

PERCEPTION OF CONSTRUCTION PROFESSIONALS TO THE PERFORMANCE OF NIGERIAN QUANTITY SURVEYORS

A.E. Oke *, I.O. Timothy, A.I. Olaniyi
Department of Quantity Surveying,
Federal University of Technology, Akure Nigeria
Corresponding Author: emayok@gmail.com

ABSTRACT

The dynamism of the construction industry throughout the world call for no other skill of a professional quantity surveyor than the need for stringent cost control and effective cost management in providing value for money for construction clients. The aim of this research work is to examine the performance of Nigerian quantity surveyors with a view to ascertaining areas that need improvement. Primary data were collected via well-structured close-ended questionnaire using the areas of competencies of quantity surveyors as identified by RICS. Percentile, mean internal score and Cronbach's alpha test were employed in the analysis and testing of the hypotheses generated. The study revealed that Nigerian quantity surveyors are performing above average in all the identified areas of competencies of quantity surveyors from the perception of all the considered construction professionals. The study finally recommended a need for personal improvement by quantity surveyors in Nigeria – especially the older ones- in order to keep them abreast with the current trend in the construction industry.

Keywords: Competencies, Construction professionals, Nigeria, Perception, Quantity surveyors.

Introduction

Olusoga (2006) observed that Nigerian quantity surveyors of older generation were more of experts in the costing, cost monitoring and control as it relates to building projects which they were respected for by their sisters' professionals. Although, it is true that today's quantity surveyors want to expand the horizon of their practice as observed by Seppanen (2002), it is to be noted that most of these expansion in Nigeria as the case may be is into costing of engineering projects which is still within the traditional role of the older generation of quantity surveyors especially in the developed world. The quantity surveyor according to Aje and Awodele (2007) is "a professional trained, qualified and experienced in dealing with problems relating to construction cost, management and communication in the construction industry". The problem lies neither in the cost nor communication but in the management of construction projects since proper and effective overall management entails every other function i.e. cost and communication. This should be an area of concern to Nigerian quantity surveyors in discharging their duties since a well managed project is always a well delivered project.

The challenge to the Nigerian quantity surveyors can be linked to an assertion by Anago (1997) that, "when a professional man holds himself out as qualified in a particular professional discipline, he thereby indicates that he is competent to render the services associated with such a profession to the required degree of skill and expertise". This is supported by a report of Royal Institute of Chartered Surveyors (1991) where it was stated that "quantity surveying is very much a client led profession in that the professional quantity surveyors respond to client needs and must continue to develop more on their own initiatives. Concerns in the coming decade will be dominated by the need to anticipate and satisfy changing client requirements". This called for a need to examine the present performance of Nigerian quantity surveyors in their quest for better service delivery.

Literature Review

Quantity Surveyors

Quantity surveyors are called by so many names all over the world such as cost engineers, building economists, cost managers, construction accountants, etc and different authors have adopted these different names in different studies (RICS, 1991; Seeley, 1997; Seeley and Winfield, 1999; AACE, 2000; Kelly and Male, 2006) and in Nigeria such as (Ajanlekoko, 2004; NIQS, 2004; Ogunsemi, 2004; Babalola, 2006; Odeyinka, 2006; Ogunsemi, 2006; Oke, 2006). It is to be noted that the most common name for this professional in Nigeria is "quantity surveyors". Quantity surveyor according to Wikipedia (2008) is "a professional trained, qualified, and experienced in handling construction cost, construction management and construction communication on behalf of the client".

Nigerian Institute of Quantity Surveyors (2004) defined a quantity surveyor as the expert professionally trained and experienced in dealing with construction cost, construction management and construction communication. This he exhibit in various types of projects including building construction, civil and structural engineering, mechanical building and engineering services, petrochemicals, mineral extraction, cost and production engineering, environmental economics, planning and urban development, landscaping, interior design and all other relevant areas.

Competent quantity surveyors must have a range of skills, knowledge and understanding which can be applied in a range of contexts and organisations (Hassall, Dunlop and Lewis, 1996). Yet pressing issues which confront the quantity surveying profession today include increasing the relevance and level of awareness of the profession's services in the built environment and increasing the range of business opportunities for continued growth.

