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ABOUT QUANTITY SURVEYOR IN CONSTRUCTION PROJECTS

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Quantity surveyors are one of the key professionals in the construction industry, as they are involved in cost planning, cost management, project procurement, contract administration, feasibility studies and asset financial management. Clients such as developers, government bodies and agencies, building proprietors, architects and contractors requires the services of the quantity surveying profession, especially, on cost estimation. The quantity surveyors, in the present day construction industry, through skills and ability, analyze cost components of a construction project in a scientific way and apply the results of the analysis to a variety of financial and economic problems confronting the developer and the designer (Ilias and Mohd 2010).

Badu and Amoah (2004) held that the changing roles of the quantity surveyors had been redefined by the quality of education received. The wide array of the quantity surveyors' responsibilities requires that they are educated, trained, and highly skilled in diverse subjects. Lenard (2000) argued that the changing nature of the construction and development industry as regards the adoption of innovative technological pro-

cesses and development, emergence of highly focused professionals and the full range of advanced technologies necessitate a much stronger emphasis on job competencies than ever before. However, competence, in any sphere of work, can be a difficult concept to pin down especially when it relates to professional occupations where such roles can be complex, and the knowledge and skills involves many and varied professionals (Cheetham and Chivers, 1996).

According to Ilias and Mohammed (2010) quantity surveyors are construction economists who fulfill various comprehensive duties to support cost-effective construction and property development projects. The core competencies of quantity surveyors include determining project budgets, measuring project quantities, preparing contract documentation such as bills of quantities and cost control documents, administering contracts, and preparing final accounts. Despite being recognized as a professional discipline distinct from architecture and civil engineering since 1836, quantity surveyors are not immune to the threats and changes within the operating environment. While some parties in the construction industry have been critical about the quality of works and services rendered by quantity surveyors, some question the importance of appointing quantity surveyors as project consultants. Nonetheless, Nkado (1999) gives an overview of certain skills in quantity surveying profession which are pertinent to meeting clients' demands. Poon (2004) notes that some quantity surveying firms do not seem to understand how to handle clients finance and are culpable of certain actions that could severely damage the clients' interests which in turn affect the integrity and competencies of quantity surveyors. Pearl (2005) attributed this The Need for Professionalism and Competencies in the Construction Industry.

The quantity surveyors, in the present day construction industry, analyze cost components of a construction project in a scientific way and applies the results of the analysis to a variety of financial and economic problems confronting the developer and the designer. However, competence, in any sphere of work, can be a difficult concept to pin down, especially, when it relates to professional occupations where such roles are complex and involved diverse professionals in the built environment sector. This paper aims to investigate the competencies of quantity surveyors in the discharge of its professional duties by evaluating the effects of professional competency on quantity surveying practices in Nigeria. The study population comprised professional quantity surveyors who are in

the private construction/consulting firms in Lagos State, Nigeria. Data were obtained to investigate the professional views on the quantity surveying profession, the roles of quantity surveyors in the construction industry and the need for professionalism and competencies in the surveying industry. Questionnaires were administered to randomly select 200 practicing quantity surveyors in Lagos state. Findings revealed that the major role of quantity surveyors in the construction industry is the preparation of the bill of quantity as it ranked 1st with RII value of 1.00; it was also discovered that quantity surveyors were in agreement with client service delivery as the first ethical standard that construction professionals should consider when performing their professional obligations in order to avoid project failure and over-cost. It is therefore recommended that the professional bodies and the academia should organize proper and adequate service trainings, workshops and seminars which will enhance the possibility of acquiring more skills and experience so as to improve competence in the discharge of quantity surveyors professional duties.

History. This paper aims to investigate the competencies of quantity surveyors in the process of discharging its professional duties by evaluating the effects of professional competency on quantity surveying practices in Nigeria. To achieve this, the followings questions are investigated [1] What are the roles and functions of quantity surveyor in Nigeria? [2] What are the areas of competences required of a quantity surveyor in the construction industry? [3] What are the effects of quantity surveyor's competence on the performance of quantity surveying firms?

Methodology. The study population comprised the quantity surveyors who are professionals in the private organization in the Nigerian construction industry. Data obtained involved assessing professional views on the profession, examining the roles of quantity surveyors in the construction industry and assessing the need for professionalism and competencies in the industry. Questionnaires were administered to the practicing quantity surveyors in Lagos state. The respondents were randomly selected among the various firms in Lagos state. Two hundred (200) questionnaires were distributed with the aim of eliciting response from the private organizations toward determining the need for professionalism in carrying out construction project.

Results and Discussion. The various roles of quantity surveyors in the construction industry were identified in Table 2 and ranked using its Relative Importance Index (RII). The roles of quantity surveyors in the

construction industry revealed that preparation of the bill of quantity ranked 1st with RII value of 1.00; cost estimation relating to construction materials, time and labor and cost advise ranked 2nd with RII value of 0.94; work in progress variation and materials on site for interim payment ranked 3rd with RII value of 0.87; materials schedule for building project ranked 4th with RII value of 0.79, while cash flow payment ranked 5th with RII value of 0.76. The findings from the table revealed that all the roles are significant with the least role having 76 (0.76) percent significance.

From the result of the analysis, generally all the fifteen [15] ethical practices identified by the study were highly ranked with MIS ranged $3.29 > 3.0$ above averages. Three ethical standards which are client's service delivery, educational training and professional qualification and standards of practice respectively indicating client service delivery as the most significant ethical standard were ranked 1st, 2nd, and 3rd by the quantity surveyors. However, we found that public welfare and fair compensation factors are two least importance aspects that the quantity surveyors professionals must have. The respondents considered that these two things are loosely correlated with the profession of quantity surveyors. One surprise found in the survey was that the sustainability aspect was not considered as important factor in quantity surveying profession. The case will be different if the survey were conducted in more advance country, where the sustainability becomes a very important aspect in construction industry.

