

Profession Satisfaction and Self-actualisation of Non-construction Professionals within the Construction Industry of Abuja, Nigeria

AbdulAzeez, A. D.¹; Mohammed, S. A.² & Shika, A. S.³

^{1,2,3}Department of Building, Ahmadu Bello University, Zaria-Nigeria
Email: engraazeez@gmail.com

Abstract

Non-construction professionals do not experience self-actualisation within the construction industry as a result of inadequate motivation. The aim of this study is to assess self-actualisation potentials of non-construction professionals in medium-size and large building construction companies in Abuja, with a view to improving their professional satisfaction. The quantitative research approach was adopted; the population size of non-construction professionals was 348. Stratified sampling technique was used to select a sample of 186. Structured questionnaire was administered to the non-construction professionals. Weighted mean was used for the various ranking on professional satisfaction and self-actualisation of non-construction professionals. The findings of the study revealed that, majority of respondents (61.6%) are generally not professionally satisfied in their various construction companies. Based on the findings, the level of professional satisfaction and self-actualisation in relation to career advancement and job characteristics are low. While in relation to promotion opportunities, autonomy, training, and development, the level of professional satisfaction and self-actualisation is moderate. Therefore, for non-construction professionals to achieve professional satisfaction and self-actualisation within these construction companies, priority should be given to their career advancement opportunities, and job characteristics such as career prospects (professional membership), additional qualification, job rotation, challenging tasks and so forth, while still not neglecting the aspect of promotion opportunities, autonomy and training and development.

Keywords: *Construction Industry, Motivation, Non-Construction Professionals, Professional Satisfaction, and Self-Actualisation.*

Introduction

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 the Maslow's hierarchy of needs theory (Maslow, 1943), 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. In addition, according to the Herzberg (1959) two factors theory, personal growth and advancement are known to be intrinsic factors, which make employees satisfied and they, thereafter, become motivated.

Job satisfaction is an issue of importance to

the construction industry where construction processes involve various kinds of people with various ideas, experience and skills with different interests (Dey & Ogunlana, 2004). According to Yirenkyi-Fianko & Chileshe (2012), job satisfaction plays an important role in the overall productivity of any given industry. Job satisfaction directly influences an organisation's competitive advantage. This implies that every organisation that wants to excel, must ensure that they put in the right measures to ensure employee satisfaction.

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 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 importance of the construction 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).

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 such as the Accountant, Health and Safety officer, Storekeeper, Information and Communication Technology (ICT) professionals and so on, may not be directly responsible for the final product but play vital roles in the construction industry.

The function of the construction professionals is to deliver projects safely, within cost, time and to the client's requirement (Mohammed, 2017). This cannot be achieved successfully without the contribution of non-construction professionals, particularly in medium-size and large building construction companies where large volumes of work are being carried out. Therefore, for these construction companies to be efficient and innovative in order to remain competitive and increase productivity, the non-construction professionals also need to be highly satisfied and motivated. The aim of this study thus, is to investigate the

professional satisfaction level of non-construction professionals working in building construction companies in Abuja, with a view to improving their self-actualisation within the industry.

Literature Review

The Construction Industry

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 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.

Job Satisfaction and Self-actualization

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 (Maslow, 1943), 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. Kim (2001) also noted that employees' satisfaction with their jobs might have strong implications for improving the quality of work produced. Lim & Bing (2012) found that organisation Human Resource (HR) practices such as career opportunities, nature of their jobs and overall working environment to significantly influence the job satisfaction of professionals.

A number of studies in developing and developed economies, on job satisfaction have been undertaken. Despite the wealth of the selected studies on job satisfaction, little research has been undertaken on non-construction professionals within the African and building construction industry specific context. A study by Abdullahi *et al.*, (2011) revealed the relationship between job satisfaction and demographic factors of construction site workers in Nigeria.

