The Nigerian Quantity Surveyors in an Emerging Market

AbdulLateef Olanrewaju,
Faculty of Engineering and Green Technology, Universiti Tunku Abdul Rahman, Kampar, Malaysia
email: olanrewaju@utar.edu.my
Paul Anavhe,
CDP Partnership Limited, No. 3 Borno Road, KRC, Off Independence Way, Kaduna, Kaduna State, Nigeria
email: panavhe@yahoo.com
Abdul-Rashid Abdul-Aziz
School of Housing, Building and Planning, Universiti Sains Malaysia, Georgetown, Malaysia
email: arashid@usm.my

Abstract

The roles of the quantity surveyor has evolved from been a simple building accountant to a respected professional vocation. The roles played by quantity surveyors are expanding both in scope and size. The expectations of quantity surveyors have increased due to the increasing inclusion of new technologies, changing rules and regulations, increasingly sophisticated projects, diverse clients, and the emergence of related professions with job descriptions that overlap with that of the quantity surveyor. There are daunting evidences that the threats will continue to pose challenges to the existence of quantity surveyors. Therefore, in order to remain both relevant and competitive, quantity surveyors need to diversify their services. This paper examines the roles that 'modern' quantity surveyors play in Nigeria. Primary data is collected through questionnaires. Twenty three (23) roles played by modern quantity surveyors are identified and addressed to the respondents to rank the rate at which they perform each of the roles. Data obtained were analysed statistically. The results of the findings led to the conclusion that the quantity surveyors were performing the emerging services expected of quantity surveyors. The results of the study could be useful to quantity surveyors and other stakeholders in the construction industry in general.

Keywords: quantity surveying; value for money, built environment; Nigeria

1. Introduction

There is some doubt on whether Nigeria is an emerging market (EM) or not, because not all organisations include Nigeria in their indexes. For instance, the IMF, the Economic, and FTSE are yet to consider Nigeria an emerging country, but the BRIC+Next Eleven, BBVA, Columbia University, EMGP and BMI include Nigeria in their list of emerging countries. The features most commonly found in the majority of indexes are that EM countries aspire to be 'developed' and as such aim to liberalise, deregulate, and globalise their economies. For this, these countries have in place vigorous strategies to improve and expand their infrastructures. Stakeholders interested to remain in or enter this market must provide competitive and value added services/products. Developing countries have rapid economic development and the rates of industrialisation are massive. As of December 2012, Nigeria's external reserves stood at US $43.83 billion (CBN, 2012). Nigeria's economy is set to experience a boom as it aims to close infrastructure gaps. As an emerging market, Nigeria has embarked on economic development and reformation initiatives for which it has begun to liberalize, diversify, and globalise its markets. Through it Transformation Agenda and Vision 2020, the Nigerian government seeks to increase jobs, reduce poverty, reduce food imports, develop infrastructures, reduce inflation, decrease domestic debts, reduce recurrent expenditures, increase foreign reserves, address its housing deficit, and move away from its dependence on oil. Nigeria like most countries in Africa, has established sovereign wealth funds to it infrastructures. For over a decade there has been a considerable increase in Foreign Direct Investment (FDI) in the Nigerian economy. FDI stood at N1, 113.5 billion, and constituted 28.3 per cent of the total inflow, 2012 (CBN, 2012). Nigeria accounts for 18% of all foreign investment in Africa and 60 per cent of all foreign investments in the ECOWAS Sub-Region (Jonathan, 2013). The implication of this is increases in the rate of physical development, which has many implications for the construction industry.

