ASSESSMENT OF MOTIVATION OF NON-CONSTRUCTION PROFESSIONALS IN CONSTRUCTION COMPANIES IN ABUJA, NIGERIA

BY

SHEHU AHMED MOHAMMED

DEPARTMENT OF BUILDING,
AHMADU BELLO UNIVERSITY,

ZARIA, NIGERIA

FEBRUARY, 2017

ASSESSMENT OF MOTIVATION OF NON-CONSTRUCTION PROFESSIONALS IN CONSTRUCTION COMPANIES IN ABUJA, NIGERIA

BY

Shehu Ahmed MOHAMMED, B. Tech, Q.S. (FUT MINNA) 2007
M.Sc./Env- Design/14559/ 11-12

A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES AHMADU BELLO UNIVERSITY, ZARIA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF A MASTER DEGREE IN CONSTRUCTION MANAGEMENT

DEPARTMENT OF BUILDING,
FACULTY OF ENVIRONMENTAL DESIGN,
AHMADU BELLO UNIVERSITY,

ZARIA ,NIGERIA

FEBRUARY, 2017

Declaration

I declare that the work in this dissertation entitled **"ASSESSMENT OF MOTIVATION OF NON-CONSTRUCTION PROFESSIONALS IN CONSTRUCTION COMPANIES IN ABUJA, NIGERIA"** has been carried out by me in the Department of Building. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this dissertation was presently presented for another degree or diploma at this or any other institution.

Shehu Ahmed MOHAMMED	Signature	Date

Certification

This dissertation entitled **"ASSESSMENT OF MOTIVATION OF NON-CONSTRUCTION PROFESSIONALS IN CONSTRUCTION COMPANIES IN ABUJA, NIGERIA"** by Shehu Ahmed MOHAMMED meets the regulations governing the award of the degree of Masters in Construction Management of the Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

Dr. A. D. AbdulAzeez (Chairman, Supervisory Committee)	Signature	Date
Dr. D. W. Dadu (Member, Supervisory Committee)	Signature	Date
Dr. D. Kado (Head of Department)	Signature	Date
Prof. Kabir Bala (Dean, School of Postgraduate Studies)	Signature	Date

Dedication

This research dissertation is dedicated to my lovely parents in persons of Alhaji Muhammad Kudu Idris Kodo and Hajiya Khadijat Usman Laga who gave me support throughout my study.

Acknowledgement

My sincere gratitude goes to Almighty Allah, in whom I live, move and have my being. I remain eternally grateful to Him. I sincerely acknowledge the efforts of my supervisors: Engr. Dr. A. D. AbdulAzeez and Dr. D. W. Dadu who despite their busy schedules guided me through this work, I appreciate you and God bless you immensely.

A special thanks to all my lecturers, Dr. Kado, Prof. K. Bala, Prof. O. G. Okoli, Prof. M. M. Garba, Prof. I. M. Mbamali, Dr. I. H. Mshelgaru, Dr. M. Shehu, Dr. Dahiru, Dr. D. AbdulSalam, Mal. A. M. Ibrahim, and Mal. Mansir Dodo. To all the staff, I say 'Thank you all', may God bless you.

My profound appreciation goes to my lovely and caring parents, Alhaji Muhammad Kudu Idris, and Hajiya Khadijat Usman. Thanks for your love, prayers and support.

My special gratitude also goes to my mentor, Prof. Ahmed Ibrahim Doko who guided me through this work, I appreciate you Sir. My special thanks goes to my brothers in persons of Mall. Aliyu Alhassan Kodo, Shehu Idris Kodo, Muhammad Batsu Kodo, for the support, prayers and guidance given to me, I thank you all. Let me also extend my sincere appreciation to my lovely wife Amina Hussaini Muhammad, thank you for your love, caring and prayers.

My special appreciation goes to my Boss, CSC Aminu Tukur Raji. Thanks for your prayers and support.

To all my friends, ASC II Usman S., ASC II Mamman Z. S., ASC II Danbatta M. Z., ASC II Saidu A., ASC II Ahmed M. M., IC Ahmed B. G. D., Bldr. Mamuda Abdul Doguwa, Q. S. Abubakar Haruna, Q. S. Lynda, Emmanuel Emeka Osuji, and so many who are dear to my heart, thank you. The entire M.Sc. 2011-2012 and 2012-2013 students thanks for your support. To all who played an active part to the successful completion of this dissertation, I thank you all.

Table of Contents

Declaration i
Certification ii
Dedication iii
Acknowledgement iv
Table of Contents v
List of Tables viii
List of Figures x
List of Appendices xii
Abstract xiii

1.0 INTRODUCTION 1
1.1 Background of the Study 1
1.2 Statement of the Research Problem 4
1.3 Justification of the Study 7
1.4 Aim and Objectives 8
1.4.1 Aim 8
1.4.2 Objectives 8

1.5 Scope and Limitation 9
1.5.1 Scope 9
1.5.2 Limitation 9

2.0 LITERATURE REVIEW 11
2.1 The Construction Industry 11
2.1.1 The Nigerian construction industry 12
2.1.3 Roles of non-construction professionals in the construction industry 13
2.1.4 Impact of non-construction professionals in the Nigerian construction industry 19
2.1.5 The organisational structure of construction companies 22
2.1.6 Medium-size and large construction companies 23

2.2 Motivation 24
2.2.1 Characteristics of motivation 26

2.2.2 The concept of motivation 27
2.2.3 Types of motivation 28

2.3 Effect of Motivation 29
2.3.1 Motivation and performance 30

2.4 Theories of motivation 31
2.4.1 Content theories 31
2.4.2 Process theories 35
2.4.3 Reinforcement theory 37

2.5 Factors Affecting Employee Motivation 40
2.6 Motivational Techniques in the Construction Industry 42
2.6.1 Innovative ideas for motivating 43
2.6.2 Job design for motivation 45

2.7 Job Satisfaction and Self-actualisation 47

3.0 RESEARCH METHODOLOGY 49
3.1 Research Methods Adopted for the Study 49
3.2 Data Collection Techniques 50
3.3 Population of the Study 50
3.4 Sampling Technique and Sampling Size 52
3.5 Questionnaire Design 53
3.6 Procedure for the Distribution of Questionnaire 55
3.7 Data Analysis Techniques 55

4.0 DATA PRESENTATION, ANALYSIS AND DISCUSSION 58
4.1 Introduction 58
4.2 Demographic Data 58
4.3 Factors that Influence Motivation of Non-Construction Professionals 65
4.3.1 Factors that influence motivation of Accountants 67
4.3.2 Factors that influence motivation of Health and Safety Officers 69
4.3.3 Factors that influence motivation of Store Keepers 69
4.3.4 Factors that influence motivation of ICT Professionals 72

4.3.5 Comparing/contrasting between the motivational factors of non-construction professionals 74

4.4 Current Level of Motivation of Non-construction Professionals 76

4.4.1 Current level of motivation of Accountants 78

4.4.2 Current level of motivation of Health and Safety Officers 80

4.4.3 Current level of motivation of Store Keepers 82

4.4.4 Current level of motivation of ICT Professionals 84

4.4.5 Comparing/contrasting between the current motivational levels of non-construction professionals 86

4.5 Perception of Management on Effectiveness of Motivational Techniques on the Non-construction Professionals 88

4.6 Professional Satisfaction and Self-actualisation of Non-Construction Professionals…….. 90

4.6.1 Professional satisfaction of non-construction professionals 90

4.6.2 Self-actualisation potentials of non-construction professionals 91

4.6.3 Self-actualisation potentials of Accountants 94

4.6.4 Self-actualisation potentials of Health and Safety Professionals 94

4.6.5 Self-actualisation potentials of Store Keepers 97

4.6.6 Self-actualisation potentials ICT Professionals 97

4.6.7 Comparing/contrasting self-actualisation potentials of non-construction professionals 100

4.7 Discussion of Results 102

4.7.1 Factors of motivation of non-construction professionals 102

4.7.2 Current level of motivation of non-construction professionals 103

4.7.3 Effectiveness of motivational techniques on non-construction professionals 103

4.7.4 Professional satisfaction and self-actualisation of non-construction professionals 104

5.0 SUMMARY, CONCLUSION AND RECOMMENDATION 105

5.1 Summary of Major Findings 105

5.2 Conclusion 108

5.3 Recommendation 109

5.4 Contributions to knowledge 110

5.5 Areas for further research 111

REFERENCES..... 111

List of Tables

Table 2.1: New motivation compensation programmes..……44

Table 3.1: Non-construction professional in medium-size and large construction companies in Abuja…..……...……51

Table 3.2: Population and sample size……..……...……52

Table 3.3: Guide to degree of significance…..…….……...56

Table 4.1: Breakdown of administered questionnaire…….…...…….……..…57

Table 4.2: Factors of motivation of non-construction professionals……65

Table 4.3: Factors of motivation of Accountants…….…….……67

Table 4.4: Factors of motivation of Health and Safety Officers…….…….……69

Table 4.5: Factors of motivation of Store Keepers…….…….……70

Table 4.6: Factors of motivation of ICT Professionals…….……72

Table 4.7: Comparing/contrasting between factors of motivation of non-construction professionals…….……...……74

Table 4.8: Current motivational level of non-construction professionals…….……...76

Table 4.9: Current motivational level of Accountants……..……...78

Table 4.10: Current motivational level of Health and Safety Officers ……..……...80

Table 4.11: Current motivational level of Store Keepers ……..……...82

Table 4.12: Current motivational level of ICT Professionals …….……..…...84

Table 4.13: Comparing/contrasting between current motivational level of non-construction professionals……..…….……86

Table 4.14: Effectiveness of motivational techniques on non-construction professionals…….…...88

Table 4.15: Self-actualisation potentials of non-construction professionals ……92

Table 4.16: Self-actualisation potentials of Accountants…… …….....94

Table 4.17: Self-actualisation potentials of Health and Safety Officers …….…....95

Table 4.18: Self-actualisation potentials of Store Keepers …….....…….....97

Table 4.19: Self-actualisation potentials of ICT Professionals …….…….....98

Table 4.20: Comparing/contrasting between self-actualisation of non-construction professionals …….....100

List of Figures

Figure 2.1: A Simple Model of Motivation……27

Figure 2.2: Maslow's Hierarchy of Needs……...33

Figure 2.3: Herzberg's Two-Factor Theory……35

Figure 2.4: Changing Behaviour with Reinforcement……38

Figure 2.5: Types of Job Design……...…46

Figure 4.1: Age of Respondents……..58

Figure 4.2: Profession of Respondents……..…….....59

Figure 4.3: Academic Qualification of Respondents…….....59

Figure 4.4 Professional Membership of Respondents…….....60

Figure 4.5: Years with Company…….61

Figure 4.6: Years Working in the Industry……..61

Figure 4.7: Position of Respondents (Management)……..62

Figure 4.8: Years of Company Existence……..63

Figure 4.9: Average Annual Turnover……...….63

Figure 4.10: Estimated Number of Employees……..…….64

Figure 4.11: Professional Satisfaction of Non-Construction Professionals…….....89

Figure 4.12: Comparing/Contrasting between Professional Satisfaction of Non-Construction Professionals….....90

List of Appendices

Appendix I……...…….116

Appendix II……119

Appendix

III..…….122

Appendix IV..……127

Abstract

Construction companies experience low performance of non-construction professionals and lack of self-actualisation as a result of inadequate motivation. This study assessed motivation of non-construction professionals in construction companies in Abuja with a view to improving their performance and self-actualisation in the study area. To achieve this, the study focused on the factors that influence the motivation of non-construction professionals, their current level of motivation, effectiveness of motivational techniques on non-construction professionals and their professional satisfaction and self-actualisation within the industry. The quantitative research approach was adopted using structured questionnaire, the population size is 38 and 348 for management and non-construction professionals respectively. Stratified sampling technique was used to select a sample of 186 non-construction professionals. Relative Importance Index (RII) was used for the various ranking on motivation. The study found that the level of motivation of non-construction professionals in relation to physiological and belongingness needs is high, while their level of motivation in relation to security, esteem, and self-actualisation needs is low. The ranking of motivational techniques revealed the first five factors as outlined in order of their effectiveness on non-construction professionals: Good remuneration (0.93), professional training courses (0.92), job design (0.91), bonus (0.89) and promotion opportunities (0.88). The study concluded that majority of non-construction professionals were not satisfied with the level of motivation in relation to the provision of security, esteem, and self-actualisation needs by their companies and were primarily motivated by monetary rewards as well as opportunities for self-actualisation. The study recommended that the construction industry should perhaps base their motivation strategies around these preferred motivators.

CHAPTER 1

1.0 INTRODUCTION

1.1 Background of the Study

The construction industry is a strategic industry to the national economy providing infrastructure and shelter for other economic activities to take place (Benviolent & Tirivavi, 2014). Attar, Gupta, & Desai (2012) noted that construction is a key sector of the national economy for countries all around the world, as traditionally it takes up a big portion in the nation's total employment and its significant contribution to a nation's revenue as a whole. The importance of the industry can never be over emphasized, in Nigeria, the industry is responsible for 16.00% of the GDP (Ayangade, Wahab, & Alake, 2009) and employs approximately 25% of Nigeria's workforce and the largest in Africa (Ibrahim & Musa-Haddary, 2010). According to Usman, Inuwa, Iro, & Dantong (2012), the level of building achievement and activity in any country is a measure of the country's success: a high level of building activity indicates a healthy vigorous national economy, and highly developed building forms indicate a high level of civilised and cultural achievement in a country. Against this background, the national importance of construction projects could be enhanced through adopting efficient methods of managing resources to achieve increased performance.

In realising its aim in project delivery, the construction industry involves many parties amongst which are: the owner or client; the designers or consultants and; the construction contractors (Usman *et al*, 2012). The contractor, is undeniably one of the most important organisations in the construction project delivery system (Usman *et al*, 2012). In the construction industry, the function of construction

professionals is to deliver projects safely, within cost and time and to the client's requirement. This cannot be achieved successfully without the contribution of non-construction professionals such as the Accountant, Health and Safety officer, Store keeper, Information and Communication Technology (ICT) professionals and so on, particularly in medium-size and large construction companies where large volumes of work are being carried out. Therefore, for construction companies to be efficient and innovative in order to remain competitive and increase productivity, the non-construction professionals need to be highly motivated. These non-construction professionals contribute to the success of project delivery through increased quality and speed of work, financial and safety controls, and effective communication (Ikechukwu, Chinedu, & Onyegiri, 2011).

Every organisation is concerned with how to achieve sustained high levels of performance through its workforce. This means giving close attention to how individuals can best be motivated through means such as incentives, rewards, leadership and the organisation context within which they carry out the work (Offei-Nyako, Osei-Tutu, Fugar, & Adinyira, 2014; Armstrong, 2006). Motivation is thus essential to labour, as it gives site workers satisfaction such as achievement, sense of responsibility and pleasure of the work itself (Offei-Nyako *et al*, 2014; Enshassi *et al*, 2007). Employee motivation is one of the policies of managers to increase effectual job management amongst employees in organisation.

According to Lin (2007), motivation is the force that makes people choose a particular job, stay with that job and work hard in that Job. Ramlall (2004) also defined work motivation as "the willingness to exert high levels of effort toward organisational goals, conditioned by the effort's ability to satisfy some individual need". In this circumstance,

a need is some internal state of being in which certain outcomes may appear more attractive than others. Furthermore, if the need remains unsatisfied, tension is created, which, in turn, stimulates a drive within the individual (Ramlall, 2004).

According to Liu & Fang (2006), motivation is the work managers perform to inspire, encourage and impel people to take action and its efforts must be directed towards improving company operations. To be effective, however, they must also be designed to show benefits to the employer. In fact, motivation can best be accomplished when workers are able to merge their personal ambitions with those of the company. The relationship between the employers and employee must be one of understanding in order for the employee to identify himself with his work and with the business he is working for. Lack of motivation in return affects productivity (Adedokun, Ibironke, & Olanipekun, 2013).

Therefore, it is management's responsibility to provide its employees with an environment in which they can thrive and perform at their maximum potential in an effort to establish a quality and productivity driven company culture. After all, the work of these talented individuals directly brings about the high quality and productivity that reinforces a company's competitive edge (Caicedo, 2003). Thus, motivation offers the platform for enhancing the potentials of the non-construction professionals and consequently contributes to productivity performance in the construction industry. It follows from the foregoing therefore, that not only the construction professionals in the construction companies be well motivated for high performance and for the production of good quality products, but also the non-construction professionals in the industry. Thus, the aim of the study is to assess motivation of non-construction professionals in

construction companies in Abuja with a view to improving their performance and self-actualisation in the study area.

1.2 Statement of the Research Problem

As briefly discussed in the background to this study, non-construction professionals are one of the key elements for the majority of construction companies in achieving performance and competitive edge. In a preliminary survey conducted on 10 organisations, 6 respondents indicated that management is not always happy with the performance of non-construction professionals on projects. Out of the 10 respondents, 8 found their current motivational level to be low or fair while the remaining 2 found it high. However, all respondents indicated that when the current motivational level is improved, it will go a long way to improve their performance and self-actualisation which will lead to higher productivity. Based on the preliminary survey conducted, it shows that they have not been adequately motivated in spite of their immense contribution to the construction industry and they do not seem to be achieving professional satisfaction and self-actualisation within the industry.

Researches were conducted on the motivation of construction professionals such as the Architects, Quantity Surveyors, Builders, and Engineers in the construction industry. Adjei (2009) conducted research on 'Motivational strategies to improve productivity in the construction industry in Ghana' where the respondents were Architects, Quantity Surveyors, Builders and Engineers. Osuji (2014) researched on 'motivational factors of employee consultants in the Nigerian construction industry'. The respondents were Architects, Quantity Surveyors, Builders and Engineers. More so, Olatunji *et al,* (2014) assessed 'Factors affecting the performance of construction professionals (Architects,

Quantity Surveyors, Builders and Engineers) in Nigeria'. However, researches on motivation of non-construction professionals are rare in literature.

Employees' performance and efficiency is among the factors that affect the success of most businesses. Employees showing high rate of performance and working efficiently relates to their enough satisfaction of their jobs (Toker, 2007). Construction companies are faced with the challenge of how to get payroll and overhead in line with a project while still maintaining the capabilities required to bid on new project (Mayhew, 2012). A good and highly motivated construction Accountant can help a company find the right path forward. According to Garus (2015), the occurrence of fatalities on construction sites usually leads to site closure for accident investigation, loss of man/machine hours, loss of output, high labour turnover, loss of corporate reputation, and payment of burial expenses/compensation/insurance claims for the dead. Therefore, efficient health and safety officer at workplace ensures that employees are healthy, safe, happy, and productive which in turn help companies become more effective to finish projects on time and improve their business profile with customers and clients.

Also, where poor material management is exercised, some negative consequences include: over-consumption of construction materials resulting from poor materials accountability and record keeping, damage caused by mishandling, undue exposure to weather and vandalism, and excess materials after job is completed (Nwakor, Faringida, Habib, & Saliman, 2012). The construction industry is also faced with the ongoing challenge of changing and improving current work practices in order to become more client-oriented, more competitive as well as productive through adoption of Information and Communication Technology (ICT) as an integral part of the construction process (Ikechukwu *et al,* 2011).

The construction industry is routinely accused of being wasteful, inefficient, and falling short of quality and quantity targets, and being late in delivery (Usman *et al*, 2012). This accusation is due to low performance of the construction workers including non-construction professionals. Morale in the industry according to Usman *et al*, (2012), is at its lowest ebb. He stressed, that companies are concentrating on financial gains and forgetting the people that make the job and money. This perhaps contributes to the poor performance of the industry. Job performance is considered one of the most important constructs in human resources management because it helps to explain the value and utility that each employee adds to the organisation (Onukwube & Iyagba, 2011). The non-construction professionals in the Nigerian construction companies are not exception to the perceived low job performance rate within the industry.

The chief obstacle confronting the contractor in his quest for a profit could be having to operate in a competitive environment. Thus given the razor-thin profit margins associated with competitive building contracts, managing problems that negatively affect productivity should be a priority (Benviolent & Tirivavi, 2014). Picard (2003) indicated that systematic inefficiencies in construction project can no longer be over looked in a competitive industry operating at low profit margins. However, in an industry where clients are increasingly demanding more for less and the contractors operating at low profit margins, embarking on motivation of non-construction professionals will go a long way in curtailing these problems in project delivery in Nigeria.

According to Chukuma & Obiefuna (2014), every organisation and business wants to be successful and have desire to get consent progress. The current era is highly competitive and organisations regardless of size, technology and market focus are facing employee

retention challenges. To overcome these restraints, a strong and positive relationship and bonding should be created and maintained between non-construction professionals and their organisations human resource because these professionals are very vital to the success of any organisation, so, they need to be influenced and persuaded towards task fulfillments. It is in this light that the research seek to address the problem of low performance of non-construction professionals in the Nigerian construction industry as a result of inadequate motivation.

1.3 Justification of the Study

Human Resource Development is concerned with the provision of learning and development opportunities that support achievement of business strategies and improvement of organisational, team and individual performance (Tabassi, Ramli, & Abu Bakar, 2011). The importance of involving human resources in development, planning and implementation of competency-based strategies has been emphasized by a number of researchers (Tabassi *et al*, 2011). In this regard, motivation of non-construction professionals at all levels within organisations have been considered a vital component in maintaining competitiveness in the international arena.

According to Dantong (2007), unless an adequate supply of appropriately motivated workers can be ensured, the industry will consistently fail to satisfy the demands of the market for an adaptive, innovative and capable service. Management of the construction industry is therefore, faced with the task of ensuring that a congenial working environment is established so as to motivate workers to stay and deliver their best. This will eliminate time overrun which is usually accompanied by cost escalation and, hence, the achievement of improved productivity (Adjei, 2009). Furthermore, the employees

are the driving force for a company. When employees are satisfied and happy, their efforts bring returns in magnitudes. They not only tend to achieve their personal goals, but indirectly, they help to achieve the company's goal as well (Osuji, 2014). This in the end helps in gaining competitive edge for the construction industry. This study is, therefore, to assess motivation of non-construction professionals with a view to improving their performance and self-actualisation which will provide construction companies opportunity to be efficient and innovative in order to remain competitive and increase productivity.

1.4 Aim and Objectives

1.4.1 Aim

The aim of this research is to assess motivation of non-construction professionals in construction companies in Abuja with a view to improving their performance and self-actualisation within the study area.

1.4.2 Objectives

In order to achieve the aim, the following objectives were pursued:

1. To assess the factors that influence the motivation of non-construction professionals in construction companies in Abuja.
2. To assess the current level of motivation of non-construction professionals in the study area.
3. To assess the effectiveness of motivational techniques on non-construction professionals in the study area.

4. To assess the professional satisfaction and self-actualisation of the non-construction professionals in the study area.

1.5 Scope and Limitation

1.5.1 Scope

The research focused only on medium and large construction companies in Abuja because such companies usually undertake large volume of works and, hence, engage large number of workers including non-construction professionals unlike small construction companies that do not. According to the classification of companies by the Federal Inland Revenue Services as company income tax payers, the minimum annual turnover of these companies over the past three years should not be less than N500,000,000.00. The survey covers only four (4) non-construction professionals (Accountants, Health and Safety officers, Store keepers and Information and Communication Technology (ICT) professionals) due to their impact in the construction industry. Also, the study only covers four motivational theories such as Maslow's hierarchy of needs theory, Hertzberg's two factor theory, equity theory and reinforcement theory. The choice of these theories is based on the fact that attainment of human basic needs, person-environment attributes and equity in the reward they expect for performance has a direct influence on the motivational factors which increases employee performance and job satisfaction in the work place. The study area is the Federal Capital Territory (FCT) Abuja.

1.5.2 Limitation

The area of constraint in carrying out this research was the difficulty in distributing the research instrument to the different non-construction professionals in various

construction sites visited due to high cost of transportation in Abuja. More so, not all questionnaires administered were retrieved. However, the response rate was 60.2% and based on the assertion of Moser & Kalton (1971), the result of a survey could be considered significant if the response rate not lower than 30-40%. Therefore, the percentage of the returned questionnaires is adequate for analysis.

