

Factors Affecting Performance of Construction Professionals in Nigeria

Olatunji S. O, Oke A. E, Owoeye L. C

Abstract—The construction industry is made up of professionals whose various disciplines are to ensure that construction work can be completed. This study evaluates the effects of the performance of construction professionals on construction project success in Nigeria. The study adopted a survey research design with the use of a well structured questionnaire which was administered on construction professionals, 68 copies were retrieved and used for the analysis out of the administered 139. Frequency and percentiles was used to analyse the distribution of demographic descriptors of construction professionals while mean score and mean difference was used to analyse the roles of construction professionals and factors influencing the performance of construction professional. The findings revealed that the major role of an architect is to translate the user's needs into builders requirement, engineer is most concerned with the calculation of load and grade requirements, liquid flow rates and materials stress points to ensure that the structure can withstand stress, the quantity surveyor is mostly concerned with management and control of costs within the construction projects while a builders major role is building production management. The performances of construction professionals are, however, affected mostly by remuneration, motivation and incentives and promotion opportunities and least affected by supervision and co-worker. The demographic factors which mostly affect the professionals are experience, gender and age. Based on the findings of the research, the majority of the construction professionals are male therefore; better friendly work environment should be created by the managements of the construction industry so as to attract female professionals. Also, construction industries should focus its efforts on improving the performance of young and newly employed construction professionals by developing management training programs, workshops, financial incentives, and other non-work-related activities that would encourage and support them to stay and grow with the industry, since there are relatively few young professional in the industry.

Index Terms—About four key words or phrases in alphabetical order, separated by commas.

I. INTRODUCTION

The performance of construction professionals is a factor that basically determines the long term effect of construction works they produce, this factor also boils down to the level of experience and training these professionals have attained over the years. So many issues have over the years constituted problems for construction professionals, most importantly is the issue of time frame for which they have to execute construction works. [1].

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Discovered that on frequent occasions, before going into negotiations architects, quantity surveyors and civil engineers do not have enough space of time to prepare accurate. Aesthetic and structural drawings and quantity take off and billing for the proposed structures due to client's requirements which is most times a very short period of time. In addition, the manner in which construction professionals adapts to this unfavourable working condition depends on the working experience which they have attained over time, this has constituted another problem in the construction industry as most construction professionals in recent times are fresh graduates who, though might be intelligent does not have the required experience to manage these conditions and perform at the highest level of productivity. According to a research study by [2], employees are always opting out of firms offering construction professional services every year, this results in Nigerian construction industry constantly losing key employees due to some factors affecting performance of these professionals which are neglected in the management. For this reason, firms are forced to train new employees repeatedly spending money on training and recruitment of new employees, overall productivity decreases as a result. Also, when employees are not satisfied with their job, they deal with customers in a cruel and unconcerned manner and hence customer satisfaction is affected in a great extent. Also,[3] observed that another problem that has afflicted the construction industry over time is the fact that these construction professionals have been made to work under unfavourable conditions, the aftermath of their activities is evident in the quality of work they deliver, this has overtime lead to the increased rates of bridge collapse, road cracking, over flooding of dams and many more. This research therefore seeks to evaluate the effect and factors affecting professional performance of construction professionals. The findings of this research will avail the construction industries the information on how to effectively manage construction professionals with respect to their performance.

II. LITERATURE REVIEW

2.1 Roles of Construction Professional

Construction Professionals include architects, builders, engineers (structural and services), and Quantity Surveyors. There are professional bodies that regulate the activities of these professionals. However, there is no national agency responsible for coordinating the activities of the bodies and associations and hence there appears to be a lack of synergy. Construction professionals are valuable resources that may contribute in several different ways to construction companies' activities, provided that such companies give

them an appropriate chance [4]. 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 [5]. Such loyalty and commitment may be generated by ensuring the satisfaction of the professionals. According to [6], construction management is a challenging and demanding profession. Building construction requires many workers and many trades. From the perspective of realizing a project, a professional project team is needed to make sure that project will be constructed successfully. The construction professionals, as stated by [6] are the most responsible persons in a project especially when technical works are concerned. The expertise of each construction professional must be carefully exercised as they are answerable to any sinfulness occurred during the constructions.