The Nigerian construction industry is expected to grow. This is occasioned by the need to urbanize, globalise, and to meet the infrastructural inadequacies. The construction outputs are expected to triple within the next decade and the allocation to construction sector. On the infrastructure gab, some of the major constraints militating against the provision of infrastructures in Nigeria are the lack of funds, absence of risk sharing structures, lack of clarity on the governance of the PPP framework, and a lack of competent experts to assist banks and other firms engaged in infrastructure financing (Sanusi, 2012). Nigeria requires over US$10bn annually over the next ten years to meet its infrastructural needs (Sanusi, 2012). The implication of this statistics is that there are many activities for the construction industry; however, in order to benefit from this development, professionals in the construction industry including quantity surveyors need to adopt best practices and provide best added value services. This requires quantity surveyors to offer services beyond those traditionally provided. Quantity surveyors are now required to learn and acquire how to better position themselves to manage supply and manage increased demand. Quantity surveyors must learn to work with expatriates as some of the projects are joint ventures with other countries that bring with them a different work culture. The example of this is now cited. Some of the projects will require alliance, joint venture, acquisition, counterpart partners from different countries with diverse and different working culture. Some of the countries have stringent discipline and regime regarding to public investments. The prequalification criteria are different from what most of the quantity surveyors in Nigeria are familiar with. To make it bit complex, some of the countries do not necessarily have the quantity surveyors in

their countries. Access to capital is becoming more challenging. In this context, the quantity surveyors have the opportunity to diversify more to the upstream supply chain mainly by promoting different procurement strategy. Incidentally, the government of Nigerian has identified the PPP as a major strategy to meet its infrastructure need.

Given the increasing difficulty to access capital, quantity surveyors should take the opportunity to diversify more to the upstream supply chain mainly by promoting different procurement strategies. Incidentally, the Nigerian government has identified the PPP as a major strategy to meet its infrastructure needs. For instance, the proposed areas of PPP application outlined by the Nigerian Infrastructure Concession Regulatory Commission include power plants and transmission/distribution networks, roads and bridges, seaports, airports, railways, gas and water supply, housing, and health care. The construction industry must meet growing demands for sustainable built environments and harness technology to drive innovation, especially in energy efficiency. The construction industries in other emerging markets have been rapidly responding to this demand. This is a sharply in contrast, with the services that Nigerian QSs provides that are largely within the limited boundary of building projects

Quantity surveying is universal and is carried out under different names, such as building economist, cost consultant, management consultant, cost economist, project consultant, and commercial manager. This diversity robs the profession of an identity (Olanrewaju and Anavhe, 2008) unlike other allied professions. An engineer is an engineer and an architect an architect. The functions performed by modern quantity surveyors vary and its title is quite inadequate to describe the services it provides. Quantity surveying was initially conceived out of the necessity to have a dedicated person to manage the cost of building projects. From the time the client decides to build, the services of the quantity surveyors are required. Prior to the drawings and specifications, quantity surveyors provide cost planning services to the clients/developers. Costing is continuously monitored by quantity surveyors as further detail drawings and specifications are ready from the designers (architects and engineering). The essence of monitoring the initial estimate produced at the cost planning stage is to ensure that the initial estimate is not unnecessarily overrun. A Bill of Quantities will be produced once all relevant information is available and detail drawings and specifications are established.

The services quantity surveyors perform today depend on the nature of their organization as well as their position. For instance, quantity surveyors working for clients will offer different types of service as compared with quantity surveyors working with a contracting organization. Similarly, quantity surveyors working with oil and gas differ from quantity surveyors in real estate development. The training and expertise of the quantity surveyors allows them to venture into areas including value management, risk management, arbitration, and project management. However, available literatures on the roles that quantity surveyors currently perform in Nigeria have not being adequately investigated (see for example: Olanrewaju and Anavhe, 2008). The aim of this paper therefore is to evaluate the services of quantity surveyors in Nigeria. In light of this, the impetus of the paper is to create awareness on the various functions of the quantity surveyors.