CHAPTER 2

2.0 LITERATURE REVIEW

2.1 The Construction Industry

The construction industry in both developed and developing countries may be viewed as that sector of the economy which, through planning, design, construction, maintenance and repair, and operation, transforms various resources into constructed facilities. The types of public and private facilities produced range from residential and non-residential buildings to heavy construction, and these physical facilities play a critical and highly visible role in the process of development (Kheni, Gibb, & Dainty, 2008). The industry generates employment and income for about 7%, 8% and 5.5% of Europe, United States and Turkey's workforce respectively (Adjei, 2009; Kazaz *et al*, 2008). More so, in the developed countries, the constructions of high rise buildings are undertaken by the use of available equipment and management techniques which tend to improve the quality of the output. Contrary to this, the developing countries have very little modernisation and, therefore, still continue with the traditional labour-intensive style of construction which is time-consuming and does not match quality requirements demanded in construction (Osuji, 2014).

World Bank Report (2009) suggested the need for developing countries to concentrate efforts in diversifying their economies from mono product and natural resources based, towards more sustainable human resources that can also create jobs for the fast

population. To achieve this, human and infrastructure developments must be enhanced for growth and development of small scale industries and internal micro economic development. Building and construction sector is one of the top five sectors used in measuring the National Gross Capital Formation (NGCF) and the GDP of any country and its effect on every other sectors, makes it a significant front for sustainable development (Isa, Jimoh, Achuenu, 2013).

Eshofonie (2008) asserted that most countries put over 55% of their gross domestic investment into the creation of physical facilities, including infrastructure that is necessary for development. The construction sector's level of manpower ranges from highly skilled professionals to completely unskilled labourers. Isa *et al*, (2013) stated that the construction industry plays a key role in satisfying a wide range of physical, economic and social needs and contributes significantly to the fulfilment of various major national goals. Therefore, since the construction industry is hub of social and economic development in all countries of the world, serious attention needs to be given to its workers and professionals carrying out the construction activities.

2.1.1 The Nigerian construction industry

Osuji (2014); Idrus & Sodangi (2007) asserted that the Nigerian construction industry produces nearly 70% of the nation's fixed capital formation yet its performance within the economy has been and continues to be very poor. This also can be attributed to the movement of employees away from long term employment relationships and long-term rewards and the efforts are focused on short-term rewards.

The Nigerian economy continues to grapple with a number of challenges that has hampered efforts at economic transformation. The economy is yet to achieve the

necessary structural changes required to jump-start rapid and sustainable growth and development, aside disarticulated and narrow productive base, while the sectorial linkages in the economy are also weak (Isa *et al*, 2013).

2.1.2 The non-construction professionals

Non-construction professionals are the non-technical employees in the construction industry that do not possess technical skills in construction activities but are also professionals in their own fields of study. For the purpose of this study, the non-construction Professionals considered were Accountant, Health and Safety officer, Store keeper, and ICT Professionals. However, there is no national agency responsible for coordinating the activities of these professionals and hence there appears to be a lack of synergy. According to Olatunji *et al,* (2014), professionals are valuable resources that may contribute in several different ways to construction companies' activities, provided that such companies give them an appropriate chance.

2.1.3 Roles of non-construction professionals in the construction industry

Construction involves a substantial expertise in the management of risks, materials, equipment, money and time, and the coordination of the activities of disparate participants who may not be directly responsible for the final product and over whom there is limited opportunity for control. Non-construction Professionals may not be directly responsible for the final product but play some vital roles in the construction industry. These roles as identified in the literature review are:

2.1.3.1 Construction cost Accountant

The construction cost Accountant performs professional level accounting work in the maintenance and review of fiscal records. The position requires considerable knowledge

of basic accounting principles and accounting functions and also background in construction accounting. This individual is responsible for the general ledger, job cost, bank reconciliations and accounts payable. Additional responsibilities include performing monthly closings, maintenance of accounting files, and preparation/organisation of various financial forms, reports, and financial analyses, and so forth ("Accounting Jobs", 2012).

According to "Accounting Jobs" (2012), job responsibilities of construction cost accountant are:

1. Prepare and deliver timely and accurate monthly, quarterly and yearly financial statements, daily cash management reports, balance sheet reconciliations and various detailed analysis reports required by laws, regulations, and board of directors.
2. Develop and prepare the annual budget with the assistance of the accounting staff and other concerned departments. Prepare various board presentations about the financial status of the company.
3. Supervise the accounting department's daily activity and all its functions including accounts payable, accounts receivable, payroll, general journal entries and financial reporting.
4. Recruit staff members and oversee training programs. Evaluate and assess the performance of the accounting staff to ensure all subordinate duties are completed effectively and efficiently.
5. Motivate the accounting staff and encourage them to progress and develop their skills and provide appropriate training to such staff when needed. Initiate and/or maintain professional banking relationships.

6. Responsible for the company's cash management including internal and external transfers and manage banking facilities including letters of credit.
7. Work closely with the external auditors, provide all requested details and review their reports.
8. Ensure timely payment of the company's liabilities including taxes.

2.1.3.2 Health and safety officer

According to Garus (2015), the responsibilities of health and safety officer on site are as follow:

1. Ensures that health and safety regulations are strictly adhered to
2. Provide health and safety training for workers and supervisors
3. Investigate all accidents that occur on site, provide first aid and medical attention.
4. Provide personal protective equipment and clothing for workers and ensures that they are kept in good condition.
5. Responsible for fire protection and prevention on site by sign and tags.
6. Provide and maintain equipment, machines, materials or things that are properly equipped with safety devices.
7. Ensures proper communication between the employer and workers
8. Ensures that explosives used or to be used on the site are stored, transported, used and disposed
9. Provide welfare facilities from the start of the construction phase, including sanitary conveniences, washing facilities, drinking water, charging rooms and secured storage.
10. Ensures that emergency routes and exits remain clear of obstruction.

11. Deliver the safety file to the client on completion of a project.

2.1.3.3 Store keeper

The term store keeping covers the actual handling of the items or materials received into, held in, and issued from the store. Store keeper is the 'in charge' of the store and also responsible for store control. The work according to Assar (2015), involves:

1. Receiving materials: The primary duty of the store keeper is to receive the material from the supplier. At the time of receipt of material, he has to see that the right types, quality and quantity of materials have been sent by the supplier on the basis of purchase order.
2. Arranging materials: The materials received by the store keeper must be arranged in a proper manner. Bins should be allotted to each and every item where required.
3. Preservation of the material: After the receipt of material they are to be preserved properly. It is the duty of the store keeper to keep the material in store on safe custody. Protecting them from pilfering, theft, damage and deterioration.
4. Recording: it is the duty of the store keeper to record the receipt and issue of material in the respective bin card regularly. It will indicate the quantity of stock held by the store every time. For recording, the store keeper maintains store ledger and bin cards.
5. Issue of material: The store keeper issues the material as per the requisition of the production from the construction professionals. When the store keeper received requisition, he issues material from the store. He ensures when

necessary, that items and materials issued from the store are so packed that they will not be damaged or cause to deteriorate whilst in transit to their destinations.

6. Issuing purchasing requisition: when the stock reaches at ordering level the store keeper sends purchase requisition to the purchasing department for the fresh purchase of the materials. Accordingly, the purchasing department purchases materials as per quality and quality stated therein.
7. Supervision: the store keeper must be coordinate and supervise the duty of the staff under his control. As he is the head of the store department, he manages the entire department.

2.1.3.4 Information and communication technology (ICT) professionals

Information and Communication Technology (ICT) can broadly be defined as technologies dedicated to information storage, processing and communications and involve a combination of hardware, software and networks to transform raw data into useful information for speedy retrieval (Esben, 2012). Therefore, construction ICT entails the use of computer systems that are capable of capturing, organising, storing, analysing, exchanging, transmitting, and sharing information (Esben, 2012). Much effort has been directed toward improving construction productivity and the use of information and communication technology (ICT) in construction and this is an area worth concentrating upon because it can decrease the time for data processing, communicating information and increase overall productivity.

ICT Professionals are those workers who develop and maintain ICT and ICT-based information systems according to some socially accepted code of ICT professional conduct. According Esben (2012), owner organisations are requiring the engineering/construction industry to perform at extraordinary levels of project delivery,

hence, advances in project delivery systems and use of information technologies provide tremendous potential for enhancing the construction industry's overall performance. These days, information and communication technology (ICT) is responsible for the entire construction process from information being generated, transmitted and interpreted to enabling the project to be built, maintained, reused and eventually recycled.

A new role emerging in construction among contractors, especially for large projects, is that of construction Information and Communication Technology (ICT) professionals. Therefore the understanding of ICT and its role is important for the realisation of improved communications between participating organisations in construction projects. According to Harris & McCaffer (2005), the functions performed by the information manager include the following;

1. Advise on an Information Technology (IT) system for the project
2. Develop an information management plan for the project
3. Attend design co-ordination meetings
4. Receive information from design team and distribute
5. Receive all information from design sub-contractors and distribute
6. Monitor and review the flow of information
7. Inspect and comment on details, obtain project team's input and relay back to designers
8. Assist in the preparation of sub-contract enquiry packages
9. Review sub-contract quotations for compliance with design
10. Review design alternatives
11. Priorities and process information requests with designers

12. Process comments and clarifications
13. Track information
14. Maintain project archives

2.1.4 Impact of non-construction professionals in the Nigerian construction industry

2.1.4.1 Accountants

In today's environment, the role of financial manager in a construction organisation is essential to organisational success, and more importantly, is vital to avoiding failure. In many circumstances, competition is so fierce and margins are so thin, reliable financial information and analysis certainly can make the difference between success and failure (Mathew, 2015). The knowledge of rapidly changing procedures is crucial for success in construction. As the market continues to tighten, many contractors find themselves taking work well below their target margins, and with profits tight, new work often strains their remaining capabilities and resources. Bidding on such tight margins requires a reliable understanding of costs (Mayhew, 2012).

The accountant has an important function and often works closely with the managing director in controlling the overall financial affairs of the company. Although each individual contracts manager is informed about the financial position of projects and must endeavour to keep within tender figures, it is the accountant's concern to monitor the overall financial position of the company (Harris & McCaffer, 2005).

2.1.4.2 Health and safety officer

Occupation health and safety professionals are vital to any project, as they make sure all health and safety regulations are being followed by workers and visitors alike. There is

no excuse for poor safety practices on a job site. While efficiency and productivity are definitely key considerations, the overall health of all those directly and indirectly involved with a build takes priority. According to Muiruri & Mulinge (2014), many construction activities are inherently health and safety risk such as working at height, working underground, working in a confined space and close proximity to falling materials, handling load manually, handling hazardous substances, noises, dusts, using plant and equipment, fire, exposure to live cables, poor housekeeping and ergonomics.

However, construction managers tend to believe that introducing and executing measures that ensure health and safety in construction sector will lead to high cost, and hence lower profitability. But, it has been proved that investment in construction health and safety actually increases the profitability by increasing productivity rates, boosting employee morale and decreasing attrition (Muiruri & Mulinge, 2014). According to a report conducted by Safe Work Australia (2015), majority of construction managers (70%) agreed that improving work health and safety procedures increases workers' productivity. Construction safety and health management therefore deals with actions that management of construction companies can take to create an organisational setting in which health and safety officers will be trained and motivated to guide workers to perform safe and productive construction work.

2.1.4.3 Store keeper

Storekeeping is an important component of material management. In the construction industry, Adeagbo and Kunya (2003) noted that materials constitute a large percentage of the cost that go into the building production, claiming it occupies about 63% in relation to labour contribution of 37% in a typical building construction. Therefore, today's construction industry demands prudence in all aspect of store keeping. This is

because contract acquisition is becoming increasingly competitive, hence the need for contractors to be prudent in handling and utilisation of materials. According to Lubale (2012), if poor stores management has led to shortage of needed items and materials, there will be hold-ups and interruptions in production, or losses of production and losses of profits as well which can in extreme cases lead to the collapse of the company.

2.1.4.4 Information and communication technology (ICT) professionals

The project management function is based on the timely delivery and documentation of construction information. The delivery of construction information has traditionally been dominated by paper documents like blueprints and specifications. These take the form of graphic, textual, or verbal information formats exchanged between project team-members. Typical information components include drawings, specifications, change directives, estimates, management logs, and field reports. Because members of a project team share these information components, the exchange of construction information is seen as one of the critical tasks in the construction management process (Harris & McCaffer, 2005).

In today's highly competitive world, meeting the need to compress project lead times and to achieve cost optimisation is vital. At the same time, the growing involvement of construction organisations in multi-partner projects is increasing the complexity of managing projects. For any construction enterprise involved in the running of such large and complex projects, being able to handle the volume of documentation more efficiently can have a major impact on reducing project time scales and costs. The potential for such cost and time savings exist in the form of integrated information technologies.

2.1.5 The organisational structure of construction companies

The choices of managerial structure best suited for the company are many and depend upon several factors such as the size of the company, its geographical location, the type of work being done, and the managerial and technical skills available (Harris & McCaffer, 2005). Construction Company's organisation structure refers to both the arrangement of job roles and the reporting and operational relationship between and within these roles. The variety of roles and responsibilities including marketing, purchasing, administration and human resources, finance, pre-construction tasks and construction operations most often make such a corporate structure organised according to departments, functions or areas of responsibilities most appropriate to organisational design. Generally a construction company contains basic function units as follows:

1. Administration: The administration function is often too large to control as a single duty in medium-size and large construction companies. It is to be found in separate elements in most companies. The list includes personnel, health and safety, training, social facilities, postal services, legal and insurance facilities, wages and salaries, records and maintenance. The function is headed by an administration manager with subordinate managers, responsible for groups of the above elements, reporting directly. Very few of the duties are site based, with the possible exception of responsibility for safety, wages and canteen arrangements.
2. Financial department: The financial department is responsible for management of the company's cash flow and ensuring there are sufficient funds available to meet the day to day payments.

3. Purchasing department: Purchasing department's main role is purchasing supplies and materials used in the project and company daily needs. They need to compare among different suppliers and finding the items with correct prices and qualities. The store keeper receives material on the basis of purchase order from the purchasing department.
4. Project department: Project department is responsible for scheduling and managing for each project. The project manager needs to decide the budget, assign employees and their duties to complete the job, oversee the safety of workers. They need to make sure the construction work can be well completed according to the contract.
5. Engineering department: In general, the engineering department is responsible for the planning of the construction project. This includes conducting surveys, engaging in research, analysing results, planning the construction and supporting all technical issues during the project.
6. Marketing department: The marketing department is responsible for market research, marketing strategy, sales, advertising, promotion, pricing, product development, and public relations activities.

2.1.6 Medium-size and large construction companies

The size of construction companies depends on several factors such as the annual turnover, the type of work being done, the managerial and technical skills available, the number of workers employed and the financial ability of the company (Harris and McCaffer, 2005).

2.1.6.1 Medium-size companies

As a company increases the volume of its turnover, the contracts undertaken tend to become more complex. Extra skills need to be recruited to service these more involved projects. The head office structure, therefore, not only expands but also subdivides into separately managed elements.

2.1.6.2 Large companies

Depending upon the policies of the shareholders and board of directors towards expansion and growth of turnover, some companies are able to develop into large concerns indeed. The mechanisms needed to bring about expansion are varied and depend upon market opportunities coupled with the ability of the organisation to secure work at competitive prices delivered to budget, on time and to the client's satisfaction. Clearly employment of competent directors, managers, staff and workforce will be paramount in achieving success in this respect. Nevertheless growth in this manner is likely to be restrictive in an industry overburdened with competitors.

2.2 Motivation

The term motivation has its origins in the Latin word movere, which means movement (Steers, *et al*, 2004). Chukwuma & Obiefuna (2014), defines motivation as the internal or external driving force that produces the willingness to perform an act to a conclusive end. The first aspect of motivation is internal motivation because the driving force comes from within an individual. The second aspect is external motivation, and is applied by the organisation. This is because employees are motivated to identify with

organisation in order to satisfy their varied and variegate needs and desires. Until they have been identified and properly satisfied, they will never cease to impede smooth running of the organisations.

The study of motivation is concerned basically with why people behave in a certain way. In general it can be described as the direction and persistence of action. It is concerned with why people choose a particular course of action in preference to others, and why they continue with chosen action, often over a long period, and in the face of difficulties and problems (Joyce, 2012; Mullins, 2005). Motivation can therefore be said to be at the heart of how innovative and productive things get done within an organisation (Joyce, 2012; Bloisi *et al*, 2003).

Employees try to find satisfaction in what they do and as a result the manager should be able to understand the problems faced by his employees and find a way of satisfying their needs and aspiration. The general assumption is that an adequately motivated worker will in turn give in his or her best towards the attainment of a general consensus. Consequently when a worker is motivated the question of poor performance and inefficiency will be a forgotten issue in an organisation. Managers who are successful in motivating employees are made often providing an environment in which appropriate or adequate goals called incentives are made available for the needed satisfaction of the employee (Joyce, 2012).

A good number of employees are adequately paid in their jobs so as to work hard and maintain a high standard of productivity while some even work hard but do not receive much material gains to show for it. The issue under consideration is how a worker in an organisation with a particular set of needs does achieve the reward he desires? Today managers cannot rely solely on the manipulation of pay, benefit or working conditions

to encourage workers to perform effectively and efficiency. It is the duty of the manager to create and develop an effective environment in which employee will be motivated to become productive members of the organisation by striving for what will bring them reward.

2.2.1 Characteristics of motivation

Adjei (2009), identified four common characteristics which underlie the definition of motivation namely:

a. Motivation is typified as an individual phenomenon: - Every person is unique and all the major theories of motivation allow for this uniqueness to be demonstrated in one way or the other.
b. Motivation is usually intentional: - Motivation is assumed to be under the control of the worker, and behaviours that are influenced by motivation, such as effort expended, are seen as choices of action.
c. Motivation is multifaceted: - The two factors of greatest importance are:
    i. What get people activated?
    ii. The force of an individual to engage in desired behaviour
d. The purpose of motivational theories is to predict behaviour: - Motivation is not the behaviour itself, and it is not performance. Motivation concerns action, and the internal and external forces which influence a person's choice of action.

2.2.2 The concept of motivation

Motivation refers to the forces either within or external to a person that arouse enthusiasm and persistence to pursue a certain course of action (Daft, 2006). Employee motivation affects productivity, and part of a manager's job is to channel motivation toward the accomplishment of organisational goals. The study of motivation helps managers understand what prompt people to initiate action, what influences their choice of action, and why they persist in that action over time. A simple model of human motivation is illustrated in Figure 2.1. People have basic needs for food, achievement, or monetary gain that translate into an internal tension that motivates specific behaviours with which to fulfil the need. To the extent that the behaviour is successful, the person is rewarded in the sense that the need is satisfied. The reward also informs the person that the behaviour was appropriate and can be used again in the future.

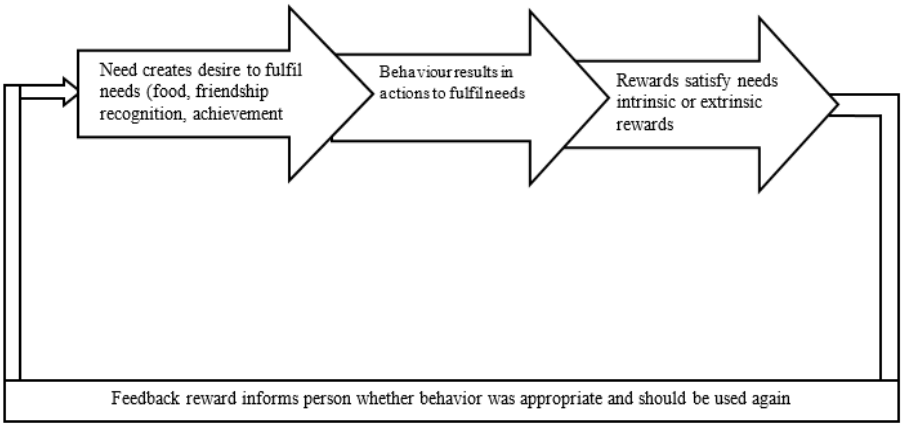


Figure 2.1: A Simple Model of motivation
Source: Daft (2006)

Rewards are of two types: intrinsic and extrinsic. Intrinsic rewards are the satisfactions a person receives in the process of performing a particular action. The completion of a complex task may bestow a pleasant feeling of accomplishment, or solving a problem that benefits others may fulfil a personal mission. Extrinsic rewards are given by

another person, typically a manager, and include promotions, pay increases, and bonuses. They originate externally as a result of pleasing others (Daft, 2006). Although extrinsic rewards are important, good managers strive to help employees achieve intrinsic rewards as well. The importance of motivation as discussed above is that it can lead to behaviours that reflect high performance within organisations.

2.2.3 Types of motivation

Motivation can be categorized in two ways namely: Intrinsic and Extrinsic motivation (Joyce, 2012).

2.2.3.1 Intrinsic motivation

Intrinsic motivation is the satisfaction a person receives in the process of performing a particular action. This is related to psychological rewards such as the opportunity to use one's ability. A sense of challenge and achievement, receiving appreciation, positive recognition, and being treated in a caring and considerate manner. Psychological rewards are those that can usually be determined by the actions and behaviour of the individual managers (Joyce, 2012). Intrinsic motivators are concerned with the quality of work life, are likely to have a deeper and longer-term effect because they are inherent in individuals and not imposed from outside (Joyce, 2012).

2.2.3.2 Extrinsic motivation

It is related to tangible rewards such as salary and fringe benefits, security, promotion, contract of service, the work environment and conditions of service. These are what need to be done to or for people to motivate them. They are often determined at the organisational level and may be largely outside the control of the individual managers. Extrinsic motivators can have an immediate and powerful effect but will not necessary

last long (Joyce, 2012). People that are extrinsically motivated do not actually get motivated from the work itself. They expect to receive some rewards after having performed a certain task or else they will not feel pleased (Gagne & Deci, 2005).

2.3 Effect of Motivation

A motivated team can exert a major influence on the success of a project (Caicedo, 2003). Conversely, a lack of motivation resulting from low job satisfaction leads to high employee turnover rates and consequently to a demise of a company's talented and valuable workforce. Some of the worker demotivators identified in a study by industry advocates include: (Caicedo, 2003)

Disrespectful treatment of workers
Lack of sense of accomplishment
Non-availability of materials and tools
Necessity to redo work
Lack of recognition for accomplishment
Failure to utilise worker skills
Incompetent personnel
Inadequate communication between project elements
Workers not involved in decision making.

A number of symptoms may point to low morale: declining productivity; high employee turnover; increasing number of grievances; higher incidence of absenteeism and tardiness; increasing number of defective products; higher number of accidents or a higher level of waste material and scrap. A motivated employee according to Adedokun *et al,* (2013), is a loyal employee and to be loyal implies that the employee supports the actions and objectives of the firm. The appearance of the job as a whole has, in fact a bearing on the willingness and quality of an employee's performance. Efforts to minimise employee turnover and absenteeism on the job must be made through the injection of motivation into the working environment and the employee

themselves to help maximise productivity (Caicedo, 2003). In order to be successful, a construction company needs employees who act toward the goals of the organisation and have a strong desire to remain in the company. Such loyalty and commitment may be generated by ensuring the satisfaction of the professionals. According to Oke (2013), construction management is a challenging and demanding profession. Building construction requires many workers and many trades. From the perspective of realising a project, a professional project team is needed to make sure that project will be constructed successfully.

2.3.1 Motivation and performance

Managers can use motivation theory to help satisfy employees' needs and simultaneously encourage high work performance. In a job where there is little pleasure in the work itself or it offers little opportunity for advancement in career, personal challenge or growth, many people may be motivated primarily if not exclusively, by money. According to Adjei (2009), performance is a product of both ability and level of motivation.

i.e. Performance = f (ability x motivation).

Organisational success is dependent upon members being motivated to use their full talents and abilities, and directed to perform well in the right areas. According to Adjei (2009), a major international study by Proud Foot Consulting revealed that, the most important reason for productivity loss was poor working morale. This includes absence of positive team spirit, low motivation, poor sense of belonging, and people feeling undervalued and poorly rewarded. It is in view of these that Adjei (2009) suggested that different types of reward practice may more closely complement

different generic strategies and are significantly related to higher levels of perceived organisational performance (Adjei, 2009; Mullins, 2005).

2.4 Theories of motivation

The contemporary approach to employee motivation is dominated by three types of theories namely: Content, process, and reinforcement theories (Daft, 2006).

2.4.1 Content theories

Emphasise the needs that motivate people. At any point in time, people have basic needs such as those for monetary reward achievement, or recognition. These needs translate into an internal drive that motivates specific behaviours in an attempt to fulfil the needs. In other words, our needs are like a hidden catalogue of the things we want and will work to get. To the extent that mangers understand employees' needs, they can design reward systems to meet them and direct employees' energies and priorities toward attaining organisational goals (Daft, 2006).

