the sooner one pays out money, the better, as "Cash is King" (Hall, 2004).

The influence of rewards on motivation is also emphasized by the expectancy theory, which suggests that rewards must have a positive impact on the individual employees. Some may prefer money as incentive reward for a well-performed job; others leave (holidays). Most of the directors will prefer leave days or holidays to money (Nelson, 1994).

The reward program must be planned and designed in such a way that it does not destroy team efforts. According to Lamb (2005), rewarding and recognizing only one member of the team destroys the team's effectiveness, defeating the purpose of the reward programme. The setting of goals, the expectation of preferred rewards and their equivalence also serve as motivators (Mather, 1991).

Research shows that approximately 80% of the world's cultures are collectivist or group-oriented (Lamb, 2005). Collectivist societies support the group's interest before the individual's, because in a collectivist society a person's identity is determined by group membership, not by his or her individual quantities.

A Fortune 200 clothing manufacturer opened a new factory in Central America. The company implemented the two-part reward and recognition programme for garment workers. In North America, the programme had measurably contributed to increased productivity and morale and decreased turnover rates. The programme worked by calculating the individual pieces completed by each garment worker daily. Each garment worker with the greatest number of pieces completed was asked to stand up at the weekly company assembly and received a round of applause, a green baseball cap with the slogan, "I am Number 1", and a paid day off work. About three months after this initiative was launched in the Central American country, almost 40% of the workers had quit (Lamb, 2005). During exit interviews, several of them alluded to this programme as the reason for their leaving, even though many of them had actually won in the weekly recognition programme. By publicly acknowledging individuals who were excelling, the factory was actually de-motivating the most productive workers. After being singled out, these top workers were no longer able to be an effective part of

the team, which is central to how this culture functions. Therefore, factory productivity actually sank to a new low. Because their desire to maintain group membership was so great, the workers who received the awards actually started reducing their output and soon became the least productive workers. It is therefore important that the workers understand and value the reward programmes implemented.

Incentive plans can be of three different kinds. They can be based on individual, group, or organizational performance. In a group performance plan the reward is determined by the performance of a working team, section, or workshop. Though individuals within the group may differ in performance, they all receive the same performance bonus. This arrangement does not stimulate the individual to make the effort that he/she might have made, if the rewards were linked to team performance.

If an incentive plan that is implemented is quantity related, production may increase but quality may suffer (Anderson, 2005). The perception is that if people hurry they make too many mistakes. Some errors will result from excessive speed, particularly if no quality control plan procedures exist. Money incentives sometimes seem to stimulate production, and sometimes show little effect (Whyte, 1955).

According to F. W. Taylor and his followers in the scientific management movement, managerial thinking begins with one of the basic assumptions of orthodox economic theory: that man is a rational animal concerned with maximizing his economic gains. No economist believes this assumption to be true to the facts, but the tendency has been to reason from the assumption as if it were close to actuality. If it is assumed that man's goal in the factory is to make money, then it naturally follows that he can be motivated to produce more if paid in accordance with the amount that he produces (Whyte, 1955).

The scientific management theorists appear to accept without question an arbitrary assumption regarding man's motivation, which economists themselves do not regard as representing reality. D. H. Robertson, the noted British economist, stated the case against the economic man theory more than thirty years ago in these words:

"A high wage will not elicit effective work from those who feel themselves outcasts and slaves, nor low wages preclude it from those who feel themselves as an integral part of a community of free men. Thus the improvement of this element of supply of labour is an infinitely more complex and arduous task than if it depended upon wage alone, but at the same time a task more possible of fulfilment by an impoverished world".

Money alone would not move a man to work. Good supervision and the will to work are basic requirements. Reward is supposed to be in direct

proportion to production (Mills, 1955). It is very important for the management to understand the needs and the culture of the staff/employees before they implement the rewarding/incentive programmes.

2.4.1. The Expectancy Theory

The expectancy theory asserts that people are motivated to work when they expect that they will be able to achieve the things they want from their jobs (Nelson, 1994). According to the expectancy theory, motivation is the product of three types of beliefs: *expectancy* – the belief that one's effort will result in performance, *instrumentality* – the belief that one's performance will be rewarded, and *valence* – the perceived value of the rewards to the recipient. The expectancy theory claims that motivation is a multiplicative function of all three components (Nelson, 1994). This means that higher levels of motivation will result when *expectancy*, *instrumentality*, and *valence* are all high than when they are all low. The multiplicative assumption of the theory also implies that if any one of these three components is valued as zero, the overall level of motivation will be zero. The expectancy theory recognizes that motivation is one of several important determinants of job performance. In particular, it assumes that skills and abilities also contribute to the individual's job performance (Nelson, 1994).

The theory strongly suggests that it is essential to clarify people's expectancies that their efforts will lead to good performance. Training employees to do their jobs more efficiently may enhance motivation, thereby encouraging achievement of higher levels of performance. Employers must clearly link rewards and performance, thus managers must clearly specify to the employees what job behaviour will be rewarded.

2.5 Technology and the ability of the workers

Ability and motivation are essential ingredients of good employee performance. An unmotivated could be the most capable individual in the world, but would demonstrate no connection between ability and performance. Similarly, if a person lacked ability but had tremendous motivation, there would be no connection between the motivation and performance. Ability is deemed to result from knowledge and skill. Knowledge, in turn, is affected by education, experience, training, and interest. Skill is affected by aptitude and personality, as well as by education, experience, training, and interest (Hicks, 1952).

The contribution of a worker to the productive process depends in the first place on the number of workers, secondly on the kinds of work which they can do, and thirdly on the effort that they put into their work (Hicks, 1952):

- The number of workers affects production in the sense that on site there is always something which badly needs to be done, but could not possibly be done by a small number of workers. Such things as housekeeping and erecting temporary working platforms might not be physically impossible but would be practically impossible, because they would take so long to do that the makers/workers could hardly hope to finish. The high efficiency of modern industry comes about very largely as a result of specialisation; workers are specialised in particular jobs and, as result, they acquire great dexterity in doing them. Their efficiency is further increased by their competent use of highly specialized equipment.

The number of people involved also leads to an increase in the needs which have to be satisfied: extra workers have to be clothed safely and paid well. The overcrowding of activities can lead to accidents and idleness that may lead to a fall in average productivity.

- The differences in individual skill, which are mainly responsible for the differences in wages/incentives, come about in three ways: from differences in natural ability, in training, and in experience. A man can become a first-class carpenter or a first-class plumber only if he has a

natural gift for that sort of work and has been properly trained; but even then, he will be able to use his gifts and his training to the best advantage only when he has had experience in using the tools/equipment. However, training and experience take time to acquire: shorter and longer times in different occupations. In semi-skilled jobs a worker can become proficient in a few months, while in professional and administrative work even those who have the best natural endowment may not reach the height of their proficiency before they have experienced years of training and longer years of practice. When skill has been built up by years of training or experience, it is probable that the worker will be very much better at doing the work for which he has been trained, or which he has learned by practice, than he will be for doing any other sort of work: unless he is given a very strong inducement to the contrary, the work to which he is accustomed is the work he will prefer to do.

- The effort that people put into their work is partly related to the hours of labour. Usually people will produce more if they work harder but this does not necessarily mean that they will produce more if they work longer hours. After certain point the additional fatigue diminishes output. If the number of hours worked is less than this critical number, production will be cut down because the workers have less time to

work in; if it is greater, production will also suffer, because the additional time is offset by fatigue. The best way to engender productivity is to awaken the worker's interest in his work to such an extent that the conflict of interests is reduced to a minimum. When a man is interested in his work, his responsibility towards it, he is not likely to mind very much how long he works. Similarly, he will not mind the how much trouble he takes when he is working. A good employer may be very successful in awakening such a sense of responsibility, though usually he will do so only if he himself takes a good deal of trouble in watching over the welfare of his employees.

Productivity is not determined solely by how hard and how well people work. Technical factors also play a role; sometimes an overwhelmingly important one, and sometimes a minor one (Hicks, 1952).

Technical factors are all those factors other than employee performance, which can affect output per hour. They include matters such as technological development (the machinery and equipment with which employees have to work), the quality of materials, the layout of the work, and methods and techniques. Output per employee-hour is usually increased with increased use technology, quality of raw materials used and the continuity of their supply (Hicks, 1952).

There are some interrelations between an employee's job performance and technology. If employees have good materials and tools to work with, they are likely to be encouraged to work harder than if they have inferior ones.

2.6 Development and Growth

The goals of the company should be clearly communicated to the workers, who must be made to understand the importance of their tasks and the time frame.

According to Locke and Latham's theory, a goal serves as a motivator as it causes people to compare their present capacity to perform with that required to succeed at achieving the set goal. Having a goal enhances performance, largely because the goal clarifies what type and level of performance is expected (Griffin, 1993).

When people do not achieve their goals, they feel dissatisfied, but are happy and proud of themselves when they do achieve them. Setting goals helps, in that people know exactly what they are expected to do and how to do what is necessary to reach the goal. People will exert more effort when they believe that the goal set for them is achievable. The best-established finding of research on goal setting is that people perform at higher levels when asked

to meet a specific high-performance goal than when simply asked to do their best or when no goal at all is assigned (Griffin, 1993).

People tend to find specific goals quite challenging and are motivated to try to meet them - not only to fulfil management's expectations but also to convince themselves that they have performed well. To raise performance a goal must be difficult, as well as specific, and the task/ challenge must be within the limits of the people's capability. In order for the employees to accept a goal assigned to them, it is advisable to involve them in goal setting. That way they understand the goal better and they will put in a lot of effort to achieve it. This involvement is beneficial because the workers often have direct knowledge about what is involved in doing the job. The workers' performance is also enhanced by the feedback about the goal (Robbins, 1998).

Adam Smith, a Scottish political economist and moral philosopher argued that a person's self-interest was God's providence: not the governments. Self-interest is what is in the best interest of and benefit to the individual (Griffin, 1993). Adam Smith laid the cornerstone for the free enterprise system of economics when he formulated the "invisible hand" and the "free market" concepts to explain the motivation for individual behaviour. The "invisible hand" refers to the unseen forces of a free market system that

shape the most efficient use of people, money, and resources for productive ends. His theory of political economy subsequently explained collective economic behaviour.