2. Background and theoretical development

Quantity surveying is universal. However, it is carried out under different names. In countries like the USA, the roles played by quantity surveyors are similar to that performed by 'Cost Engineers'. Quantity surveyors are sometimes referred to as cost economists or cost consultants. However, quantity surveying is more than any of those names or titles. Traditionally, the services that quantity surveyors provide include estimating, cost planning, feasibility and viability studies for building works, compilation and documentation of contractual issues, and tendering. Perhaps the phrase "quantity surveying" is a catch-up term that hides a multitude of meanings. The modern quantity surveyors perform various types of services that extend beyond the services that the traditional quantity surveyors provide. Since the inception of the profession, there has been a paradigm shift in the practices and services that quantity surveyors provide, from someone who was concerned with cost reduction and substitution of materials and components to someone who is concern with the achievement of value and enhancing productivity. The quantity surveyor is the expert who is concerned with financial integrity, contractual matters, procurement, and delivering value for the clients' money invested. The services that the quantity surveyors currently provide have shifted from the 'downstream' to 'upstream'. The dynamism of quantity surveying enables it to venture into other areas like facility management, value management, knowledge management, risk management, arbitration, maintenance management, centre management, system management, and project management. In fact, quantity surveyors are adaptable creatures capable of reinventing themselves according to the demands of the modern progressive clients (Cartlidge, 2003).

The services of quantity surveyors are required in all sectors of economic endeavor including the financial, insurance, oil and gas, construction, as well as in the academic sector. The services that quantity surveyors provide place them in strategic position as process managers. Quantity surveyors provide advice on the strategic planning of a project. This advice affect clients' decisions on whether to build or not, and if the client decides to build what effect does cost have on other criteria within the clients/users value systems including time and quality, function, satisfactions, comfort and aesthetics. As it is usually the case, even under the traditional procurement system where the quantity surveyor is not usually the lead or prime consultant, all other members of the team, including the client relate with him and supply valuable information to the quantity surveyor (a converging point!) to enable him to prepare 'accurate estimates' to make meaningful contributions towards the successive completion of a project. Regardless of the procurement strategies adopted, the roles of quantity surveyors are prominent for a successful completion of projects. In fact, the modern procurement strategies like PPP have exposed the potential and relevance of the quantity surveyors towards best service delivery. Quantity surveyors could be engaged by the client or by the contractor. Quite a number of architectural or engineering practices also engage quantity surveyors to guide them in their design processes. However, the functions they perform in that capacity are restricted.

The history of quantity surveying in Nigeria dates back to the 70s, when it was offered as a programme at the Ahmadu Bello University. Quantity surveying is currently offered by 16 universities and 39 polytechnics. The Nigerian Institute of Quantity Surveyors (NIQS), the professional body that regulates the activities of the quantity surveyors in Nigeria was established in

1969 by some UK trained Nigerians. Since the late 90s, the Nigerian Institute of Quantity Surveyors (NIQS) is now a member of the International Cost Engineering Council (ICEC).

The roles that the quantity surveyors perform today have diversified into industries including petrochemical, manufacturing, automobile, mining, telecommunication, shipping, transport, and agriculture. The major impetus for this diversification is the changing requirements of the stakeholders. There is increasing awareness on accountability and transparency. Today's clients are more demanding than they used to be. In light of this, for quantity surveyors to remain relevant, there is a need to embrace value added tools, skills, and expertise. For quantity surveyors to be part of the transformation agenda of the government, they need to provide cutting edge services. The clients want their projects to be completed on schedule, within budget, with maximum performance, reliability, safety, and meeting other criteria within their client value system. The clients are pushing the construction industry to take a cue from the automobile and electronic industries. The stringent requirements of the progressive clients to achieve their value system are the drivers of the transformation in construction (Cartlidge, 2004) and it will continue to be so in the years ahead as clients will always demand for value for their money. Construction clients are increasingly becoming impatient with their investments in the construction industry. Therefore, Nigerian quantity surveyors, like QSs elsewhere, must equally expand on the scope of services they provide to their clients if they are to remain relevant and competitive.