Not all needs are important to an individual at a time; some may provide a much more powerful drive towards a goal than others. This is dependent on the background and the present situation of the individual. The complexity of needs is further increased because there is no simple relation between needs and goals. The same need can be satisfied by a number different goals and the stronger the need and the longer its duration, the broader the range of possible goals (Armstrong, 2006). The various postulated content theories are: Maslow's hierarchy of need theory, Herzberg's two-factor theory, Alderfer's need modified (ERG) theory, McClelland's achievement motivation theory.

2.4.1.1 Maslow's hierarchy of needs theory

Probably the most famous content theory was developed by Maslow (1943). Maslow's Hierarchy of need theory proposes that people are motivated by multiple needs and that these needs exist in a hierarchical order, as illustrated in Figure 2.2. However the hierarchy is usually shown as ranging through five main levels from the lowest need being physiological, through safety needs, love needs and esteem needs to the highest level of needs being self-actualisation (Adjei, 2009; Mullins, 2005). This theory states that when a lower need is satisfied, it is no longer a strong motivator and hence the demand for the next higher need becomes dominant and the individual's attention is turned towards satisfying this higher need. It states that only unsatisfied needs motivate an individual (Adjei, 2009; Mullins, 2005; Armstrong, 2006). Irrespective of the demand for satisfaction of higher needs, it has been established that self-actualisation being the highest level can never be satisfied (Adjei, 2009; Armstrong, 2006). Maslow identified five general types of motivating needs in order of ascendance:

1. Physiological needs: These most basic human physical needs include food, water, and oxygen. In the organisational setting, they are reflected in the needs for adequate heat, air, and base salary to ensure survival.
2. Safety needs: These needs include a safe and secure physical and emotional environment and freedom from threats that is, for freedom from violence and for an orderly society. In an organisational workplace, safety needs reflect the needs for safe jobs, fringe benefits, and job security.
3. Belongingness needs: These needs reflect the desire to be accepted by one's peers, have friendship, be part of a group, and be loved. In the organisation, these needs influence the desire for good relationships with co-workers, participation in a work group, and a positive relationship with supervisors.
4. Esteem needs: These needs relate to the desire for a positive self-image and to receive attention, recognition, and appreciation from others. Within organisations, esteem needs reflect a motivation for recognition, an increase in responsibility, high status, and credit for contributions to the organisation.
5. Self-actualisation: These needs include the need for self-fulfilment, which is the highest need category. They concern developing one's full potential, increasing one's competence, and becoming a better person. Self-actualisation needs can be met in the organisation by providing people with opportunities to grow, be creative, and acquire training for challenging assignments and advancement.

According to Maslow's theory, low-order needs take priority. They must be satisfied before higher-order needs are activated. The needs are satisfied in sequence: Physiological needs come before safety needs, safety needs before social needs, and so on. A person desiring physical safety will devote his or her efforts to securing a safer environment and will not be concerned with esteem needs or self-actualisation needs. Once a need is satisfied, it declines in importance and the next higher need is activated (Daft, 2006).

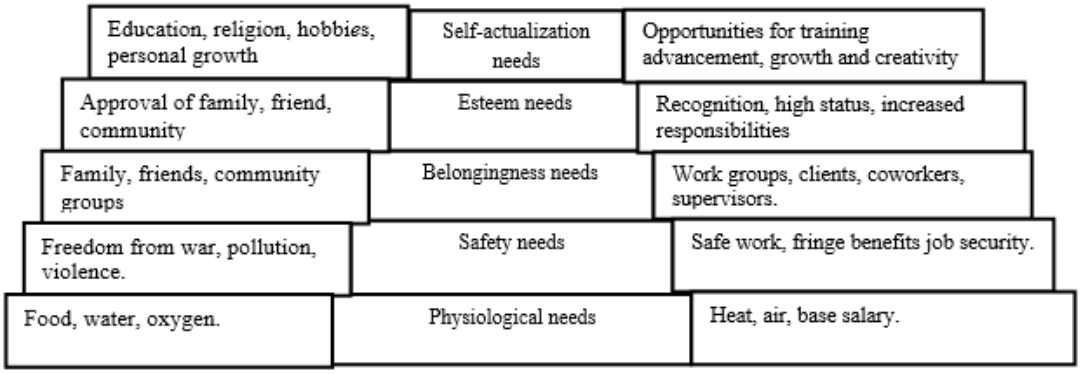


Figure 2.2: Maslow's Hierarchy of Needs
Source: Daft (2006)

2.4.1.2 Herzberg's two factor theory

Herzberg (1959) developed another popular theory of motivation called the two factor theory. Herzberg interviewed hundreds of workers about times when they were highly motivated to work and other times when they were dissatisfied and unmotivated at work. His findings suggested that the work characteristics associated with dissatisfaction were quite different from those pertaining to satisfaction, which prompted the notion that two factors influence work motivation.

The two-factor theory is illustrated in Figure 2.3. The centre of the scale is neutral, meaning that workers are neither satisfied nor dissatisfied. Herzberg believed that two entirely separate dimensions contribute to an employee's behaviour at work. The first, called hygiene factors, involves the presence or absence of job dissatisfies, such as working conditions, pay, company policies, and interpersonal relationships. When hygiene factors are poor, work is dissatisfying. However, good hygiene factors simply remove the dissatisfaction; they do not in themselves cause people to become highly satisfied and motivated in their work.

The second set of factors does influence job satisfaction. Motivators focus on high-level needs and include achievement, recognition, responsibility, and opportunity for growth. Herzberg believed that when motivators are absent, workers are neutral toward work, but when motivators are present, workers are highly motivated and satisfied. Thus, hygiene factors and motivators represent two distinct factors that influence motivation. Hygiene factors work only in the area of dissatisfaction. Unsafe working conditions or a noisy work environment will cause people to be dissatisfied, but their correction will not lead to a high level of motivation and satisfaction. Motivators such as challenges, responsibility and recognition must be in place before employees will be highly motivated to excel at their work.

The implication of the two-factor theory for managers is clear. On one hand, providing hygiene factors will eliminate employee dissatisfaction but will not motivate workers to high achievement levels. On the other hand, recognition, challenge, and opportunities for personal growth are powerful motivators and will promote high satisfaction and performance. The manager's role is to remove dissatisfiers that is, to provide hygiene factors sufficient to meet basic needs and then to use motivators to meet higher-level needs and propel employees toward greater achievement and satisfaction.

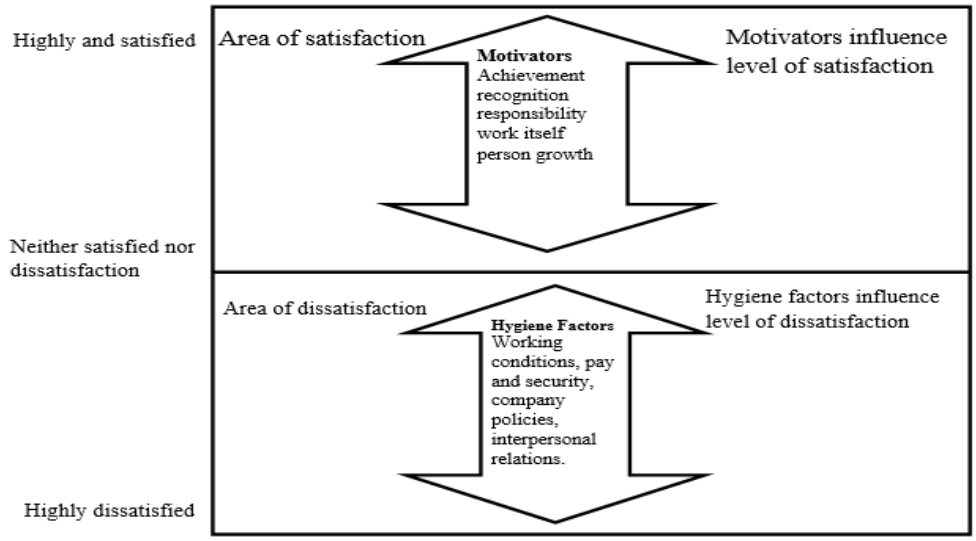


Figure 2.3: Herzberg's Two-factor Theory
Source: Daft (2006)

2.4.2 Process theories

Process theories explain how people select behavioural actions to meet their needs and determine whether their choices were successful. The two basic process theories are equity theory and goal-setting theory.

2.4.2.1 Equity theory

Equity theory focuses on individuals' perceptions of how fairly they are treated compared with others. Developed by Adams (1965), equity theory proposes that people are motivated to seek social equity in the rewards they expect for performance. According to equity theory, if people perceive their compensation as equal to what others receive for similar contributions, they will believe that their treatment is fair and equitable. People evaluate equity by a ratio of inputs to outcomes. Inputs to a job include education, experience, effort, and ability. Outcomes from a job include pay, recognition, benefits, and promotions. The input-to-outcome ratio may be compared to

another person in the work group or to a perceived group average. A state of equity exists whenever the ratio of one person's outcomes to inputs equals the ratio of another's outcomes to inputs.

Inequity occurs when the input-to-outcome ratios are out of balance, such as when a person with a high level of education or experience receives the same salary as a new, less-educated employee. Interestingly, perceived inequity also occurs in the other direction. Thus, if an employee discovers she is making more money than other people who contribute the same inputs to the company, she may feel the need to correct the inequity by working harder, getting more education, or considering lower pay.

According to Daft (2006), the most common methods for reducing a perceived inequity are these:

1. Change inputs: A person may choose to increase or decrease his or her inputs to the organisation. For example, underpaid individuals may reduce their level of effort or increase their absenteeism. Overpaid people may increase effort on the job.
2. Change outcomes: A person may change his or her outcomes. An underpaid person may request a salary increase or a bigger office. A union may try to improve wages and working conditions in order to be consistent with a comparable union whose members make more money.
3. Distort perceptions: Research suggests that people may distort perceptions of equity if they are unable to change inputs or outcomes. They may artificially increase the status attached to their jobs or distort others' perceived rewards to bring equity into balance.
4. Leave the job: People who feel inequitably treated may decide to leave their jobs rather than suffer the inequity of being under or overpaid. In their new jobs, they expect to find a more favourable balance of rewards.

The implication of equity theory for managers is that employees indeed evaluate the perceived equity of their rewards compared to others'. An increase in salary or a promotion will have no motivational effect if it is perceived as inequitable relative to that of other employees. According to Daft (2006), inequitable pay puts pressure

on employees that is sometimes almost too great to bear. They attempt to change their work habits, try to change the system, or leave the job.

2.4.3 Reinforcement theory

The reinforcement approach to employee motivation sidesteps the issues of employees' needs and thinking processes described in the content and process theories. Reinforcement theory simply looks at the relationship between behaviour and its consequences. It focuses on changing or modifying employees' on-the-job behaviour through the appropriate use of immediate rewards and punishments (Daft, 2006)

Behaviour modification is the name given to the set of techniques by which reinforcement theory is used to modify human behaviour. The basic assumption underlying behaviour modification is the law of effect, which states that behaviour that is positively reinforced tends to be repeated, and behaviour that is not reinforced tends not to be repeated. Reinforcement is defined as anything that causes a certain behaviour to be repeated or inhibited. The four reinforcement tools are positive reinforcement, avoidance learning (negative reinforcement), punishment, and extinction. Each type of reinforcement is a consequence of either a pleasant or unpleasant event being applied or withdrawn following a person's behaviour. The four types of reinforcement are summarised in Figure 2.4.

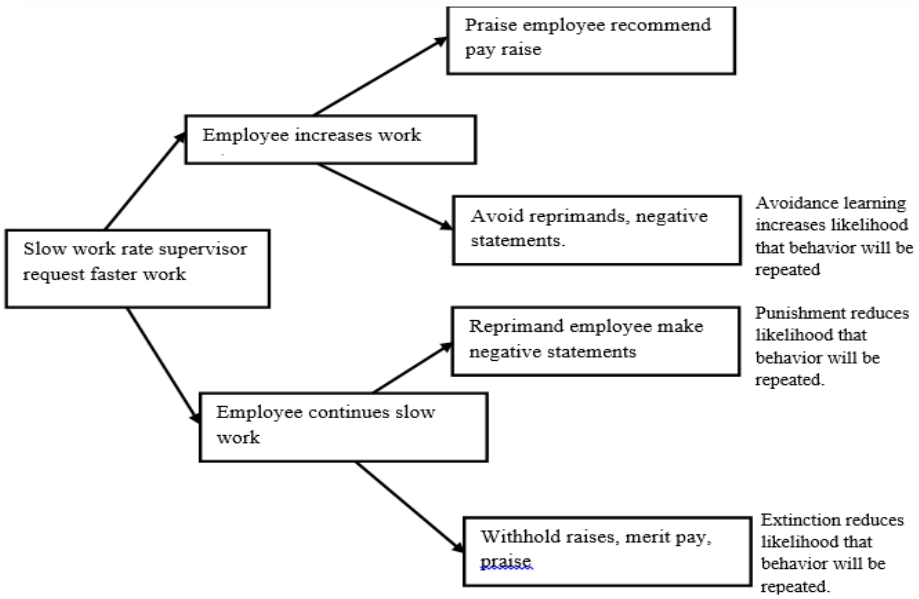


Figure 2.4: Changing Behaviour with Reinforcement
Source: Daft (2006)

2.4.3.1 Positive reinforcement

Positive reinforcement is the administration of a pleasant and rewarding consequence following a desired behaviour. A good example of positive reinforcement is immediate praise for an employee who arrives on time or does a little extra work. The pleasant consequence will increase the likelihood of the excellent work behaviour occurring again. Studies have shown that positive reinforcement does help to improve performance. In addition, non-financial reinforcements such as positive feedback, social recognition, and attention are just as effective as financial incentives. Indeed, many people consider factors other than money to be more important.

2.4.3.2 Avoidance learning (Negative reinforcement)

Avoidance learning is the removal of an unpleasant consequence following a desired behaviour. Avoidance learning is sometimes called negative reinforcement. Employees learn to do the right thing by avoiding unpleasant situations. Avoidance learning occurs

when a supervisor stops criticizing or reprimanding an employee once the incorrect behaviour has stopped.

2.4.3.3 Punishment

Punishment is the imposition of unpleasant outcomes on an employee. Punishment typically occurs following undesirable behaviour. For example, a supervisor may berate an employee for performing a task incorrectly. The supervisor expects that the negative outcome will serve as a punishment and reduce the likelihood of the behaviour recurring. The use of punishment in organisations is controversial and often criticised because it fails to indicate the correct behaviour. However, almost all managers report that they find it necessary to'occasional1y impose forms' of punishment ranging from verbal reprimands to employee suspensions or firings (Daft, 2006).

2.4.3.4 Extinction

Extinction is the withdrawal of a positive reward, Whereas with punishment, the supervisor imposes an unpleasant outcome such as a reprimand, extinction involves withholding pay raises, bonuses, praise, or other positive outcomes. The idea is that behaviour that is not positively reinforced will be less likely to occur in the future. For example, if a perpetually tardy employee fails to receive praise and pay raises, he or she will begin to realise that the behaviour is not producing desired outcomes. The behaviour will gradually disappear if it is continually not reinforced.

2.5 Factors Affecting Employee Motivation

Motivation is a factor that catalyses the success of an organisation. Human beings are motivated by satisfying their different kind of needs. Needs depends on many factors and vary by the person, situation, organisation, nature of work, educational background, skills and so forth (Lin, 2007). The factors affecting non-construction professionals' motivation might be different from the factors affecting the construction professionals' motivation. It is evident that these factors changes from time to time depending on the circumstances. All employees, therefore, have their own motivational factors to motivate them to perform their best. Thus, the need to conduct future studies on the factors which motivate employees in an organisation. Uwakweh (2006), Lin (2007), Lai (2009), Venkatesan *et al*, (2009), Osuji (2014), identified the following factors from the analysis of motivation theories which have impact on workers motivation. These factors are:

1. Advancement and growth opportunities: This is the organisations' effort in seeing that an employee's personal education, skills and knowledge are improved upon and promotion is regular.
2. Remuneration (salary): This is the basic requirement for meeting the employees' basic physical needs which include food, water and shelter. Salary is thought to be one of the key factor influencing career choices.
3. Working conditions: Unsafe working conditions or a noisy work environment will cause workers to be dissatisfied.
4. Interpersonal relationships: Cordial relationship with co-employees is very important factor in motivating an employee at work. Workplace is all about

people working together to achieve a uniform goal, so it is important that all the co-workers respect each other and never show disrespect toward each other.

5. Self-expression: An employee who is given an opportunity to participate in decision making on matters affecting his workplace will feel motivated.
6. Job security: An employee will motivated if he knows that his safety needs have been overcome. In an organisational workplace, safety needs reflect the need for safe jobs, fringe benefits and sense of security about future within the organisation.
7. Recognition and appreciation: Esteem needs reflect a motivation for recognition and credit for contributions to the organisation.
8. Job characteristics: opportunity to undertake interesting and challenging task.
9. Company policies: If the company policies match the needs of an employee, he/she is motivated. Unfavourable company policies cause dissatisfaction.
10. Goal setting: Hard goals are more motivating than easy ones. Highly ambitious but achievable goal ask people to stretch their abilities.
11. Rewards: Administration of pleasant reward that are linked to performance and valued by employee is highly motivating.
12. Performance feedback: accurate and timely feedback on the level of progress towards achieving organisations' goal or knowledge of results is usually associated with high performance.
13. Good leadership role at workplace: Leaders play a key role in maintaining a conducive work environment. The leader should understand how to deal different employees. It is imperative on the leader that he should respect the employees and this would make others take a leaf out of his book.

14. Training of employees: Training given to employees to develop skills for challenging tasks is an important factor in employee motivation.

2.6 Motivational Techniques in the Construction Industry

Motivation driven by financial incentives can be advantageous in that it can lead employees to improve the efficiency of construction methods, and to encourage other more in-experienced or less hard-working co-workers to excel. Tabassi *et al*, (2011) pointed out that money is an influential motivator and claimed that a well-designed reward system will lead to higher productivity for the employer and extra pay for the employee for their efforts. Recognition, aside from financial inducements, is also regarded as a powerful means to inspire enthusiasm among employees.

Managers use many different techniques to motivate their employees, but motivating people is hard work. It takes thought, attention to detail, know-how, and, perhaps most of all, flexibility (Schermerhorn, 2003). According to Caicedo (2003), a workforce will be motivated to attain higher skills that will lead to higher morale and performance when management provides the tools for necessary training, proper recognition, and appropriate communication. Communication across all levels makes employees feel valued and part of a team, which in turn increases their motivation that leads to higher performance. According to Tabassi *et al*, (2011) studies have also "revealed that several people had achieved significant success with recognition as opposed to rewards".

Team belonging is another powerful incentive for construction workers. A high performance workplace focuses on increasing people's influence on the business as well as the impact of processes, methods, the physical environment and technology and tools

that enhance their work (Tabassi *et al*, 2011). According to him, the changing requirements of construction activities necessitate the companies to form different teams each time a new project is undertaken. Therefore, any policies and practices that are applied by the companies in order to improve team work activities can have effects on the performance of their projects (Tabassi *et al*, 2011).

According to Radek *et al*, (2013) the purpose of incentive compensation is to reinforce the desired results and behaviors. Employees are not solely motivated by money, but the incentives are one of the most effective tools a manager can use to reward the alignment of the goals, results and behaviours. Incentive compensation communicates that the organisation recognises and value the employees' additional contribution, believes in it and invests in it (Radek *et al*, 2013).

2.6.1 Innovative ideas for motivating

Organisations are increasingly using various types of incentive compensation as a way to motivate employees to higher levels of performance. Table 2.1 summarises several popular methods of incentive pay.

Table 2.1 New Motivational Compensation Programmes

PROGRAMME	PURPOSE
Pay for performance	Rewards individual employees in proportion to their performance contributions. Also called merit pay.
Gain sharing	Rewards all employees and managers within a business unit when predetermined performance targets are met. Encourage teamwork.
Employee stock ownership plan (ESOP)	Gives employees part ownership of the organisation enabling them to share in improved profit performance.
Lump-sum bonuses	Rewards employees with zone-time cash payment based on performance
Pay for knowledge	Links employee salary with the number of task skills acquired. Workers are motivated to learn the skills for many jobs, thus increasing company flexibility and efficiency.
Flexible work schedule	Flexitime allows workers to set their own hours. Job sharing allows two or more part-time workers to jointly cover one job. Telecommuting, sometimes called flex-place, allows employees to work from home or an alternative workplace.
Team-based compensation	Rewards employees for behaviours and activities that benefit the team, such as cooperation, listening and empowering others.
Life style awards	Rewards employees for meeting ambitious goals with luxury items, such as high-definition television, tickets to big-name sporting events, and exotic travel.

Source: Daft (2006)

2.6.2 Job design for motivation

A job in an organisation is a unit of work that a single employee is responsible for performing. Jobs are an important consideration for motivation because performing their components may provide rewards that meet employees' needs (Daft, 2006). Job design is the application of motivational theories to the structure of work for improving productivity and satisfaction. Approaches to job design are generally classified as job simplification, job rotation, job enlargement, and job enrichment.

2.6.2.1 Job simplification

Job simplification pursues task efficiency by reducing the number of tasks one person must do. Job simplification is based on principles drawn from scientific management and industrial engineering, Tasks are designed to be simple, repetitive, and standardised. As complexity is stripped from a job, the worker has more time to concentrate on doing more of the same routine task. Workers with low skill levels can perform the job, and the organisation achieves a high level of efficiency. Job simplification is compared with job rotation and job enlargement in Figure 2.5.

2.6.2.2 Job rotation

Job rotation systematically moves employees from one job to another, thereby increasing the number of different tasks an employee performs without increasing the complexity of anyone job. Job rotation still takes advantage of engineering efficiencies, but it provides variety and stimulation for employees. Although employees might find

the new job interesting at first, the novelty soon wears off as the repetitive work is mastered.

2.6.2.3 Job enlargement

Job Enlargement combine a series of tasks into one new, broader job. This type of design is a response to the dissatisfaction of employees with oversimplified jobs. Instead of only one job, an employee may be responsible for three or four and will have more time to do them. Job enlargement provides job variety and a greater challenge for employees.

2.6.2.4 Job enrichment

Rather than just changing the number and frequency of tasks a worker performs, job enrichment incorporates high-level motivators into the work, including job responsibility, recognition, and opportunities for growth, learning, and achievement. In an enriched job, employees have control over the resources necessary for performing it, make decisions on how to do the work, experience personal growth, and set their own work pace. Research shows that when jobs are designed to be controlled more by employees than by managers, people typically feel a greater sense of involvement, commitment, and motivation, which in turn contributes to higher morale, lower turnover, and stronger organisational performance (Daft, 2006). Enriched jobs have improved employee motivation and satisfaction, and companies have benefited from higher long-term productivity, reduced costs, and happier, more motivated employees (Daft, 2006).

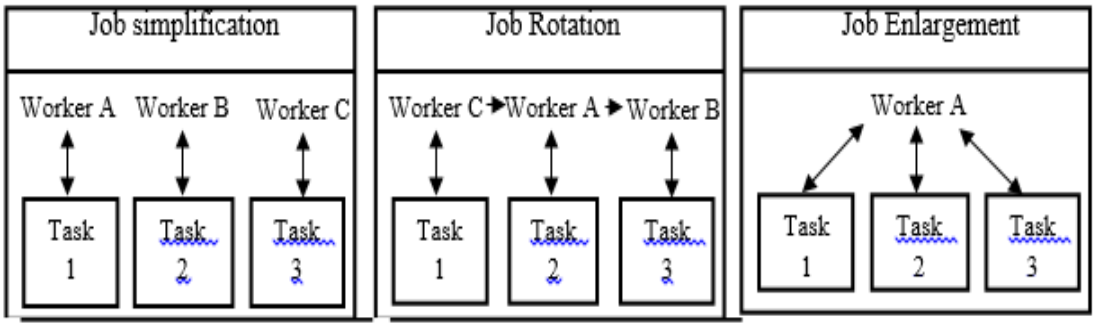


Figure 2.5 Types of Job Design
Source: Daft (2006)

2.7 Job Satisfaction and Self-actualisation

According to Daft (2006), the most talented and innovative employees are rarely motivated exclusively by rewards such as money and benefits, or even praise and recognition. Instead, they seek satisfaction from the work itself. People are energised by the psychic rewards they get from working on intellectually stimulating and challenging technical problems, as well as by the potentially beneficial global impact of their work (Daft, 2006). According to Quiley *et al* (2005) intrinsic motivation is the key motivation component of employee empowerment and individuals are responsible for achieving their own career success.