Smith's basic assumption was that people are motivated by self-interest for economic gain to provide the necessities and conveniences of life. This implies that financial and economic incentives to work are the most important considerations in understanding human behaviour. Further, he maintained that employees are most productive when motivated by self-interest. The organizations should develop unique systems for managing performance, giving special attention to a process of continuous development, to influence employees' performance and meet customer requirements (Hoosain, 1999). It is therefore clear that for people to be more motivated, the goals of the company must be in line with their interest and development as human beings.

2.7 The Environment

The subjective feelings of the employees and their perceptions of the physical changes, rather than the changes themselves, seem to influence motivation. Working conditions can, of course, affect the employees' comfort at work. According to Maslow, physiological needs are the most basic. These

involve satisfying fundamental biological drives, such as the need for food, air, water, and shelter. To satisfy such needs, organizations must provide employees with salaries that allow them to afford adequate living conditions (Robbins, 1998). Workers spend much time at the workplace. Therefore, managers must consider creation of an environment at the workplace that will satisfy the physiological needs of the workers.

Safety needs are activated after physiological needs are met. These involve the need for a secure environment, free from threats of physical or psychological harm. Employees may be provided with safety equipment, life and health insurance plans, and protective security forces. Environments where people work without fear of harm satisfy their safety needs. Maslow's physiological needs and safety needs correspond to Clayton Alderfer's existence needs.

Industrial psychologists and human engineers have often stressed the relationship of physical working conditions to employee performance. Noise, lighting, music, rest periods, ventilation, temperature, and humidity – all these and others have been seen as factors which could improve or impair employees' performance. The Hawthorne Plant studies originally focused on this area but were unable to demonstrate any relationship between physical

conditions and output, and were redirected toward the areas of social conditions (Nelson, 1994). The Hawthorne researches conclusions were that:

- Individual workers cannot be treated in isolation, but must be seen as members of a group;
- The need to belong to a group and have status within it is more important than monetary incentives or good physical working conditions;
- Informal (or unofficial) grouping at work exercises a strong influence over the behaviour of workers, and
- Supervisors and managers need to be aware of these social needs and cater for them if workers are to collaborate with the official organization rather than work against it.

Management needs to make an environment conducive to the performance of the workers. This can also help in minimizing injuries and fatalities that hamper the productivity of the workers.

2.8 Social Aspect of a Human Being

People are social beings and therefore need relationships. According to Maslow's hierarchy of needs, social needs are activated after safety needs

have been met. Social needs include the need to be affiliated to social groups, to be loved and to be accepted by other people. Organizations may help meet these needs by encouraging participation of employees in social events, such as office picnics or parties. Relatedness needs correspond to Maslow's social needs: the need for meaningful social relationships (Robbins, 1998). Research studies have shown that productivity and morale can be improved where management deliberately fosters social relationships in order to improve cooperation and teamwork (Cole 1992).

Management can encourage togetherness within the staff, by organizing sports events and workshops, where workers meet on an informal level. This will boost the workers' sense of belonging.

2.9 Management Style

People compare themselves to others focusing on two variables: outputs and inputs. Outputs are benefits derived from work, including pay, fringe benefits, and prestige. Inputs are the contributions made, such as the amount of time worked, the amount of effort expended, the number of units produced, and the qualifications brought to the job. The equity theory states that people compare their outcomes and inputs to those of others and judge how equitable these relationships are in the form of a ratio. The comparisons can

result in any of three different states: overpayment inequity, underpayment inequity, or equitable payment. It is often found that people who are paid well (or paid more than expected) are more productive, and those who are underpaid (paid less than they expected) are less productive (Griffin, 1993).

In addition, Griffin (1993) states that people who are underpaid generally end up stealing materials and selling them for extra money. When the majority of the employees feel underpaid, they will lower their performance, resulting in a net decrease in productivity and widespread dissatisfaction. On the other hand, overpayment must be avoided, as the increases in performance shown in response to overpayment tend to be temporary. As time goes on, people begin to believe that they actually deserve the higher pay they are getting.

Engaging a team gives them permission to engage the manager in return. They will appreciate and respect the manager more as a manager when given opportunities to do their work freely (Devany, 2005). When workers feel their management is not committed to them, it works against attempts to make them more productive. More autonomy, more flexible working hours and managing by rewards and praise would help people feel more valued and inspire them to greater effort, according to Carry Cooper, Professor of Organizational Psychology and Health at Lancaster University School of Management (Kennedy, 2006).

People must be treated as partners, with dignity, respect, not as items requiring capital expenditure and automation: productivity and the financial reward that goes with it demands that workers be treated as the most important asset of a business. In *A Business and Its Beliefs*, Thomas J. Watson, Jr., stated: “IBM’s philosophy is largely contained in three simple beliefs. I want to begin with what I think is the most important: *our respect for the individual*. This is a simple concept, but in IBM it occupies a major portion of management time. We devote more effort to it than anything else. This belief was bone-deep in my father” (Peters, 1995).

A construction manager’s job is to get work done by the workforce. Therefore, his/her leadership style plays a significant role in workforce motivation (Halepota 2005). According to the behavioural scientists, the democratic leadership style has achieved high productivity and effectiveness (Halepota, 2005).

The most widely used method for managing construction workers in the 1950s, and even in the 1960s, is known as Cussin’s Approach or management by threat (Halepota, 2005). This is based on the idea that if the worker is berated, threatened, intimidated, and told nothing except where to dig, the maximum amount of work will be done (Warren, 1989). Cussin’s approach not only survived after the Great Depression and World War II, but

it actually flourished. Many workers were war veterans. The military had used the Cussin's approach and might even have invented it. Jobs were scarce and work was needed merely for survival, so the veterans had no option but to work in those cruel conditions. This approach did not motivate the workers to increase productivity; all it produced was an atmosphere where people would try not to be yelled at by the supervisor (Halepota, 2005).

In the construction industry management can apply this theory by performing a survey of employees to gather facts about motivating and de-motivating issues in their organization. Once these have been identified, efforts can be made to address factors causing dissatisfaction that could, otherwise, hinder the growth of the organization (Halepota, 2005). Studies in this domain reveal that management's failure to perform these vital functions adequately has contributed largely to the low productivity found in the construction industry. An unorganized and poorly planned job creates frustration among workers and causes lower productivity (Halepota, 2005).

An approach that has proved successful involves educating workers and matching them to projects that they find interesting and those in which they have gained expertise. This helps to increase their success rate, which in turn helps to improve their self-esteem (Halepota, 2005).

Another way of increasing productivity is to empower workers by allowing them to make decisions and giving them necessary tools and support needed in their jobs. This will increase their inner motivational force. Management plays an important role in the performance of the workers. Successful application of motivating factors to improve job attitudes and, therefore, increase productivity and retention of skilled workers, requires training and management discipline (Lord, 2002). It may also require basic changes in company culture.

Care should be taken when implementing/applying motivators, as different workers are motivated by different things. One of the difficulties in motivating workers is that they all are different and react differently to every kind of change or action. Many motivational researchers have agreed that managers can create a positive motivational atmosphere that can help in motivating workers for higher productivity but they will probably not motivate everyone, because everyone is motivated by different things (Halepota, 2005).

2.9.1 Work Design

The way the work is designed can affect the productivity and the performance of the workers. Work that is repetitive becomes boring and often leads to the workers' quitting. To minimize the consequences of boredom, workers can be offered opportunities to perform an increased number of different tasks all at the same level. This approach is known as *job enlargement*, (Robbins, 2002). It can contribute to employees' job

satisfaction as it decreases boredom, but it may be difficult and expensive to train the workers to perform enlarged tasks rather than separate tasks. Although job enlargement may help improve job performance, its effects may not be long-lasting as often, after a while, employees get used to their enlarged jobs and then find them less interesting, and stop paying attention to all the details.

In contrast to job enlargement, *job enrichment* gives employees not only varied jobs to do, but also more tasks to perform at a higher level of skill and responsibility. Herzberg maintains that building motivation factors into a job, through job enrichment produces job satisfaction (Robbins, 2002). It gives employees the opportunity to take greater control over how to do their work. In the original research, the motivational factors were identified as responsibility, achievement, recognition, advancement, and the work itself. When these factors are present, they lead to superior performance and effort on the part of incumbents. These factors directly influence the way people feel about their work. However, it is difficult to implement and sometimes lacks employee acceptance, especially when the employees involved have low achievement motivation (Robbins, 2002).

2.10 Conclusion

The workers want to feel important and accepted by other people. Offering them incentives or rewards for well-done job can make them feel important. The rewards can be in the form of money, compliments (just a thank you), and/or promotion to a more challenging and complex job than they did before (Nelson, 1994). For the rewards to be acceptable they should be related to

performance. The workers must be aware that their efforts on the job have led to a positive response from the management.

A healthy and secure work environment encourages the workers. They workers can also be encouraged to perform better if they are given the right equipment, tools and the materials to use. Moreover, the job must be given to the right people. This can be ensured through training and developing the skills of the workers. Involving the workers in the management of their activities and how the production can be improved is also important. For the workers to achieve the goals, they need clear understanding of what the goal is, how to achieve it, when are they expected to achieve it and, lastly, why the goal must be reached.

The next chapter will concentrate on the research methodology, and will include the research design, sample selection, data collection from participants, and data analysis.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

In the previous chapter, literature pertaining to the topic under study was reviewed. This chapter deals with the research methodology used in the study. Furthermore, this chapter outlines the research design used, research procedure followed and the manner in which data were collected and analyzed.

3.2 Research Design

The study was quantitative and exploratory in nature. Quantitative research methods are those in which the observed data exist in a numerical form (Rosnow, 1999). An exploratory study is a scientific approach that involves formulating a problem, developing a hypothesis, testing it and drawing conclusions (Rice, 1995).