3. Outline of the methodological issues

This study consists of a literature review and survey questionnaire. Altogether, 23 roles played by modern quantity surveyors provide are addressed to respondents. The 23 roles were identified based on a literature review and the authors' experiences (I.e. Cartlidge, 2003; Lee, et al., 2005 and Ashworth, et al., 2013). The survey was conducted in two stages. In the first stage, the questionnaire was administered on participants who attended the "1st NIQS Research Conference" entitled 'Innovation and sustainable management of building and infrastructure projects'. The NIQS conference was held at the Shehu Musa Yar'Adua Centre, Abuja September 2013. At this conference, a total of 63 useable responses were received. The second stage was based on convenient sampling. Here, the questionnaire was administered by hand and email through the office of the co-author. Sixty-nine useable questionnaires were returned from the second stage. The questionnaire was administered within three weeks, 8th-23rd September 2013. When the need emerged to measure the services provided by the quantity surveyors, the issue of 'extent' becomes important. Therefore, respondents were asked based on their current experience, to tick the extent to which the quantity surveyors have performed the identified roles on a six continuum scale; where 6 denotes extremely often, and 1 denotes not often at all. 2, 3 4 and 5 are located in between. The degrees at which the roles are performed are determined by Average Relative Index (ARI) (Equation 1). The index is based on the cumulative weighting of the initial frequency score of each of the roles.

$$ARI = \frac{\sum_{i=1}^{6} a_i x_i}{6\sum_{i=1}^{6} x_i} \quad \text{(Equation 1)}$$

Where a_i is the index of a group; constant expressing the weight given to the group; x_i is the frequency of response; i = 1,2,3,4,5,6. $x_1, x_2, x_3, x_4, x_5, x_6$ are the frequencies of the response corresponding to $a_1 = 1, a_2 = 2, a_3 = 3, a_4 = 4, a_5 = 5, a_6 = 6$ respectively. The role with the highest index is considered as the role that quantity surveyors perform most often. Simply put, the closer to 1 the higher the degree at which the roles are performed. The questionnaire was divided into two parts. Part one focused on the respondent's profiles while the second part aimed to measure the degree at which the quantity surveyors perform the roles. The mode technique was used to analyze the demography of the respondents. Mode was also used to determine the distribution of roles with respect to the scales. The frequencies of the respondents are expressed as percentages. The measurements of the roles that the quantity surveyors perform are displayed in frequencies but the rating of the roles is determined by 'average relative index'. However, missing data (where the respondent refused to tick where applicable or there is multiple entry), could impact negatively on the outcome of the findings, however such effect could be improved during data analysis by either replacing the missing data with the mode or mean of the data. However, the mode is preferred because the variables are measured on an ordinal scale. In this paper, the missing data will not be treated as such. In other words, we have preferred to leave the data raw so that the outcomes will not in any way be influenced by the authors.

4. Analysis and Discussion

4.1 Respondents' Profile

Altogether, 132 usable questionnaires were received and analysed for this study. The results of the data analyses on the respondents' profiles are contained in Tables 1 to 5 and displayed in Figure 1. The profiles of the respondents indicated that most (63%) of the respondents were quantity surveyors (Table 1). In terms of professional qualification, 80% of them have professional memberships (Table 2). In other words, they are certified by their respective professional bodies. 64% of them were consultants (Table 3) and more than 70% of surveyed respondents have more than five years working experience with the construction industry (Table 4). Table 5 displayed the respondents' positions; obviously, more than 90% of the respondents held strategic positions with the organizations they worked with. It is also obvious that, 60% of the surveyed respondents have completed more than 10 projects in the last ten years and about 30% have actually completed more than 30 projects each in the last ten years (Figure 1).

Table 1: Respondent's academic background

Background	*quantity surveying*	*engineering*	*architecture*	*Others*	*Total*
Frequency (%)	*62.82*	*24.25*	*12.13*	*0.80*	*100*

Table 2: Respondent's professional qualification

Qualification	*corporate*	*fellow*	*Member*	*honorary*	*probationer*	*technician*
Frequency (%)	*10.7*	*25.4*	*36.9*	*7.4*	*18.9*	*0.8*

Figure 3: Respondent's organization

Organisation	*Clients*	*Developers*	*Consultant*	*Government*	*Contractors*
Frequency (%)	*3.10*	*1.50*	*63.80*	*2.30*	*29.20*

Table 4: Respondent's working experience

Experience	*Not more than five years*	*5 - to 10 years*	*10 to 15 years*	*15 - 20*
Frequency (%)	*26.9*	*46.2*	*24.6*	*2.3*