Bryan *et al*, (2006); Bymes (2006); Kiger (2006); Kehr (2004) state that motivation can be either internal or external. Internal factors can briefly be defined as providing employees satisfaction over businesses responsibility. Moreover internal factors not

only providing employee's satisfaction but also its ensuring opportunities for career shows that it has important effect on employee's motivation (Karatepe & Uludag, 2007). Bryan, *et al*. (2006); Bymes (2006); Kiger (2006) explain that external motivators depend on outside factors to push the individual to complete a task or project.

"Skills development, training, growth opportunities and promotion are considered to be powerful motivation factors for employees to satisfy their needs for esteem and self-actualisation" (Lai, 2009). According to the Maslow's hierarchy of needs theory, self-actualisation needs include the need for self-fulfillment, which is the highest need category. They concern developing one's full potential, increasing one's competence, and becoming a better person. Self-actualisation needs can be met in the organisation by providing people with opportunities to grow, be creative and acquire training for challenging assignments and advancement. Also, according to the Herzberg two factors theory, personal growth and advancement are known to be intrinsic factors, which make employees satisfied and they, thereafter, become motivated. This study therefore, identified the following factors as potentials for achieving non-construction professionals' self-actualisation within the industry. These potential factors are:

1. Career advancement: Opportunity for an employee to further his/her education attend special career courses and so on.
2. Promotion: Opportunity for growth within the organisation.
3. Training and development: Opportunity to acquire more skills for challenging assignments.

4. Autonomy: Opportunity for freedom, creativity, use of discretion, and taking responsibilities for the decisions made in the course of carrying out his/her duties.
5. Salary and other fringe benefits: Opportunity to have fair level of pay and other fringe benefits (such as pension) compared to the construction professionals.
6. Job characteristics: Opportunity for a job that is interesting and challenging.

CHAPTER 3

3.0 RESEARCH METHODOLOGY

3.1 Research Methods Adopted for the Study

According to Osuji (2014); Saunders, Lewis, & Thornhill (2003), the choice of research method influences the way in which the researcher collects data. Given the scale and complexity of the study, a number of methods are considered in order to capture the diversity of information and data across a number of source and together the richest picture of the prevailing condition (Osuji, 2014; Saunders *et al,* 2003). Quantitative

research was adopted for this study requiring the development and dissemination of a structured questionnaire.

The purpose of employing this method is to describe the nature of a situation as it exists at the time of the study and to explore the causes of particular phenomena. According to Osuji (2014), quantitative approaches are more specific and result oriented and it involves the collection of numerical data in order to explain, predict, and/or control phenomena of interest.

3.2 Data Collection Techniques

Primary data was collected using structured questionnaire as the instrument of the study. AbdulAzeez (2012) argued that questionnaire is considered "to be most popular collection techniques in library and information research method". The author further highlighted six reasons for using questionnaire to include that questionnaire "can be analysed more scientifically and objectively than any other forms of research". The structured questionnaire was used to achieve all the objectives of this research.

3.3 Population of the Study

The targeted population of the research work were the management and non-construction professionals in various construction companies that are registered with the Federal Inland Revenue Services (FIRS) Abuja as company income tax payers in 2015. They are made up of medium and large construction companies operating within the Federal Capital Territory (FCT) Abuja. They have 14 medium construction companies and 24 large construction companies which brought the total number of companies on which the study was undertaken to thirty eight (38). A total of thirty eight sites were visited which gives a population of 38 for the management of the said construction

companies. Based on the information obtained from the Human Resource Department of these construction companies, there are 95 Accountants, 77 Health and Safety officers, 90 Store Keepers and 86 ICT professionals as indicated in Table 3.1. Thus, the population of the non-construction professionals is 348.

The annual turnover of medium construction companies ranges from N500,000,000.00 to N1,000,000,000.00 while the annual turnover of construction companies classified as large is N1,000,000,000.00 and above. These class of companies were chosen for the study because of the large projects they undertake, their large annual turnover and the great number of workers they employ. In addition, non-empirical evidence shows that these companies have good organisational set up that lend themselves to refined academic research work than the lower class of companies.

Table 3.1 Non-construction professionals in medium-size and large construction companies in Abuja

Company	Accountants	Health and Safety officer	Store Keeper	ICT professionals	Total
1	3	1	2	2	**8**
2	2	2	1	2	**7**
3	4	3	2	3	**12**
4	2	2	4	2	**10**
5	1	1	2	1	**5**
6	2	2	3	2	**9**
7	3	2	4	3	**12**
8	2	2	3	3	**10**
9	4	3	3	2	**12**
10	3	1	2	2	**8**
11	3	2	3	2	**10**
12	2	3	3	3	**11**
13	1	2	2	2	**7**
14	2	2	2	2	**8**
15	3	2	3	3	**11**
16	2	2	3	2	**9**
17	3	2	3	3	**11**
18	2	2	2	3	**9**

19	2	1	1	1	**5**
20	4	2	3	3	**12**
21	2	2	2	3	**9**
22	3	3	2	3	**11**
23	4	3	3	3	**13**
24	3	2	2	2	**9**
25	2	1	2	2	**7**
26	2	3	2	2	**9**
27	3	1	3	3	**10**
28	2	2	1	2	**7**
29	4	3	3	2	**12**
30	2	2	1	1	**6**
31	3	2	2	3	**10**
32	3	1	2	2	**8**
33	1	2	2	1	**6**
34	2	2	3	2	**9**
35	2	2	2	2	**8**
36	2	3	2	2	**9**
37	3	2	2	2	**9**
38	2	2	3	3	**10**
Total	**95**	**77**	**90**	**86**	**348**

Source: Field Survey (2015)

3.4 Sampling Technique and Sampling Size

In content analysis, ‘sampling should be done in such a way that the researcher arrives at conclusion that an analysis of all possible texts will lead to, by analysing a manageable body of texts’ (Osuji, 2014; Krippendorff, 2004). Stratified sampling technique was used to select the non-construction professionals for questionnaire administration.

Mugo (2012) gave highly formidable reasons for sampling a population, rather than making a full use of the whole. The author noted that sampling is faster and practically less costly and labour intensive. Based on the population of the study, the proportionate stratified sampling technique adopted, the type of data obtained (categorical data), and the required level of precision of +/-5%, the required sample size for non-construction professionals was calculated using the formula given by Yamane (1967).

$$n = \frac{N}{1 + N(e)^2} \text{ ——————————————} (3.1)$$

Where

n = Sample size

N = Total Population

e = The level of precision taken as +/- 5%

Table 3.2 Population and Sample Size

Non-Construction Professionals	Population	Sample Size
Accountants	95	51
Health and Safety officer	77	41
Store keeper	90	48
ICT Professionals	86	46
Total	**348**	**186**

Source: Field survey (2015)

Therefore, the sample size (n) for the non-construction professionals is 186. This implies that 38 and 186 copies of questionnaire were administered to the management and non-construction professionals respectively of the said construction companies in Abuja.

3.5 Questionnaire Design

Structured questionnaires which were self-administered to the management and non-construction professionals (Accountants, Health and Safety Officer, Store keepers, and ICT professionals) were utilised for both preliminary and main survey. The preliminary survey was to find the motivational level and performance of non-construction professionals within some selected construction companies in Abuja.

Two sets of questionnaire were designed for the main study and were administered to the management and non-construction professionals. The first set was directed to the management. The questionnaire consisted of sections A and B. Section A was used to generate data on the company profile with emphasis on years of experience, company annual turnover, and workers' strength. Section B was used to assess the effectiveness of the motivational techniques on non-construction professionals. The respondents were requested to indicate the degree of effectiveness of the motivational techniques on them on a 5-point likert-type scale with "5" indicating "Highly effective" and "1" indicating "Highly ineffective".

The second set of questionnaire was directed to non-construction professionals. The questionnaire consisted of sections A, B, C and D. Section A was used to generate data on the respondents' profile with emphasis on academic and professional qualifications, and years of experience. Section B was used to assess the factors influencing motivation of non-construction professionals in construction companies in Abuja. The respondents were asked to rate the factors of motivation on a likert-type scale in order of significance with "5" indicating "very significant" and "1" indicating "insignificant". Section C was used to assess the current level of motivation of non-construction professional in the industry. The respondents were asked for their level of motivation in relation to the presence of motivational factors in their respective companies, on a likert-type scale with "5" indicating "very high" and "1" indicating "very low". Section D was designed to assess the professional satisfaction and self-actualisation of non-construction professionals in the study area. The respondents were asked for their level of agreement to a series of statements on a likert-type scale. They may choose with each statement to: "Strongly agree", "Agree", "Neutral", "Disagree", or "Strongly disagree".

3.6 Procedure for the Distribution of Questionnaire

The questionnaires were distributed to the management and non-construction professionals in the medium-size and large construction companies that are registered with the Federal Inland Revenue Services (FIRS) Abuja in 2015. 38 copies of questionnaire were distributed to the management on the basis of 1 copy per company. 51, 41, 48, and 46 copies of questionnaire were randomly administered to the Accountants, Health and Safety officers, Store keepers, ICT Professionals respectively.

3.7 Data Analysis Techniques

Data analysis was undertaken using both descriptive analysis and Relative Importance Index as following:

1. Tables, percentages and charts were used to express the statistical results concerning the academic and professional qualifications of respondents, company profile such as average annual turnover and so on.
2. The likert-type scale data was analysed using the formula employed by Mbamali and Okotie (2012), using the following steps:
   a. Computation of the mean using the weighted average formula

      $X = \frac{\sum fx}{\sum f}$ …………………………………………………… (3.2)

      Where:

      X = mean

      x = points on the likert-type scale (1, 2, 3, 4, and 5)

      f = frequency of respondents' choice of each point on the scale

      $\sum fx$ = is the total weight given to each attributes by the respondents.

      $\sum f$ = is the total number or respondents in the sample.

b. Computation of the relative importance index (RII) for each item of interest, using the formula

RII $= \frac{\sum fx}{\sum f} \times \frac{1}{k}$ .... (3.3)

Where:

k = is the highest weight on the Likert-type scale.

c. Ranking of the items under consideration based on their RII values. The item with the highest RII value is ranked first (1st) the next second (2nd) and so on.

d. Interpretation of the RII values as follows:

RII < 0.60, item is assessed to have low rating

0.60 < RII < 0.80, item assessed to have high rating

RII > 0.80, item assessed to have very high rating

Source: Mbamali and Okotie (2012)

And the guide to degree of significance rating is given in Table 3.3

Table 3.3 Guide to degree of significance

Degree of significance	Rating

Very significant	0.76 above
Significant	0.67-0.75
Fairly significant	0.45-0.66
Not significant	0.44 below

Source: Vanduhe (2012)

3. Weighted Mean:

$$X = \frac{f_1x_1 + f_2x_2 + f_3x_3 + f_4x_4 + f_5x_5}{x_t}; \quad \text{---------- (3.5)}$$

Where: f – weight given to each response

x – Number of responses

x_t – total number of responses

The mean ratings of factors were used to rank the extent of prevalence as either low, moderate or high based on the following boundaries (level of measurement) developed by Ruikar *et al*, (2006):

a. a mean rating with value $0.00 < x < 2.50$ is considered 'Low'
b. a mean rating with value $2.50 < x < 3.50$ is considered 'Moderate' and
c. a mean rating with value $3.50 < x < 5.00$ is considered 'High'.

CHAPTER 4

4.0 DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter deals with the presentation and interpretation of data obtained from the field survey, analysis of the data and discussion of findings as they related to the objectives of the study.

4.2 Demographic Data

From Table 4.1, a total of 186 questionnaires were administered to non-construction professionals in each of these companies. 112 were properly filled and returned. The responses of 32 Accountants, 24 Health and Safety officers, 30 Store keepers, and 26 ICT professionals were obtained. These represent 60.2% of the 186 questionnaires sent out for the survey. Also, a total of 38 questionnaires were directed to the management out of which 30 were properly filled and returned making a percentage of 79%. Based on the assertion of Moser & Kalton (1971), the result of a survey could be considered significant if the response rate not lower than 30-40%. Therefore, the percentage of the returned questionnaires is adequate for analysis.

Table 4.1 Breakdown of Administered Questionnaires

	Non-construction professionals	**Management**
Number distributed	186	38
Number properly filled and returned	112	30
Percentage response	60.2%	79%

Source: Field survey (2015)

The demographic data obtained from the non-construction professionals were age, profession, educational qualification, professional membership, number of years working for their current company, and number of years working in the industry, while the demographic data obtained from the management were position, years of company existence, average annual turnover, and estimated number of employees. These information was very important to recognise areas where experience and professionalism have a significant effect on the individual response.

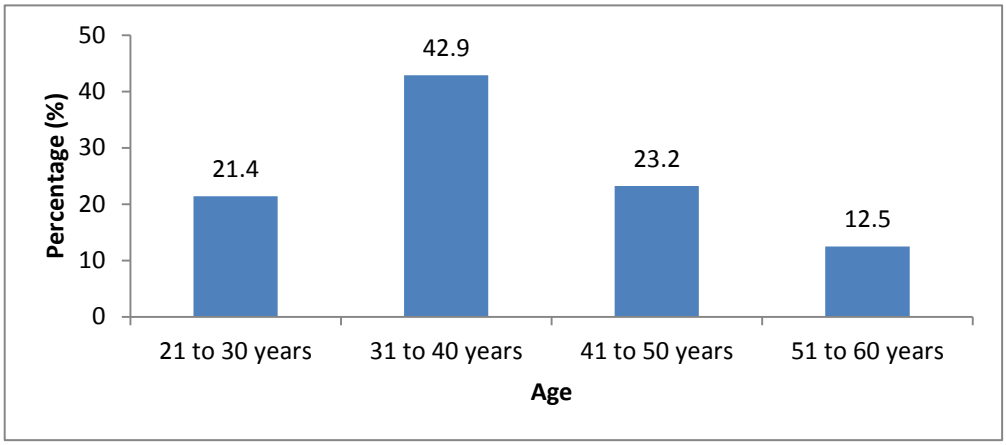


Figure 4.1: Age of respondents
Source: Field Survey (2015)

Figure 4.1 shows that majority of respondents (42.9%) were between the age of 31 and 40 years old, 21.4% were in the age of 21 to 30 years of age while 23.2% were between 41 to 50 years of age. 12.5% of the respondents were over the age of 50 years. This shows that the workforce of the construction companies as regards to non-construction professionals were between the age of 31 and 40. This is an indication that majority of the respondents are still young and energetic.

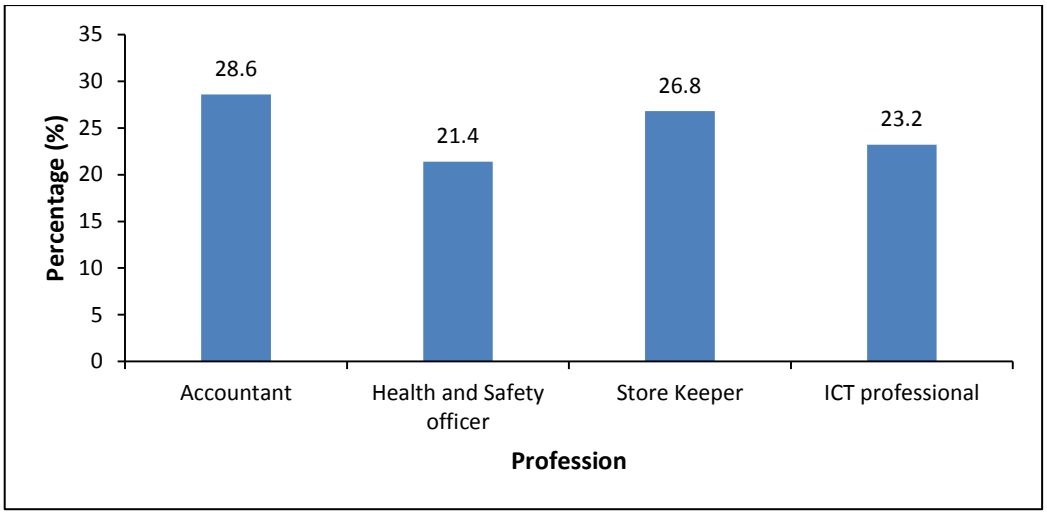


Figure 4.2: Profession of respondents
Source: Field Survey (2015)

A close look at the profession of the survey respondents from Figure 4.2 revealed that Accountants making up 28.6% of respondents, Health and Safety officer making up 21. 4% of respondents, Store keepers making up 26.8%, and ICT professionals 23.2% of respondents.

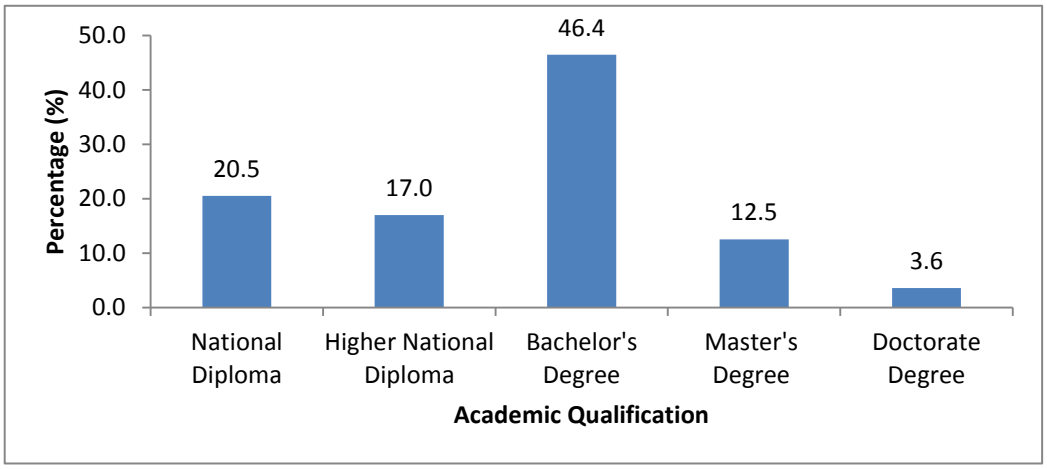


Figure 4.3: Academic qualification of respondents
Source: Field Survey (2015)

The study shows that only 3.6% of respondents were Ph.D. holders. A majority of respondents (46.4%) were B.Sc. holders while 12.5% were M.Sc. holders. The remaining (20.5% and 17.0%) of the respondents were ND and HND holders respectively. The fact that only 3.6% and 12.5% were Ph.D. and M.Sc. holders

respectively, is an indication that the non-construction professionals were not given the opportunity to advance their studies. Also from the results, 62.5% of the respondents had the minimum qualification of B.Sc. This shows that the respondents had the required academic qualifications that could assist to provide a meaningful data from which inferences could be drawn for the study.

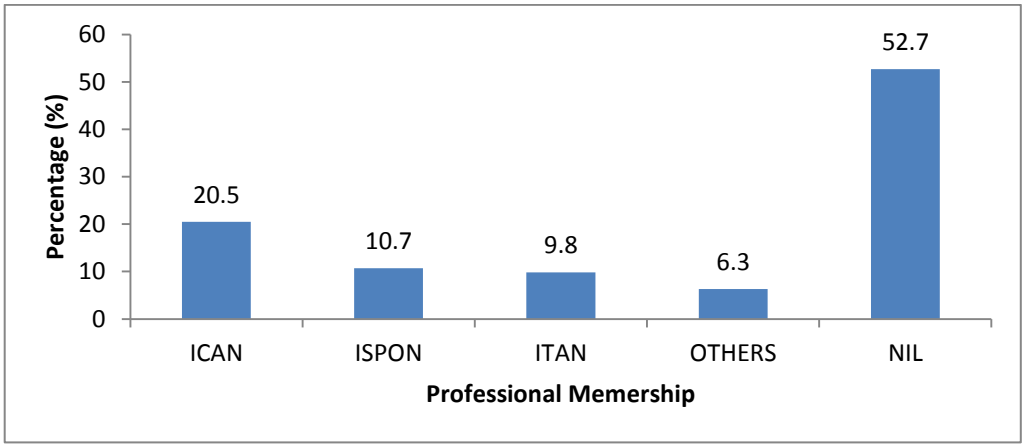


Figure 4.4: Professional membership of respondents
Source: Field Survey (2015)

The study revealed that the respondents had professional membership in addition to their educational attainment. A moderate percentage of them 20.5%, were members of Institute of Chartered Accountants of Nigeria (ICAN), 10.7% were members of Institute of Safety Professionals of Nigeria (ISPON), 9.8% were members of Information Technology Association of Nigeria (ITAN) and 52.7% don't belong to any professional body. Only 6.3% of the respondents belong to other professional bodies. This shows that majority of non-construction professionals do not belong to any professional body.

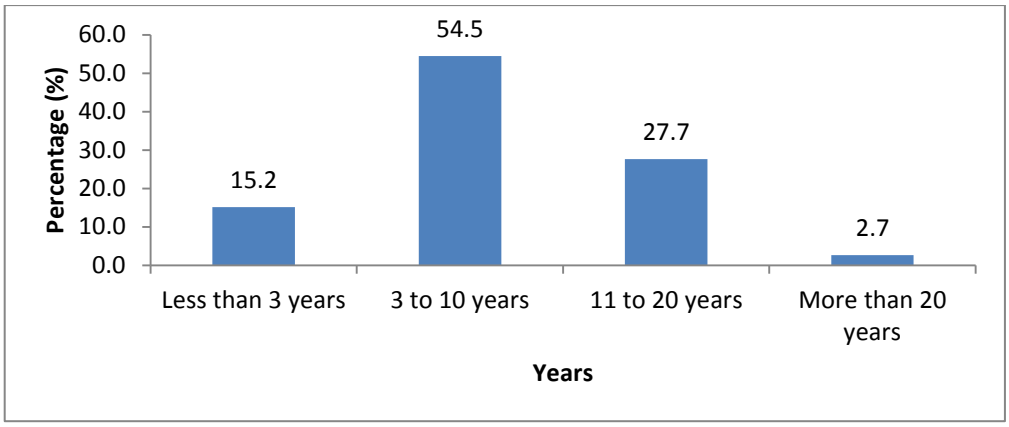


Figure 4.5: Years with company
Source: Field Survey (2015)

According to the survey result, as Figure 4.5 shows 54.5% of respondents have been with their current company for anywhere between 3 to 10 years. Followed by 27.7% that have worked with the same company for 11 to 20 years, 2.7% have been with their current company for more than 20 years. The fact that only 15.2% have less than 3 years working experience is an indication that the respondents were not only professionals in their fields but also have work experience.

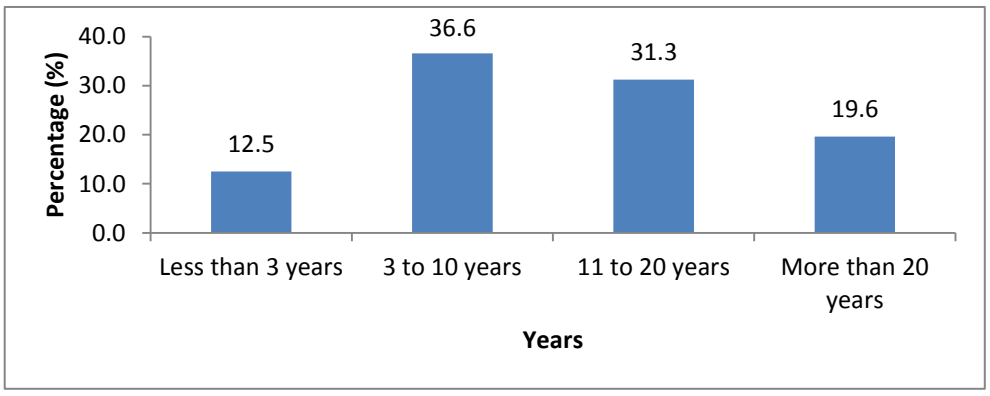


Figure 4.6: Years working in the industry
Source: Field Survey (2015)

Figure 4.6 shows that 19.6% of respondents have been working in the industry for anywhere between more than 20 years. Followed by 31.3% that have worked in the

industry for 11 to 20 years. Out of the remaining, 36.6% of respondents, have worked for anywhere between 3 to 10 years while 12.5% have worked for less than 3 years.