The questionnaire was designed to make its completion easy for the respondents (See appendix C, questionnaire format.) and was divided in

accordance with the factors outlined in the literature consulted. Uncertainties experienced by the participants were able to be clarified.

3.3 Sample

The sample was designed in such a way as to avoid inaccuracy/bias. Precision is measured by the standard deviation measurement: the smaller the standard deviation measurement; the smaller the standard error of estimate, the higher the precision of the sample. The ideal sample design produces a small standard error of estimate (Cooper, 2001).

The sample size was based on the principle that the greater the desired precision of the estimate, the larger the sample must be (Cooper, 2001). With reference to precision, the 95% confidence level is often used, but more or less confidence may be needed in light of the risks of any given project (Cooper, 2001). In this study, 72 construction site workers from all age groups who were working on or had worked on a project for more than six months comprised the intended sample population. The sample size was chosen according to the availability of the participants and research was done on building sites.

Often it is claimed that a sample should bear some proportional relationship to the size of the population from which it is drawn. The size of the sample is

a function of the variation in the population parameters under the study and the estimating precision needed by the researchers, (Emroys, 1991). Stratified random sampling was used in this study, mainly to increase a sample's statistical efficiency and to provide adequate data for analyzing the various subpopulations.

The trade list in the construction industry was used as a sampling frame. The research was done when representatives of all the trades were engaged on a site, to eliminate sampling frame errors, and to make the study representative of the population. The workers were selected at random, in accordance with their availability. Only those who were on site had a chance to participate in this study. The workers were given questionnaires and the findings of this research are based on the returned and completed questionnaires.

3.4 Participants

The population covered all the workers on site except the management and professional bodies (such as consulting engineers and project managers). The participants were skilled workers; plasterers, electricians, plumbers, bricklayers and supervisors from the leading construction companies. They included seventy males and two females. The age group range from twenty

to over forty years of age, and their experience ranged from zero to over twenty years in the construction industry.

3.5 Method of Data Collection

A descriptive survey method was used, which is appropriate for data derived by means of questionnaires (Leedy, 2001). According to Wisniewski (2002), written questionnaires are preferable to personal interviews when three conditions are met:

- When one is dealing with literate respondents,
- When the researcher is confident of getting a high response rate (at least 70%), and
- When the questions asked do not require a face-to-face interview.

The questionnaire contained three types of questions: descriptive, structural and contrast. It was divided into Sections A, B and C. the intention behind Section A of the questionnaire was to explore the setting and learn about the participants. The answers in this section do not contribute significantly to the research but were included to clarify the levels of preparation and the learning and the backgrounds of the participants (Neuman, 1997). The information gathered was biographical, and dealt with personal issues such as age, gender, marital status, trade, experience and home language. This

section helped to awaken the interest and stimulate the motivation of the respondents to participate. The questions were reasonable and allowed respondents to answer willingly.

Section A was followed by Section B, which contained structural questions, that start to analyse data. Section C was built with the intention of facilitating analysis to be verified by structural questions.

Section B & C of the questionnaire enquired into how the factors of motivation referred to in the literature affect the workers in the South African construction industry.

Closed response strategy was imposed on the respondent. The choice of this strategy was influenced by the objectives of the study, which enquired into factors outlined in the theories of motivation, ignoring the respondents' opinions. A five-point numerical scale was assigned for responses: very high, high, moderate, low, no effect, (Melville, 1996). This strategy was used to avoid or limit "do not know" responses. This asymmetrical scale that has only one unfavourable descriptive term and four favourable terms was chosen to minimize and avoid errors (Cooper, 2001). The problem with this method and type of questionnaire is that it depends upon the assumption that a person can and will make good judgments (Emroy, 1991). On completion of the questionnaire the respondents were thanked and shown appreciation for

their participation.

The questions asked were based on the following factors: financial/reward, social, environmental and job security/development issues and the supervisory aspects of human resources management. These factors were mainly derived from the content model of motivation. This model is the conversion of Maslow's needs hierarchy theory (Luthans, 2002), (see figure 2.1). A person's needs constitute the main motivator that drives that person (Halepota, 2005).

The financial/reward questions in Subsection 1 of Section B on the questionnaire are based on matters like the physiological needs; wages and salaries. Subsection 2 deals with the related needs that stress the importance of interpersonal and social relationships. The questions in Subsection 3 relate to the physiological and safety needs of the workers. The questions in Subsection 4 are based on the esteem needs: the theory that implies that jobs with responsibility, advancement and growth will motivate personnel; the desire for personal development. Subsection 5 covers a mixture of esteem and self-actualization needs; positive feedback and challenging tasks that are stimulating to an individual. The general questions are a random mixture of all the needs.

The questionnaires were distributed randomly for completion by the participants and administered randomly by the researcher according to the availability of individuals.

3.6 Procedure

Permission was sought from the site agents to distribute questionnaires. After the permission had been given they were distributed to selected workers. The purpose of the study was explained to all participants, who were allowed to ask questions regarding the research before completing the questionnaires. Workers were assured that the information obtained would be treated as confidential and the results used for research purposes only.

3.7 Methods of Data Analysis

The participants were requested to rank an idea or a factor using an idea evaluation system, the star grading system (1 – 5). Five stars would imply a very high effect, four stars a high effect, three stars a moderate one, two stars a low effect, and one star no effect on the level of motivation.

The arithmetic average (mean) was applied to determine the mode (it is the measure of the central tendency that merely identifies the value that occurs

most often), of the data, using the following formula:

$$M = \frac{\sum_{s=1}^m \sum_{l=1}^n y_{is}}{n_y}$$

where:

s = series number

l = point number in series s

m = number of series for point y in chart

n = number of points in each series

y_{is} = data value of series s and the i th point

n_y = total number of data values in all series

M = arithmetic mean

Collected data was analyzed, using the numerical evaluation value analysis technique. This technique was developed by Mudge (2005 in Value analysis) and has become an important vehicle in managing divergent opinions, disciplines, paradigms and/or interests. The technique reveals the order of importance of the functions. It provides for impersonal assessment and can be used to establish basic and secondary functions conclusively (Huber, 2005).

3.8 Conclusion

The research was conducted on the construction sites. The participants were selected at random, and were not chosen because of their race, age, experience, gender, company, or superiority within the industry or work place. The results are therefore representative of all the characteristics of individuals working on the construction sites.

The participants were mostly from the construction sites around Gauteng Province. While research did not therefore cover all areas of South Africa, Gauteng province is considered to be the economic hub of South Africa and, therefore, most of the construction activities take place there. Most of the leading construction firms are based in Gauteng.

The response rate of more than seventy percent was high. The questionnaire was the tool most appropriate to this research, as the presence of the researcher was not required during its completion.

The next chapter will concentrate on the findings and the data analysis.

CHAPTER 4

RESULTS AND DISCUSSIONS

4.1 Background Information

The construction industry is male-dominated. The reason for this may be that work in the industry involves heavy physical exertion and traditionally heavy manual activity in the work environment has been reserved for men.

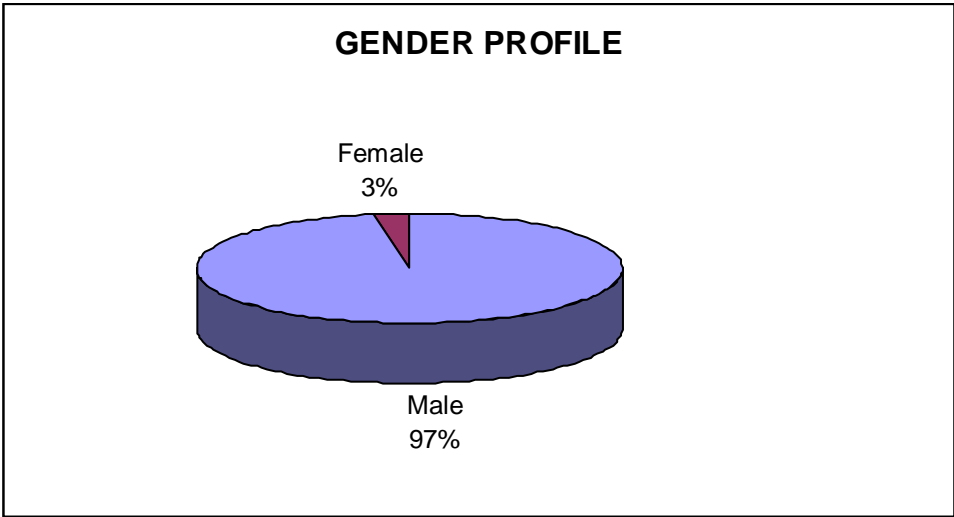
The construction workers who participated in this study were literate, which facilitated their understanding the questionnaires. The researcher, nevertheless, made a point of explaining every question on the questionnaire to each participant.

The questions asked did not require a face-to-face interview so respondents were not pressurised to complete questions in the presence of the researcher. The response rate to the questionnaire was 97.2%. Of 72 questionnaires distributed, only 2 were not returned.

Figure 4.1 below and Appendix A show that the male gender dominates the construction industry. Ninety-seven percent of the participants were male and

only three percent were female. This indicates that women are not commonly involved in construction work activities. Most people still view construction activities as reserved for men. Occasionally women join the industry, generally for employment reasons and not for career advancement.

Figure 4.1. The Gender Profile.



The majority of the workers' ages ranged between twenty and twenty-five years, and over forty years of age. This shows the age gap of the workers in the industry, partly caused by lack of human development and training. Figure 4.2 below and Appendix A illustrate that there were fewer workers between the ages of twenty five to forty years and more workers aged between twenty and twenty-five years and over forty years.

The building and construction industry experienced a depression in the late 90's, which led to many labour retrenchments. These unfavourable conditions resulted in the industry's not employing new workers then, with the result that there are fewer workers aged between twenty-five and forty. There are more foremen aged above forty and more technicians and labourers aged twenty to twenty-five.

The x-axis on the graph represents the frequency of the participants in a percentage format and the y-axis represents the ages of the participants.

Figure 4.2 The Ages of the Participants.