However, the study by Okpara (2004) although conducted within an African context, and Nigeria to be more specific, was based on a sample of managers drawn from the Information Technology (IT) sector. The differences between the working environment of IT and the specific construction site work requires separate studies to ascertain the level of professional satisfaction. In addition, a study by Fugar & Salaam (2007) aimed at investigating the job satisfaction of construction workers in construction sites on the Kwame Nkrumah University of Science and Technology (KNUST) campus in Kumasi.

The result although very useful cannot be generalised because all the projects considered were from one source and in one location, KNUST. However, researches on professional satisfaction and self-actualisation of non-construction professionals are rare in literature, hence, the need for the study.

Research Methodology

The quantitative research was adopted for this study requiring the development and administration of a structured questionnaire. The questionnaire consists of two sections. The first section was used to generate data on the respondents' profile with emphasis on

academic and professional qualifications, and years of experience. The second section was used to assess professional satisfaction and self-actualization of non-construction professionals in medium-size and large building construction companies in Abuja.

The survey covers only four (4) non-construction professional individuals (Accountants, Health and Safety officers, Storekeepers and Information and Communication Technology (ICT) professionals) due to their impact in the construction industry and are working in various building construction companies that are registered with the Federal Inland Revenue Services (FIRS) Abuja as company income tax payers (2015). They are made up of medium-size and large building construction companies operating within the Federal Capital Territory (FCT) Abuja. FIRS Abuja has 14 medium and 24 large building construction companies as company income tax payers (2015) which brought the total number of companies on which the study was undertaken to thirty-eight (38). 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 organizational set up that lend themselves to refined academic research work than the lower class of 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 addendum (Table 3). Thus, the population of the non-construction professionals is 348. Stratified sampling technique was used to select the non-construction professionals for questionnaire administration. The required sample size for non-construction professionals was calculated using the formula given by Yamane (1967).

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

Where

n = Sample size

N = Total Population

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

Table 1. 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)

Thus, the sample size (n) for the non-construction professionals is 186. This implies that 186 questionnaires were administered to non-construction professionals of the said construction companies in Abuja. 112 were properly filled and returned.

The questionnaires were randomly distributed to 51 Accountants, 41 Health and Safety officer, 48 Store Keeper, 46 ICT Professionals across the 38 building construction companies and 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. The tools used for data analysis is descriptive statistics using tables, percentages, charts, and weighted mean.

Weighted Mean:

$$X = \frac{f_1x_1 + f_2x_2 + f_3x_3 + f_4x_4 + f_5x_5}{x_t} \quad \text{-----} \quad (1)$$

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'.

Results and Discussion

Demographic Data of the Respondents

The demographic data obtained from the non-construction professionals were age, profession, educational qualification, number of years working for their current company, and number of years working in the industry. A close look at the profession of the survey respondents from Figure 1 revealed that Accountants making up 28.6% of respondents, Health and Safety officers making up 21.4% of respondents, Storekeepers making up 26.8%, and ICT professionals 23.2% of respondents.

Figure 2 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. Also, 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. Lin & Bing (2012) reported that organisation Human Resource (HR) practices such as career opportunities, nature of their jobs and overall working environment to significantly influence the job satisfaction of professionals.

The study also revealed (Figure 3) that the respondents had professional membership in addition to their educational attainment. A moderate percentage of them 20.5%, were members of ICAN, 10.7% were members of ISPON, 9.8% were members of ITAN and 52.7% do not belong to any professional body. Only 6.3% of the respondents belong to other professional bodies. This shows that the non-construction professionals are not usually given the opportunity for career advancement as indicated above by Lin & Bing (2012).

According to the survey result, as Figure 4 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 5 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.