History of Quantity Surveying in Nigeria

Quantity surveying according to Odeyinka (2006) 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 (NIQS, 2004). 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 recognised 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 (NIQS, 2004)

Competency Areas for Quantity Surveyors

Stewart and Hamlin (1992) define competency as something which a person who works in a given occupational area should be able to do. Holmes and Joyce (1993) view competency as a description of an action, behaviour or outcome which a person should be able to demonstrate, or the ability to transfer skills and knowledge to new situations within the occupational area.

Male (1999) emphasizes that the distinctive competencies of the quantity surveyor are associated with measurement and calculation which provides the basis for the proper cost management of forecasting, analysing, planning, controlling and accounting. However, the Royal Institute of Chartered Surveyors (1991), Nkado (2000); Ogunsemi (2004); Akosile (2006); Idowu and Odusami (2006); Oyediran (2006) and Awodele,

Akosile, Ogunsemi and Owoeye (2007) identified and classified areas of competencies required of quantity surveyors into three categories and they are basic, core and optional. The RICS (1998) set out the requirements and competencies for the assessment of professional competence by listing the competencies required of quantity surveyors in three categories: basic competencies, core competencies and optional competencies, as shown in Table 1. The basic competencies are widespread to all construction professions under the RICS structure and they are: personal and interpersonal skills; business skills; data management; information technology; professional practices; law; measurement; and mapping. The core competencies are exclusively vital to the profession of quantity surveying and this entails construction contract practice, construction technology and environmental services, economics of construction and procurement and financial management.

The optional competencies reveal areas of specialty or future career diversification and these include arbitration and other dispute resolution procedures, development appraisal, facilities management, insolvency, insurance, project management, property investment funding, research methodology and techniques, taxation allowance and grants and valuation.

Research Methodology

Primary source of data collection through a well-structured questionnaire was administered to relevant and appropriate professionals in the construction industry. The population were the Nigerian construction professionals that are eligible to participate in the research and they are: Architects; Quantity surveyors; Builders; Engineers; and Estate Surveyors and Valuers.

Due to a large population as identified above, the sampling frame was delimited to Lagos state of Nigeria where research questionnaires were distributed. The choice is on the premise that Lagos is the commercial capital city of Nigeria and most of the construction professionals in this state handle projects in other states of the federation. Fagbemi (2008) observed that 75% of quantity surveying firms in Nigeria are either based in Lagos state or have their branches located there. The result of the study is expected to represent the whole population. More so, the list of professionals were obtained from relevant professional bodies and the sample size in respect of the various categories of respondents was determined from the following formulae as used by Kish (1965) in Shash and Abdul-hadi (1993)

$$n = \frac{n^l}{1 + \frac{n^l}{N}} \dots\dots\dots 1$$

$$\text{Where } n = \text{sample size: } n^l = \frac{S^2}{V^2} \dots\dots\dots 2$$

N = Total population, V = Standard error of sampling distribution = 0.05,
S = the maximum standard deviation in the population elements

Using the formulae, the sample sizes for each of the respondents were calculated and the result is as shown in table 2. Out of the 265 questionnaires administered, 94 were returned and filled, this represent 35.5% of the total questionnaire sent out which is considered sufficient for the study base on the assertion of Moser and Kalton (1999) that the result of a survey could be considered as biased and of little significant if the return rate was lower than 20-30%. More so, 12 construction professionals cutting across all the professional bodies were also interviewed.

Tables were employed in this research for data presentations and analysis of the collected data was carried out using the following descriptive and inferential statistical methods: frequencies; percentiles; cronbach's alpha test; and mean internal score (MIS).

Cronbach's alpha test was used in testing the reliability and viability of the research. Cronbach's α value for scale of measures of the research instruments is 0.501. Since the degree of reliability of the instrument is more perfect as the value tends towards 1.0 (Moser and Kalton, 1999), it can then be concluded that the instruments used for this research are significantly reliable.