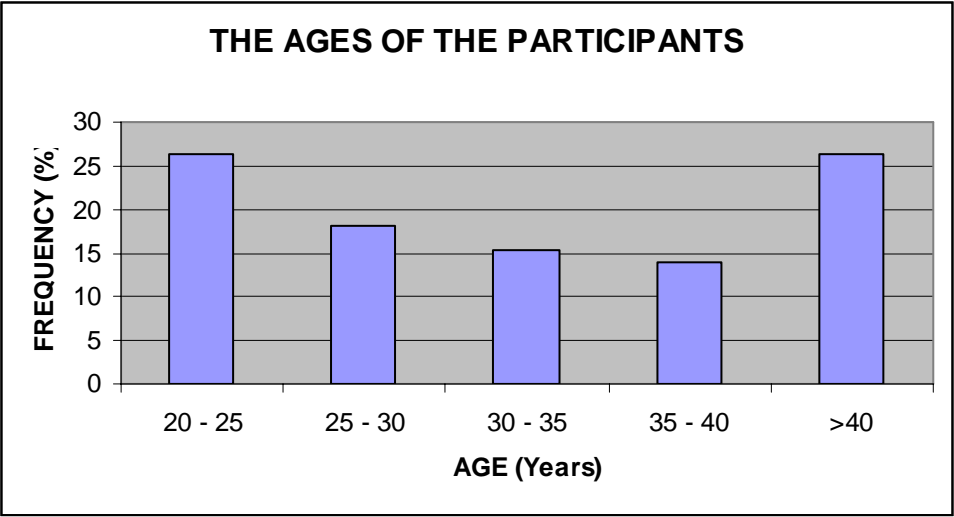


Figure 4.3 below and Appendix A show that fifty-two percent (the majority of the sample) of participants were married; the single workers followed, with forty-four percent and only four percent of the participants were divorced.

There is a strong belief among the workers that when one starts to work he must get married, as this will ensure that he will handle his earnings responsibly.

Figure 4.3 The marital status of the participants

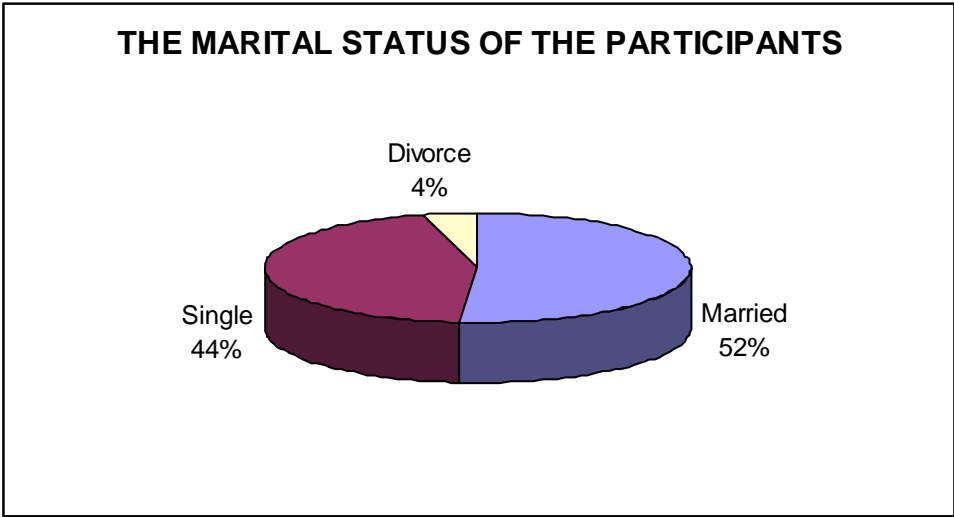
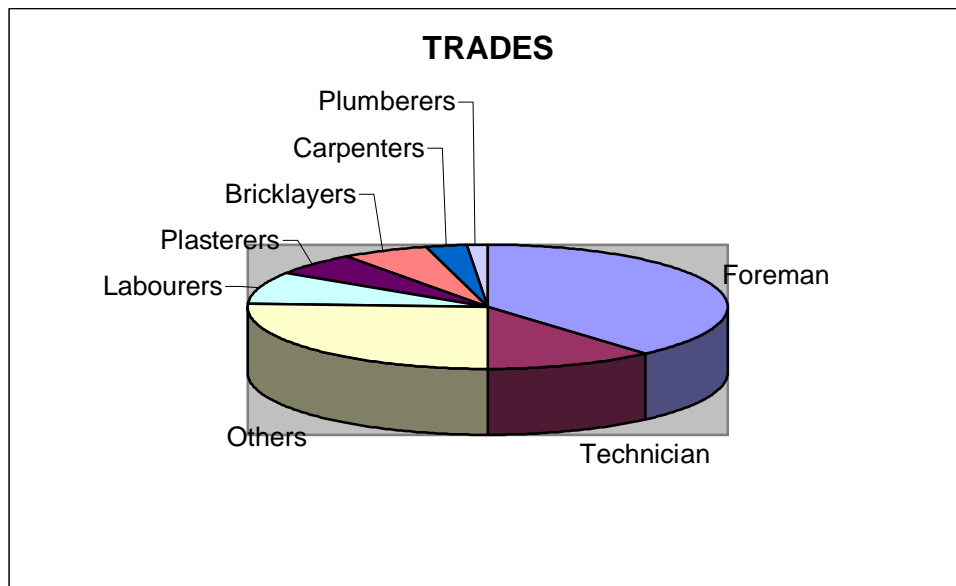


Figure 4.4 below and Appendix A illustrate the different trades represented in this research. A significant percentage in the foreman trade and less in the plumbing trade took part in this research. 'Others' represents the clerks, store men and safety officers. The plumbing trade participation was lower because this trade does not require many workers and the projects where this research was undertaken had not reached stages requiring much plumbing involvement.

The reason for the large percentage of foremen and 'others', as compared to the other trades, is that foremen and 'others' had time to complete the questionnaires. Workers in the other trades complained that they could not find time to complete the questionnaires. Foremen are mainly involved with the supervisory work on the construction sites and therefore can allocate time to paper work. Most of the artisans said they did not like pen and paper activities, considering them the duty of the clerks.

Figure 4.4 The Trades

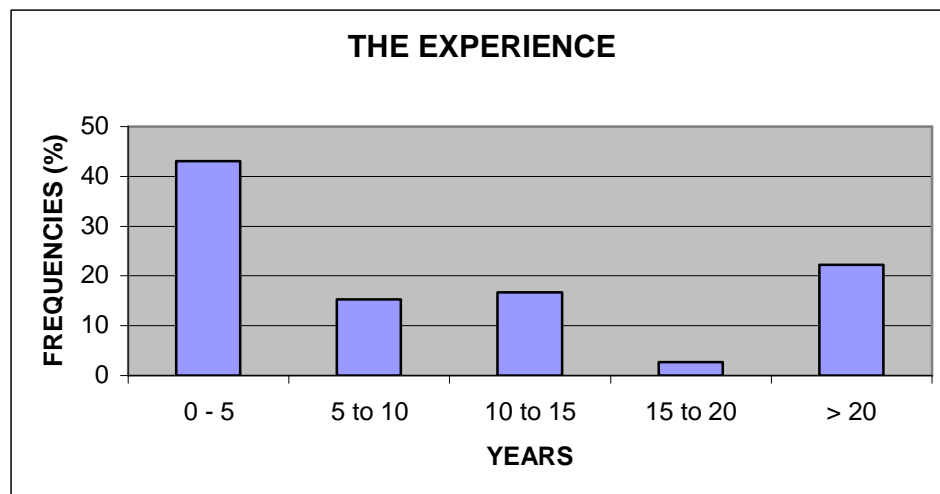


As mentioned in Chapter 1, there is a huge demand for skilled construction workers in South Africa. This leads recruitment departments or agencies within the organizations to focus mainly on the young, who can be developed and trained. This may be another reason why we see so many young workers (20 to 25 years).

Figure 4.5 below and Appendix A show the majority of the participants to be at the entry level of the industry, followed by those with over twenty years of experience, who are usually foremen. The workers with the experience of five to twenty years are fewer, owing to the slump that the construction industry experienced, as mentioned above. There are more young school leavers who are now entering the construction industry. More people are joining the construction industry now because of its expanded worker intake resulting from the boom in construction activities. The majority of people in this bracket are the labourers, technicians and 'others'.

The x-axis represents the ages and the y-axis, the frequencies of the participants who participated in the research.

Figure 4.5 The experience of the participants



4.2 Data Presentation

4.2.1 Financial rewards

There is an expectation that an individual should be rewarded for services rendered to others. In the working environment workers are paid salaries or wages for the work undertaken in a given period.

Table 4.1 below lists some of the financial benefits that the South African construction industry offers to its workers. The score column represents the frequency of the participants in relation to each factor in the left column. The results clearly show that most of the workers want timely payment, salary increases, bonuses, 13th cheques and payment by their organizations of their medical aid premiums. These are the basic and the high secondary factors of motivation that need to be considered when dealing with the financial matters affecting workers in the construction industry.

Table 4.1 The financial Rewards and Benefits

FINANCIAL REWARDS OR BENEFITS	SCORE	RANKING
A. Salary Increases	40	2
B. Overtime Salaries	28	6
C. Bonuses	34	3
D. Transport Allowances	28	8
E. Retirement Plan Packages	28	7
F. 13 th Cheques	32	4
G. Accommodation Allowances	27	10
H. Medical Aid Plan Benefit	30	5
I. No salary increases	25	11
J. Not getting annual bonus	27	9
K. If I do not get paid on time	44	1

In most of the organizations salaries are increased once every year, at a rate often determined by the inflation rate in the country.

Due to the nature of the industry, the workers are at times forced to work overtime. The overtime period worked is payable at a higher rate than the normal one. This is the cost that most of the organizations are trying to minimize, as overtime work does not necessarily guarantee higher production rates.

There are incentive packages that are offered to the employees at the end of a well-completed project or a good financial year. Some organizations offer

fixed rate bonuses, where workers are sure that they will receive a certain amount of money as bonus, regardless of the performance of the project in which they are involved. Other organizations look at the whole organization's financial results before deciding to give employees a bonus.