The previous two figures reveal that about 20% of respondents have more than 20 years of work experiences in the industry, out of which at least one-seventh of them have not been by working under their current company. It is interesting to note that only 2.7% of the respondents have been with their current company for more than 20 years yet over one fifth of the respondents have worked in the industry for more than 20 years. Meanwhile, out of the 19.6% of respondents that have been working in the industry for more than 20 years, only 2.7% have spent at least 20 of those years working for their current company. That is a difference of 16.9% that have worked for at least more than one employer (company) up to this point in their career. The percentage gaps between those years working in the industry and those working for the current company give us an insight into the employee turnover experienced in the construction companies of the sample surveyed.

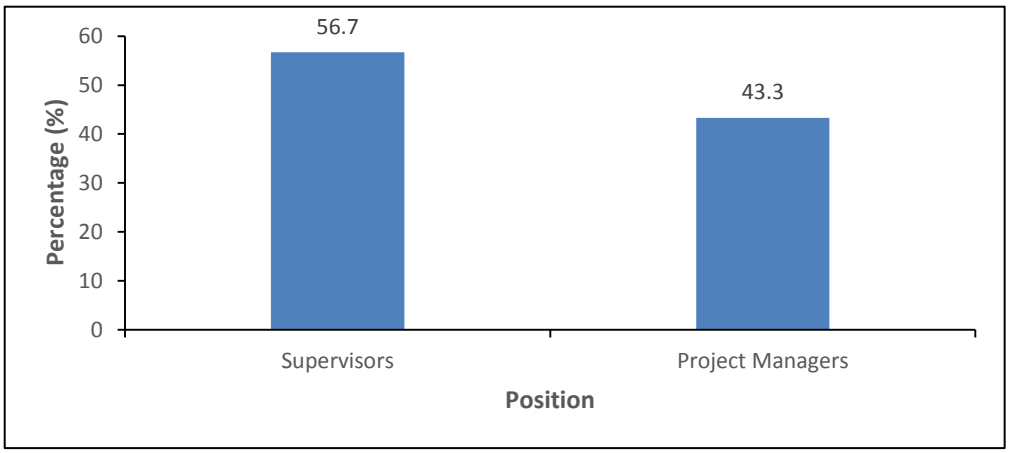


Figure 4.7: Position of respondents
Source: Field Survey (2015)

Figure 4.7 revealed that majority of the respondents (56.7%) are supervisors while the remaining 43.3% are project managers.

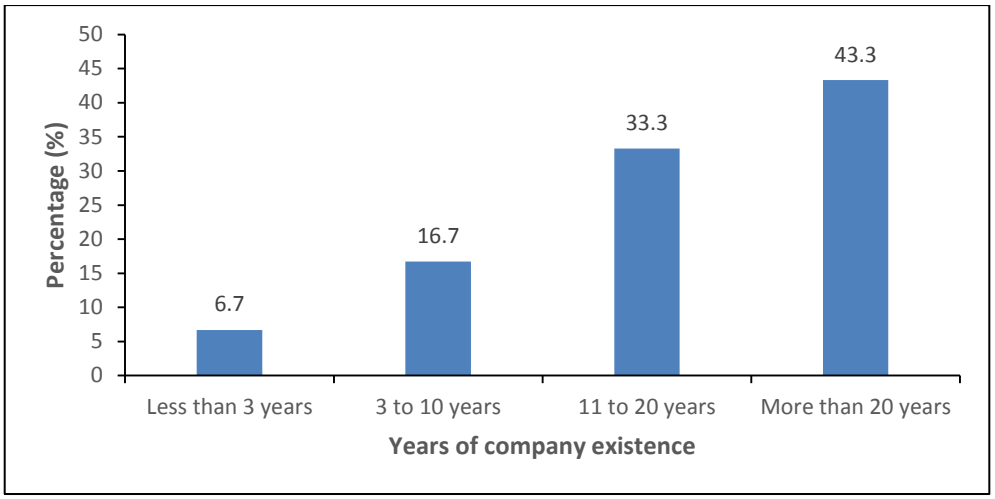


Figure 4.8: Years of company existence
Source: Field Survey (2015)

From Figure 4.8 above, majority of the companies (43.3%) have been in existence for more than 20 years, while 11 to 20 years have a percentage of 33.3 (%), companies existing between 3 to 10 years have a percentage of 16.7 (%) and less than 3 years of existence have the lowest percentage of 6.7 (%).

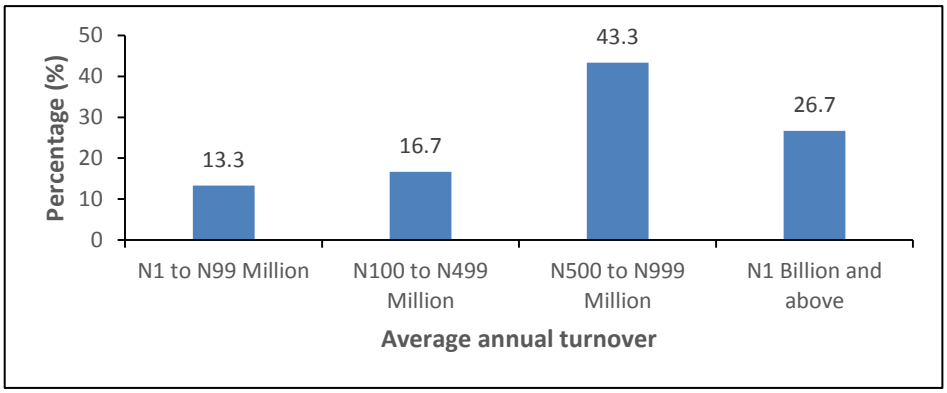


Figure 4.9: Average Annual Turnover
Source: Field Survey (2015)

Figure 4.9 revealed that out of the companies surveyed 43.3% have an average annual turnover of N500 to N999 million, while 26.7% maintained an average annual turnover of N1 billion and above. This is an indication that the companies are not redundant and are capable of adequately motivating their employees for improved performance.

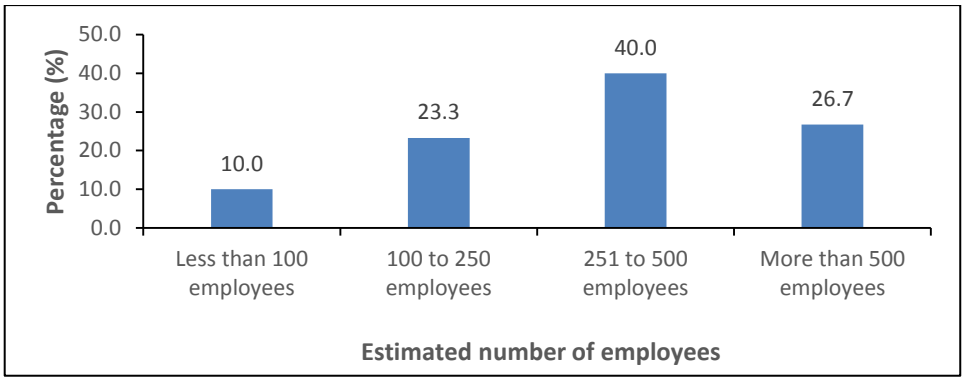


Figure 4.10: Estimated number of Employees
Source: Field Survey (2015)

The result shows that majority of the companies 40.0% have 251 to 500 employees. Those with employees less than 100 have the lowest percentage of 10.0%, While 23.3% of companies have 100 to 250 employees. The remaining 26.7% of the construction companies have more than 500 employees. The low percentage of companies having less than 100 employees is an indication that most of the companies surveyed were medium and large construction companies and are buoyant enough to handle their employees' motivation.

4.3 Factors that Influence Motivation of Non-Construction Professionals

From Table 4.2, it shows that the most influencing factor on the motivation of non-construction professionals is 'Job security' with RII of 0.95. It is a very significant factor because it ranked 0.76 and above on the Relative Importance Index (RII). 'Salary paid by the company', 'Advancement and growth opportunities', 'Training and development', and 'Rewards for performance' ranked second, third, fourth, and fifth respectively with RII between 0.86 and 0.92. This shows that they are all very significant factors.

Table 4.2 Factors of motivation of non-construction professionals

S/N	Factors of motivation	Frequency of responses					∑f	∑fx	Mean	RSI	Rank
		1	2	3	4	5					
1	Job security (having confidence about future within the organisation)	-	-	1	28	83	112	530	4.73	0.95	1
2	Salary paid by the company	-	-	8	28	76	112	516	4.61	0.92	2
3	Advancement and growth opportunities within the organisation	-	-	9	30	73	112	512	4.57	0.91	3
4	Training and development to enhance skills and ability to improve performance	1	6	11	26	68	112	490	4.38	0.88	4
5	Rewards that are linked to performance	-	10	12	27	63	112	479	4.28	0.86	5
6	Working conditions and conducive work environment	-	6	19	26	61	112	478	4.27	0.85	6
7	Interpersonal relationship with co-employees	4	6	21	28	53	112	456	4.07	0.81	7
8	Ability to participate in decision making	7	9	19	27	50	112	440	3.93	0.79	8
9	Leadership (a trustworthy and respectful leader)	1	10	34	34	33	112	424	3.79	0.76	9
10	Recognition and appreciation of employees' performance	3	7	39	28	35	112	421	3.76	0.75	10
11	Timely feedback on employees performance and their level of progress	4	8	38	28	34	112	416	3.71	0.74	11
12	Goal-setting (challenging but achievable)	7	12	20	47	26	112	409	3.65	0.73	12
13	Opportunity to undertake challenging tasks	1	15	35	34	28	112	409	3.65	0.73	12
14	Favourable company policies	9	10	33	31	29	112	397	3.54	0.71	14

(1= Insignificant, 2= Less Significant, 3= Average, 4= Significant, 5= Very Significant)
Source: Field survey (2015)

Also, from Table 4.2, 'Working conditions', 'Interpersonal relationship with co-employees', 'Ability to participate in decision making', 'Leadership', 'Recognition and appreciation' were ranked sixth, seventh, eighth, ninth, and tenth respectively with RII between 0.76 and 0.85 and are all very significant factors. 'Goal-setting', and 'Opportunity to undertake challenging task' both ranked twelfth while 'Favourable company policies' ranked fourteenth with RII between 0.71 and 0.73 and are all significant factors because their Relative Importance Index is between 0.67 - 0.75.

4.3.1 Factors that influence motivation of Accountants

From Table 4.3, it shows that the most influencing factor on the motivation of Accountants is 'Salary paid by the company' with RII of 0.96. It is a very significant factor because it ranked 0.76 and above on the Relative Importance Index (RII). 'Job security', 'Advancement and growth opportunities', 'Training and development', and 'Working conditions' ranked second, third, fourth, and fifth respectively with RII between 0.88 and 0.95. This shows that they are all very significant factors. 'Reward for performance', 'Interpersonal relationship with co-employees', 'Ability to participate in decision making', 'Favourable company policies', 'Recognition and appreciation' were ranked sixth, seventh, eighth, ninth, and tenth respectively with RII between 0.79 and 0.87 which are all very significant factors. 'Timely feedback on employees' performance', and 'Goal-setting', were both ranked eleventh. 'Opportunity to undertake challenging task' and 'Leadership' were ranked thirteenth and fourteenth with RII between 0.76 and 0.77 which are all very significant factors because their Relative Importance Index is 0.76 and above.

Table 4.3 Factors of motivation (Accountants)

S/N	Factors of motivation	Frequency of responses					∑f	∑fx	Mean	RSI	Rank
		1	2	3	4	5					
1	Salary paid by the company	-	-	2	3	27	32	153	4.78	0.96	1
2	Job security (having confidence about future within the organisation)	-	-	1	6	25	32	152	4.75	0.95	2
3	Advancement and growth opportunities within the organisation	-	-	2	5	25	32	151	4.72	0.94	3
4	Training and development to enhance skills and ability to improve performance	-	-	2	11	19	32	145	4.53	0.91	4
5	Working conditions and conducive work environment	-	2	4	6	20	32	140	4.38	0.88	5
6	Rewards that are linked to performance	-		3	9	18	32	139	4.34	0.87	6
7	Interpersonal relationship with co-employees	1	1	5	7	18	32	136	4.25	0.85	7
8	Ability to participate in decision making	1	2	5	7	17	32	133	4.16	0.83	8
9	Favourable company policies	1	3	4	8	16	32	131	4.09	0.82	9
10	Recognition and appreciation of employees' performance	1	2	9	6	14	32	126	3.94	0.79	10
11	Timely feedback on employees performance and their level of progress	1	2	8	9	12	32	125	3.91	0.78	11
12	Goal-setting (challenging but achievable)	1	3	5	12	11	32	125	3.91	0.78	11
13	Opportunity to undertake challenging tasks	-	4	8	9	11	32	123	3.84	0.77	13
14	Leadership (a trustworthy and respectful leader)	1	3	8	9	11	32	122	3.81	0.76	14

(1= Insignificant, 2= Less Significant, 3= Average, 4= Significant, 5= Very Significant)
Source: Field survey (2015)

4.3.2 Factors that influence motivation of Health and Safety Officers

From Table 4.4, it shows that the most influencing factor on the motivation of Health and Safety Officers is 'Advancement and growth opportunities' with RII of 0.96. It is a very significant factor because it ranked 0.76 and above on the Relative Importance Index (RII). 'Salary paid by the company', 'Job security', 'Training and development', and 'Working conditions' ranked second, third, fourth, and fifth respectively with RII between 0.87 and 0.94. This shows that they are all very significant factors. 'Reward for performance', 'Leadership', 'Interpersonal relationship with co-employees', 'Ability to participate in decision making', 'Timely feedback on employees' performance', were ranked sixth, seventh, eighth, ninth, and tenth respectively with RII between 0.76 and 0.86. 'Recognition and appreciation' and 'Opportunity to undertake challenging task' were both ranked eleventh. 'Goal-setting' and 'Favourable company policies' were ranked thirteenth and fourteenth with RII between 0.68 and 0.72, which are all significant factors because their Relative Importance Index is between 0.67-0.75.

4.3.3 Factors that influence motivation of Store Keepers

From Table 4.5, it shows that the most influencing factor on the motivation of Store Keepers is 'Job security' with RII of 0.95. It is a very significant factor because it ranked 0.76 and above on the Relative Importance Index (RII). 'Salary paid by the company' 'Advancement and growth opportunities', and 'Reward for performance', and 'Training and development', were ranked second, third, and fourth respectively with RII between 0.83 and 0.89. This shows that they are all very significant factors. 'Interpersonal relationship with co-employees', 'Working conditions', 'Ability to participate in decision making' were ranked sixth, seventh, and eighth respectively with RII between 0.79 and 0.82 which are all very significant factors.

Table 4.4 Factors of motivation (Health and Safety Officers)

S/N	Factors of motivation	Frequency of responses					∑f	∑fx	Mean	RSI	Rank
		1	2	3	4	5					
1	Advancement and growth opportunities within the organisation	-	-	1	3	20	24	115	4.79	0.96	1
2	Salary paid by the company	-	-	1	5	18	24	113	4.71	0.94	2
3	Job security (having confidence about future within the organisation)	-	-	-	7	17	24	113	4.71	0.94	3
4	Training and development to enhance skills and ability to improve performance	-	2	2	5	15	24	105	4.38	0.88	4
5	Working conditions and conducive work environment	-	2	3	4	15	24	104	4.33	0.87	5
6	Rewards that are linked to performance	-	2	3	5	14	24	103	4.29	0.86	6
7	Leadership (a trustworthy and respectful leader)	-	-	8	9	7	24	95	3.96	0.79	7
8	Interpersonal relationship with co-employees	1	2	5	6	10	24	94	3.92	0.78	8
9	Ability to participate in decision making	2	2	4	6	10	24	92	3.83	0.77	9
10	Timely feedback on employees performance and their level of progress	1	1	8	6	8	24	91	3.79	0.76	10
11	Recognition and appreciation of employees' performance	1	2	9	4	8	24	88	3.67	0.73	11
12	Opportunity to undertake challenging tasks	-	2	9	8	5	24	88	3.67	0.73	11
13	Goal-setting (challenging but achievable)	3	1	4	11	5	24	86	3.58	0.72	13
14	Favourable company policies	2	3	7	8	4	24	81	3.38	0.68	14

(1= Insignificant, 2= Less Significant, 3= Average, 4= Significant, 5= Very Significant)
Source: Field survey (2015)

Table 4.5 Factors of motivation (Store Keepers)

S/N	Factors of motivation	Frequency of responses					∑f	∑fx	Mean	RSI	Rank
		1	2	3	4	5					
1	Job security (having confidence about future within the organisation)	-	-	-	8	22	30	142	4.73	0.95	1
2	Salary paid by the company	-	-	3	10	17	30	134	4.47	0.89	2
3	Advancement and growth opportunities within the organisation	-	-	4	11	15	30	131	4.37	0.87	3
4	Rewards that are linked to performance	0	3	5	7	15	30	124	4.13	0.83	4
5	Training and development to enhance skills and ability to improve performance	1	2	5	6	16	30	124	4.13	0.83	4
6	Interpersonal relationship with co-employees	1	1	6	8	14	30	123	4.10	0.82	6
7	Working conditions and conducive work environment	-	2	8	8	12	30	120	4.00	0.80	7
8	Ability to participate in decision making	2	2	5	7	14	30	119	3.97	0.79	8
9	Leadership (a trustworthy and respectful leader)	-	4	10	7	9	30	111	3.70	0.74	9
10	Recognition and appreciation of employees' performance	1	2	10	10	7	30	110	3.67	0.73	10
11	Timely feedback on employees performance and their level of progress	1	3	12	7	7	30	106	3.53	0.71	11
12	Goal-setting (challenging but achievable)	2	4	6	13	5	30	105	3.50	0.70	12
13	Opportunity to undertake challenging tasks	1	6	7	10	6	30	104	3.47	0.69	13
14	Favourable company policies	4	3	11	7	5	30	96	3.20	0.64	14

(1= Insignificant, 2= Less Significant, 3= Average, 4= Significant, 5= Very Significant)
Source: Field survey (2015)

Also, from Table 4.5, ‘Leadership’, ‘Recognition and appreciation’, ‘Timely feedback on employees’ performance’, ‘Goal-setting’, and ‘Opportunity to undertake challenging task’ were ranked ninth, tenth, eleventh, twelfth and thirteenth with RII between 0.69 and 0.74 which are all significant factors because their Relative Importance Index is between 0.67-0.75. ‘Favourable company policies’ was ranked fourteenth with RII of 0.64 which is fairly significant factor because the Relative Importance Index is between 0.45-0.66.

4.3.4 Factors that influence motivation of ICT Professionals

From Table 4.6, it shows that the most influencing factor on the motivation of ICT Professionals is ‘Job security’ ‘with RII of 0.95. It is a very significant factor because it ranked 0.76 and above on the Relative Importance Index (RII). ‘Salary paid by the company’, and ‘Training and development’ were both ranked second, ‘Advancement and growth opportunities’ and ‘Working conditions’ were both ranked fourth, with RII between 0.88 and 0.99. This shows that they are all very significant factors. ‘Reward for performance’, ‘Interpersonal relationship with co-employees’, ‘Recognition and appreciation’ were ranked sixth, seventh and eighth, respectively with RII between 0.75 and 0.87 which are all very significant factors. ‘Leadership’, and ‘Ability to participate in decision making’, were both ranked ninth with RII of 0.74. ‘Timely feedback on employees’ performance’, ‘Goal-setting’ and ‘Opportunity to undertake challenging task’ were all ranked eleventh with RII of 0.72. ‘Favourable company policies’ were ranked fourteenth with RII between 0.68, which are all significant factors because their Relative Importance Index is between 0.67-0.75.

Table 4.6 Factors of motivation (ICT Professionals)

S/N	Factors of motivation	Frequency of responses					∑f	∑fx	Mean	RSI	Rank
		1	2	3	4	5					
1	Job security (having confidence about future within the organisation)	-	-	-	7	19	26	123	4.73	0.95	1
2	Salary paid by the company	-	-	2	10	14	26	116	4.46	0.89	2
3	Training and development to enhance skills and ability to improve performance	-	2	2	4	18	26	116	4.46	0.89	2
4	Advancement and growth opportunities within the organisation	-	-	2	11	13	26	115	4.42	0.88	4
5	Working conditions and conducive work environment	-	-	4	8	14	26	114	4.38	0.88	4
6	Rewards that are linked to performance	-	3	1	6	16	26	113	4.35	0.87	6
7	Interpersonal relationship with co-employees	1	2	5	7	11	26	103	3.96	0.79	7
8	Recognition and appreciation of employees' performance	-	1	11	8	6	26	97	3.73	0.75	8
9	Leadership (a trustworthy and respectful leader)	-	3	8	9	6	26	96	3.69	0.74	9
10	Ability to participate in decision making	2	3	5	7	9	26	96	3.69	0.74	9
11	Timely feedback on employees performance and their level of progress	1	2	10	6	7	26	94	3.62	0.72	11
12	Goal-setting (challenging but achievable)	1	4	5	11	5	26	93	3.58	0.72	11
13	Opportunity to undertake challenging tasks	-	3	11	6	6	26	93	3.58	0.72	11
14	Favourable company policies	2	1	11	8	4	26	89	3.42	0.68	14

(1= Insignificant, 2= Less Significant, 3= Average, 4= Significant, 5= Very Significant)
Source: Field survey (2015)

4.3.5 Comparing/contrasting between the motivational factors of non-construction professionals

From Table 4.7, it shows that 'Salary paid by the company' ranked first among the factors that influence the motivation of Accountants with a very significant Relative Importance Index (RII) of 0.96, however the perception of the Health and Safety Officers, Store Keepers, ICT Professionals rated it second with RII of 0.94, 0.89, 0.89 respectively, which is still within a considerable range. 'Job security' ranked second by both the Accountants and Health and Safety Officers with RII of 0.95 and 0.94 respectively, however, the Store Keepers and ICT Professionals ranked it first with RII of 0.95 for both. 'Advancement and growth opportunities within the organisation' ranked third among the factors that influence the motivation of Accountants and Store keepers with a very significant Relative Important Index (RII) of 0.94 and 0.87 respectively, however, the Health and Safety Officers and ICT Professionals ranked it first and fourth with RII of 0.96 and 0.88 respectively. 'Training and development' ranked fourth by the Accountants, Health and Safety Officers and Store Keepers with RII of 0.91, 0.88 and 0.83 respectively and was ranked second by the ICT Professionals with RII of 0.89. 'Rewards that are linked to performance' ranked fourth by the Store Keepers with RII of 0.83, however, the Accountants, Health and Safety Officers and ICT Professionals ranked it sixth with RII of 0.87, 0.86 and 0.87 respectively.

Therefore, it is inferred from the study that all the factors of motivation are significantly important, however their degree of significance varies. The first five factors are outlined in order of their significance as identified from the research: 'Job security', 'Salary paid

by the company', 'Advancement and growth opportunities', 'Training and development' and 'Rewards that are linked to performance'.

Table 4.7: Comparing/ contrasting motivational factors

S/N	Factors of motivation	RII			
		Accountants	Health and Safety Officers	Store Keepers	ICT Professionals
1	Salary paid by the company	0.96	0.94	0.89	0.89
2	Job security (having confidence about future within the organisation)	0.95	0.94	0.95	0.95
3	Advancement and growth opportunities within the organisation	0.94	0.96	0.87	0.88
4	Training and development to enhance skills and ability to improve performance	0.91	0.88	0.83	0.89
5	Working conditions and conducive work environment	0.88	0.87	0.80	0.88
6	Rewards that are linked to performance	0.87	0.86	0.83	0.87
7	Interpersonal relationship with co-employees	0.85	0.78	0.82	0.79
8	Ability to participate in decision making	0.83	0.77	0.79	0.74
9	Favourable company policies	0.82	0.68	0.64	0.68
10	Recognition and appreciation of employees' performance	0.79	0.73	0.73	0.75
11	Timely feedback on employees performance and their level of progress	0.78	0.76	0.71	0.72
12	Goal-setting (challenging but achievable)	0.78	0.72	0.70	0.72
13	Opportunity to undertake challenging tasks	0.77	0.73	0.69	0.72
14	Leadership (a trustworthy and respectful leader)	0.76	0.79	0.74	0.74

Source: Field Survey (2015)

4.4 Current Level of Motivation of Non-construction Professionals

From Table 4.8, it can be seen that under the title 'Physiological needs' the level of motivation of non-construction professionals in respect to 'Salary paid by the company' have the highest ranking with R11 of 0.77 which is high because it ranked between 0.60-0.79 on the Relative Importance Index (RII). Their level of motivation in relation to 'Interpersonal relationships', 'Good leadership', 'Ability to participate in decision making' (Belongingness needs) and 'Working conditions and conducive work environment' (Physiological need) were ranked second, third, fourth and fifth respectively with RII between 0.66 and 0.76 which are high because they all ranked between 0.60-0.79 on the Relative Importance Index (RII). The level of motivation in respect to 'Recognition and appreciation', 'Goal-setting', 'Rewards for performance' (Esteem needs) and 'Opportunity to undertake challenging task' (Self-actualisation needs) were ranked sixth, seventh, eighth, and ninth, respectively with RII between 0.52 and 0.57 which are low because they all ranked less than 0.60 on the Relative Importance Index (RII). 'Job security' (Safety need) was ranked tenth with RII of 0.51. 'Performance feedback' (Esteem need), 'Training and development', and 'Advancement and growth opportunity' (Self-actualisation needs) were ranked eleventh, twelfth, and thirteenth respectively with RII between 0.38 and 0.50, which are low because they all ranked less than 0.60 on the Relative Importance Index (RII).