Findings and Discussion

Characteristics of the Respondents

Table 3 shows the general characteristics of respondents for the questionnaire distribution. It is observed that about 23%, 18% and 14% of the respondents were quantity surveyors, builders and estate valuer respectively while engineers and architects that responded to the questions were about 22%. The mean year of working experience of these respondents was calculated to be 9.83 which could be considered appropriate for the study.

As expected, all the professionals were members of their professional bodies in that the frequencies of the professionals correspond with that of the professional bodies. However, majority of these professionals are corporate (Associate or members) members (about 46%) followed by graduate members with about 37% while probationers and fellows were about 14% and 3% respectively. On the geographical zones that the respondents have executed one or more projects, all the respondents have been involved in project located in the South-West region as expected and this is followed by South-South and South-East respectively. It could be concluded that about 41% of construction professionals in Lagos state i.e. the respondents have participated in other projects located in other geographical zones of the country.

Performance of Nigerian Quantity Surveyors

Hypothesis was generated in order to test if there is a variance in the ranking of performance of Nigerian quantity surveyors by various groups of professionals as follow:

Null Hypothesis (H_0): There is no significant agreement between quantity surveyors, architect, estate valuer, builder and engineers in ranking the performance of Nigerian quantity surveyors based on the areas of competencies of quantity surveyors.

Alternate Hypothesis (H_1): There is significant agreement between quantity surveyors, architect, estate valuer, builder and engineers in ranking the performance of Nigerian quantity surveyors based on the areas of competencies of quantity surveyors.

The result as presented in table 4 revealed that there is no significant agreement between the ranking of quantity surveyors, architect, estate valuer and builders while there is agreement between quantity surveyors and engineers in the ranking.

Table 5 revealed that Nigerian quantity surveyors perform better in valuation, project management and measurement from the view of quantity surveyors. At the lower end is insolvency and mapping and this may be as a result of little or no understanding of the term "mapping".

The architects ranked personal and interpersonal skill and valuation 1st and 2nd while estate surveyors believed that Nigerian QS performs better in measurement and economics of construction. Professional practice and data, information and information technology were tied in the 1st position by the builders while engineers were of the opinion that QS perform better in valuation and construction contract practice.

On the general opinion, valuation, project management, construction contract practice and measurement were ranked 1st, 2nd, 3rd and 4th respectively while property investment

funding, facilities management and taxation allowances and grant were ranked at the lower end as 18th, 19th and 20th.

Discussion of Findings

In ranking the performance of Nigerian quantity surveyors based on their areas of competencies, the study revealed that there is no agreement in the ranking of performance of Nigerian quantity surveyors between quantity surveyors and other professionals except the engineers and this could be justified since an individual will always want to rate himself above normal while others will either rate normal or below normal. Diversities in experience, knowledge, training and working relationship of these construction professionals with quantity surveyors could also be reasons for the difference.

Valuation, construction contract practice, project management, measurement and procurement management are areas of competencies where quantity surveyors perform better. The traditional role of Nigerian quantity surveyors are centred on these areas and this is supported by Babalola (2006) where it was stated that the quantity surveyors can be said to be the client's building economist, a role incorporating all the earlier mentioned areas of competencies. Selinger and Stamler (1983) believed that bill of quantities is an essential part of the financial system of many construction projects and its preparation is the major role of the quantity surveyors. In Jagun (2006) opinion, many quantity surveyors are mostly involved with measuring and valuing of construction work being carried out under a traditional building contract. Nkado (2000) stated that three of the traditional core competencies of quantity surveyors, namely: procurement and financial management, economics of construction and construction contract practice are among the five most important competencies currently required of quantity surveyors and Nigerian quantity surveyors are found to be performing above average in these areas. Taxation and grant allowance and facilities management are areas of neglect by Nigerian quantity surveyors and this underscore the reason for their performance.

Data, information and information technology is ranked 12th and this is supported by Oyediran (2005) where it was stated that majority of quantity surveyors in Nigeria have limited knowledge of information communication technology (ICT).

Conclusion and Further Research

The study has been able to explore areas of competencies of quantity surveyors and it was discovered that Nigerian quantity surveyors are performing above average from the perception of all the construction professionals that participated in the study. The study also suggests the need for Nigerian quantity surveyors to improve in the areas of insolvency, taxation, property investment funding and mapping.