Table 5: respondent current position in the organization

managing director	*partner*	*principal partner*	*contract manager*	*project manager*	*senior surveyor*	*surveyor*	*junior surveyor*	*others*
4.8	*19.4*	*24.2*	*4.8*	*15.3*	*12.9*	*13.7*	*4.0*	*0.8*

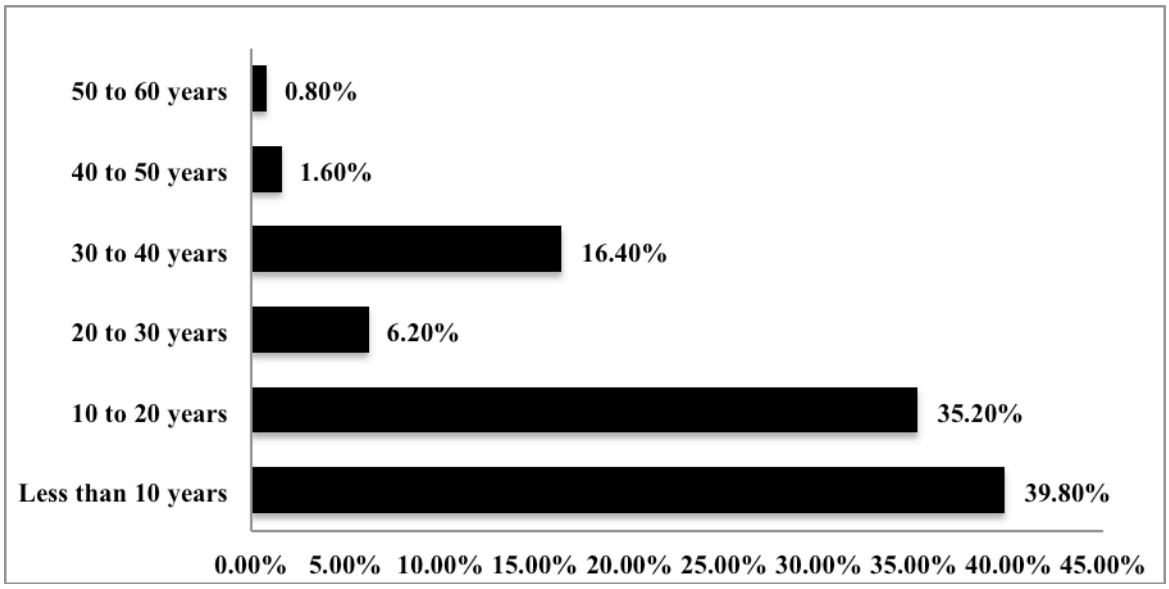

Figure 1: Number of projects respondent's organization completed in the last 10 years

On the basis of the respondents' profiles, their opinions on the Nigerian construction industry are considered reliable and sufficient to report the findings of this research.

4.2 Rating of the roles of the Quantity Surveyors

To determine the strength of the data, reliability and validity tests were performed. The reliability test results indicate that the Cronbach's alpha for all the roles are very satisfactory. The reliability ranges from 0.726 (for 'provide value engineering and management services') to 760 (for 'prepare BoQs for engineering works'). The validity test, using the 'Commonalities', produced values that ranges from 0.563 to (for 'provide insolvency services') to 0.813 (for 'provide project management services). In general, if the alpha reliability or validity test is above 0.50, it is sufficient to consider that the criterion is valid or reliable. Thus, the study is reportable. Based on the results of the scale statistics, 70% of the surveyed respondents measured that the quantity surveyors have performed the 23 roles on construction projects. The average cumulative score for roles is 0.659. Specifically, 25% of the respondents measured that the QS extremely often performed the roles, 23% believe they performed the roles very often and while 21% agreed the Qs often provide the services. Therefore, it is considered that the quantity surveyors offer most of the services with varying intensities. While there is no similar study that the findings of the study are comparable, some similarities based on study on competencies of the quantity surveyors could be considered. Therefore, the findings are similar to that of Said, et al. (2010). Furthermore considering that it has been established that quantity surveyors elsewhere (see Towey, 2001 and Ashworth, et al., 2013) now provide these roles it is be considered sufficient to examine the level at which the Nigerian quantity surveyors offer the modern services.