Table 4.8 Current motivational level of non-construction professionals

S/N	Motivational factors	Frequency of responses					∑f	∑fx	Mean	RII	Rank
		1	2	3	4	5					
	Physiological need										
1	Salary paid by the company	1	13	5	78	15	112	429	3.83	0.77	1
	Belongingness (social) needs										
2	Interpersonal relationship with co-employees	3	11	11	69	18	112	424	3.79	0.76	2
3	Good leadership	2	7	25	62	16	112	419	3.74	0.75	3
4	Ability to participate in decision making	3	27	18	46	18	112	385	3.44	0.69	4
	Physiological need										
5	Working conditions and conducive work environment	4	14	45	42	7	112	370	3.30	0.66	5
	Esteem needs										
6	Recognition and appreciation	3	35	54	15	5	112	320	2.86	0.57	6
7	Goal-setting (challenging but achievable)	15	22	59	13	3	112	303	2.71	0.54	7
8	Rewards for performance	28	30	21	17	16	112	299	2.67	0.53	8
	Self-actualisation need										
9	Opportunity to undertake challenging task	16	35	43	13	5	112	292	2.61	0.52	9
	Safety need										
10	Job security	25	14	60	11	2	112	287	2.56	0.51	10
	Esteem need										
11	Performance feedback	28	30	32	15	7	112	279	2.49	0.50	11
	Self-actualisation needs										
12	Training and development	28	24	45	11	4	112	275	2.46	0.49	12
13	Advancement and growth opportunity	49	38	15	6	4	112	214	1.91	0.38	13

(1= very low, 2= low, 3= average, 4= high, 5= very high)
Source: Field Survey (2015)

4.4.1 Current level of motivation of Accountants

From Table 4.9, it can be seen that the level of motivation of Accountants in respect to 'Interpersonal relationships', 'Good leadership', 'Ability to participate in decision making' (Belongingness needs) were ranked first, second, and third respectively with RII between 0.68 and 0.76 which are high because they all ranked between 0.60-0.79 on the Relative Importance Index (RII). The level of motivation in respect to 'Salary paid by the company' (Physiological need), 'Recognition and appreciation', 'Rewards for performance' (Esteem needs), 'Working conditions and conducive work environment' (Physiological need) were ranked fourth, fifth, sixth, and seventh, respectively with RII between 0.54 and 0.59 which are low because they all ranked less than 0.60 on the Relative Importance Index (RII). 'Goal-setting' (Esteem need), 'Opportunity to undertake challenging task' (Self-actualisation needs) and 'Job security' (Safety need) were all ranked eighth with RII of 0.53. 'Performance feedback' (Esteem need), and 'Training and development' (Self-actualisation needs) were both ranked eleventh with RII of 0.51, which are low because they all ranked less than 0.60 on the Relative Importance Index (RII). 'Advancement and growth opportunity' was ranked thirteenth with RII of 0.38 which is low because it is less than 0.60 on the Relative Importance Index (RII).

Table 4.9 Current motivational level of Accountants

S/N	Motivational factors	Frequency of responses					∑f	∑fx	Mean	RII	Rank
		1	2	3	4	5					
	Belongingness (social) needs										
1	Interpersonal relationship with co-employees	1	3	4	18	6	32	121	3.78	0.76	1
2	Good leadership	1	3	7	17	4	32	116	3.63	0.73	2
3	Ability to participate in decision making	1	8	6	11	6	32	109	3.41	0.68	3
	Physiological need										
4	Salary paid by the company	1	13	5	13	-	32	94	2.94	0.59	4
	Esteem needs										
5	Recognition and appreciation	1	10	16	4	1	32	90	2.81	0.56	5
6	Rewards for performance	8	8	6	4	6	32	88	2.75	0.55	6
	Physiological need										
7	Working conditions and conducive work environment	1	10	18	3	-	32	87	2.72	0.54	7
	Esteem need										
8	Goal-setting (challenging but achievable)	5	6	17	3	1	32	85	2.66	0.53	8
	Self-actualisation need										
9	Opportunity to undertake challenging task	4	11	12	3	2	32	84	2.63	0.53	8
	Safety need										
10	Job security	6	5	16	5	-	32	84	2.63	0.53	8
	Esteem need										
11	Performance feedback	8	8	9	5	2	32	81	2.53	0.51	11
	Self-actualisation needs										
12	Training and development	8	6	12	4	2	32	82	2.56	0.51	11
13	Advancement and growth opportunity	12	11	5	2	2	32	67	2.09	0.42	13

(1= very low, 2= low, 3= average, 4= high, 5= very high)
Source: Field Survey (2015)

4.4.2 Current level of motivation of Health and Safety Officers

From Table 4.10, under the title 'Physiological needs' the level of motivation of Health and Safety Officers in respect to 'Salary paid by the company' have the highest ranking with R11 of 0.85 which is high because it ranked between 0.60-0.79 on the Relative Importance Index (RII). Their level of motivation in relation to 'Interpersonal relationships', 'Good leadership', (Belongingness needs), 'Working conditions and conducive work environment' (Physiological need) and 'Ability to participate in decision making' (Belongingness needs) were ranked second, third, fourth and fifth respectively with RII between 0.64 and 0.77 which are high because they all ranked between 0.60-0.79 on the Relative Importance Index (RII). The level of motivation in respect to 'Recognition and appreciation', 'Rewards for performance' (Esteem needs) were ranked sixth, and seventh respectively with RII between 0.57 and 0.58. 'Goal-setting' (Esteem needs), and 'Job security' (Safety need) were both ranked eight with RII of 0.53 eighth, 'Performance feedback' (Esteem need), 'Opportunity to undertake challenging task', 'Training and development', and 'Advancement and growth opportunity' (Self-actualisation needs) were ranked tenth, eleventh, twelfth, and thirteenth respectively with RII between 0.36 and 0.51, which are low because they all ranked less than 0.60 on the Relative Importance Index (RII).

Table 4.10 Current motivational level of Health and Safety Officers

S/N	Motivational factors	Frequency of responses					∑f	∑fx	Mean	RII	Rank
		1	2	3	4	5					
	Physiological need										
1	Salary paid by the company	-	-	-	18	6	24	102	4.25	0.85	1
	Belongingness (social) needs										
2	Interpersonal relationship with co-employees	1	2	1	16	4	24	92	3.83	0.77	2
3	Good leadership	-	1	6	15	2	24	90	3.75	0.75	3
	Physiological need										
4	Working conditions and conducive work environment	-	1	8	13	2	24	88	3.67	0.73	4
	Belongingness (social) need										
5	Ability to participate in decision making	1	7	5	8	3	24	77	3.21	0.64	5
	Esteem needs										
6	Recognition and appreciation	-	8	12	3	1	24	69	2.88	0.58	6
7	Rewards for performance	5	6	5	4	4	24	68	2.83	0.57	7
8	Goal-setting (challenging but achievable)	3	5	13	3	-	24	64	2.67	0.53	8
	Safety need										
9	Job security	4	3	14	3	-	24	64	2.67	0.53	8
	Esteem need										
10	Performance feedback	5	7	7	4	1	24	61	2.54	0.51	10
	Self-actualisation needs										
11	Opportunity to undertake challenging task	5	7	8	3	1	24	60	2.50	0.50	11
12	Training and development	7	5	9	3	-	24	56	2.33	0.47	12
13	Advancement and growth opportunity	10	10	3	1	-	24	43	1.79	0.36	13

(1= very low, 2= low, 3= average, 4= high, 5= very high)
Source: Field Survey (2015)

4.4.3 Current level of motivation of Store Keepers

From Table 4.11, under the title 'Physiological needs' the level of motivation of Store Keepers in respect to 'Salary paid by the company' have the highest ranking with R11 of 0.83 which is high because it ranked 0.80 and above on the Relative Importance Index (RII). Their level of motivation in relation to 'Interpersonal relationships', 'Good leadership', 'Ability to participate in decision making' (Belongingness needs), and 'Working conditions and conducive work environment' (Physiological need) were ranked second, third, fourth and fifth respectively with RII between 0.68 and 0.77 which are high because they all ranked between 0.60-0.79 on the Relative Importance Index (RII). The level of motivation in respect to 'Recognition and appreciation', and 'Goal-setting' (Esteem needs) were ranked sixth, and seventh respectively with RII between 0.53 and 0.59 which are high. 'Rewards for performance', 'Performance feedback' (Esteem needs), 'Opportunity to undertake challenging task' (Self-actualisation needs) were all ranked eight with RII of 0.51. 'Training and development', 'Job security' (Safety need) and 'Advancement and growth opportunity' (Self-actualisation needs) were ranked eleventh, twelfth, and thirteenth respectively with RII between 0.39 and 0.50, which are low because they all ranked 0.60 and below on the Relative Importance Index (RII).

Table 4.11 Current motivational level of Store Keepers

S/N	Motivational factors	Frequency of responses					∑f	∑fx	Mean	RII	Rank
		1	2	3	4	5					
	Physiological need										
1	Salary paid by the company	-	-	-	25	5	30	125	4.17	0.83	1
	Belongingness (social) needs										
2	Interpersonal relationship with co-employees	-	3	3	19	5	30	116	3.87	0.77	2
3	Good leadership	-	2	7	15	6	30	115	3.83	0.77	2
4	Ability to participate in decision making	1	6	4	14	5	30	106	3.53	0.71	4
	Physiological need										
5	Working conditions and conducive work environment	2	2	10	14	2	30	102	3.40	0.68	5
	Esteem needs										
6	Recognition and appreciation	1	9	13	5	2	30	88	2.93	0.59	6
7	Goal-setting (challenging but achievable)	4	7	14	5	-	30	80	2.67	0.53	7
8	Rewards for performance	8	9	5	5	3	30	76	2.53	0.51	8
	Esteem need										
9	Performance feedback	7	9	7	5	2	30	76	2.53	0.51	8
	Self-actualisation need										
10	Opportunity to undertake challenging task	4	10	12	3	1	30	77	2.57	0.51	8
11	Training and development	7	6	13	3	1	30	75	2.50	0.50	11
	Safety need										
12	Job security	8	4	16	1	1	30	73	2.43	0.49	12
	Self-actualisation need										
13	Advancement and growth opportunity	12	10	6	1	1	30	59	1.97	0.39	13

(1= very low, 2= low, 3= average, 4= high, 5= very high)
Source: Field Survey (2015)

4.4.4 Current level of motivation of ICT Professionals

From Table 4.12, the level of motivation of ICT Professionals in respect to 'Salary paid by the company' (Physiological needs) have the highest ranking with R11 of 0.83 which is high because it ranked 0.80 and above on the Relative Importance Index (RII). Their level of motivation in relation to 'Good leadership', 'Interpersonal relationships', 'Ability to participate in decision making' (Belongingness needs), and 'Working conditions and conducive work environment' (Physiological need) were ranked second, third, fourth and fifth respectively with RII between 0.72 and 0.75 which are high because they all ranked between 0.60-0.79 on the Relative Importance Index (RII). Their level of motivation in respect to 'Goal-setting', 'Recognition and appreciation' (Esteem needs) 'Opportunity to undertake challenging task' (Self-actualisation needs), 'Rewards for performance' (Esteem need), 'Job security' (Safety need), 'Training and development' (Self-actualisation needs), 'Performance feedback' (Esteem needs), 'Advancement and growth opportunity' (Self-actualisation needs) were all ranked sixth, seventh, eighth, ninth, tenth, eleventh, twelfth and thirteenth with RII between 0.35 and 0.57, which are low because they all ranked 0.60 and below on the Relative Importance Index (RII).

Table 4.12 Current motivational level of ICT Professionals

S/N	Motivational factors	Frequency of responses					∑f	∑fx	Mean	RII	Rank
		1	2	3	4	5					
	Physiological need										
1	Salary paid by the company	-	-	-	22	4	26	108	4.15	0.83	1
	Belongingness (social) needs										
2	Good leadership	1	1	5	15	4	26	98	3.77	0.75	2
3	Interpersonal relationship with co-employees	1	3	3	16	3	26	95	3.65	0.73	3
4	Ability to participate in decision making	-	6	3	13	4	26	93	3.58	0.72	4
	Physiological need										
5	Working conditions and conducive work environment	1	1	9	12	3	26	93	3.58	0.72	5
	Esteem needs										
6	Goal-setting (challenging but achievable)	3	4	15	2	2	26	74	2.85	0.57	6
7	Recognition and appreciation	15	22	59	13	3	26	73	2.81	0.56	7
	Self-actualisation need										
8	Opportunity to undertake challenging task	3	7	11	4	1	26	71	2.73	0.55	8
	Esteem need										
9	Rewards for performance	7	7	5	4	3	26	67	2.58	0.52	9
	Safety need										
10	Job security	7	2	14	2	1	26	66	2.54	0.51	10
	Self-actualisation need										
11	Training and development	6	7	11	1	1	26	62	2.38	0.48	11
	Esteem need										
12	Performance feedback	8	6	9	1	2	26	61	2.35	0.47	12

	Self-actualisation need											
13	Advancement and growth opportunity	15	7	1	2	1	26	45	1.73	0.35	13

(1= very low, 2= low, 3= average, 4= high, 5= very high)
Source: Field Survey (2015)

4.4.5 Comparing/contrasting between the current motivational levels of non-construction professionals

From Table 4.13, it can be seen that the level of motivation of Accountants in respect to the presence of 'Interpersonal relationships', 'Good leadership', 'Ability to participate in decision making' (Belongingness needs) were rated high with RII between 0.68 and 0.76. While the level of motivation in respect to 'Salary paid by the company' (Physiological need), 'Recognition and appreciation', 'Rewards for performance' (Esteem needs), 'Working conditions and conducive work environment' (Physiological need), 'Goal-setting' (Esteem need), 'Opportunity to undertake challenging task' (Self-actualisation needs), 'Job security' (Safety need), 'Performance feedback' (Esteem need), 'Training and development', 'Advancement and growth opportunity' (Self-actualisation needs) were rated low with RII between 0.38 and 0.59. However, the level of motivation of Health and Safety Officers, Store Keepers and ICT Professionals in relation to the presence of 'Salary paid by the company' and 'Working conditions and conducive work environment' (Physiological need), 'Interpersonal relationships', 'Good leadership', 'Ability to participate in decision making' (Belongingness needs) were rated high with RII between 0.64 and 0.85. While the level of their motivation in respect to 'Recognition and appreciation', 'Rewards for performance', 'Goal-setting' (Esteem needs), 'Opportunity to undertake challenging task' (Self-actualisation needs), 'Job security' (Safety need), 'Performance feedback' (Esteem need), 'Training and

development', 'Advancement and growth opportunity' (Self-actualisation needs) were rated low with RII between 0.39 and 0.59.

Therefore, it is inferred from the study that the Accountants were not satisfied with the 'Salary paid by the company' and 'Working conditions and conducive work environment' (Physiological need), of their construction companies. Hence, the need for these companies to increase their salary in order to raise their level of motivation and increase their performance.

Table 4.13: Comparing/contrasting current motivational levels of Non-Construction Professionals

S/N	Factors of motivation	RII			
		Accountants	Health and Safety Officers	Store Keepers	ICT Professionals
	Physiological needs				
1	Salary paid by the company	0.59	0.85	0.83	0.83
2	Working conditions and conducive work environment	0.54	0.73	0.68	0.72
	Safety needs				
3	Job security	0.53	0.53	0.49	0.51
	Belongingness (social) needs				
4	Interpersonal relationship with co-employees	0.76	0.77	0.77	0.73
5	Good leadership	0.73	0.75	0.77	0.75
6	Ability to participate in decision making	0.68	0.64	0.71	0.72
	Esteem needs				
7	Recognition and appreciation	0.56	0.58	0.59	0.56
8	Goal-setting (challenging but achievable)	0.53	0.53	0.53	0.57
9	Rewards for performance	0.55	0.57	0.51	0.52
10	Performance feedback	0.51	0.51	0.51	0.47

	Self-actualisation needs				
11	Advancement and growth opportunity	0.42	0.36	0.39	0.35
12	Training and development	0.51	0.47	0.50	0.48
13	Opportunity to undertake challenging task	0.53	0.50	0.51	0.55

Source: Field Survey (2015)

4.5 Perception of Management on Effectiveness of Motivational Techniques on the Non-construction Professionals

Table 4.14 reveals the perception of management of construction companies on the effectiveness of motivational techniques on the non-construction professionals. The result shows that the most effective motivational techniques on the non-construction professionals is 'good remuneration' with RII of 0.93. It is a very effective motivational technique because it ranked 0.76 and above on the Relative Importance Index (RII). 'Professional training courses' was ranked second with RI1 of 0.92 which is very effective. 'Job design', 'bonus' and 'promotion opportunities' were ranked third, fourth, and fifth respectively with RI1 between 0.88 and 0.91 and are all very effective motivational techniques. 'Team work' and 'conducive work environment', both ranked sixth with RII of 0.85. 'Health care services', 'award and recognition' and 'pay for performance', 'company car/transportation', and 'telephone services' were ranked eighth, ninth, and eleventh respectively with effective Relative Importance Index between 0.82 and 0.84.

Also, 'Company pension scheme', 'accommodation', 'flexible work schedule', and 'vacation leave' were ranked thirteenth, fourteen, fifteenth, and sixteenth, respectively with RII between 0.76 and 0.81. They are all very effective motivational techniques because they all ranked 0.76 and above. 'Gain sharing', 'employee stock ownership

plan' (ESOP), and 'free tea/coffee at work' were ranked seventeenth, eighteenth, and nineteenth respectively. They are all effective because their Relative Importance Index is between 0.67 - 0.75.

Table 4.14 Effectiveness of motivational techniques on the Non-Construction Professionals (Managements' perception)

S/N	Motivational techniques	Frequency of responses					∑f	∑fx	Mean	RSI	Rank
		1	2	3	4	5					
1	**Job design -** to acquire skills, opportunities for growth, learning and achievement.	-	1	1	8	20	30	137	4.57	0.91	3
2	**Pay for performance** - merit pay	-	1	3	17	9	30	124	4.13	0.83	9
3	**Gain sharing -** rewards employees when targets are met	1	2	8	16	3	30	108	3.60	0.72	17
4	**Team work -** to feel a sense of belonging	1	1	3	9	16	30	128	4.27	0.85	6
5	**Bonus -** rewards employees with zone time cash payment	-	1	2	10	17	30	133	4.43	0.89	4
6	**Flexible work schedule -** flexitime and telecommuting	-	2	6	14	8	30	118	3.93	0.79	15
7	**Employee stock ownership plan (ESOP) -** gives employees part ownership of the organisation.	1	3	9	12	5	30	107	3.57	0.71	18
8	**Professional training courses -** to acquire skills for challenging assignments	-	-	3	6	21	30	105	4.60	0.92	2
9	**Promotion -** opportunities for growth	-	2	3	7	18	30	131	4.37	0.88	5
10	**Company pension scheme -** fringe benefit after retirement	1	3	4	12	11	30	122	4.07	0.81	13
11	**Health care services -** for employees in the organisation.	-	1	4	13	12	30	126	4.20	0.84	8
12	**Accommodation -** residential	1	1	5	13	10	30	120	4.00	0.80	14
13	**Vacation leave -** employee still receive payment for time not worked	2	2	4	14	8	30	114	3.80	0.76	16
14	**Award and recognition** - for an employees' contribution to the organisation	-	1	3	17	9	30	124	4.13	0.83	9
15	**Conducive working environment -** Good and safe work environment	-	1	2	15	12	30	128	4.27	0.85	6
16	**Company car/transportation -** for easy movement of employees to and from site	1	1	3	14	11	30	123	4.10	0.82	11
17	**Free tea/coffee -** for employee at work	2	2	10	11	5	30	105	3.50	0.70	19

18	**Good Remuneration -** good salary pay for employees	-	-	3	5	22	30	139	4.63	0.93	1
19	**Telephone services -** for effective communication between project elements	-	1	4	16	9	30	123	4.10	0.82	11

(1= Highly ineffective; 2= Ineffective; 3 = Average; 4 = Effective; 5= Highly effective)
Source: Field survey (2015)

4.6 Professional Satisfaction and Self-actualisation Non-Construction Professionals

4.6.1 Professional satisfaction of non-construction professionals

Figure 4.11 shows the degree of satisfaction of non-construction professionals, with majority of the non-construction professionals being professionally dissatisfied about working within the construction organisations; this is represented by a percentage of 61.6(%), averagely satisfied is represented by a percentage of 18.8(%), those that were satisfied have a percentage of 12.5(%), highly satisfied have a percentage of 7.1(%).

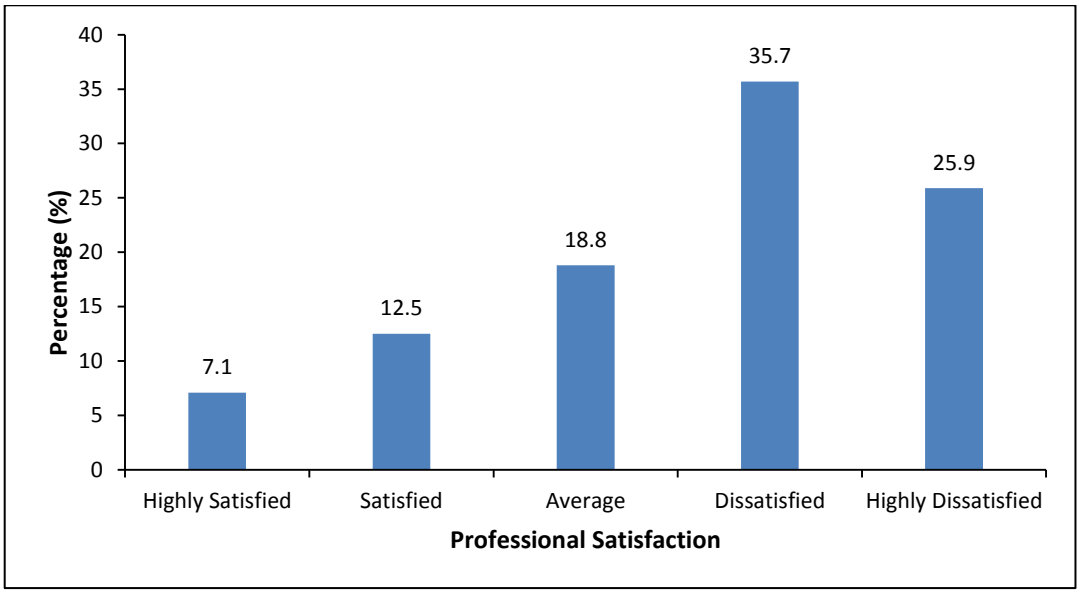


Figure 4.11: Professional satisfaction of non-construction professionals
Source: Field Survey (2015)

Figure 4.12 shows that the Store Keepers and ICT Professionals are more professionally dissatisfied with a percentage of 63.4% and 73.1% respectively, compared to the Accountants and Health and Safety Officers with a percentage dissatisfaction of 53.1% and 58.4% respectively. However, the Accountants and Health and Safety Officers are more professionally satisfied with a percentage satisfaction of 28.1% and 20.8% respectively, compared to the Store Keepers and ICT Professionals with a percentage satisfaction of 13.3% and 15.4% respectively.