Acknowledgement

This paper is part of a larger research work on "Competencies of Nigerian quantity surveyors as value managers" in fulfilment for the award of Masters of Technology (M.Tech) degree in quantity surveying.

References

- Ajanlekoko, J. O. (2004). Branding the quantity surveying profession to meet the challenges of built environment. *The Quantity Surveyor*. 49, 3-7
- Aje, I. O., & Awodele, O. A. (2006). A study of the ethical values of quantity surveyors in Nigeria. Paper presented at a 2-day national seminar on Ethical issues and the challenges in construction professionals' service delivery. Nigerian Institute of Quantity Surveyors, Ondo state chapter.
- Akosile, A. (2006). An evaluation on competencies of a professional quantity surveyor in Nigeria. An unpublished B.Tech thesis submitted to Department of Quantity Surveying, Federal University of Technology, Akure, Nigeria.
- Anago, I. T. (1997). Professional negligence in the construction industry, *Construction arbitration*, 1(1), 12-18
- Association for the Advancement of Cost Engineering. (2000). Required skills and knowledge of a cost engineer. AACE international recommended practice no. 11R-88. Retrieved May 12, 2008, from <http://www.icoste.org/11R-88.pdf>
-

- Awodele, O. A., Akosile, T., Ogunsemi, D. R., & Owoeye, O. A. (2007). Competencies of professional quantity surveyors in Nigeria. In Wang, Y., Sun, M & Shen, Q. (Ed.), Proceedings of 2007 international conference on Construction Real Estate Management. United Kingdom: China Architecture & building press, pp 270-277
- Babalola, O. (2006). Harnessing the opportunities at the grassroots to make quantity surveying profession competitive at the national and international markets. Paper presented at the 22nd Biennial conference/general meeting on Quantity surveying in the 21st Century – Agenda for the Future. Nigerian Institute of Quantity Surveyors.
- Fagbemi, A. O. (2008). Assessment of quantity surveyors' service quality in Lagos state, Nigeria. An unpublished M.Tech thesis submitted to Department of Quantity Surveying, Federal University of Technology, Akure, Nigeria.
- Hassal, T, Dunlop, A & Lewis, S (1996) Internal Audit Education: Exploring Professional Competence. *Managerial Auditing Journal*, 11(5), 28-36
- Holmes, L & Joyce, P (1993) Rescuing the Useful Concept of Managerial Competence: From Outcomes Back to Process. *Personnel Review*, 22(6), 37-52.
- Idowu, F. O and Odusami, K. T. (2006). An evaluation of the competencies of the Nigerian professional quantity surveyors. *The Quantity Surveyor*. Journal of the Nigerian Institute of Quantity Surveyors, 56, 21-29
- Jagun, T. (2006). New opportunities for quantity surveyors in Nigeria business environment. Paper presented at the 22nd Biennial conference/general meeting on Quantity surveying in the 21st Century – Agenda for the Future. Nigerian Institute of Quantity Surveyors.
- Kelly, J., & Male, S. (2006). Value management. In Kelly, J., Morledge, R., & Wilkinson, S. (Ed.), *Best value in construction*, United Kingdom: Blackwell publishing, pp 77-99
- Male, S. (1999). Professional authority, power and emerging forms of profession in quantity surveying. *Construction management and economics*, 8, 191-204
- Moser, C.A. and Kalton, G. (1999) Survey Methods in Social Investigation, 2nd Edition. Gower Publishing Company Ltd, Aldershot, Pp 256-269.
- Nigerian Institute of Quantity Surveyors. (2004). Who is a quantity surveyor? What can he do for you! Programme of the 21st biennial conference/general meeting on Adding Value to a Reforming Economy – Challenge for the Quantity Surveying Profession in Nigeria. Nigeria Institute of Quantity Surveyors
- Nkado, R. N. (2000). Competencies of Professional Quantity Surveyors in a Developing Economy. Proceeding of the 2nd international conference on construction. Retrieved September 19, 2008 from www.buildnet.csr.co.za