Architect

An architect is a professional who is involved in the planning, designing and oversight of a building's construction. In other words, an architect is a person who translates the user's needs into the builder's requirements. An Architect must thoroughly understand the building and operational codes under which his or her design must conform. That degree of knowledge is necessary so that he or she is not apt to omit any necessary requirements, or produce improper, conflicting, ambiguous, or confusing requirements. [7] sees an Architect as the person who directly communicates with the client and that he is the first professionals who is contacted by the client for the translation of his desires or need into drawings and specification. Architect must understand the various methods available to the builder for building the client's structure so as to realistically negotiate with the client to produce a best possible compromise of the results desired within explicit cost and time boundaries. These activities drive the competencies that the architect needs to be successful and a competent one should be kept satisfied in the organization so as to remain committed and willing to provide effective and quality services.

Civil Engineer

Civil engineering involves planning and execution of the designs from transportation, site development, hydraulic environmental, structural and geotechnical engineers [8]. According to [6], construction engineers have a lot of responsibilities in their job. Certain tasks have to be completed everyday in order to get the job done correctly. Analyzing reports is a main part of their job description. Engineers must analyze maps, drawings, blueprints, aerial photography and other topographical information. Engineers have to calculate load and grade requirements, liquid flow rates and material stress points to ensure that the structure can withstand stress. In addition to safety, the construction engineer has to make sure that the site stays clean and sanitary. Surveying the land before construction begins is also a job of the construction engineer. They have to make sure that there are no impediments in the way of where the structure will be built and if there are any they must move them. They also must estimate costs and keep the project

under budget. Construction engineers have to test the soils and materials used for adequate strength. Finally, construction engineers have to provide construction information, including repairs and cost changes, to the managers.

Quantity Surveyor

Quantity surveying according to [9] was pioneered by Britain. The Nigerian Institute of Quantity Surveyors (NIQS) was founded in 1969 by a group of Nigerians who trained and practiced in the United Kingdom [10]. Upon returning to Nigeria, these people sensed an urgent need to develop the profession of quantity surveying in Nigeria by establishing a parallel body to the Royal Institution of Chartered surveyors of United Kingdom. The regulated and other professions (Miscellaneous Provision) Act 1978 recognized quantity surveying profession as one of the scheduled professions in Nigeria while the decree No 31 of 1986 gave legal backing and recognition to quantity surveying profession and also set up the Quantity Surveyors Registration Board of Nigeria (QSRBN) to regulate the profession [10]. The quantity surveyor, according to [11] is a professional trained, qualified and experienced in dealing with problems relating to construction cost, management and communication in the construction industry. On the overview, a quantity surveyor is a professional person working within the construction industry. The role of the quantity surveyor is, in general terms, to manage and control costs within construction projects and may involve the use of a range of management procedures and technical tools to achieve this goal. The methods employed, however, cover a range of activities, which may include cost planning, value engineering, feasibility studies, cost benefit analysis, lifecycle costing, valuation, and cost estimation. A quantity surveyor can also be known as construction economists, cost engineers or construction managers. Quantity surveyors control construction costs by accurate measurement of the work required, the application of expert knowledge of costs and prices of work, labour, materials and plant required, an understanding of the implications of design decisions at an early stage to ensure that good value is obtained for the money to be expended. The technique of measuring quantities from drawings and specifications prepared by designers principally architects and engineers in order to prepare Tender/Contract Documents, is known in the industry as taking off. The quantities of work taken off typically are used to prepare bills of quantities, which usually are prepared in accordance with a published standard method of measurement as agreed to by the quantity surveyor profession and representatives of the construction industry [8].

Builder

A Builder (or Professional Builder) is an academically trained specialist and statutorily registered professional responsible for Building Production Management, Construction and Maintenance of Buildings for the use and protection of mankind and his assets. In 1967 some thoughtful and caring Nigerian overseas-trained professional builders organized themselves into a professional association

which later became the first overseas centre of the Institute of Building (Later known as The Chartered Institute of Building), United Kingdom. The Nigerian Centre of the Institute of Building became autonomous on November 5, 1970 and from then acquired the name "The Nigerian Institute of Building (NIOB)". NIOB is a professional institute in Nigeria for persons engaged in Building practice in a managerial, technical or administrative capacity in the development, construction and maintenance of buildings, including those who are engaged in academic research and teaching. NIOB is also the professional home for today's managers in construction in Nigeria. It was recognized through the promulgation of Decree 45 of 1989 (now known as the ACT CAP 40 of the Laws of the Federal Republic of Nigeria of 1990) [8].