Because of space requirement, only five of the roles are examined in some detail. The most highly measured roles that the quantity surveyors provide is to provide preliminary cost advice / cost planning services on construction projects with relative index of 0.9116. In fact, close to 90% of the surveyed respondents maintained that this role is extremely or very often performed by quantity surveyors. The interpretation of this finding is that the quantity surveyors are involved in projects before major decisions are established. While the quantity surveyors are traditionally supposed to offer cost planning (see Hughes and Murdoch, 2001), this is not often the case in practice particularly in developing countries like Nigeria. This will allow quantity surveyors to provide more value added services. Traditionally, the major roles of the quantity surveyors are related with the production of bill of quantities, when all major drawings and specifications are completed. At this stage, it is often too late to provide value added service to the clients. It is interesting to find that the second role that quantity surveyors provide is the preparation of bill of quantities for engineering works. Normally, quantity surveyors find it hard to venture into engineering works, particularly civil and process engineering works. The NIQS has recently proposed specializations within the quantity surveyors practices into building works, oil and gas installations, project management and dispute resolution, civil engineering and mechanical and electrical engineering services.

While this is commendable, the quantity surveyors have not been able to get a viable headway on engineering works. For instance, civil engineers still want to perform cost management of civil engineering works even where the quantity surveyors are part of the design team. However, the reasons the NIQS has not include railways and petro-chemical like that of the RICS is not clear, because these last two specializations are identified as major areas for the quantity surveyors by the RICS.

Table 5: Response Rate on the Services of Quantity Surveying Practice (N=132)

Roles \ Frequency (%)	6	5	4	3	2	1	Index	Rank
Preliminary cost advice/ cost planning	*90*	*23*	*12*	*5*	*2*	*0*	*0.9116*	*1*
Prepare BoQs for engineering services	80	20	14	17	1	0	0.8699	2
Provides project management services	*81*	*21*	*11*	*11*	*6*	*1*	*0.8598*	*3*
Prepare cost options of developing difference sites	*63*	*36*	*23*	*4*	*4*	*1*	*0.8472*	*4*
Insurance Advice	*68*	*26*	*17*	*10*	*2*	*5*	*0.8144*	*5*
Provide information for use in future management and / maintenance of the buildings	*19*	*64*	*34*	*7*	*6*	*2*	*0.7639*	*6*
Prepare contract documents and participate in contract administration for building works	*24*	*48*	*33*	*15*	*10*	*1*	*0.7348*	*7*
Prepare development appraisal	*31*	*41*	*27*	*20*	*9*	*0*	*0.7285*	*8*
Provide value engineering and value management services	*20*	*42*	*31*	*15*	*22*	*2*	*0.6881*	*9*
Advise on entitlement to liquidated and ascertained damages	*18*	*38*	*39*	*17*	*18*	*2*	*0.6856*	*10*
advise effect of capital and revenue expenditure	*12*	*40*	*32*	*37*	*5*	*4*	*0.6629*	*11*
Provide advice on environmental impact assessment	*16*	*31*	*45*	*15*	*20*	*4*	*0.6566*	*12*
Assist in application of grants and its documentations	*20*	*22*	*46*	*18*	*22*	*1*	*0.6477*	*13*
Provide service to a contractor in connection with negotiations of claims	*22*	*21*	*43*	*13*	*23*	*8*	*0.6338*	*14*
Prepare life cycle cost studies and estimate of annual running cost	*15*	*28*	*21*	*36*	*20*	*8*	*0.5934*	*15*
Provide risk assessment and management services	*11*	*42*	*46*	*8*	*17*	*3*	*0.5745*	*16*
Advise on adjudication proceedings	*22*	*18*	*16*	*24*	*35*	*14*	*0.5581*	*17*
Provide services on arbitration matters	*13*	*26*	*20*	*16*	*49*	*8*	*0.5581*	*18*
Act as an adjudicator	*15*	*23*	*14*	*28*	*43*	*6*	*0.5518*	*19*
Advice on insolvency services	*11*	*12*	*24*	*25*	*53*	*1*	*0.5101*	*21*
Advise on litigation matters	*15*	*13*	*34*	*38*	*22*	*4*	*0.4583*	*20*
Advise on fire or other damage to the buildings and preparing claim associated with these	*20*	*15*	*34*	*24*	*35*	*2*	*0.4482*	*22*
Provide advice on cost benefit analysis	*56*	*43*	*19*	*7*	*5*	*1*	*0.4078*	*23*