It has become a legal requirement in South Africa for an employee to be compensated by his/her employer for the loss of employment (Rycroft, 1990).

The construction industry requires movement of its workforce from one workplace to another, as they move from project to project in different places. The construction firms pay their workers accommodation allowances when they are working beyond certain radius from the organization's head office. These allowances then form part the workers' remuneration packages when they are engaged in projects away from the organizations' home bases.

Medical contributions/payments are paid to the medical aid service providers. Some organizations monthly pay a certain percentage equivalent to the workers' contributions. Other organizations pay each worker a lump sum instead, and it is up to the worker to seek the medical aid provider of his/her choice.

4.2.2 Social Factors

According to Maslow, an individual has a need to belong and be loved. This is mostly strongly felt in relation to family, but also affects the work environment. Unless employees feel they are an integral part of the organization, they will be frustrated by an unmet need to belong and will be unlikely to respond to higher-order opportunities or incentives (Stoner, 1992).

Table 4.2 below lists the social factors that the South African construction industry offers workers. The score column represents the frequency of the participants on each factor in the left column. Table 4.2 also indicates that the following factors are important to the workers in the construction industry: time to be with family, weekend off/holiday, family Christmas dinners offered by the company, site braais with the directors, and sports functions sponsored by the organization.

Table 4.2 The Social Benefit

SOCIAL BENEFITS	SCORE	RANKING
A. Site braais with directors	25	4
B. Lunch with supervisors	13	10
C. Site braais every weekend	15	9
D. Free drinks after hard day	15	8
E. Family site visits on weekends	18	7
F. Family Christmas dinners	27	3
G. Sports day or company sponsored sports events	22	5
H. Holiday/weekends off	28	2
I. Free tickets to stadiums/sports events	22	6
J. Given time to be with my family	31	1

It has become a tradition in the construction industry to have an occasional site braai (celebration on-site) after achievement of a particular goal (concreting a slab). The construction site management often invites the head office management/organisation's directors to celebrations of this nature.

The organisation/site management organises days where the families of the construction teams are allowed to visit the construction site to gain a sense of what their family members are involved in at a work place.

The organisation's clients and /or the suppliers sometimes offer the site team's tokens of appreciation, such as free tickets to sports events.

Each December, before their shut-down, most the organisations organise functions to which the workers are invited with their partners to celebrate the end of the year.

4.2.3 Environmental Factors

An obvious conclusion of Maslow's theory is that employees need sufficient wages to feed, shelter and protect them and their families satisfactorily, as well as a safe working environment, before managers try to offer motivational

incentives designed to provide them with self-esteem, feelings of belonging or growth opportunities (Stoner, 1992).

Table 4.3 below lists the environmental factors that South African construction industries offer their workers. The score column represents the frequency of the participants on each factor in the left column. Table 4.3 also demonstrates the variety of the social factors on the construction site. It is also demonstrated that clean toilets on site, protective/safety clothing, company transport to and from work, on-site housekeeping, the presence of permanently employed on-site safety officers, the security of the site, and the medical facilities near site, are the important factors to the workers on a construction site.

The workers are often allowed to have temporary accommodation on-site. This helps when there is a project overrun, and overtime work is required.

Industrial legislation requires the employer to provide workers with proper sanitation facilities. It is also the responsibility of the employer to maintain these facilities in a clean and healthy state at all times and properly clean and safe working areas are recommended / required.

Table 4.3 The Environmental and Health Factors.

ENVIRONMENTAL OR HEALTH FACTORS	SCORE	RANKING
A. Clean toilets on site	39	1
B. Housekeeping/clean site	34	4
C. Working during the day under daylight	24	9
D. Working at night under electrical lighting	12	
E. Protective/Safety clothing (overalls, etc.)	38	2
F. Site security	32	6
G. Company transport to and from work	35	3
H. Food or Catering provided on site	18	13
I. No overtime work (work only 8 hours)	16	14
J. Safety officer permanent on site	33	5
K. Shops or Town close to site	21	11
L. Medical facility around site	28	7
M. If I do not get safe equipments and safe clothing	22	10
N. Unsafe working environment	25	8
O. No medical benefit	19	12
P. Long hour of work	15	15

There are times when the workers are working at night under the artificial lighting which often limits their vision to their operational environments.

Construction sites are made secure from the public environment by erection of fencing/hoarding around the site boundaries to protect the workers, public and materials/equipments from criminal elements. The Occupational Health and Safety regulations stipulate that a person responsible for safety matters related to the construction activities must be employed on-site. It is also a

requirement that the first aid facilities be available on site in case work-related injuries occur.

Organisations provide catering facilities to their workers when they are working overtime and when they are working in the countryside, where infrastructure is very poor.

4.2.4 Job Security/Developmental Factors

The security needs include job security, freedom from coercion or arbitrary treatment, and clearly defined regulations (Stoner, 1992). People want to be good at what they are doing and they want to be trained and developed to be better individuals at work and in society.

Table 4.4 below lists the security and developmental factors that the South African construction industry offers workers. The score column represents the frequency of the participants on each factor on the left column. Table 4.4 also shows the variations of the workers' responses about these motivational factors. The workers appreciate provision of: permanent employment contracts, on-time payment, promotions, opportunities to supervise others, and in-house staff training when these are provided.

In South Africa the unemployment rate is high and many people are desperate for employment. When an individual is promoted to a higher level he/she feels satisfied and secure, as this leads to better financial packages and secure employment. Other workers want to be promoted so that they can control or supervise their colleagues.

Table 4.4 The Security/Development and Growth Factors.

SECURITY / DEVELOPMENT AND GROWTH FACTORS	SCORE	RANKING
A. Having a permanent employment contract	54	1
B. Short-term or renewable contract	16	10
C. Promotion	40	3
D. Supervising others	35	4
E. In-house training	34	5
F. Belonging to a worker's union	14	11
G. Payments/salaries paid on time	44	2
H. If the company does not get more jobs or projects anymore	28	7
I. If the company starts to retrench its employees but not me	18	9
J. No retirement plan	21	8
K. No contract of employment	29	6

The organisations have a social responsibility to train their workers. Most do this on the jobs while others send them to universities and colleges to further their studies or specialise in areas that will benefit the organisations. This, at times, improves the efficiency and the effectiveness of the workers at work.

A number of organisations that represent the workers' interests in the work place have been formed. Many workers have joined these trade unions

hoping to get better representation and working conditions in the work environment.

4.2.5 Supervision

To meet Maslow's esteem needs, management can provide challenging work assignments, performance feedback, performance recognition and personal encouragement, and involve subordinates in goal-setting and decision-making (Stoner, 1992).

Table 4.5 presents the management factors rated by the participants according to how these affect them. Supervision factors that the South African construction industry offers to their workers are also listed. The score column represents the frequency of the participants on each factor in the left column. Table 5 also illustrates the following factors as basic and high secondary factors for the workers; meeting with my boss to discuss my work or performance, recognition by supervisor, given target/program for my task, feedback on my performance, given complex and challenging work, equal treatment at work by our seniors, and discrimination by race.

Table 4.5 Supervision or Management Factors.

SUPERVISION OR MANAGEMENT	SCORE	RANKING
A. Recognized by my supervisor	41	2
B. Hand shake or greeting by my manager	28	8
C. Gifts or presents from my boss	18	16
D. Meetings with my boss to discuss my work/performance	42	1
E. Given target/program for my task	40	3
F. Equal treatment at work by our senior	34	6
G. Feedback on my performance or work and company performance	37	4
H. Directions or guidance from my supervisor	26	11
I. Given easy work	9	21
J. Given complex and challenging work	36	5
K. If I find out that my friend earns more money than myself	11	20
L. If my wife or girlfriend can earn more than me	7	24
M. If I can find out that my colleague is getting paid more than me and We are doing the same job and I am clever than he is	24	12
N. Unfair treatment by my supervisor	27	9
O. Discrimination by race	30	7
P. Discrimination by gender	20	13
Q. If a new employee get promoted to be my supervisor	20	14
R. No update of the company's performance	14	19
S. If someone senior in the company resigns	8	23
T. If my supervisor resigns	9	22
U. Having problems with my supervisor	27	10
V. If my director never greets me or talks to us employees when he passes	17	17
W. Always when my supervisor picks on me	16	18
X. If the supervisor does not accept my idea on how to do the job	18	15

4.3 Summary of findings

The responses to the questionnaires show that the workers are motivated not only by one factor, but by various factors of motivation. It is unfortunate that managers still fail to understand the importance of motivation and the need to create a motivating environment in a work place (SA Builder, 1998).

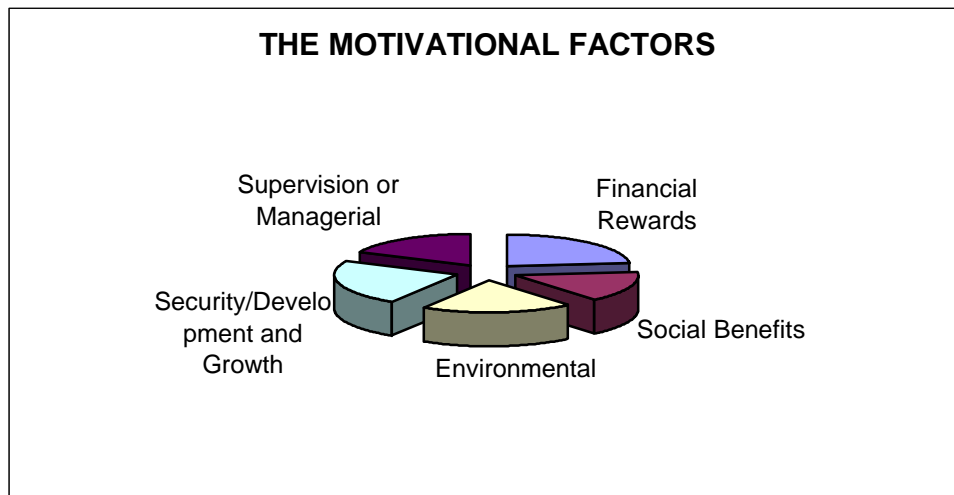
Table 4.6 and appendix B present the overall results of the research. Table 4.6 also demonstrates that financial rewards and the security/development and growth factors are the basic motivational factors for the workers, while environmental, supervisory or managerial issues and then, social benefits, are secondary factors.