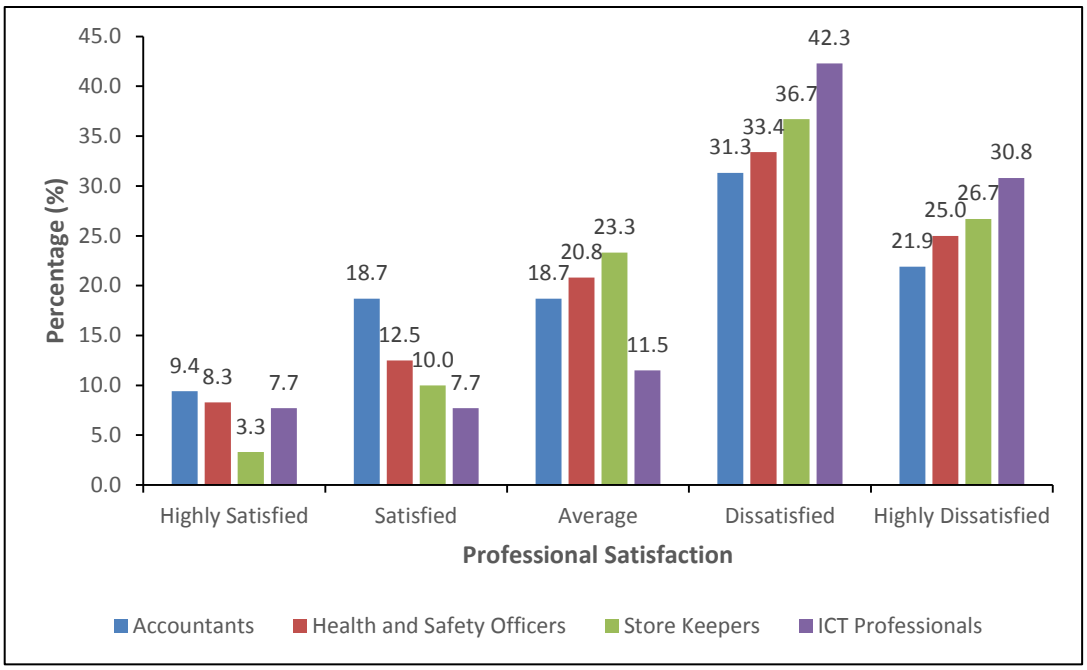


Figure 4.11: Comparing/Contrasting Professional satisfaction of non-construction professionals
Source: Field Survey (2015)

4.6.2 Self-actualisation potentials of non-construction professionals

Table 4.15 indicates the mean which is a measure of central tendency which shows the intermediate value that have been applied toward the various ways of achieving professional satisfaction and self-actualisation listed on the Table. From Table 4.15, under the title 'training and development' it was identified that 'Your organisation

sponsors your training programmes' have the highest mean of 3.40 which is considered 'moderate' because it rated between 2.51-3.49 on the Mean Rating of Factors. This is followed by 'Your manager/supervisor allows you to make decisions (Autonomy) which has a mean of 3.38 which is also considered 'moderate'. There are good opportunities for creativity and competence (Autonomy), there are good promotion opportunities for employees in your organisation, the growth opportunity within the organisation motivates you to perform better, all have mean of 3.20, 3.03, and 2.99 respectively which are considered 'moderate'. The three lowest mean are 2.21, 2.11, and 1.97 representing the mean for; 'the company sponsors/allows you to further your education', 'the advancement opportunity within the organisation motivates you to perform better', and 'there are good career prospect in your organisation' which are all considered 'low' because it rated between 2.49 and below on the Mean Rating of Factors. This is due to the fact that majority of non-construction professionals don't agree that there are good career prospect in their organisation and the advancement opportunity within the organisation do not motivate them to perform better.

Table 4.15 Self-actualisation potentials of non-construction professionals

S/N	Variables	N	Mean	Sum
	Career advancement			
1	There are good career prospect in your organisation (professional membership)	112	1.97	221
2.	The company sponsors/allows you to further your education	112	2.41	248
3.	The advancement opportunity within the organisation motivates you to perform better	112	2.11	236
	Promotion opportunities			
4.	There are good promotion opportunities for employee within your organisation	112	3.03	339
5.	The growth opportunity within the organisation motivates you to perform better	112	2.99	335
	Autonomy			
6.	There are good opportunities for creativity and competence	112	3.20	358
7.	Your manager/supervisor allows you to use your discretion and make decisions on how to perform your task in order to achieve your goal	112	3.38	378
	Training and development			
8.	Your company implement training programmes to improve your ability and skills	112	2.96	331
9.	The company sponsors your training courses	112	3.40	381
	Job characteristics			
10.	Your job is both interesting and challenging	112	2.38	267
11	Employees are rotated in your organisation in	112	2.44	273

	order to learn new skills.

(1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly agree) Source: Field Survey (2015)

4.6.3 Self-actualisation potentials of Accountants

From Table 4.16, it was identified that 'Your organisation sponsors your training programmes' (Training and development) have the highest mean of 3.31. This is followed by 'Your manager/supervisor allows you to make decisions (Autonomy) which has a mean of 3.16. 'The growth opportunity within the organisation motivates you to perform better', 'there are good opportunities for creativity and competence' (Autonomy), 'there are good promotion opportunities for employees in your organisation', all have mean of 3.09, 3.03, and 2.94 respectively which are considered 'moderate' because it rated between 2.51-3.49 on the Mean Rating of Factors. The three lowest mean are 2.22, 2.16, and 1.97 representing the mean for; 'the company sponsors/allows you to further your education', 'the advancement opportunity within the organisation motivates you to perform better', and 'there are good career prospect in your organisation' which are considered 'low'.

4.6.4 Self-actualisation potentials of Health and Safety Professionals

From Table 4.17, under the title 'Autonomy' it was identified that 'Your manager/supervisor allows you to use your discretion' have the highest mean of 4.04 which are considered 'high' because it rated between 3.51-5.00 on the Mean Rating of Factors. This is followed by 'there are good opportunities for creativity and competence' (Autonomy) which has a mean of 3.71. 'your company sponsors your training courses', your company implement training programmes' all have mean of

3.50, and 3.25, respectively which are considered ‘moderate’ because it rated between 2.51-3.49 on the Mean Rating of Factors. The three lowest mean are 2.33, 2.25, and 2.04 representing the mean for; ‘the company sponsors/allows you to further your education’, ‘the advancement opportunity within the organisation motivates you to perform better’, and ‘there are good career prospect in your organisation’ which are considered ‘low’.

Table 4.16 Self-actualisation potentials of Accountants

S/N	Variables	N	Mean	Sum
	Career advancement			
1	There are good career prospect in your organisation (professional membership)	32	1.97	63
2.	The company sponsors/allows you to further your education	32	2.22	71
3.	The advancement opportunity within the organisation motivates you to perform better	32	2.16	69
	Promotion opportunities			
4.	There are good promotion opportunities for employee within your organisation	32	2.94	94
5.	The growth opportunity within the organisation motivates you to perform better	32	3.09	99
	Autonomy			
6.	There are good opportunities for creativity and competence	32	3.03	97
7.	Your manager/supervisor allows you to use your discretion and make decisions on how to perform your task in order to achieve your goal	32	3.16	101
	Training and development			
8.	Your company implement training programmes to improve your ability and skills	32	2.72	87
9.	The company sponsors your training courses	32	3.31	106
	Job characteristics			

10.	Your job is both interesting and challenging	32	2.22	71
11	Employees are rotated in your organisation in order to learn new skills.	32	2.59	83

(1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly agree) Source: Field Survey (2015)

Table 4.17 Self-actualisation potentials of Health and Safety Officers

S/N	Variables	N	Mean	Sum
	Career advancement			
1	There are good career prospect in your organisation (professional membership)	24	2.04	49
2.	The company sponsors/allows you to further your education	24	2.33	56
3.	The advancement opportunity within the organisation motivates you to perform better	24	2.25	54
	Promotion opportunities			
4.	There are good promotion opportunities for employee within your organisation	24	3.08	74
5.	The growth opportunity within the organisation motivates you to perform better	24	3.00	72
	Autonomy			
6.	There are good opportunities for creativity and competence	24	3.71	89
7.	Your manager/supervisor allows you to use your discretion and make decisions on how to perform your task in order to achieve your goal	24	4.04	97
	Training and development			
8.	Your company implement training programmes to improve your ability and skills	24	3.25	78
9.	The company sponsors your training courses	24	3.50	84
	Job characteristics			
10.	Your job is both interesting and challenging	24	2.63	63

11	Employees are rotated in your organisation in order to learn new skills.	24	2.54	61

(1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly agree) Source: Field Survey (2015)

4.6.5 Self-actualisation potentials of Store Keepers

From Table 4.18, under the title 'training and development' it was identified that 'Your organisation sponsors your training programmes' have the highest mean of 3.27 which are considered 'moderate' because it rated between 2.51-3.49 on the Mean Rating of Factors. This is followed by 'Your manager/supervisor allows you to use your discretion (Autonomy) which has a mean of 3.10 which are considered 'moderate' because it rated between 2.51-3.49 on the Mean Rating of Factors. The three lowest mean are 1.97, 1.90, and 1.87 representing the mean for; 'there are good career prospect in your organisation', 'the advancement opportunity within the organisation motivates you to perform better', and 'employees are rotated in your organisation in order to learn new skills' which are considered 'low'.

4.6.6 Self-actualisation potentials ICT Professionals

From Table 4.19, under the title 'training and development' it was identified that 'Your organisation sponsors your training programmes' have the highest mean of 3.58 which are considered 'high' because it rated between 3.51-5.00 on the Mean Rating of Factors. This is followed by 'Your manager/supervisor allows you to use your discretion' (Autonomy) which has a mean of 3.35. There are good opportunities for creativity and competence (Autonomy), 'there are good promotion opportunities for employees in your organisation', 'your company implements training programmes', all have mean of

3.31 and 3.27 respectively which are considered 'moderate' because it rated between 2.51-3.49 on the Mean Rating of Factors. The three lowest mean are 2.19, 2.15, and 1.92 representing the mean for; 'the company sponsors/allows you to further your education', 'the advancement opportunity within the organisation motivates you to perform better' and 'there are good career prospect in your organisation' which are considered 'low'. This is because majority of ICT Professionals don't agree that there are good career prospect in their organisation and the advancement opportunity within the organisation do not motivate them to perform better.

Table 4.18 Self-actualisation potentials of Store Keepers

S/N	Variables	N	Mean	Sum
	Career advancement			
1	There are good career prospect in your organisation (professional membership)	30	1.97	59
2.	The company sponsors/allows you to further your education	30	2.13	64
3.	The advancement opportunity within the organisation motivates you to perform better	30	1.90	57
	Promotion opportunities			
4.	There are good promotion opportunities for employee within your organisation	30	3.03	91
5.	The growth opportunity within the organisation motivates you to perform better	30	2.97	89
	Autonomy			
6.	There are good opportunities for creativity and competence	30	2.87	86
7.	Your manager/supervisor allows you to use your discretion and make decisions on how to perform your task in order to achieve your goal	30	3.10	93
	Training and development			
8.	Your company implement training programmes to improve your ability and skills	30	2.70	81
9.	The company sponsors your training courses	30	3.27	98

	Job characteristics			
10.	Your job is both interesting and challenging	30	2.37	71
11	Employees are rotated in your organisation in order to learn new skills.	30	1.87	56

(1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly agree) Source: Field Survey (2015)

Table 4.19 Self-actualisation potentials of ICT Professionals

S/N	Variables	N	Mean	Sum
	Career advancement			
1	There are good career prospect in your organisation (professional membership)	26	1.92	50
2.	The company sponsors/allows you to further your education	26	2.19	57
3.	The advancement opportunity within the organisation motivates you to perform better	26	2.15	56
	Promotion opportunities			
4.	There are good promotion opportunities for employee within your organisation	26	3.08	80
5.	The growth opportunity within the organisation motivates you to perform better	26	2.88	75
	Autonomy			
6.	There are good opportunities for creativity and competence	26	3.31	86
7.	Your manager/supervisor allows you to use your discretion and make decisions on how to perform your task in order to achieve your goal	26	3.35	87
	Training and development			
8.	Your company implement training programmes to improve your ability and skills	26	3.27	85
9.	The company sponsors your training courses	26	3.58	93
	Job characteristics			
10.	Your job is both interesting and challenging	26	2.38	62

11	Employees are rotated in your organisation in order to learn new skills.	26	2.81	73

(1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly agree) Source: Field Survey (2015)

4.6.7 Comparing/contrasting self-actualisation potentials of non-construction professionals

From Table 4.20, it was identified by the Accountants, Store Keepers, and ICT Professionals that 'Your organisation sponsors your training programmes' (Training and development) have the highest mean of 3.31, 3.27 and 3.58 respectively. However it was identified by Health and Safety Officers that 'Your manager/supervisor allows you to use your discretion' (Autonomy) have the highest mean of 4.04. The lowest mean as indicated by the Accountants, Health and Safety Officers and ICT Professionals are 1.97, 2.04, and 1.92 representing the mean for; 'there are good career prospect in your organisation' (Career advancement). This is because majority of non-construction professionals don't agree that there are good career prospect in their organisations. However, the lowest mean as indicated by the Store Keepers is 1.87 representing the mean for; 'Employees are rotated in your organisation in order to learn new skills'. This is because the Store Keepers feel that they have not been adequately rotated in their companies to learn new skills.

Table 4.20 Comparing/contrasting self-actualisation potentials of Non-Construction Professionals

S/N	Factors of motivation	MEAN			
		Accountants	Health and Safety Officers	Store Keepers	ICT Professionals
	Career advancement				
1	There are good career prospect in your organisation (professional membership)	1.97	2.04	1.97	1.92
2.	The company sponsors/allows you to further your education	2.22	2.33	2.13	2.19
3.	The advancement opportunity within the organisation motivates you to perform better	2.16	2.25	1.90	2.15
	Promotion opportunities				
4.	There are good promotion opportunities for employee within your organisation	2.94	3.08	3.03	3.08
5.	The growth opportunity within the organisation motivates you to perform better	3.09	3.00	2.97	2.88
	Autonomy				
6.	There are good opportunities for creativity and competence	3.03	3.71	2.87	3.31
7.	Your manager/supervisor allows you to use your discretion and make decisions on how to perform your task in order to achieve your goal	3.16	4.04	3.10	3.35
	Training and development				
8.	Your company implement training programmes to improve your ability and skills	2.72	3.25	2.70	3.27

9.	The company sponsors your training courses	3.31	3.50	3.27	3.58
	Job characteristics				
10.	Your job is both interesting and challenging	2.22	2.63	2.37	2.38
11	Employees are rotated in your organisation in order to learn new skills.	2.59	2.54	1.87	2.81

Source: Field Survey (2015)

4.7 Discussion of Results

4.7.1 Factors of motivation of non-construction professionals

It is identified from the study that all the factors are significantly important, however their degree of significance varied. The first five factors are outlined in order of their significance on motivation of non-construction professionals as identified from the research: 'Job security', 'Salary', 'Advancement and growth opportunities', 'Training and development' and 'Reward for performance'. According to non-construction professionals, having a secured job is a very significant motivation. Uncertainty within the organisation lowers the morale of employees at work, therefore, they prefer to have confidence about their future within the organisation. This is then followed by other factors in the order stated above. The findings of this study corroborated the study of Osuji (2014) which concluded that the six most influential factors of motivation of employee-consultants in the Nigerian construction industry includes: 'Job security', 'Salary', 'Working conditions', 'Reward', 'Training and development' and 'Leadership'.

4.7.2 Current level of motivation of non-construction professionals

With the result obtained above, it can be inferred that, the level of motivation of non-construction professionals in relation to physiological needs and belongingness needs is high while it is low in relation to safety needs, esteem needs and self-actualisation needs. Also, from the study, it shows that no much consideration was given for career advancement of these professionals which in turn will limit their knowledge in the industry. Therefore, in order to improve the level of motivation of non-construction professionals in the industry, priority should be given to advancement and growth opportunities. Followed by other factors in ascending order of their respective level of motivation.

4.7.3 Effectiveness of motivational techniques on non-construction professionals

From the result obtained, it can be deduced that in order to improve the performance of non-construction professionals in the construction industry, priority should be given to monetary rewards. This is an indication that low remuneration lowers workers morale and thus negatively impact on their performance. Professional training courses should be the next priority because it increases the non-construction professionals' opportunity to acquire more skills and become experts in their field and hence will lead to higher performance. This will also have a resultant effect on their chances of promotion and growth within the industry. Next in the order of priority should be 'Job design' because it improves workers' skills and satisfaction, gives them autonomy, and feeling of a greater sense of involvement, commitment, and motivation which in turn contributes to higher moral and stronger organisational performance. The findings of this study does not compares favourably with the study of (Ameh and Shokumbi, 2013) which concluded that the five most effective non-financial motivation systems as identified by

management staff (construction professionals) of construction companies in Lagos include: 'Opportunity to do something that gives a sense of self-esteem', 'Pension scheme', 'Accommodation', 'Opportunity to utilise skills and knowledge' (Job rotation), 'Opportunity for challenging work'. Therefore, the next motivational techniques in the order of priority should be in the order of their respective effectiveness as identified in the study.

4.7.4 Professional satisfaction and self-actualisation of non-construction professionals

With the result obtained, it can be inferred that for non-construction professionals to achieve professional satisfaction and self-actualisation within the industry, priority should be given to 'career advancement', 'promotion opportunities', and 'training and development'. According to Daft (2006), self-actualisation needs include the need for self-fulfilment, which is the highest need category. They concern developing one's full potential, increasing one's competence, and becoming a better person. Self-actualisation needs can be met in the organisation by providing people with opportunities to grow, be creative, and acquire training for challenging assignments and advancement.

CHAPTER 5

5.0 SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary of Major Findings

This study focused on the assessment of motivation of non-construction professionals in construction companies in Abuja, Nigeria, with a view to improving their performance and self-actualisation. A review of literature was carried out, where motivational factors, techniques and theories of motivation, and self-actualisation potentials were identified and used for the assessment by means of a structured questionnaire developed for the research. A sample size of 38 and 186 was established for both management and non-construction professionals, and stratified sampling technique was used to select the non-construction professionals to answer the questions in Appendix III. 79% and 60.2% response rates were obtained from management and non-construction professionals respectively, which were used for analysis.

The results of the analysis were presented in charts and tables and discussions were made with inferences drawn in each case. Below is a list of major findings from the study:

I. From the findings of this study, the level of motivation of non-construction professionals in relation to 'Salary paid by the company' (Physiological needs) was ranked highest with RII of 0.78 which is high, while their level of motivation in relation to 'Advancement and growth opportunity (Self-actualisation needs) was the least ranked with RII of 0.38 which is low.

II. The level of motivation of Accountants in relation to 'Interpersonal relationship with co-employees' (Physiological needs) was ranked highest with RII of 0.76 which is high, while their level of motivation in relation to 'Advancement and growth opportunity (Self-actualisation needs) was the least ranked with RII of 0.42 which is low.

III. From the findings of this study, the level of motivation of Health and Safety Officers in relation to 'Salary paid by the company' (Physiological needs) was ranked highest with RII of 0.85 which is high, while their level of motivation in relation to 'Advancement and growth opportunity (Self-actualisation needs) was the least ranked with RII of 0.36 which is low.

IV. The level of motivation of Store Keepers in relation to 'Salary paid by the company' (Physiological needs) was ranked highest with RII of 0.83 which is high, while their level of motivation in relation to 'Advancement and growth opportunity (Self-actualisation needs) was the least ranked with RII of 0.39 which is low.

V. From the findings of this study, the level of motivation of ICT Professionals in relation to 'Salary paid by the company' (Physiological needs) was ranked highest with RII of 0.83 which is high, while their level of motivation in relation to 'Advancement and growth opportunity (Self-actualisation needs) was the least ranked with RII of 0.35 which is low.

VI. Based on the research findings, ‘job security’ ranked first on the factors influencing the motivation of non-construction professionals with RII of 0.95 while the least ranked is ‘Favourable company policies’ with RII of 0.72.

VII. From the findings, ‘Salary paid by the company’ ranked first on the factors influencing the motivation of Accountants with RII of 0.96 while the least ranked is ‘Leadership’ with RII of 0.76.

VIII. From the research findings, ‘Advancement and growth opportunities’ ranked first on the factors influencing the motivation of Health and Safety Officers with RII of 0.96 while the least ranked is ‘Favourable company policies’ with RII of 0.68.

IX. Based on the research findings, ‘job security’ ranked first on the factors influencing the motivation of Store Keepers with RII of 0.95 while the least ranked is ‘Favourable company policies’ with RII of 0.64.

X. From the research findings, ‘job security’ ranked first on the factors influencing the motivation of ICT Professionals with RII of 0.95 while the least ranked is ‘Favourable company policies’ with RII of 0.68.

XI. Based on the perception of management on the effectiveness of motivational techniques on non-construction professionals, the most effective motivational techniques is Good remuneration (Salary) and the least effective is free tea/coffee at work. From the study, majority of non-construction professionals (61.6%) were generally not professionally satisfied within the construction industry.

XII. Based on the self-actualisation potentials of non-construction professionals in the study area, ‘Your organization sponsors training programmes’ have the highest mean of 3.40 which is considered ‘moderate’ and

‘there are good career prospect in your organisation’ have the least mean of 1.97 which is considered ‘low’.

5.2 Conclusion

The following conclusions were made based on the objectives of the study as stated in Chapter one:

I. Based on the findings of this study, the level of motivation of non-construction professionals in relation to ‘physiological needs’, and ‘belongingness (social) needs’ is high and in relation to ‘security needs’, ‘esteem needs’, and ‘self-actualisation needs’ is low.

II. Based on the research findings, it can be concluded that all the factors of motivation as it relates to motivation of non-construction professionals are significant, however their degree of significance varied. The first five factors are outlined in order of their significance as identified from the research: Job security, salary, career advancement and growth, training and development and reward for performance.

III. The study revealed certain motivational techniques that affect the performance of non-construction professionals. According to the management, good remuneration (salary) is the most effective technique. The study considered all other motivational techniques as effective, however their degree of effectiveness varied. The first five techniques are outlined in order of their effectiveness as identified from the research: Good remuneration (salary), professional training courses, job design, bonus, promotion opportunities.

IV. Finally, it was discovered that the majority of non-construction professionals are generally not satisfied with the level of motivation, professionalism, and self- actualisation within the industry.

5.3 Recommendation

In light of the findings of this study, the following recommendations were made with a view to improving the performance and self-actualisation of non-construction professionals within the construction industry:

I. In order to improve the level of motivation of non-construction professionals in the industry, attention should be given to their job security needs as well as their esteem and self-actualisation needs. This will go a long way in improving their performance and hence, give construction companies competitive edge in the international arena.
II. From the study, the first five factors are outlined in order of their significance as identified from the research: Job security, salary, career advancement and growth, training and development, and reward for performance. Therefore, construction companies should be concern with these factors in order of their significance for the continuous motivation of the non-construction professionals in the construction industry.
III. In adopting the most effective motivational techniques on the performance of non-construction professionals, critical consideration needs to be given to Good remuneration (salary), professional training courses, job design, bonus, and promotion opportunities.
IV. The construction industry must be willing to build the professions of non-construction professionals by allowing them to participate in special

educational/ professional programmes, conferences and other developmental activities which will help them to achieve professional growth and self-actualisation within the industry.

5.4 Contributions to knowledge

The following are the contributions to knowledge:

I. The study has provided a platform for the assessment of the current level of motivation of non-construction professionals in the construction companies in Abuja.
II. The study has revealed the significance of monetary rewards as key motivational factor of the construction companies, which serves as a tool in enhancing the growth of the industry.
III. This research has proved that the presence of good motivational techniques as identified enhance the performance of non-construction professionals to a great extent.
IV. This study has also proved that the opportunity for advancement and growth is also a necessary tool for improved performance.

5.5 Areas for further research

The following are the areas for further research:

I. Further research should be conducted to determine motivational factors of non-professionals in the industry, which were not included in the scope of this study.

II. This research also recommends that further studies be focused on establishing the relationship between professional satisfaction and performance of these professionals.

REFERENCES

AbdulAzeez, A. D. (2012). Development of a Prototype Electronic Document and Record Management System (EDRMS) for Small and Medium Building Firms. Unpublished PhD Dissertation, Department of Building, Ahmadu Bello University, Zaria, Nigeria.

Accounting Job, (2012). Retrieved from http:www.accountingjobstoday.com/cm/Resources/job-descriptions.html

Adams, J. S. (Ed.). (1965). *Inequity in Social Exchange in Advances in Experimental Social Psychology:* L. N. Brewick, Academic Press, (2), 267-300.