2.2 Factors Influencing Performance of Construction Professionals

Measuring performance for construction projects is a complex issue. Every project is unique in terms of location, design specifications, delivery methods, administration, and participants. If the most important influencing factors in any contracting organization are identified, measures can then be taken to apply them in order to upgrade the professional's performance [12]. Factors influencing professionals performance is therefore categorized under the following headings:

- i. Organizational determinant
- ii. Demographical descriptor

2.2.1 ORGANIZATIONAL DETERMINANT

These are factors relating to the organization and work settings. According to [13], they are conditions that are beyond the control of the employee. They are basic variables present in the organization having significant contribution in the level of satisfaction of the employee. The organizational determinants examined in this study are remuneration, supervision, promotion opportunities, co-worker, work itself, benefits, hours of work, security of job, working conditions, communication and turnover intentions.

Remuneration

Pay refers to the amount of compensation received for a specific job [14]. [15] noted that wages and salaries are recognized to be a significant, but complex, multidimensional predictor of job satisfaction. Pay satisfaction is of primary concern to both employers and employees. For employees, pay is of obvious importance in terms of satisfying their economic needs. It is important that they are satisfied with their overall pay as this may impact their attitudes and behaviours. Employee dissatisfaction with pay, for instance, can decrease commitment to the job, increase stealing, and catalyze turnover [16]. Employees who feel under-rewarded will attempt to restore equity by reducing inputs such as increasing absenteeism, coming late to work, taking longer breaks, and decreasing productivity, or by leaving the organization, all of which are very costly for an employer [17].

Supervision

According to [8], supervision may refer to a supervisor, one who oversees the work or tasks of another. [18] indicates that people who enjoy working with their supervisors will perform more in their jobs. Supervision forms a pivotal role relating to job satisfaction in terms of the ability of the supervisor to provide emotional/technical support and guidance with work related tasks [14]. According to [15], there are three dimensions of supervision that affect performance. The first dimension has to do with the extent to which supervisors concern themselves with the welfare of their employees. Research indicates that employee performance is increased if the immediate supervisor is emotionally supportive [19]. The second dimension has to do with the extent to which people participate in decisions that affect their jobs. Research by [19] found a positive relationship between managerial behaviour that encourages participation in decision-making and job satisfaction. [14] supports this view and maintains that productivity is increased if the immediate supervisor listens to employees' inputs. A third dimension of supervision which is related to performance, according to [15], is an employee's perception of whether they matter to their supervisor and their organization. [20] also maintain that this aspect of an employee's work setting may also be related to enhancing performance.

2.2.2 Demographic Descriptors

Demographic descriptors are the factors related to the individual involved. They are the inherent and intrinsic factors of job satisfaction and are particular to each individual. The factors stated are gender, age, rank, length of service, academic qualification, experience, marital status, tribe / ethnicity and religion affiliation.

Gender

Gender falls within the personal characteristics of professionals' category of factors affecting performance [21]. [22] indicated the impact of gender differences on employment values. Women put more relevance on intrinsic attributes which are the social and emotional aspects such as place of employment, positive relations with peers and job contentment. In comparison, men put more importance on extrinsic attributes such as high salaries and opportunity for advancement, job security and work independence.

Age

In a study by [23], age influences the relative importance that professionals place on various work attribute. Younger professionals value opportunities for more jobs or work more than older professionals. Older professionals seem to value jobs with meaningful content compared to younger counterparts. A number of studies have examined the effects of age upon the perceptions of workers concerning their performance. Concurrently, older professionals are better able to balance personal needs and jobs/organizations than those who are younger. In addition, older professionals are likely to develop more positive attitudes toward their jobs.

Length of Service

Length of service of a professional, which can be said to be

the measure of how long a professional has been practicing is one of the factors influencing the feelings of performance. Professionals who have been practicing for a long period of time tend to perform better than those who started recently because of the wealth of experiences which have been acquired over the years. The results from the study of performance conducted by [24] indicate that if professionals vary their work and alter the level of challenge, performance will concomitantly increase. The length of service as given in the survey of this study will be categorized over five different groups; 1-5 years, 6-10 years, 11-15 years, 16-20 years and over 20 years.