Table 4.6 Overall Results.

Factors	Mean
Financial rewards	43
Social benefits	29
Environmental	37
Security/development and growth	43
Supervision or managerial	33

Consideration of financial rewards and the security/development and growth factors as the basic functions of motivation of the workers is therefore very important.

Figure 4.6 The Motivational Factors



As outlined in the literature review, money plays a major role in motivating any worker in any industry. There is a perception among society in general that the harder one works the more money he must make. The payment structures in the South African construction industry support this perception in the sense that the workers' wages/compensation is variable according to the time spent working. They are paid an hourly rate. Bonuses are paid to the workers if projects are finished on time and have made a profit.

Appendix B presents the factors as rated by the Numerical Evaluation method.

Owing to the high unemployment rate and the cost of living in South Africa people feel more secure and motivated if they are employed on permanent terms. They also want to see themselves growing in their career paths: development in the workplace enhances one's performance. The growth and development needs correspond to the esteem needs and the self-actualization needs in Maslow's theory (Griffin, 1993).

Construction work is very risky as far as health and safety are concerned. A number of fatalities are reported annually, resulting from accidents that occur on construction sites. Most construction workers are likely to be exposed, or have been exposed, to the dangers of contracting tropical diseases. HIV/AIDS is another of the major causes of the deaths of construction workers in South Africa. Therefore, the workers were also motivated by environmental and health factors.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Discussion of the findings

The study revealed that financial rewards are the basic factors of motivation. This is in line with Adam Smith's theory (Griffin 1993), which assumes that workers are motivated by self-interest for economic gain to provide the necessities and conveniences of life. This implies that financial and economic incentives to work are the most important considerations in understanding human behaviour in the workplace.

It was also found that workers need to feel that they are developing or growing in their careers; that they are achieving something that adds value to themselves as individuals so that they can develop to their fullest potential. Development and growth needs were found to be the basic motivational factors. This finding is in line with Maslow's self-actualization needs relating to the individual's desire to gain self-esteem through developing to his fullest potential (Robbins, 1998).

The study shows that the workers wanted to contribute positively to the management process in their workplace in the running of their daily activities. This finding is supported by the human resource approach, which assumes that workers want to participate in the management of the work and that managers must encourage participation and create a work environment that makes full use of the human resources available (Robbins, 1998). The finding is, however, in opposition to Theory X, which regards workers as being inherently lazy, requiring coercion and control, avoiding responsibilities and only seeking security (Griffin, 1993).

It was found that environmental factors were not the basic factors of motivation for the construction workers. This finding disagrees with Maslow's physiological needs and Clayton Alderfer's existence needs, which assume that the fundamental biological drives; such as needs for food, water, air and shelter, need to be satisfied or are basic in the work environment (Griffin, 1993).

Social factors were likewise not found to be basic factors of motivation for the construction workers on a construction site. This conflicts with the human relations approach, which assumes that workers have strong social needs, and these needs are more important than money in motivating the workers (Robbins, 1998).

5.2 Conclusions

Understanding of the needs and expectations of construction workers is a basic requirement for their motivation. Construction industry management would benefit from having a clear knowledge and understanding of motivational theories.

The traditional approach applies to construction workers. Construction workers are motivated by their remuneration. Construction management must ensure that the workers understand the meaning of the payments made to them. Incentive bonuses should be understood as resulting from effort invested in work.

The construction workers work as teams, and therefore their social needs, as outlined by Maslow's hierarchy of needs, are to a large degree covered but family is another important unit that should not be forgotten when considering the social needs of the construction workers.

More people are being educated and are becoming aware of various methods of operating efficiently and effectively in their workplaces. Construction workers want to contribute to the growth and development of their organisations. The human resources approach is more applicable in

construction industry than ever before. Training and development of the workers must be improved. The Cussin's Approach might have worked before, but it has no chance in the present and the future. Construction management would benefit the industry by wisely applying Maslow's theories in motivating their workers.

5.2.1 Financial Rewards

Today's workers tend to expect their work to be at least somewhat meaningful and rewarding. The average worker needs to earn money to survive; therefore, offering financial incentives would help to elevate the morale of the workers. The more money a man/worker is paid, the more he or she produces in the work place. The productivity of workers was found to be directly related to the financial benefits that they received, although the human relation approach emphasizes the need for social acceptance over financial matters.

To reward the workers, management must instil a sense of responsibility, making them feel obliged to work harder to compensate the incentives they receive from the organization. The rewards also serves as an advertisement for the company, good skilled workers get attracted to be loyal to the company.

5.2.2 Development and Growth Factors

Construction activities are becoming more complex. Conditions have changed from the past, when the building process merely involved procedures such as setting-out, excavating for foundations, pouring concrete and laying bricks. Construction is now an involved process. Workers are aware of these developments and want to improve on their skills, to their work more efficiently and effectively. To attract and keep good people, it will become necessary to create an atmosphere of learning and growth. Managers need to be able to teach, guide, direct and lead at the same time. The work environment must be such that the workers feel that they are growing, secure, guided, taught and directed on how to achieve set goals. Having a clear career development strategy will become increasingly important.

5.2.3 Environmental and Health Factors

Construction work involves outdoor activity and workers travel around to work on different projects tendered by their companies, thereby being exposed to many health dangers; from sicknesses to accidents. It is very important to cultivate the culture of safety within the construction industry.

5.2.4 Site Management

People want to be led to achieve desired goals: both, self-goals and organizational goals. Therefore, if managers understand how human behaviour operates, they will find it easier to direct and control their workers, to the benefit of those employees and the organization.

5.2.5 The Social Factors

As social beings, workers also want to belong somewhere in society, to interact with people and feel loved and accepted. Interaction of the workers with the people both within the organization and outside it is necessary. Maslow's theory of motivation is still applicable in the construction industry.

5.3 Recommendations

Given below are recommendations to assist senior management within the South African construction industry, who are responsible for project/site management and need to keep the level of motivation high among the workers and to ensure high productivity in the industry. Management need to motivate workers, direct their efforts, control their actions, and modify their behaviour to fit an organisation's needs. They may have to carry out a preliminary study of the factors of motivation that are likely to improve the performance of the employees or discourage them (the strengths and

weaknesses of the organization as an employer), before they implement any strategy to motivate their workers:

5.3.1 Financial rewards

The reward structure must be such that it is in accordance with the workers' efforts or the nature of the work given to them. Management must, therefore, establish a sound system capable of measuring the extent to which daily production targets are reached. The bonuses paid to the workers should be related to their effort or the nature of the work given to them. However, management needs to avoid creating a climate where the bonus is regarded by the workers as an entitlement, as this would then become a de-motivator. The rule should be to continually change the bonus and give it occasionally and by surprise.

The organization must review the workers' salaries on a periodic basis. It can be done annually, at a rate determined by the economic performance (inflation rate) of the country of operations. The packages should include medical aid plans and payments must be made on time in accordance with the employment contracts.

5.3.2 Security and development

As well as the financial rewards, employment security and career development in the company motivate the workers. Training and development of workers should be continuous because workers need the knowledge and skill required to perform a job satisfactorily.

The alternative options should be considered, to help deserving workers employed on temporary contracts to get employment on other projects, in order to ensure their continuous employment.

The organizations need to formulate career development programs that will help in evaluating the workers' progress and performance continuously. Highly skilled workers should be partnered with young unskilled workers, to ensure the transfer of skills.

5.3.3 Management factors

Management systems which communicate with and involve all levels of the organization, from managing director to labourer, would be beneficial if introduced. If people are involved in the management of their work progress, they tend to feel more important than if they feel taken for granted. Each man will know that if his output slackens, the whole group's or project's record will suffer. This strategy is supported by the human resources approach.

Management must encourage workers to elect team representatives. The workers' efforts must be recognized and good efforts awarded accordingly. The management should regularly hold progress meetings with key team members to discuss the program of the project. The workers should also be informed of the performance of the project and periodic reports should be communicated to the workers about their progress. Management should set standards of performance and train their employees so that they will be able to meet required standards.

The workers should be assigned the tasks that are in accordance with their trades or qualifications. They should also be given complex and challenging assignments rather than mere routine and very easy tasks. They must also be treated fairly and equally. The organization's codes of conduct and policies must be made available to them.

5.3.4 Environmental factors

The authorities must enforce a culture of health and safety. The safety and quality plans and procedures should be part of the tendering requirements. It is recommended that incentive system (including certificates of recognition) be used and awards given to those teams or individuals who work safely.

Government officials must be invited to help the construction officials in interpreting the standards set by the Occupational Health and Safety Act.

This would help to reduce accidents and injuries in the construction industry, and safety, quality and productivity are directly related. Payments and certificates must not be given until the parties to the contract or the project adhere to the health, safety and quality requirements.

To maintain cleanliness a cleaning team should be formed to clean the on-site toilets and the site in general.

The appointed safety officer must be encouraged to be on-site at all times when the workers are at work and to ensure on-site adherence to safety standards. The safety officer must be entitled to stop the work if unhappy about safety on the job.

The site must be secure at all times. There are security companies that offer services, with trained security personnel, at competitive rates. These services can be rendered twenty-four hours seven days.

5.3.5 Social factors

The organizations must encourage their workers to be with their families by granting them leave days and holiday/weekend-offs when these are due to them. Before the workers are transferred to new jobs they could be allowed to rest for a day or two as a possible reward for effort expended on a well-completed project.

The organisations would do well to organise Christmas dinners and sports functions to which the family members of the workers are invited. The site employees could form sports teams to compete against each other. The management could possibly also form their own teams to compete against the workers on these occasions. The construction site managers could also organize site celebrations or braais and invite senior management or directors to take part. This would ensure interaction at an informal level, of workers and management and, at the same time, enable them to get to know each other.