The quantity surveyors were in agreement to client service delivery as the first ethical standard that construction professionals should consider when performing their professional obligations. Quantity surveyors in some cases can also be contractors or consultant quantity surveyor, either working for an organization or for the contractor as they are saddled with the responsibilities of preparing the cost estimate of any proposed project, preparation of interim valuation and physical measurement of works among others to enable payment to the contractor among others. They also monitor the clients' resources to ensure services are delivered with the best standards and at minimum cost which is the major service delivered by quantity surveyors.

Educational training and professional qualification is also of great importance, because this is where professionals gain academic training, technical competence and skills about a particular profession. It is there-

fore important for professionals to have sound educational background to be able to cope with the projects challenges. This finding conforms to Chan and Chan (2002) that; professionals need to be placed in appropriate educational framework to ensure their continuous relevance. Quantity surveyors should only accept to offer services for which they are qualified by education, training and professional experience.

Quantity surveyors deals basically with financial management of the contracts and this is the area where the integrity of most professionals are put into the mud especially if there is a conflict between personal and professional values. The moral standing and upbringing of each individual professional appears on how they protect their own integrity in dealing with clients rather than being mindful of their personal gain. The findings corroborated Cardammone (2011) that established that professionals are linked with notion of services they provide, hence the need to focus more on personal professional development so as to provide services that are of high quality for all that needed their services.

The characteristics/knowledge and abilities required of a competent quantity surveyor are ranked in Table 4 according to its significant to quantity surveying profession. The table clearly indicated the areas of competence characteristics that are significant to the performance of quantity surveying firms in Nigeria. The area of quantification and measurement is been selected as the most important/significant competence required in the performance quantity surveying firms in Nigeria, with a mean score of 4.66, while synthesis is considered less important to the performance of quantity surveying firms in Nigeria, with a mean score of 3.47.

This indicated that the most important characteristics, abilities and knowledge for quantity surveyors to possess are quantification/ measurement analysis, documentation, communication, construction technology and interpersonal skills which are also regarded as highly important for quantity surveyors to achieve an accepted level of competency. Other less important characteristics, abilities and knowledge to acquire are management, appraisal/evaluation, construction law and regulation, self-development, leadership, synthesis, and computer and information technology literacy.

Conclusion and Recommendations. Quantity Surveying is one profession that has attracted unprecedented ubiquitous demand in the construction industry in the recent times with increasing opportunity for ser-

vice diversification and adaptive applicability. Client's satisfaction is also a function of professional ethics in relation to respecting public interest with respect to the willingness to serve the public, good sense of responsibility and practice technical competencies.

Therefore, as challenges and ubiquitous demands expand with new entrants of quantity surveying practice professing with different goals, it may be difficult to hold them under serious legal obligation to uphold ethical practices. This is because they may not be recognized as members of professional bodies until they are duly examined and registered, which may not be a mandatory requisition to operate within their delimited scope. Also, except in exceptional cases, academic establishments are not so keen in monitoring the ethical conducts of their products out of school. Thus the need to reposition the profession and ensure strict monitoring to ensure that quacks and non-professionals do not bastardize the profession especially in the face of the growing economy.

Professionalism and competency is the bedrock and soul of the success in handling construction works. Thus, in achieving the need for professional competence in the industry and adequate service training, workshop and seminars by the professional bodies and the academia which will enhance the possibility of acquiring more skills and experience so as to improve competence in the discharge of duties. Frequent training and retraining is inevitable to season members of the profession with current trends in ethical development and uncertainties, not only to equip members' competencies but to give the much needed rebirth to nurture and protect the goal of the professionals serving the public interest to exist.

Quantity surveyor should not settle down with just the roles and function of the profession but should also acquaint themselves with the roles and function of other professionals in the field which can also be referred to as self-development to improve on their competence.

Quantity Surveyors should ensure that they possess skills that are inclusive of personal qualities, core skills and process skills. The personal qualities should include independence, adaptability, initiative taking, willingness to learn and ability to reflect on what has and what has not been achieved. The core skills of a quantity Surveyor should include the ability to present clear information within a group, self-management, critical analysis and the ability to listen to others while computer literacy, commercial awareness, prioritizing, negotiating, acting morally and ethically, coping with ambiguity and complexity are the process skills required of a quantity Surveyor.

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К ВОПРОСУ ОЦЕНКИ ТЕХНИЧЕСКОГО СОСТОЯНИЯ КАМЕННЫХ КОНСТРУКЦИЙ ПРИ ИХ ОБСЛЕДОВАНИИ

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В процессе проведения обследования каменных конструкций возникает необходимость в оценке технического состояния. Такая задача возникает уже на этапе проведения общего обследования конструкций. Именно на основании результатов, полученных на этапе общего обследования должна быть выполнена общая оценка категории технического состояния и, как следствие, их пригодности к эксплуатации с разработкой рекомендаций по их ремонту вместе с оценкой необходимости проведения детального обследования и определения участков его проведения. Общая оценка категории технического состояния на этапе общего обследования является первичной оценкой технического состояния каменных и армокаменных конструкций и выполняется путем анализа дефектов и повреждений, выявленных при обследовании.

Как известно, к характерным и наиболее распространенным дефектам и повреждениям каменных конструкций относятся трещины, образовавшиеся в каменной кладке, деструктивные изменения