While this could be because of the prevalent procurement used in Nigeria, there is the need for quantity surveyors to display more capabilities and expertise in this scope. However, it is difficult to examine the extent of the quantity surveyors involvement with engineering services. This is because most of the quantity surveyors do not provide detail cost estimates for the engineering services. For instance, in typical bill of quantities M&E works are priced as provision sum even when detail drawing and specifications are available. It is difficult to tell clients/developers that the estimate is not complete for a section of his works where 'sufficient' information is ready. This practice has to change. The quantity surveyors should be able to provide accurate estimate for the M&E works except where 'sufficient information' is not ready. This is very necessary even as that M&E now takes substantial part of the contract sum.

This study also found that the quantity surveyors now provide project management services. This is remarkable, but expected, as quite a number of quantity surveying firms now include this service in their portfolio. In fact, it was found that among the major professionals in the Nigerian built environment, the quantity surveyors are the most competent to offer project management services (Odusami and Ameh, 2006). This is probably due to client awareness. With the proliferation of modern procurement methods, quantity surveyors are entrusted with total management of the project as against only cost management. Suffice to say that quite a number of the members of the Chartered Project Management Institute of Nigeria are quantity surveyors. Some of the quantity surveyors hold membership of the Project Management Institute (PMI USA). Therefore, with this background, it is correct to conclude that the quantity surveyors are providing project management service with some hindrance from other allied professions. Project management is concerned with the client appointing someone outside the design team to coordinate, control and report to clients the activities of both the construction team and design team. Quantity surveyors possess the required managerial, behavioral and technical skills for the overall planning, control and coordination of a project from inception to completion.

If the quantity surveyors are involved at the strategic stage of the projects, the experience, perceptions and expectations of the various stakeholders will be considered and accommodated in the detailed design. This has wider implications on the project delivery. One, this will reduce / avoid the obvious consequence of cost over run that is associated with reworks. Obviously, this has multiplier effects on other criteria within the client value system including project's schedule, quality, client's satisfaction and functions. Advising clients on alternative sites is rated fourth. Site location has many effects on project costs. In some cases, due to site constraint, transporting plants and equipments is difficult due adjoining developments and topographical features. A practical example of site location was a Bank Project in Northern State of Nigeria which the construction land was in dispute between the State Government and the owners, the land was allocated to the Bank eventually and the state government had to re-allocate an alternative land because both parties did not agree and which resulted in the delay of commencement of the project after the contractor has already mobilized to the project site. The fifth role is providing insurance advice to clients. In general, this a is specialty area where experts exist who provide general insurance services, but due to the nature of construction projects, quantity surveyors are capable of preparing insurance reports for the clients. The insurance that is mostly used for projects is the Contractors All Risk Insurance (CAR) and workmen insurance which are usually provided at the inception of a project. At the pre-contract stage, contract samples of the insurance

policy are provided in the tender documents collected by the contractor. The quantity surveyor provides report on the insurance conformity with the sample provided at the tender stage, which forms part of the requirement for projects.

Though not included in the survey, another area that the quantity surveyors could be useful is in the area of procurement and project finance. Advising clients on suitability of procurement methods is traditionally the role of quantity surveyors. Recently, new finance opportunity is increasingly opening up for alternative methods of project finance. For instance, the Sukuk bond market can also be applied to replace or improve the conventional interest-based securities. Sukuk is like a bond under the conventional banking systems. It has contributed tremendously to project finance in a number of countries. Malaysia has successfully employed this tool to raise money to finance a number of public projects. Quantity surveyors need to acquire more knowledge on this financing tool.