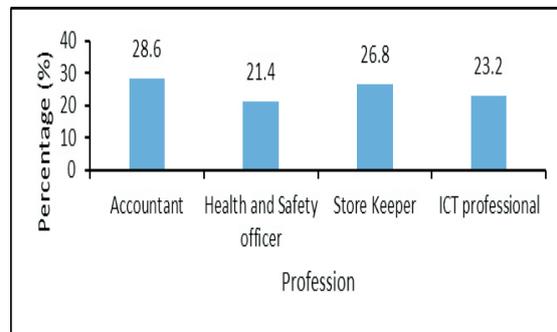


Figure 1: Profession of respondents
Source: Field Survey (2015)

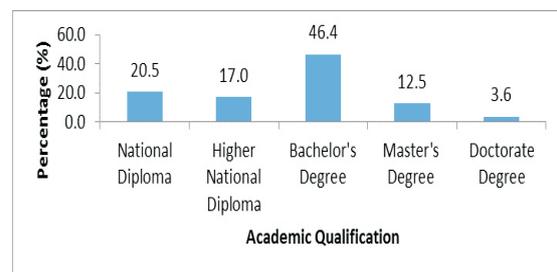


Figure 2: Academic qualification of respondents
Source: Field Survey (2015)



Figure 3: Professional membership of respondents
Source: Field Survey (2015)

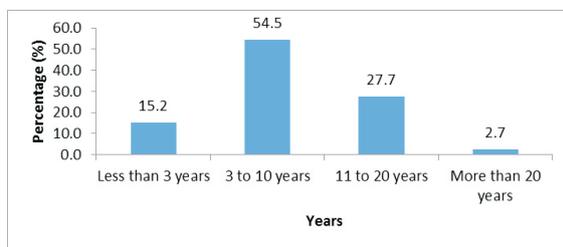


Figure 4: Years with company
Source: Field Survey (2015)

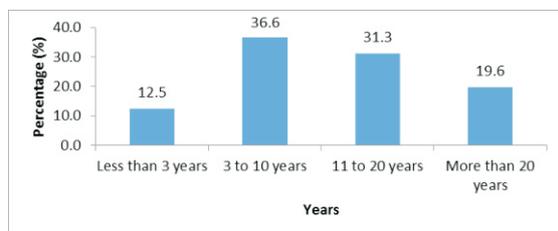


Figure 5: Years working in the industry
Source: Field Survey (2015)

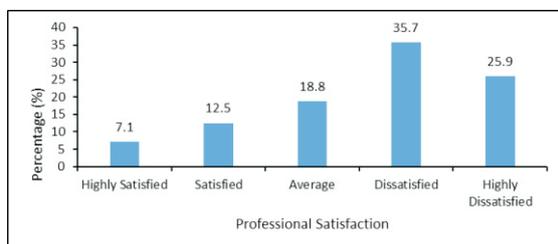


Figure 6: Professional satisfaction of non-construction professionals
Source: Field Survey, (2015)

Professional Satisfaction and Self-actualization of non-construction professionals

Professional satisfaction of non-construction professionals

Figure 6 shows the degree of satisfaction of non-construction professionals, majority of the non-construction professionals are professionally dissatisfied about working in building construction companies; 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(%).

Self-actualisation of non-construction professionals within the construction industry

Table 2 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 2, under the title 'training and development' it was identified that 'The company sponsors your training courses'

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 they rated between 2.49 and below on the Mean Rating of Factors.

This is due to the fact that majority of non-construction professionals do not agree that there are good career prospect in their organisation and the advancement opportunity within the organisation do not

motivate them to perform better.

Career advancement

From Table 2, the level of professional satisfaction and self-actualisation in relation to 'the company sponsors/allows you to further your education', 'the advancement and growth opportunity within the organization motivates you to perform better' and 'there are good career prospects in your organisation' with a mean of 2.41, 2.11 and 1.97 respectively are considered low because they rated between 2.49 and below on the Mean Rating of Factors.

These findings contradict the earlier study of Osuji (2014) which indicated that 'there are good career prospects in your organisation' was rated by construction professionals given a mean of 3.32, which is moderate. Career advancement opportunities are very vital to the growth of construction companies but little attention has been paid to this factor, which leads to job satisfaction and self-actualisation. Lim & Bing (2012) found that organisation Human Resource (HR) practices such as career opportunities, nature of their jobs and overall working environment to significantly influence the job satisfaction of professionals.