Educational Level

This is the extent of an professional's educational attainment from an accredited institution. The educational attainment of a professional will to a very large extent determine the level of performance. In Nigeria, the recognized academic qualifications are National Diploma (ND) and Higher National Diploma (HND) from the polytechnic, Bachelor of Science (B.Sc) or Bachelor of Technology (B.Tech) from the university and Masters (M.Sc/ M.Tech) and Doctor of Philosophy (Ph.D) at the postgraduate level. This order of academic qualifications will be adopted in this research following that the system of academic qualification in Nigeria is necessary to be implemented in a study conducted in Nigeria. Studies that considered a professional's level of education and performance found mixed results. [25] discovered that performance increases when education level increases while [26] opined a contrary opinion.

Experience

Findings of [27] indicate that people with more work experience have more respect for their jobs, can apply their experience to their jobs, and are skilled and successful in doing their jobs. If they are effective and efficient in doing their jobs, they are likely to be paid more and are more likely to enjoy their supervisors, co-workers, and physical work environment.[9] suggest that job experience early in one's career plays a prominent role in the development of commitment. It is commonly felt that experience increases the level of commitment of workers in an organization, and this may be the case under normal circumstances. In addition to this, an increased level of commitment is a precursor of a better job performance. It should be noted that length of service is different from experience such that length of service is related to the number of years a professional has been practicing while experience is related to the number of years that has been spent on exposure to the profession.

Marital Status

According to [14], marriage imposes increased responsibilities that make a job more valuable and important, therefore married professionals will be more likely to be committed and like their job. The question of causation however, remains unclear as it is possible that unmarried professionals might also report high level of performance over their jobs, given that performance is dependent on different factors. A logical explanation, according to [14], is that when a small child is ill, parents would want to be away from work to either take the child to a doctor or place the

child in someone else's care thereby leaving behind his or her responsibilities and obligations.

III. RESEARCH METHODOLOGY

Survey design was adopted for this research and was achieved with the use of a well structured questionnaire. The population of this study consist professionals in the construction industry that are directly involved with main construction aspect of construction projects which are architects, quantity surveyors, engineers and builders. The sample frame for this study were construction professionals on the list of the professional bodies in Ondo State, Nigeria. These are Nigeria Institute of Quantity Surveyors (NIQS), Nigerian Society of Engineers (NSE), Nigerian Institute of Architects (NIA) and Nigerian Institute of Building (NIOB). The sample size for this study was drawn from the sample frame using the formula by [28] :

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

Where n = sample size, N= Total Population, e = the level of precision taken as $\pm 10\%$

Insert table 1

Table 1 indicate the sampling frame and sampling size for the study and a total of 139 questionnaires - representing the calculated sample size - were administered using convenience Sampling technique while only 68 were retrieved and certified fit for analysis. Percentile was used to assess the distribution of demographic descriptors while mean score and mean difference was used to assess the level of performance of construction professionals.

IV. FINDINGS AND DISCUSSIONS

4.1 Organizational Description of Construction Professionals

Insert table 2

Table 2 shows that majority of the respondents are male. The large difference in gender representation may reflect true differences in the population. That is, it is possible that there are a greater number of males in the construction industry. However, female subjects may also have been under-represented as a consequence of the sampling design employed. Majority of the respondents are older than 30 years of age and over 70% holds masters and PGD degree.

4.2 Roles of construction professionals

The results of the findings of roles of construction professionals are discussed with relevant tables in this section.

Roles of Architects

Insert table 3

The result of the research as indicated in table 3 shows the importance and significance of the roles of an architect and engineer in the construction industry. To an architect, the role of translating the users need into builder's requirement is more important. This role rank first in both mean significance and mean important showing that it is the most

important role of an architect. Provision of contract drawing and specifications rank second in the architects role with the same mean importance and mean significance, this indicate that this role is important and as well significant. The role of been the construction project team leader or project manager rank least in mean importance and mean significance with mean difference 0.18 indicating that it is more important than it is significant, it can therefore be concluded that it is the least of the roles of an architect as other construction professionals can as well take up this responsibility.