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APPENDIX A

BIOGRAPHICAL INFORMATION: A1

	FREQUENCY	PERCENT	TECHNICIAN	FOREMEN	OTHER	LABOURER
AGE (YEARS)						
20 - 25	19	26.4	38	19	33	67
25 - 30	13	18.1	38	11	22	
30 - 35	11	15.3		22	22	
35 - 40	10	13.9	13	15	6	
> 40	19	26.4	13	37	17	33
GENDER						
FEMALE	2	2.9			6	17
MALE	70	97.1	100	100	94	83
MARITAL STATUS			TECHNICIAN	FOREMEN	OTHER	LABOURER
MARRIED	37	51.4	25	63	39	17
SINGLE	32	44.4	75	33	61	67
DIVORCED	3	4.2		7		17
EXPERIENCE(YEARS)			TECHNICIAN	FOREMEN	OTHER	LABOURER
0 to 5	31	43.1	87	26	61	100
5 to 10	11	15.3		15	17	
10 to 15	12	16.7		22	6	
15 to 20	2	2.7		4		
> 20	16	22.2	13	37	17	

BIOGRAPHICAL INFORMATION: A2

	FREQUENCY	PERCENT	PLASTERER	BRICKLAYER	CARPENTER	PLUMBERER
AGE (YEARS)						
20 - 25	19	26.4			50	50
25 - 30	13	18.1	50	20	50	
30 - 35	11	15.3				50
35 - 40	10	13.9		80		
> 40	19	26.4	50			
GENDER						
FEMALE	2	2.9				
MALE	70	97.1	100	100	100	100
MARITAL STATUS			PLASTERER	BRICKLAYER	CARPENTER	PLUMBERER
MARRIED	37	51.4	50	100		50
SINGLE	32	44.4	50		100	50
DIVORCED	3	4.2				
EXPERIENCE(YEARS)			PLASTERER	BRICKLAYER	CARPENTER	PLUMBERER
0 to 5	31	43.1	25		50	50
5 to 10	11	15.3	25	40		
10 to 15	12	16.7	25	60	50	50
15 to 20	2	2.7	25			
> 20	16	22.2				

APPENDIX B

OVERALL RESULTS

FACTORS	FREQUENCIES					PERCENTAGES				
	1	2	3	4	5	1	2	3	4	5
FINANCIAL REWARDS OR BENEFITS										
1. Salary Increase	0	6	6	18	40	0	8.6	9	25	57
2. Overtime Salary	4	4	17	18	28	5.7	5.7	24.3	24	40
3. Bonuses	1	6	6	18	34	1	6	6	23	34
4. Transport Allowance	4	7	16	18	28	5.7	10	22.9	21	40
5. Retirement Plan Package	6	9	15	18	28	8.6	13	21.4	17	40
6. 13 th Checque	7	3	16	18	32	10	4.3	22.9	17	46
7. Accomodation Allowance	8	8	15	18	27	11.4	11	21	17	39
8. Medical Aid Plan Benefit	5	3	15	18	30	7	4	21	24	42
9. No salary increase	13	17	4	18	25	18.6	24	5.7	16	36
10. Not getting annual bonus	10	16	5	18	27	14	23	7	17	39
11. If I do not get paid on time	4	4	5	18	44	5.7	6	7	19	63
AVERAGE	5.6	7.5	10.9	18	31.2	7.97	11	15.3	20	43

FACTORS

FREQUENCIES

PERCENTAGES

1 2 3 4 5

1 2 3 4 5

SOCIAL BENEFITS

12. Site braais with directors	10	12	18	5	25	14	17	26	7	36
13. Lunch with Supervisors	11	9	26	10	13	16	13	37	14	19
14. Site braais every weekend	14	12	20	9	15	20	17	29	13	21
15. Free drinks after hard day	13	13	17	12	15	19	19	24	17	21
16. Family site visits on weekends	17	9	13	13	18	24	13	19	19	26
17. Family christmas dinners	10	4	8	21	27	14	6	11	30	39
18. Sportsday or Company sponsored sports events	7	7	15	19	22	10	10	21	27	31
19. Holiday/Weekend offs	2	5	21	14	28	3	7	30	20	20
20. Free tickets to stadiums/sports events	14	4	15	15	22	20	6	21	21	31
21. Given time to be with my family	10	4	13	12	31	14	6	19	17	44
AVERAGE	11	7.9	16.6	13	21.6	15.4	11	23.7	19	29

FACTORS

FREQUENCIES

PERCENTAGES

1 2 3 4 5

1 2 3 4 5

ENVIRONMENTAL OR HEALTH FACTORS

	1	2	3	4	5	1	2	3	4	5
22. Clean toilets on site	2	6	3	20	39	3	9	4	29	56
23. House keeping/clean site	1	8	8	19	34	1	11	11	27	49
24. Working during the day under daylight	6	6	17	17	24	9	9	24	24	34
25. Working at night under electrical lighting	12	12	22	12	12	17	17	31	17	17
26. Protective/Safety clothing (overalls, etc.)	3	9	9	11	38	4	13	13	16	54
27. Site security	3	6	11	18	32	4	9	16	26	46
28. Company transport to and from work	6	5	7	17	35	9	7	10	24	50
29. Food or Catering provided on site	12	7	16	17	18	17	10	23	24	26
30. No overtime work (work only 8 hours)	14	13	15	12	16	20	19	21	17	23
31. Safety officer permanent on site	6	4	13	14	33	9	6	19	20	47
32. Shops or Town close to site	8	5	14	22	21	11	7	20	31	30
33. Medical facility around site	7	1	10	24	28	10	1	14	34	40
34. If I do not get safe equipments and safe clothing	9	15	10	14	22	13	21	14	20	31
35. Unsafe working environment	11	13	7	14	25	16	19	10	20	36
36. No medical benefit	9	19	12	11	19	13	27	17	16	27
36. Long hour of work	7	21	18	9	15	10	30	26	13	21
AVERAGE	7.3	9.4	12	16	25.7	10.4	13	17.1	22	37

FACTORS

FREQUENCIES

PERCENTAGES

1 2 3 4 5

1 2 3 4 5

SECURITY / DEVELOPMENT AND GROWTH FACTORS

	1	2	3	4	5	1	2	3	4	5
37. Having permanent employment contract	1	1	6	8	54	1	1	9	11	77
38. Short term or renewable contract	12	19	7	16	16	17	27	10	23	23
39. Promotion	3	4	8	15	40	4	6	11	21	57
40. Supervising others	4	4	13	14	35	6	6	19	20	50
41. Inhouse training	2	5	11	18	34	3	7	16	26	49
42. Belonging to a worker's union	18	8	20	10	14	26	11	29	14	20
43. Payments/Salaries made on time	4	4	5	13	44	6	6	7	19	63
44. If the company does not get more jobs or projects anymore	9	13	9	11	28	13	19	13	16	40
45. If the company start to retrench its employees but not me	9	20	11	12	18	13	29	16	17	26
46. No retirement plan	9	19	10	11	21	13	27	14	16	30
47. No contract of employment	8	12	6	15	29	11	17	9	21	41
AVERAGE	7.2	9.9	9.64	13	30.3	10.3	14	13.9	19	43

FACTORS

FREQUENCIES

PERCENTAGES

1

2

3

4

5

1

2

3

4

5

SUPERVISION OR MANAGEMENT

48. Recognised by my supervisor	2	5	6	16	41	3	7	9	23	59
49. Hand shake or greeting by my manager	10	5	9	18	28	14	7	13	26	40
50. Gifts or presents from my boss	20	10	11	11	18	29	14	16	16	26
51. Meetings with my boss to discuss my work/performance	3	5	8	12	42	4	7	11	17	60
52. Given target/program for my task	4	1	9	16	40	6	1	13	23	57
53. Equal treatment at work by our senior	1	3	6	26	34	1	4	9	37	49
54. Feedback on my performance or work and company performance	1	3	7	22	37	1	4	10	31	53
55. Directions or guidance from my supervisor	5	1	12	26	26	7	1	17	37	37
56. Given easy work	27	15	13	6	9	39	21	19	9	37
57. Given complex and challenging work	6	7	7	14	36	9	10	10	20	37
58. If I find out that my friend earns more money than myself	20	9	22	7	11	29	13	31	10	37
59. If my wife or girlfriend can earn more than me	29	13	17	4	7	41	19	24	6	37
60. If I can find out that my colleague is getting paid more than me and we doing the same job and I am clever than him	15	16	12	3	24	21	23	17	4	37
61. Unfair treatment by my supervisor	6	17	8	12	27	9	24	11	17	39
62. Discrimination by race	14	16	5	5	30	20	23	7	7	43
AVERAGE	11	8.4	10.1	13	27.3	15.5	12	14.5	19	43

FACTORS

FREQUENCIES

PERCENTAGES

1 2 3 4 5 1 2 3 4 5

SUPERVISION OR MANAGEMENT

63. Discrimination by gender	9	21	10	10	20	13	30	14	14	29
64. If a new employee get promoted to be my supervisor	15	12	14	9	20	21	17	20	13	29
65. No update of the company's performance	6	18	20	12	14	9	26	29	17	20
66. If someone senior in the company resigns	25	9	16	12	8	36	13	23	17	11
67. If my supervisor resigns	23	11	19	8	9	33	16	27	11	13
68. Having problems with my supervisor	10	15	8	10	27	14	21	11	14	39
69. If my director never greets me or talk to us employees when he passes	16	16	6	15	17	23	23	9	21	24
70. Always when my supervisor picks on me	10	18	9	17	16	14	26	13	24	23
71. If the supervisor does not take my idea on how to do the job	10	18	12	12	18	14	26	17	17	26
AVERAGE	11	11	10.7	12	22.7	16.4	15	15.3	17	35