Table 2: Professional Satisfaction and Self-actualization of non-construction Professionals

S/N	Variables	N	Mean	Std. Error of Mean	Std. Deviation	Sum
Career advancement						
1	There are good career prospect in your organization (professional membership)	112	1.97	.126	1.330	221
2.	The company sponsors/allows you to further your education	112	2.41	.101	1.114	248
3.	The advancement opportunity within the organization motivates you to perform better	112	2.11	.098	1.037	236
Promotion opportunities						
4.	There are good promotion opportunities for employee within your organization	112	3.03	.094	.988	339
5.	The growth opportunity within the organization motivates you to perform better	112	2.99	.098	1.032	335
Autonomy						
6.	There are good opportunities for creativity and competence	112	3.20	.098	1.037	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	.104	1.098	378
Training and development						
8.	Your company implement training programmes to improve your ability and skills	112	2.96	.110	1.163	331
9.	The company sponsors your training courses	112	3.40	.106	1.120	381
Job characteristics						
10.	Your job is both interesting and challenging	112	2.38	.100	1.053	267
11	Employees are rotated in your organization in order to learn new skills.	112	2.44	.111	1.166	273

(1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly agree)

Source: Field Survey (2015)

Promotion opportunities

The level of professional satisfaction and self-actualisation in relation to promotion opportunities is moderate. From Table 2, 'there are good promotion opportunities for employees in your organisation' and 'the growth opportunity within the organization motivates you to perform better' have a mean of 3.03 and 2.99 respectively. This contradicts the study of Osuji (2014), which indicates a high mean of 4.23 for 'the growth opportunity within the organization motivates you to perform better' (although, the respondents are construction professionals- Architects, Quantity Surveyors, Builders and Engineers). The study revealed that while promotion opportunity for non-construction professionals in building construction companies is moderate, nevertheless, there is still need for improvement so that they can achieve professional satisfaction and self-actualisation, which will in turn increase the overall productivity of the company.

Autonomy

From Table 2, 'there are good opportunities for creativity and competence' and 'your manager/supervisor allows you to use your discretion have a mean of 3.20 and 3.38 respectively which are considered

'moderate' because they rated between 2.51-3.49 on the Mean Rating of Factors. This corroborate the study of Osuji (2014) which rated 'the manager/supervisor lets you take responsibility for the tasks you perform' with a mean of 3.35.

This is an indication that professional satisfaction and self-actualisation can be achieved when employees are given the opportunity to make decision and take responsibility for the task they perform. According to Yirenkyi-Fianko & Chileshe (2012), lack of confidence can lead to job dissatisfaction, which will in turn have a negative impact on the company as well. In addition, according to Adjei (2009) workers feel motivated when they are provided with opportunity to use their own initiative to undertake challenging tasks.

Training and development

From Table 2, 'Your company implement training programmes to improve your ability and skills' and 'The company sponsors your training courses' have a mean of 2.96 and 3.40 respectively which are moderate. When workers are trained, it improves their personal skills and abilities and as well increase their performance, hence, the need for building construction companies to improve the training and

development of non-construction professionals. According to Mohammed (2017), training and development is one of the significant factors influencing the motivation of non-construction professionals as it was ranked 4th with Relative Importance Index (RII) of 0.88 among the 14 factors of motivation.

Job characteristics

'Your job is both interesting and challenging and Employees are rotated in your organisation in order to learn new skills' have a mean score of 2.38 and 2.44 respectively which are low. When a job is challenging, interesting and rotated, it changes the behaviour of workers and encourages them to explore and exhibit their personal skills and abilities (Adjei, 2009). According to Aynur & Serdar (2006) study in drivers of productivity among construction workers in developing countries, found that undertaking challenging tasks can be encouraged by providing workers with greater access to key information on the structure and system of the project being undertaken and has the potential to produce rapid increase in productivity in a range of trades.

Conclusion and Recommendation

This study focused on the professional

satisfaction and self-actualization of non-construction professionals within the medium-size and large building construction companies in Abuja, with a view to improving their performance and the performance of these companies as well. A review of literature was carried out, where job satisfaction and self-actualisation factors were identified and used for the assessment.