Roles of Engineers

According to the research, the most significant role of an engineer is the calculation of load and grade requirement, liquid flow rates and material stress point to ensure that the structure can withstand stress, it has a mean difference of 0.01 showing that it is slightly significant than it is important. Provision of mechanical, electrical and structural drawings or design of the project followed with mean difference 0.06 indicating that it is more important than it is significant, the role of ensuring that construction goes according to specification is the least role having a mean difference of 0.08 indicating that it is more important than it is significant. It can therefore be deduced from the result of the findings that an engineer's major roles are calculation of load and grade requirement, liquid flow rates and material stress point to ensure that the structure can withstand stress and provision of mechanical, electrical and structural drawings or design of the project.

Roles of a Quantity Surveyor

Insert table 4

Table 4 shows the result of the findings, the roles of management and control of costs within the construction project and estimation of price and tender analysis were the most significant roles with mean difference -0.03 which indicate that these roles are more significant than they are important. Arbitration in case of dispute between clients and contractors and procurement for heavy engineering and infrastructures rank least with mean difference 0.17 and 0.22 respectively. Arbitration in case of dispute between client and contractor is more important than it is significant while procurement for heavy engineering and infrastructures is more significant than it is important, this imply that these roles are not prominent within the quantity surveyors in the study area.

Roles of a Builder

To the builders, building management and production is the most important role with mean difference 0.03 indicating that this role is more important than it is significant. Co-ordination of construction process and maintenance of building for the use and protection of mankind and his asset has the same mean importance indicating that these roles are as important as each other; the least important role is to ensure the buildability of the construction project, this is to say that any other construction professional can ensure the buildability of the construction project.

4.3 Factors Affecting Construction Professional Performance

The factors which influence the performance of construction professionals with the result of the findings are shown with relevant tables in this section. The factors which may affect the performance of construction professionals are divided into two categories namely: organizational factors and demographic factors.

Organizational Factors

The results in table 5 show that the professionals attach great importance to some organizational factors which affect their performance while some others mean little to them as far as their performance is concerned. The organizational factors that matter most according to the findings of this study include remuneration, motivation and incentives and promotion opportunities. This means that the construction professionals are likely to be satisfied and perform better if motivated with their job if they are given adequate pay, motivated and more promotion opportunities. However, there are other factors the professionals see as less important as to how they affect their performance. These factors include level of supervision and monitoring, the work itself and the co-workers.

Demographic factors

Insert table 5

When considering the demographic factors which affect construction professionals performance, table 5 indicate that the professionals sees some factors as the most important and significant in the level of their performance, these factors includes; the level of experience, gender and age. This is to say that the level of experience acquired over the years by the professionals greatly affect their performance and the success of the project, gender is also an important factors affecting the performance of professionals, this is reflected in the sample as there are more males in the construction industry than females. The age of the professionals is also very significant and important factor which affect their performance and the overall success of the construction project. However, the factors which rank least are length of service, educational level and marital status. It can therefore be concluded that marital status has little or no significance and importance in the performance of construction professionals. The mean difference on table 3, 4 and 5 represents the difference between the mean scores, that is, mean importance and mean significance. From the result of the findings, it was discovered that most of the factors has positive values indicating that most of the factors are more important than their level of significance.

4.4 Discussion of Findings

The result of this research is discussed and related with relevant literature reviewed for further explanation and conclusion were drawn from the findings of the research in this section. This section comprises the distribution of organizational and demographic descriptor of construction professionals, factors influencing performance of

construction professionals and significance of project success criteria to construction professionals.