- Odeyinka, H. A. (2006). The role of the quantity surveyor in value management. Paper presented at the 22nd Biennial conference/general meeting on Quantity surveying in the 21st Century – Agenda for the Future. Nigerian Institute of Quantity Surveyors.
- Ogunsemi, D. R. (2004). Meeting the challenges of national development – A case for review of quantity surveying curriculum. Paper presented at the 21st biennial conference/general meeting on Adding Value to a Reforming Economy – Challenge for the Quantity Surveying Profession in Nigeria. Nigeria Institute of Quantity Surveyors
- Ogunsemi, D. R. (2006). Time-cost model for construction projects in Nigeria. *Construction Management and Economics*. 24(3), 253-258
- Oke, A. E. (2006). Effect of quality of materials and workmanship on building collapse in Nigeria. An unpublished B.Tech thesis, submitted to Department of Quantity Surveying, Federal University of Technology, Akure.
- Olusoga, J. R. (2006). Key note address of a 2-day national seminar on Ethical issues and the challenges in construction professionals' service delivery. Nigerian Institute of Quantity Surveyors, Ondo state chapter.
- Oyediran, O. S. (2005). Awareness and adoption of information and communication (ICT) by Architectural, Engineering and R.J. construction (AEC) industry educators in Nigeria. In Katranuschkov, S. P and Schapke, S. E, proceeding of 22nd conference on information technology in construction, July 19-21, Dresden, Germany. Pp 661 – 667
- Oyediran, O. S. (2006). The 21st century quantity surveying and university education. Paper presented at the 22nd Biennial conference/general meeting on Quantity Surveying in the 21st century – Agenda for the Future. Nigerian Institute of Quantity Surveyors.
- Royal Institute of Chartered Surveyors. (1991). Quantity surveying 2000 – The future role of the chartered quantity surveyor. Retrieved May 12, 2008, from <http://www.rics.org/Practiceareas/Builtenvironment/Quantitysurveying>
- Royal Institution of Chartered Surveyors (1998) *The APC Requirements & Competencies*, London: Royal Institution of Chartered Surveyors, London.
- Seeley, I. H. (1997). *Quantity surveying practice*. 2nd edition, Macmillan press, London.
- Seeley, I. H. and Winfield, R. (1999). *Building quantities explained*, 5th edition, Macmillan press, London.
- Selinger, S., & Stamler, H. (1983). Computerized method for quantity surveying. *Construction Management and Economics*, 1, 75-87
- Seppanen, V. (2002). Evolution of competence in software subcontracting projects. *International Journal of Project Management*, 20(2002), 155-164.
- Shash, A.A., and Abdul-Hadi, N.H. (1993) The Effect of Contractor Size on Mark-up Size Decision in Saudi Arabia. *Construction Management and Economics* 11, 421-429.
- Stewart, J. & Hamlin, B. (1992) Competency-based Qualifications: The Case for Established Methodologies. *Journal of European Industrial Training*, 16(10), 9-16.
- Wikipedia (2008). Quantity surveyor. Retrieved May 12, 2008 from <http://en.wikipedia.org/>

Table 1: Headings of competencies required by quantity surveyors for APC

Basic competencies	Core competencies	Optional Competencies
*Personal and interpersonal skills	*Construction contract practice	*Arbitration and other dispute resolution procedures
*Business skills	*Construction technology and environmental services	*Development appraisal
*Data management; information technology	*Economics of construction	*Facilities management
*Professional practices	*Procurement and financial management	*Insolvency
*Law		*Insurance
*Measurement		*Project management
*Mapping		*Property investment funding
		*Research methodology & techniques
		*Taxation allowance & grants
		*Valuation

Source: The Royal Institution of Chartered Surveyors (1998)

Table 2: Sample size and returned questionnaires

Ref. No.	Respondent	Population	Sample size	Returned/Filed
A	Architect	233	66	22
B	Quantity Surveyors	148	49	21
E	Estate valuers	194	52	13
C	Professional Builders	107	43	17
D	Structural Engineers	214	55	21
	Total	896	265	94

Table 3: Summary of characteristics of respondents for questionnaire administration