Adeagbo, D. O. & Kunya, S. U. (2003). Review of Waste Reduction Strategies on Nigeria Construction Sites. *ATBU Journal of Environmental Technology, 2,* 49-50.

Adedokun, O. A., Ibironke, O. T., & Olanipekun, A. O. (2013). Vulnerability of Motivating Schemes in Enhancing Site Workers Productivity for Construction Industry's Sustainability in Nigeria. *International Journal of Sustainable Construction Engineering and Technology, 4 (1).*

Adjei, E. A. (2009). Motivational Strategies to Improve Productivity in the Construction Industry in Ghana. M.Sc. Thesis, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.

Ameh, O. J., & Shokumbi, B. B. (2013). Effectiveness of Non-Financial Motivational Scheme on Construction Workers Output in Nigeria. *Ethiopian Journal of Environmental Studies and Management, 6 (3),* 267.

Armstrong, M. (2006). *Human Resource Management Practice.* Kogan 251-269.

Assar, R. (2015). *Who is a store keeper? What are the Duties and Responsibility of a Store Keeper?*

Attar, A. A., Gupta, A. K., & Desai, D. B. (2012). A Study of Various Factors Affecting Labour Productivity and Methods to Improve it. *IOSR Journal of Mechanical and Civil Engineering - Second International Conference on emerging trends in engineering*, 11–14.

Ayangade, J. A. I., Wahab, A. B. I., & Alake, O. I. (2009). An Investigation of the Performance of Due Process Mechanism in the Execution of Construction Projects in Nigeria. *Engineering Dimension, 11(1),* 1-7.

Benviolent, C. & Tirivavi, M. (2014). Factors Affecting Labour Productivity on Building Projects in Zimbabwe. *International Journal of Architecture, Engineering and Construction, 3 (1),* 57-65.

Bryan, L. L., Joyce, C. I. & Weiss, L. M. (2006). *Making a Market in Talent.* The McKinsey Quarterly, 2, 99-109.

Bymes, N. (2006). The art of motivation. Business Week, May.

Caicedo, L. E. (2003). Training and Motivation: Key to a Quality and Productivity Driven Company Culture. M.Sc. Thesis Presented to the Graduate School of the University of Florida.

Chukwuma, E. M., & Obiefuna, O. (2014). Effect of Motivation on Employee Productivity: A Study of Manufacturing Companies in Nnewi. *International Journal of Managerial Studies and Research (IJMSR), 2,* 137 – 138.

Daft, R. L. (2006). *New Era of Management.* Vanderbilt University, U.S: (2nd Ed.)

Dantong, J. S. (2007). Training of Construction craftsmen in the Nigerian Construction Industry. Unpublished M.Sc. Thesis submitted to Department of Architecture, University of Jos, Nigeria.

Enshassi, A., Mohamed, S., Mustapha, Z. A., & Mayer, P. E., (2007). Factors Affecting Labour Productivity in Building Projects in The Gaza Strip. *Journal of Civil Engineering and Management, 8 (4).*

Esben, A. S. (2012). Promoting the Use of ICT in the Construction Industry: Assessing the Factors Hindering Usage by Building Contractors in Ghana. M.Sc. Thesis Presented to Department of Building, Kwame Nkrumah University of Science and Technology, Ghana.

Eshofonie, F. P. (2008). Factors Affecting Cost of Construction in Nigeria. Unpublished M.Sc. Thesis, University of Lagos, Akoka, Lagos.

Gagne, M. & Deci, E. L. (2005). Self-Determination Theory and Work Motivation. *Journal of Organisational Behavior, 26,* 331- 62.

Garus, J. (2015). Assessment of the Level of Compliance to Health and Safety Regulations on construction sites in Abuja. Unpublished M.Sc. Thesis, Department of Building, Ahmadu Bello University, Zaria, Nigeria.

Harris, F. & McCaffer, R. (2005). *Modern Construction Management:* Excellent Publishing and Printing. Accra, Ghana.

Herzberg, F. (1959). *The Motivation to Work*. New York: John Wiley.

Ibrahim, A. D., & Musa-Haddary, Y. G. (2010). Concept of Value for Money in Public Infrastructure Development. A Paper Presented at a 3-day International Workshop on PPP Approach to Infrastructure Development in Nigeria. Organised by the NIQS, held on 13-15, July, 2010 at Shehu Musa Yar'Adua International Conference Centre Abuja, Nigeria. *Journal of Engineering and Applied Science, 4,* 2.

Ikechukwu, O., Chinedu, C. N., & Onyegiri, J. (2011). Information and Communication Technology in the Construction Industry. *American Journal of Scientific and Industrial Research, 2(3),* 461-468.

Idrus, A. B., & Sodangi, M. (2007) Framework for Evaluating Quality Performance of Contractors in Nigeria. *Internatinal Journal of Civil and Environmental Engineering IJCEE-IJENS 10 (1),* 34-39

Isa, R. B., Jimoh, R. A., & Achuenu, E. (2013). An Overview of the Contribution of Construction Sector to Sustainable Development in Nigeria. *Net Journal of Business Management, 1(1),* 1 – 6.

Joyce, C. E. (2012). Impact of Motivation on the Productivity of Employees at GT Bank Ghana. M.Sc. Thesis Presented to the Institute of Distance Learning, Kwame Nkrumah University of Science and Technology, Ghana.

Karatepe, M. O., & Uludağ, O. (2007). Conflict, Exhaustion and Motivation: A Study of Frontline Employees in Northern Cyprus Hotels. *Hospitality Management, 26:* 645-657.

Kazaz, A., Manisali, E., & Ulubeyli, S. (2008). Effect of Basic Motivational Factors on Construction Workforce Productivity in Turkey. *Journal of Civil Engineering and Management, 14 (2),* 95-106.

Kehr, H. M. (2004). Integrating Implicit Motives, Explicit Motives, and Perceived Abilities: The Compensatory Model of Work Motivation and Volition. *Academy of Management Review, 29 (3).*

Kheni, N., Gibb, A. G. F., & Dainty, A. R. J. (2008). Health and Safety Management in Developing Countries: A Study of Construction SMEs in Ghana. *Construction Management and Economics, 26(11),* 1159.

Kiger, P. J. (2006). *Power of the Individual*. Workforce Management.

Krippendorff, K. (2004), *Content Analysis - An Introduction to its Methodology* (Sage Publication, Inc.: California).

Lai, C. (2009). Motivating Employees through Incentive Programmes. Dissertation Thesis of Bachelor Degree, Jyvaskyla University of Applied Science. Retrieved from http://publications.thesis.filbitstream/handle/10024/17561/jamk_12374444888_5.pdf/ sequence=2.

Lin P. Y. (2007). The Correlation Between Management and Employee Motivation in SASOL Polypropylene in Business, South Africa, Dissertation Thesis of Master Degree, University of Pretoria, South Africa, retrieved from: https//upetd.up.ac.za/thesis/available/etd0804200892827/dissertation.pdf, (Accessed on: 10/09/2013).

Liu, A. M. M., & Fang, Z. A. (2006) Power-based Leadership Approach to Project Management. *Construction Management and Economics, 24,* 497-507.

Lubale, G. (2012). *The Importance of store Management.* Retrieved from ///account/1000/shared/camera/file:

Maslow, A. (1943). *A Theory of Human Motivation*. Psychology Review. (50), 370-396.

Mathew, B. (2015). *Financial Management and Accounting for the Construction Industry.* Lexis Nexis.

Mayhew, D. (2012). *Accounting in the Construction Industry*. Retrieved from ///account/1000/shared/camera/file.

Mbamali, I. & Okotie, A. J. (2012). An Assessment of the Threats and Opportunities of Globalisation on Building Practice in Nigeria. *American Journal of Contemporary Research, 2(4),* 146.

Moser, C. A. & Kalton, G. (1971) *Survey Methods in Social Investigation*, UK: Heinemann Educational.

Mugo, F. W. (2002). Sampling in Research. http://trochim.human.comell.edu/tutorial/mugo/tutorial.htm (1 of 11) 9/6/2002 14:39 pm.

Muiruri, G. & Mulinge, C. (2014). Health and Safety Management on Construction Projects Sites in Kenya. A Case Study of Construction Projects in Nairobi. FIG Congress. Engaging the Challenges-Enhancing the Relevance.

Mullins, L. J. (2005). *Management and Organisational Behaviour*. Prentice Hall, 471.

Nwakor, A. A., Faringida, M. A., Habib, G. A., & Saliman, A. S. (2012). Materials Management on Construction Sites (A Case Study of Cement Management in Maiduguri). *RJMSTNG 25, 1 (2).*

Offei-Nyako, K., Osei-Tutu, E., Fugar, F. D. K., & Adinyira, E. (2014). Skilled Artisanal Availability in the Ghanaian Construction Industry. *Covenant Journal of Research in the Built Environment (CJRBE), 1 (1) (Maiden Edition).*

Oke, A. E. (2013). Project Management Leadership Styles of Nigerian Construction Professionals. *International Journal of Construction Project Management, 5(2),* 159-169.

Olatunji, S. O., Oke, A. E., & Owoeye, L. C. (2014). Factors Affecting Performance of Construction Professionals in Nigeria. *International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, 39 (1),* 76 – 77.

Onukwube, H. N. & Iyagba, R. (2011). Construction Professionals Job Performance and Characteristics: A Comparism of Indigenous and Expatriate Construction Companies in Nigeria. *Journals of Construction economics and building.* Retrieved from DOI:http//dx.doi.org/105130/AJCEB.V1112.1817.

Osuji, E. O. (2014). Evaluating the Motivational Factors of Employee Consultants in Nigerian Construction Industry. Unpublished M.Sc. Thesis, Department of Building, Ahmadu Bello University, Zaria, Nigeria.

Picard, H. E. (2003). Driving down Construction Project Labour Cost. The Second International Conference on Structural and Construction Engineering, Rome, Italy.

Quiley, N. R. & Tymon Jr, W. G. (2005). Toward an Integrated Model of Intrinsic Motivation and Career Self-management. *Career Development International, 11 (6),* 522-543.

Radek, K., Sal, D., Philip, E. W. (2013). *Incentive Compensation Effectiveness Study.* The U. S. Construction Industry Incentive Compensation Survey.

Ramlall, S. (2004). A Review of Employee Motivation Theories and their Implications for Employee. *Journal of American Academy of Business,* 52-63.

Ruikar, K., Anumba, C. J., & Carillo, P. M. (2006). Verdict- An e-readiness Assessment Application for Construction Companies. 89 retrieved July, 4, 2012 from www.elsevier.comllocate/auto.com

Safe Work Australia, (2015). Work Health and Safety Perceptions: Construction Industry.

Saunders, M., Lewis, P. & Thornhill, A. (2003). *Research Methods for Business Students*, (3rd Ed.) London: Prentice Hall Financial Times.

Schermerhorn, H. O. (2003). *Organisational Behavior.* (8th Ed.), John Wiley and Sons, Inc.: New York, NY.

Steers, R. M., Mowday, R. T., & Shapiro, D. L., (2004). The future of Work Motivation. *Academy of Management Review 2004, 29 (3),* 379 387. Retrieved form http://www.jstor.org.esc-web.lib.cbs.dk/stable/20159049.

Tabassi, A. A., Ramli, M. & Abu Bakar, A. H. (2011). Training, Motivation, and Teamwork Improvement: The Case of Construction Firms. *Africa Journal of Business Management, 5(14),* 5627-5636.

Toker, B. (2007). Effects of Demographic Variables to Job Satisfaction: Five and Four Star Hotels in Izmir towards Implementation. *Dogus University Journal, 8 (1):* 92-107.

Usman, N. D., Inuwa, I. I., Iro, A. I., & Dantong, J. S. (2012). Training of Contractor Craftsmen for Productivity Improvement in the Nigerian Construction Industry. *Journal of Engineering and Applied Science, 4,* 1-11.

Uwakweh, B. O. (2006). Motivational Climate of Construction Apprentice. *Journal of Construction Engineering and Management, 132(5),* 525-532.

Vanduhe, B. A. (2012). An Investigation of Factors affecting Residential Building Maintenance. Unpublished B.Eng. Project submitted to the Department of Civil and Water Resources Engineering University of Maiduguri.

Velnampy, T. (2009). Factors Influencing Motivation: An Empirical study of few selected Sri Lankan Organisation. Retrieved from https://www.research gate.net/publication/255180324.

Venkatesan, R., Varghese, K., & Ananthanarayanan, R. (2009). Motivation and Demotivation 'Cause Factors' for Engineers in Construction Organisation In: Dainty, A.R.J. (Ed). Procs 25th annual ARCOM Conference, Nottingham, UK. *Association of Researchers in Construction Management,* 145-53.

Yamane, T. (1967). *Statistics: An Introductory Analysis*. (2nd Ed.), New York: Harper and Row.

World Bank (2009). World Bank Data Base, Vetica Research. www.worldbank.com. (Accessed July 2014).

APPENDIX I

DEPARTMENT OF BUILDING

AHMADU BELLO UNIVERSITY, ZARIA

PRELIMINARY SURVEY QUESTIONNAIRE

The research is being undertaken by Mr. Shehu Ahmed Mohammed a second year student in M.Sc. Construction Management. It is aimed at assessing motivation of non-construction professionals in construction companies in Abuja, with a view to improving their performance and self-actualisation in the study area. This is part of the preliminary survey to provide enough information for the problem statement.

(TO BE ANSWERED BY MANAGEMENT)

1. Is the management happy with the performance of non-construction professionals (Accountants, Storekeepers, Health and Safety officers, ICT professionals etc.) on a project?

   (a) Always happy [ ] (b) Not always happy [ ] (c) Not at all [ ]

2. Is management happy with the output of the non-construction professionals on a project?

   Yes [ ] No [ ]

3. Please indicate in order of significance/importance the impact of the following non-construction professionals in your organisation with representation as follows: 1 = Highly insignificant; 2 = Insignificant; 3 = Average; 4 = Significant; 5 = Highly significant.

S/No	Non-construction professionals	1	2	3	4	5
1	Accountants					
2	Store keepers					
3	Secretary					
4	Health and Safety officers					
5	ICT Professionals					
6	Lawyers					
7	Others (Please specify)					

4. How many of these non-construction professionals do you have in your organisation? (a) Accountant [ ] (b) Health and safety officers [ ]

(c) Store keepers [ ] (d) ICT managers [ ]

(e) Secretary [ ] (f) Lawyers [ ]

(g) Security workers [ ] (g) Others [ ]

(TO BE ANSWERED BY NON-CONSTRUCTION PROFESSIONALS)

5. How can your motivational level be ranked with respect to your company?

(a) Very high [ ] (b) High [ ] (c) Fair [ ] (d) Low [ ] e. Very low [ ]

6. Do you agree that when the current motivation is improved, your performance will improve?

(a) Strongly agree [ ] (b) Agree [ ] (c) Undecided [ ]

(d) Disagree [ ] (e) Strongly disagree [ ]

7. Please rate your professional satisfaction and self-actualisation within the industry?

(a) Very Satisfactory [ ] (b) Satisfactory [ ] (c) Average [ ]

(d) Unsatisfactory [ ] (e) Very Unsatisfactory [ ]

8. What are some of the motivational techniques you think should be put in place to improve your productivity?

a) ---------- **f)**----------

b) ---------- **g)**----------

c) ---------- **h)**----------

d) ---------- **i)**----------

e) ---------- **j)----------**

APPENDIX II

Assessment of Motivation of Non-Construction Professionals in Construction Companies in Abuja, Nigeria

QUESTIONNAIRE

Dear Respondent,

I am undertaking a research as part of my M.Sc. Programme in the Department of Building, Ahmadu Bello University, Zaria. The aim of which is to assess motivation of non-construction professionals in construction companies in Abuja, Nigeria. The study, if successfully completed will provide a clear insight as regards the current situation of motivation of non-construction professionals and how it affects their performance which

will inform researchers and other stakeholders on the way forward on its total implementation in the construction industry.

The questionnaire will take you averagely twenty minutes to complete. I would be grateful if you could spare your time to answer the question(s). The information provided will be treated confidentially and used for data analysis only.

I would be glad to share the summary of my findings with you, if you provide your contact details at the end of the questionnaire.

Thanks.

Yours Sincerely,

SHEHU AHMED MOHAMMED

08065265700, 08099993620 (shehukodo@gmail.com)

QUESTIONNAIRE

SECTION A: RESPONDENTS PROFILE

(TO BE COMPLETED BY MANAGEMENT)

Name of company: ……

Location of site:…….……

Position:…….……

1. Please indicate the years of company existence

   (a) Less than 3 years (b) 3 to 10 years (c) 11 to 20 years (d) More than 20 years

2. Please indicate the average annual turnover of your company

(a) N1 to N99 million (b) N100 to N499 million (c) N500 to N999 million

(d) N1 billion and above

3. Kindly indicate the estimated number of employees in your organisation

(a) less than 100 employees (b) 100 to 250 employees (c) 251 to 500 employees (d) More than 500 employees

SECTION B: RATING EFFECTIVENESS OF MOTIVATIONAL TECHNIQUES ON NON-COSTRUCTION PROFESSIONALS

1. Below are motivational techniques identified in the research, from your experience please rate in order of degree of effectiveness on your performance; 1 = Highly ineffective; 2= Ineffective; 3 = Average; 4 = Effective; 5= Highly effective.

S/N	Motivational techniques	1	2	3	4	5
1	**Job design -** to acquire skills, opportunities for growth, learning and achievement.					
2	**Pay for performance** - merit pay					
3	**Gain sharing -** rewards employees when targets are met					
4	**Team work -** to feel a sense of belonging					
5	**Bonus -** rewards employees with zone time cash payment					
6	**Flexible work schedule -** flextime and telecommuting					
7	**Employee stock ownership plan (ESOP) -** gives employees part ownership of the organisation.					
8	**Professional training courses -** to acquire skills for challenging assignments					

9	**Promotion -** opportunities for growth
10	**Company pension scheme -** fringe benefit after retirement
11	**Health care services -** for employees in the organisation.
12	**Accommodation -** residential
13	**Vacation leave -** employee still receive payment for time not worked
14	**Award and recognition** - for an employees' contribution to the organisation
15	**Conducive working environment -** Good and safe work environment
16	**Company car/transportation -** for easy movement of employees to and from site
17	**Free tea/coffee -** for employees at work
18	**Good Remuneration -** good salary pay for employees
19	**Telephone services -** for effective communication between project elements.

APPENDIX III

QUESTIONNAIRE

SECTION A: RESPONDENTS PROFILE

(TO BE COMPLETED BY NON-CONSTRUCTION PROFESSIONALS ;

ACCOUNTANTS, HEALTH AND SAFETY OFFICERS, STORE KEEPERS, AND

ICT PROFESSIONALS)

Name of company: ……

Location of site:…….……

Profession:……

Age: ……...

1. Kindly tick your highest academic qualification.

   (a) National Diploma (b) Higher National Diploma (c) Bachelor's Degree

   (d) Master's Degree (e) Doctorate Degree

2. Kindly tick your professional membership.

   (a) ICAN (b) ISPON (c) ITAN (d) OTHERS (e) NIL

3. Please indicate the years of working with current company

   (a) Less than 3 years (b) 3 to 10 years (c) 11 to 20 years (d) More than 20 years

4. Please indicate the years of working in the industry

   (a) Less than 3 years (b) 3 to 10 years (c) 11 to 20 years (d) More than 20 years

SECTION B: RATING FACTORS OF MOTIVATION

1. Please rate all of the following 14 factors of motivation in order of significance to your motivation by selecting one of the five options with representation as follow: 1= Insignificant, 2= Less Significant, 3= Average, 4= Significant, 5= Very Significant.

S/N	Factors of Motivation	1	2	3	4	5
1	Advancement and growth opportunities within the organisation					

2	Remuneration (salary) paid by the company
3	Working conditions and conducive work environment
4	A trustworthy and respectful leader who leads by example
5	Goal-setting (challenging but achievable)
6	Rewards that are linked to performance and valued by the employee
7	Interpersonal relationship with co-employees
8	Recognition and appreciation of employees performance
9	Opportunity to undertake challenging tasks
10	Ability to participate in decision making
11	Job security (having confidence about future within the organisation)
12	Timely feedback on employees performance and their level of progress towards achieving organisations goal
13	Training and development to enhance skills and ability to improve performance
14	Favourable company policies

SECTION C: RATING CURRENT LEVEL OF MOTIVATION OF NON-CONSTRUCTION PROFESSIONALS

1. Please indicate below your level of motivation in relation to the presence of the following motivational factors in your organisation by selecting one of the five

options with representation as follow: 1= Very low, 2= Low, 3= Average, 4= High, 5= Very high.

S/N	Motivational factors	1	2	3	4	5
	Physiological needs					
1	Salary paid by the company					
2	Working conditions and conducive work environment					
	Safety needs					
3	Job security					
	Belongingness (social) needs					
4	Interpersonal relationship with co-employees					
5	Good leadership					
6	Ability to participate in decision making					
	Esteem needs					
7	Recognition and appreciation					
8	Goal-setting (challenging but achievable)					
9	Rewards for performance					
10	Performance feedback					
	Self-actualisation needs					
11	Advancement and growth opportunity					
12	Training and development					
13	Opportunity to undertake challenging task					

SECTION D: PROFESSIONAL SATISFACTION AND SELF-ACTUALISATION POTENTIAL FACTORS

1. Please rate your professional satisfaction within the construction industry

   (a) Highly satisfied (b) Satisfied (c) Average (d) Dissatisfied

   (e) Highly dissatisfied

2. Please indicate the extent to which you agree with the following statements on professional satisfaction and self-actualisation potential factors in your organisation. Use a scale of 1-5, (where 1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree).

S/N	Variables	1	2	3	4	5
	Career advancement					
1	There are good career prospect in your organisation (professional membership)					
2	The company sponsors/allows you to further your education					
3	The advancement opportunity within the organisation motivates you to perform better					
	Promotion opportunities					
4	There are good promotion opportunities for employees within your organisation					
5	The growth opportunity within the organisation motivates you to perform better					
	Autonomy					
6	There are good opportunities for creativity and competence					
7	Your manager/supervisor allows you to use your discretion, and make decisions on how to perform your tasks in order to achieve your goal					
	Training and development					

8	Your company implement training programmes to improve your ability and skills	
9	The company sponsors your training courses	
	Job characteristics	
10	Your job is both interesting and challenging	
11	Employees are rotated in the organisation in order to learn new tasks	

APPENDIX IV

Age	**Frequency**	**Percentage (%)**
21-30 years	24	21.4
31-40 years	48	42.9
41-50 years	26	23.2
51-60 years	14	12.5
Total	112	100

Profession	Frequency	Percentage (%)
Accountant	32	28.6
Health and Safety officer	24	21.4
Store Keeper	30	26.8
ICT Professional	26	23.2
Total	112	100

Qualification	Frequency	Percentage (%)
ND	23	20.5
HND	19	17.0
B.Sc.	52	46.4
M.Sc.	14	12.5
Ph.D.	4	3.6
Total	112	100

Professional membership	Frequency	Percentage (%)
ICAN	23	20.5
ISPON	12	10.7
ITAN	11	9.8
OTHERS	7	6.3
NIL	59	52.7
Total	112	100

Years with the company	Frequency	Percentage (%)
Less than 3 years	17	15.2
3 to 10 years	61	54.5
11 to 20 years	31	27.7
More than 20 years	3	2.7
Total	112	100

Years in the industry	Frequency	Percentage (%)
Less than 3 years	14	12.5
3 to 10 years	41	36.6
11 to 20 years	35	31.3
More than 20 years	22	19.6
Total	112	100

Professional satisfaction	Frequency	Percentage (%)
Highly satisfied	8	7.1
Satisfied	14	12.5
Average	21	18.8
Dissatisfied	40	35.7
Highly dissatisfied	29	25.9
Total	112	100

Position	Frequency	Percentage (%)
Supervisor	17	56.7
Project Manager	13	43.3
Total	30	100

Years of company existence	Frequency	Percentage (%)
Less than 3 years	2	6.7
3 to 10 years	5	16.7
11 to 20 years	10	33.3
More than 20 years	13	43.3
Total	30	100

Average annual turnover	Frequency	Percentage (%)
N1-N99 million	4	13.3
N100 – N499 million	5	16.7
N500 – N999 million	13	43.3
N1 billion and above	8	26.7
Total	30	100

Estimated number of employees	Frequency	Percentage (%)

Less than 100 employees	3	10.0
100-250 employees	7	23.3
251 – 500 employees	12	40.0
More than 500	8	26.7
Total	30	100