Roles of Construction Professionals in the Construction Industry

To an architect, the role of translating the users need into builder's requirement is more important than it is significant this is supported by [7] where it was stated that an architect is the first professional to communicate with the client and translates his desires or needs into drawings and specification. This role rank first in both mean significance and mean importance showing that it is the most important role of an architect. Provision of contract drawing and specifications rank second in the architects role with the same mean importance and mean significance, this indicate that this role is important and as well significant. The role of been the construction project team leader or project manager rank least in mean importance and mean significance with mean difference 0.18, this result is in conflict with Gideon (1997), it was opined that architects are in most cases the project coordinator or project manager. The result of this research indicated that it is more important than it is significant, it can therefore be concluded that it is the least of the roles of an architect as other construction professionals can as well take up this responsibility. The most significant role of an engineer is the calculation of load and grade requirement, liquid flow rates and material stress point to ensure that the structure can withstand stress, it has a mean difference of 0.01 showing that it is slightly significant than it is important. Provision of mechanical, electrical and structural drawings or design of the project followed with mean difference 0.06 indicating that it is more important than it is significant, the role of ensuring that construction goes according to specification is the least role having a mean difference of 0.08 indicating that it is more important than it is significant. It can therefore be deduced from the result of the findings that an engineer's major roles are calculation of load and grade requirement, liquid flow rates and material stress point to ensure that the structure can withstand stress and provision of mechanical, electrical and structural drawings or design of the project. Management and control of costs within the construction project as well as estimation of price and tender analysis are the most important roles of quantity surveyors, this result is in accordance with [11] where it was stated that quantity surveyor is a professional trained, qualified and experience in dealing with problems relating to cost, management and communication in the construction industry. This indicates that these roles are more important than they are significant. Arbitration in case of dispute between clients and contractors and procurement for heavy engineering and infrastructures rank least with mean difference 0.17 and 0.22 respectively. Arbitration in case of dispute between client and contractor is more important than it is significant while procurement for heavy engineering and infrastructures is more significant than it is important, this imply that these roles are not prominent among quantity surveyors. To the builder, building management and production rank first with mean difference 0.03 indicating that this role is more important than it is significant. Co-ordination of construction process and

maintenance of building for the use and protection of mankind and his asset has the same mean importance indicating that these roles are as important as each other; the least important role is to ensure the buildability of the construction project, this is to say that any other construction professional can ensure the buildability of the construction project.

Factors Affecting Performance of Construction Professionals

The results of the findings show that the professionals attach great importance to some organizational factors which affect their performance while some others mean little to them as far as their performance is concerned. The organizational factors that matter most according to the findings of this study include remuneration, motivation and incentives and promotion opportunities, this result is in accordance with [15] who noted that wages and salaries are recognized to be a significant, but complex multidimensional predictor of performance. [16] implied that employees who feel under rewarded will attempt to restore equity by reducing input such as increasing absenteeism, coming late to work, taking longer break and decreasing productivity. This means that the construction professionals are likely to be satisfied and perform better if motivated with their job if they are given adequate pay, motivated and more promotion opportunities. However, there are other factors the professionals see as less important as to how they affect their performance. These factors include level of supervision and monitoring, the work itself and the co-workers. Considering the demographic factors which affect construction professionals performance, the professionals sees some factors as the most important and significant in the level of their performance, these factors includes; the level of experience, gender and age. According to [23], age influence the relative importance the professionals place on various work attribute, older professionals value jobs with meaningful content compared to younger counterparts. This is to say that the age and level of experience acquired over the years by the professionals greatly affect their performance and the success of the project, gender is also an important factors affecting the performance of professionals, this is reflected in the sample as there are more males in the construction industry than females. The age of the professionals is also very significant and important factor which affect their performance and the overall success of the construction project. However, the factors which rank least are length of service, educational level and marital status this is in conflict with [14] who opined that marriage imposes increased responsibilities that make a job more valuable and increase performance, therefore, married professionals will be more likely to be committed and perform better.

V. CONCLUSION AND RECOMMENDATION

Construction professionals in Nigeria has fewer young people and male genders are more in numbers as compared to females. Majority of these professionals are married while others are single, there are more PGD and Masters

Holders than Bachelors. The organizational factors that matter most to the performance of the construction professionals include remuneration, motivation and incentives, participation in a working team and promotion opportunities. The factors that matter least to the level of performance of the construction professionals include level of supervision and monitoring and co-worker. The performance of construction professionals are affected by the following demographic factors: experience, gender, age and educational level, the factors which least affect them are marital status and length of service. The result of the research indicated that majority of the professionals are male therefore, better friendly work environment should be created by the managements of the construction industry so as to attract female professionals. More so, construction industries should focus its efforts on improving the performance of younger and newly employed construction professionals by developing management training programs, workshops, financial incentives, and other non-work-related activities that would encourage and support them to stay and grow with the industry, since there are relatively few young professional in the construction industry.