Category	Classification	Frequency	Percent
Profession Of Respondents	Quantity Surveying	22	23.40
	Architecture	21	22.34
	Estate Surveying and valuing	13	13.83
	Building	17	18.09
	Engineering	21	22.34
	Total	94	100.00
Years Of Working Experience	0 – 5	36	38.30
	6 – 10	20	21.28
	11 – 15	20	21.28
	16 – 20	9	9.57
	21 – 30	9	9.57
	Mean	9.83	
Professional Qualification	NIQS	22	23.40
	NIA	21	22.34
	NIESV	13	13.83
	NIOB	17	18.09

	NSE	21	22.34
	Total	94	100.00
Professional	Graduate	35	37.23
Membership	Probationer	13	13.83
Type	Corporate	43	45.74
	Fellow	3	3.19
	Total	94	100.00
Geographical	North-East	6	4.51
Zones of	North-Central	8	6.02
Project	North-West	4	3.01
Execution	South-East	9	6.77
	South-South	12	9.02
	South-west	94	70.68
	Total	133	100.00

Table 4: Test of variance for ranking of performance of Nigerian QS

Respondents	F-Value	P-Value	Reject H ₀	Remark
Architects and quantity surveyors	1.684	0.250	No	Sig> 0.05
Estate valuers and quantity surveyors	1.621	0.267	No	Sig> 0.05
Builders and quantity surveyors	1.336	0.362	No	Sig> 0.05
Engineers and quantity surveyors	3.967	0.038	Yes	Sig<0.05

Table 5: Performance of Nigerian quantity surveyors based on their areas of competencies

Criteria	QS		Architects		Valuers		Builders		Engineers		General	
	Mean	R	Mean	R	Mean	R	Mean	R	Mean	R	Mean	Rank
Personal and interpersonal skill	4.41	6	4.65	1	4	11	3.29	13	4.30	11	4.17	6
Business skill	4.09	12	3.85	16	3.82	13	3.20	15	4.41	7	3.91	14
Data, information and information technology	3.91	17	3.90	15	4.09	3	3.80	1	4.15	14	3.97	12
Professional practice	4.41	6	4.05	12	4.09	3	3.80	1	4.4	8	4.18	5
Law	4.09	12	4.05	12	3.82	13	3.60	3	3.85	19	3.91	14
Measurement	4.62	2	4.00	14	4.45	1	3.53	5	4.42	6	4.22	4
Mapping	3.55	20	4.35	3	3.73	16	3.27	14	4.05	16	3.82	17
Construction contract practice	4.52	4	4.30	5	4.09	4	3.40	8	4.68	2	4.26	3
Economics of construction	4.32	9	4.24	8	4.18	2	3.33	12	4.55	4	4.16	7
Procurement and financial management	4.52	4	3.75	18	4.09	3	3.40	8	4.37	10	4.06	10
Construction technology and environmental services	4.32	9	4.12	9	4.09	3	3.40	8	4.40	8	4.11	8
Arbitration and other dispute resolution procedures	4.32	9	4.35	3	3.82	13	3.20	15	4.45	5	4.10	9
Developmental appraisal	3.91	17	3.75	18	3.64	21	3.53	5	4.30	11	3.86	16

Facilities management	4.00	16	3.50	21	4.09	3	3.20	15	3.95	18	3.75	19
Insolvency	3.45	21	3.85	16	3.55	21	3.20	15	3.58	21	3.54	21
Insurance	4.05	14	4.3	6	3.73	16	3.07	20	4.2	13	3.93	13
Project management	4.59	3	4.1	10	4.09	3	3.6	3	4.65	3	4.26	2
Property investment funding	4.18	11	3.75	18	3.73	16	2.87	21	4	17	3.76	18
Research methodologies and techniques	4.05	14	4.25	7	4.09	3	3.4	8	4.15	14	4.01	11
Taxation allowances and grant	3.64	19	4.1	10	3.73	16	3.07	19	3.75	20	3.68	20
Valuation	4.82	1	4.5	2	3.91	12	3.53	5	4.79	1	4.4	1

Note: QS-Quantity surveyors, R-rank