From the study, majority of non-construction professionals (61.6%) were generally not professionally satisfied within the construction companies. Based on self-actualisation of non-construction professionals within the industry, the level of professional satisfaction and self-actualisation in relation to career advancement and job characteristics are low. While in relation to promotion opportunities, autonomy, training, and development the level of professional satisfaction and self-actualisation is moderate.

Therefore, for non-construction professionals to achieve professional satisfaction and self-actualisation within these construction companies, priority should be given to their career advancement opportunities, and job characteristics such as career prospects (professional membership), additional qualification, job rotation, challenging tasks and so forth, while also not neglecting the aspect of

promotion opportunities, autonomy and training and development. All these factors when improved are significant to achieving professional satisfaction and self-actualisation of non-construction professionals. In addition, they are also very vital to the growth of building construction companies in the study area.

References

- Abdullahi, A., Bilau, A., Enegbuma, W. I., Ajagbe, A. M., & Ali, K. N. (2011). Evaluation of Job Satisfaction and Performance of Employees in Small and Medium-size Construction Firms in Nigeria. Proceedings on 2nd International Conference on Construction and Project Management IPEDR, 15. Lacsit Press, Singapore.
- 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.
- 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.
- Aynur & Serdar (2006). Drivers of Productivity among Construction Workers: A Study in Developing Countries. *International Journal of Project Managers*, 42(5), 2132-2140.
- 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.
- Daft, R. L. (2006). *New Era of Management*. Vanderbilt University, U. S: (2nd Ed.) South-Western Cengage Learning.
- Dey, P. K., & Ogunlana, S. O. (2004). Selection and Application of Risk Management Tools and Techniques for Build-Operate-Transfer Projects. *Industrial Management and Data Systems*, 104(4), 334-346.
- Fugar, F. D. K., & Salaam, A. (2007). Job Satisfaction among Construction Workers on KNUST Infrastructural Projects. *Journal of the Ghana Institute of Engineers*, 5(1).
- 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. Organized 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.

- Karatepe, M. O., & Uludag, O. (2007). Conflict, Exhaustion and Motivation: A Study of Frontline Employees in Northern Cyprus Hotels. *Hospitality Management*, 26, 645-657.
- 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*.
- Kim, Y. (2001). The Determinants of Public Officials Job Satisfaction- The Case of Korean Public Officials in Cadastral Administration. *International Federation for Surveyors*.
- Lai, C. (2009). Motivating Employees through Incentive Programmes. Dissertation Thesis of Bachelor Degree, Jyvaskyla University of Applied Science. Retrieved from http://publications.thesis.filbits.tream/handle/10024/17561/jamk_12374444888_5.pdf/sequence=2.
- Lim, L. J. W., & Bing, F. Y. Y. (2012). Human Resource Practices of Contractors that Lead to Job Satisfaction of Professional Staff. *Engineering Construction and Architectural Management*, 19(1), 101-118.
- Maslow, A. (1943). *A Theory of Human Motivation*. *Psychology Review*. (50), 370-396.
- Mohammed, S. A. (2017). Assessment of Motivation of Non-construction Professionals in Construction Companies in Abuja, Nigeria. Unpublished M.Sc. Thesis, Thesis, Department of Building, Ahmadu Bello University, Zaria, Nigeria.
- Okpara, J. O. (2004). Personal Characteristics as Predictors of Job Satisfaction: An Exploratory Study of IT Managers in a Developing Economy. *Information Technology and People*, 17(3), 327-338.
- 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.
- Osuji, E. O. (2014). Evaluating the Motivational Factors of Employee Consultants in Nigerian Construction Industry. Unpublished M.Sc. Thesis, Thesis, Department of Building, Ahmadu Bello University, Zaria, Nigeria.
- Yamane, T. (1967). *Statistics: An Introductory Analysis*. (2nd Ed.), New York: Harper and Row.
- Yirenkyi-Fianko, A. B. & Chileshe, N. (2012). Job Satisfaction of Professionals with the Ghanaian Construction Industry In: Smith, S. D. (Ed) *Procs 28 Annual ARCOM Conference*, Edinburgh, UK, Association of Researchers in Construction Management, 589-599.