APPENDIX B

FINANCIAL REWARDS OR ENEFITS	SCORE	RANKING	EVALUATION
1. Salary Increase	40	2	High secondary
2. Overtime Salary	28	6	
3. Bonuses	34	3	High secondary
4. Transport Allowance	28	8	
5. Retirement Plan Package	28	7	
6. 13 th hecque	32	4	High secondary
7. Accomodation Allowance	27	10	
8. Medical Aid Plan Benefit	30	5	High secondary
9. No salary increase	25	11	
10. Not getting annual bonus	27	9	
11. If I do not get paid on time	44	1	Basic

SOCIAL BENEFITS	SCORE	RANKING	EVALUATION
12. Site braais with directors	25	4	High secondary
13. Lunch with Supervisors	13	10	
14. Site braais every weekend	15	9	
15. Free drinks after hard day	15	8	
16. Family site visits on weekends	18	7	
17. Family christmas dinners	27	3	High secondary
18. Sportsday or Company sponsored sports events	22	5	High secondary
19. Holiday/Weekend offs	28	2	High secondary
20. Free tickets to stadiums/sports events	22	6	High secondary
21. Given time to be with my family	31	1	Basic

ENVIRONMENTAL OR HEALTH FACTORS	SCORE	RANKING	EVALUATION
22. Clean toilets on site	39	1	Basic
23. House keeping/clean site	34	4	High secondary
24. Working during the day under daylight	24	9	
25. Working at night under electrical lighting	12		
26. Protective/Safety clothing (overalls, etc.)	38	2	High secondary
27. Site security	32	6	High secondary
28. Company transport to and from work	35	3	High secondary
29. Food or Catering provided on site	18	13	
30. No overtime work (work only 8 hours)	16	14	
31. Safety officer permanent on site	33	5	High secondary
32. Shops or Town close to site	21	11	
33. Medical facility around site	28	7	High secondary
34. If I do not get safe equipments and safe clothing	22	10	
35. Unsafe working environment	25	8	
36. No medical benefit	19	12	
36. Long hour of work	15	15	

SECURITY / DEVELOPMENT AND GROWTH FACTORS	SCORE	RANKING	EVALUATION
37. Having permanent employment contract	54	1	Basic
38. Short term or renewable contract	16	10	
39. Promotion	40	3	High secondary
40. Supervising others	35	4	High secondary
41. Inhouse training	34	5	High secondary
42. Belonging to a worker's union	14	11	
43. Payments/Salaries made on time	44	2	High secondary
44. If the company does not get more jobs or projects anymore	28	7	
45. If the company start to retrench its employees but not me	18	9	
46. No retirement plan	21	8	
47. No contract of employment	29	6	

SUPERVISION OR MANAGEMENT	SCORE	RANKING	EVALUATION
48. Recognised by my supervisor	41	2	High secondary
49. Hand shake or greeting by my manager	28	8	High secondary
50. Gifts or presents from my boss	18	16	
51. Meetings with my boss to discuss my work/performance	42	1	Basic
52. Given target/program for my task	40	3	High secondary
53. Equal treatment at work by our senior	34	6	High secondary
54. Feedback on my performance or work and company performance	37	4	High secondary
55. Directions or guidance from my supervisor	26	11	High secondary
56. Given easy work	9	21	
57. Given complex and challenging work	36	5	High secondary
58. If I find out that my friend earns more money than myself	11	20	
59. If my wife or girlfriend can earn more than me	7	24	
60. If I can find out that my coleague is getting paid more than me and we doing the same job and I am clever than him	24	12	High secondary
61. Unfair treatment by my supervisor	27	9	High secondary
62. Discrimination by race	30	7	High secondary
63. Discrimination by gender	20	13	
64. If a new employee get promoted to be my supervisor	20	14	
65. No update of the company's performance	14	19	
66. If someone senior in the company resigns	8	23	
67. If my supervisor resigns	9	22	
68. Having problems with my supervisor	27	10	High secondary
69. If my director never greets me or talk to us employees when he passes	17	17	
70. Always when my supervisor picks on me	16	18	
71. If the supervisor does not take my idea on how to do the job	18	15	

APPENDIX C

QUESTIONNAIRE

THE FACTORS OF MOTIVATION THAT AFFECT WORKERS' PRODUCTIVITY ON A CONSTRUCTION SITE.

SECTION A: BACKGROUND INFORMATION

Please place a cross (X) in an appropriate box.

1. What is your age?

a. 20 - 25 yrs

b. 25 - 30 yrs

c. 30 - 35 yrs

d. 35 - 40 yrs

e. > 40 yrs

2. Gender: Female Male

3. Marital Status.

a. Married

b. Single

c. Divorced

d. Other (Specify): _____

4. Trade in your Company:

a. Foreman

b. Technician

- c. Plasterer
- d. Bricklayer
- e. Plumberer
- f. Carpenter
- g. Labourer
- h. Other (Specify): _____

5. How long have you been in the construction industry?

- a. 0 - 5yrs
- b. 5 - 10yrs
- c. 10 - 15yrs
- d. 15 - 20yrs
- e. >20yrs

6. Language spoken at home:

- a. Sotho
- b. Venda
- c. Shangaan
- d. Zulu
- e. Xhosa
- f. English
- g. Afrikaans
- h. Other (Specify): _____

SECTION B: FACTORS OF MOTIVATION.

Please cross (X) on the appropriate answer.

*Level of Motivation: 5 - Very High (VH); 4 - High (H); 3 - Moderate (M); 2 - Low (L)
1 - No Effect (NE).*

1. Financial/Reward benefits.

How does the following affect your productivity?

	NI	L	M	H	VH
	1	2	3	4	5
a. Salary Increase:					
b. Overtime Salary:					
c. Bonuses:					
d. Transport Allowance:					
e. Retirement Plan Package:					
f. 13 th Cheque:					
g. Accomodation Allowance:					
h. Medical Aid Plan Benefit					

I. Other (Specify): _____

2. Social actors.

Please cross (X) on the appropriate answer.

*Level of Motivation: 5 - Very High (VH); 4 - High (H); 3 - Moderate (M); 2 - Low (L)
1 - No Effect (NE).*

How does the following affect your productivity?

	NI	L	M	H	VH
	1	2	3	4	5
a. Site braais with directors:					
b. Lunch with superiors:					
c. Site braais every weekend:					
d. Free drinks after a hard day:					
e. Family site visits on weekends:					
f. Family Christmas dinners:					
g. Sportsday or Company-sponsored sports events:					
h. Holiday/Weekend offs:					
i. Free tickets to stadiums/sports events:					

j. Other (Specify): _____

3. Environmental aspect.

Please cross (X) on the appropriate answer.

*Level of Motivation: 5 - Very High (VH); 4 - High (H); 3 - Moderate (M); 2 - Low (L)
1 - No Effect (NE).*

How does the following affect your productivity?

	NI	L	M	H	VH
	1	2	3	4	5
a. Accomodation for workers on site:					
b. Clean toilets:					
c. Housekeeping/clean site:					
d. Working during the day in daylight:					
e. Working at night under electrical lighting:					
f. Protective/safety clothing (overall, etc):					
g. Site security:					
h. Company transport to and from work:					
l. Food or catering provided on site:					
j. No overtime work (work only 8 hours):					
k. Safety officer permanently on site:					
l. Shops or town close to site:					
m. Medical facility around site:					

n. Other (Specify): _____

4. Job Security/Development

Please cross (X) on the appropriate answer.

*Level of Motivation: 5 - Very High (VH); 4 - High (H); 3 - Moderate (M); 2 - Low (L)
1 - No Effect (NE).*

How does the following affect your productivity?

	NI	L	M	H	VH
	1	2	3	4	5
a. Having permanent employment contract with my employer:					
b. Short-term or renewable:					
c. Promotion:					
d. Supervising others:					
e. Belonging to a worker's union:					
f. Inhouse training:					
g. Payments/salaries paid on time:					
h. Retirement plan provision:					

i. Other (Specify): _____

5. Supervision.

Please cross (X) on the appropriate answer.

*Level of Motivation: 5 - Very High (VH); 4 - High (H); 3 - Moderate (M); 2 - Low (L)
1 - No Effect (NE).*

How does the following affect your productivity?

	NI	L	M	H	VH
	1	2	3	4	5
a. Recognition by my supervisor:					
b. Handshake or greeting by my manager:					
c. Gifts or presents from my boss:					
d. Meetings with my boss to discuss my work or performance:					
e. Given target/program for my task:					
f. Equal treatment at work by our seniors:					
g. Feedback on my performance or work and company performance:					
h. Directions from my supervisor:					
i. Given easy work:					
j. Given complex and challenging work:					

k. Other (Specify): _____

GENERAL QUESTIONS:

1. How will the following factors affect your satisfaction in your employment?

Please cross (X) on the appropriate answer.

*Level of Motivation: 5 - Very High (VH); 4 - High (H); 3 - Moderate (M); 2 - Low (L)
1 - No Effect (NE).*

a. If I find out that my friend earns more money than I do

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b. If my wife or girlfriend can earn more than I do

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

c. If I can find out that my colleague is getting paid more than I am and we are doing the same job and I am better at it than he is

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

d. No salary increase

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

e. Unfair treatment by my supervisor

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

f. Somebody from another company gets employed in your company to be your boss or senior

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

g. Discrimination by race

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

h. Discrimination by gender

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

i. Given less challenging tasks

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

k. If someone senior in the company resigns

1	2	3	4	5
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

l. If my supervisor resigns

1	2	3	4	5
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

m. Having problems with my supervisor

1	2	3	4	5
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

n. If my director never greets me or talk to me when we cross paths

1	2	3	4	5
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

m. Always when my supervisor picks on me

1	2	3	4	5
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

o. If I do not get safe equipments and clothing

1	2	3	4	5
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

p. Unsafe working environment

1	2	3	4	5
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

q. If the company does not get more jobs or projects in the future

1	2	3	4	5
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

r. If the company starts to retrench its employees but not me

1	2	3	4	5
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

s. If the supervisor does not accept my idea on how to do the job

1	2	3	4	5
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Thanks for your time spent in completing this questionnaire, God bless you all.