5. Conclusion

This paper evaluates the services that quantity surveyors provide to create awareness on the extent to which quantity surveyors are involved in the total procurement and management of built assets. Managing a construction from the design through to the operation stage requires a wide range of skills and knowledge and involves many professionals and expertise. Construction projects are required for any meaningful development. Professionals in the construction industry must provided the required expertise and skills. Throughout the life of a project, the quantity surveyors are required to advise clients, financiers, users and other stakeholders to advise on financial probity, procurement and achieving value-for money in the conceptualization, planning and execution construction projects. Clients have become more demanding; the regulatory framework has changed and has become more complex and sophisticated. What is found here is that the quantity surveyors have the required knowledge and skills to make development contributions to the Nigerian economy. The quantity surveyors in Nigeria provide services that quantity surveyors elsewhere provide. However, the quantity surveyors need to provide more services in order to meet the requirements of clients, particularly in those areas that their performance was not encouraging.

References

Ashworth, A. Hogg, K and Higgs C (2013) Will's practice and procedure for the quantity surveyors, 13th Edition. UK: John Wiley and Sons Ltd.

Cartlidge, D (2003) New Aspects of Quantity Surveying Practice: a text for all construction professionals, Oxford, Elsevier Butterworth-Heinemann.

Central Bank of Nigeria (CBN, 2012) Central Bank of Nigeria Annual Report—2012 available at http://www.cenbank.org/Out/2013/RSD/2012%20Annual%20Report.pdf (accessed December 19, 2013).

Ferry D J, Brandon P S and Ferry J D (1999) Cost Planning of Buildings. Oxford, Blackwell Publishing Limited

FSDH Research, (2013) Nigeria Economic Outlook: 2013-2017. Available at: http://www.fsdhsecurities.com/Profiles/Current/NIGERIA_ECONOMIC_OUTLOOK_2013-2017.pdf [accessed: 04/February 2014

Hughes, W and Murdoch, J R (2001) Roles in construction projects: analysis and terminology. Construction industry, Birmingham: Construction Industry Publications Limited ISBN 1-85263-898-2 http://centaur.reading.ac.uk/4307/1/Roles_in_construction_projects_v6c.pdf

Jonathan, E. G (2013) For the record...re: before it is too late. Available at http://www.thisdaylive.com/articles/for-the-record-re-before-it-is-too-late/167189/ [accessed 23 December 2013]

Lee, S, Trench, W and Willis, A (2005) Willis' element of quantity surveying, 10th Edition, Oxford> Blackwell Publishing Limited

Odusami, K.T and Ameh, O. J. (2006). Nigerian Construction Project Managers Educational Level and Need in Project Management. Proceedings of the International Conference in the Built Environment in the 21st Century (ICiBE 2006), Kuala Lumpur

Olanrewaju, A. A and Khairuddin, A (2006) Value Management: New Direction for the Nigerian Quantity Surveyors pp102 – 109 April 2006. Proceedings of Quantity Surveying National Convention. University Sains Malaysia, Malaysia

Olanrewaju, A A and Anavhe, J P (2008), Services that quantity surveyor provide in Nigeria. In Proceedings of the International conference on project management (ICoPM), Kuala Lumpur, Malaysia.

Olatunji, O.A. Sher, W. and Gu N. (2010) building Information Modeling And Quantity Surveying Practice Emirates Journal For Engineering Research, 15(1), 67-70

Said, I, M. Shafiei, M. W. and Omran, A (2010) The competency requirements for quantity surveyors: enhancing continuous professional development, Acta Technica Corviniensis, Bulletin of Engineering, ISSN: 2067-3809 pp105 -112 http://acta.fih.upt.ro.

Sanusi, L. S (2012), The role of development finance institutions in infrastructure development: what Nigeria can learn from BNDES and the Indian infrastructure finance company, 3rd icrc ppp stakeholders forum (18th July 2012) Available at http://www.cenbank.org/OUT/SPEECHES/2012/GOV_PPP%20STAKEHOLDER%20FORUM_160712.PDF (accessed December, 2013).

Towey, D (2012) Construction quantity surveying: a practical guide for the contractor's QS, UK: Wiley-Blackwell