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Mr. Oke, is a Lecturer of Quantity Surveying with good years of experience. His area of research is in bond Administration and value Management in the Construction Industry. He is a member of Nigeria Institute of Quantity Surveyors and Registered member of Quantity Surveyors' Registration Board of Nigeria.

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Table 1 Registered Construction Professionals

Construction Professionals	Population	Sample Size	Questionnaire Received
Architects	53	35	19
Builders	15	13	7
Quantity Surveyors	68	40	20
Engineers	106	51	22
Total	242	139	68

SOURCE: NIQS, NSE, NIA and NIOB Ondo State Chapters

Table 2 Demographic Description of Respondent

Demographic description	Frequency	Percentage
Gender		
Male	60	87.7
Female	8	12.3
Total	68	100.0
Age		
20-30	15	22.6
31-40	37	53.8
above 40	16	23.6
Total	68	100.0
Profession of respondent		
quantity surveyor	20	29.2
Architect	19	28.3
Builder	7	10.4
Engineer	22	32.1
Total	68	100.0
Academic qualification		
higher national diploma	9	13.2
Bachelor	8	12.3
PGD	22	32.1
Masters	29	42.5
Total	68	100.0
Marital status		
Single	19	28.3
Married	48	70.8
widow(er)	1	0.9
Total	68	100.0

Table 3 Roles of Architect and Engineer

Roles	Significance		Importance		Mean Difference
	Mean	Rank	Mean	Rank	
Roles of an Architect					
Translation of the user's needs into the builders requirements.	4.88	1	4.83	1	-0.05
Planning, designing and oversight of construction projects.	4.24	4	4.23	3	-0.01
He is usually the construction team leader	3.75	5	3.93	5	0.18
Direct communication with the client.	4.36	3	4.12	4	-0.24
Provision of contract drawings and specifications	4.44	2	4.44	2	0.00
Roles of Engineers					
Planning and execution of construction design	4.39	3	4.41	3	0.02
Calculation of load and grade requirements, liquid flow rates and materials stress points to ensure that the structure can withstand stress	4.84	1	4.83	1	-0.01
Ensures that construction goes according to specifications.	4.25	5	4.33	5	0.08
Provision of mechanical, electrical and structural drawings or design of the project.	4.71	2	4.76	2	0.06
Supervision of the construction process.	4.32	4	4.38	4	0.06

Table 4 Roles of Quantity Surveyor and Builder

Roles	Significance		Importance		Mean Difference
	Mean	Rank	Mean	Rank	
Roles of a Quantity surveyor					
Management and control of costs within the construction projects.	4.86	1	4.83	1	-0.03
Estimation of price and tender analysis	4.71	2	4.68	2	-0.03
Ensure construction goes according to time, quality and cost budgeted.	4.22	3	4.24	3	0.02
Procurement for heavy Engineering and infrastructures	3.66	6	3.44	6	-0.22
Professional advice to client and other professionals on cost, time and quality related matters.	3.76	4	3.92	4	0.15
Arbitrator in case of dispute between clients and contractors.	3.64	5	3.81	5	0.17
Roles of a Builder					
Building production management	4.75	1	4.77	1	0.03
Co-ordination of construction process.	4.36	2	4.42	3	0.07
Maintenance of building for the use and protection of mankind and his asset	4.35	3	4.42	3	0.08
Ensures the buildability of the construction project.	4.34	4	4.50	2	0.16
Supervision of the construction process.	4.32	4	4.38	4	0.06

Table 5 Factors Influencing Performance of Construction Professional

Factors influencing performance of construction professionals	Significance		Importance		Mean Difference
	Mean	Rank	Mean	Rank	
Organizational factors					
Remuneration	4.82	1	4.85	1	0.03
Supervision	3.79	5	3.92	5	0.13
Promotion opportunities	4.42	3	4.33	3	-0.08
Co- workers	3.79	5	3.86	6	0.07
The work itself	3.91	4	3.99	4	0.08
Motivations and incentives	4.53	2	4.58	2	0.05
Demographic factors					
Gender	4.42	2	4.48	2	0.07
Age	4.31	3	4.36	3	0.05
Length of service	4.02	5	4.09	4	0.08
Educational level	4.04	4	4.08	5	0.05
Experience	4.55	1	4.63	1	0.08
Marital status	4.01	6	4.05	6	0.04