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EVALUATING THE COMPETENCY OF QUANTITY SURVEYORS AS PROJECT MANAGERS ON BUILDING CONSTRUCTION PROJECTS IN LAGOS STATE

Ayeni, O.F.
Department of Quantity Surveying, Yaba College of Technology, Yaba, Lagos

Abstract: This study evaluated the competency of Quantity Surveyors as project managers on building construction projects in Lagos State, Nigeria. The aim was to examine their roles, qualities and skills required to be competent project managers and factors affecting their choice on building construction projects. A survey research method was used, and primary data was collected through structured questionnaires administered to 120 construction professionals. The study revealed that identifying and managing project risks is a core role, while being conversant with different types of critical path and project programming techniques are necessary qualities and skills required of a Quantity Surveyor to be a competent project manager. The study concluded that Quantity Surveyors in Lagos State can significantly function as project managers and recommends that they put themselves forward for the role on building construction projects.

Keywords: Quantity Surveyors, project managers, building construction projects, competency, Lagos State.

INTRODUCTION

One of the main causes of failed building construction project in Lagos state has been traced to the incompetency of the project manager handling the project. Most of the construction professional taking up this role have little or no knowledge about the tasks that lay ahead of them to be able to successfully perform their duties, due to this, clients are forced to look out for the best professional to take up the role of a project manager on their projects. The rise of project management as a separate profession coupled with the decline in the role of an architect
as the project leader has created stiff competition in the market for project management services to be provided.

The history of project management practices dates back hundreds of years (David & Lewis, 2010). In the early 1970s it was stated in the project management community that "project management is the accidental profession", yet knowledge and competency of the professional taking up the role of a project manager is important for the construction industry. Project management practice is an important issue and well recognised application of techniques, software, knowledge, and skills in order to initiate, plan, execute, monitor, and control the construction project effectively and efficiently (Achara, 2016). Furthermore, project management involves the task of undertaking the production of a project from inception to completion stage (Oboirien,

2006). There have been several cases of project and construction industry which indicates that project management process and expertise is essential to the success of the construction industry. According to the research carried out by Hwang and Ng, (2013) there are eighteen project management competencies which must be grasped beyond the project administration expertise. Research results show that *scheduling and planning management* is the most significant knowledge for the construction project while cost, quality, human resource and communication management are the second most important competencies in the construction project. Moreover, *delegation* is a key skilfulness which affects the project and construction management while basic technical skill, leadership, decision making and problem-solving are the minority capabilities. Additionally, (Edum-Fotwe & McCaffer, 2000) indicate that there are several of elements define skills and knowledge that are usually offered for developing and implementing the project management competencies in building and construction. Majority functions which explicate and accomplish project management competency in construction are managerial skills and technical skills. A majority of competency for enlarging and achieving project management is the management skill in leadership (98.2%) while minority expertise is technique skill in planning and scheduling (97.3%).

The role of a project manager is therefore to lead and motivate the project participants to finish on time, within budget and to meet the requirements. Successful project managers and organization now focus on ensuring that Project Managers acquire the core competencies required to be successful in their projects (Achara, 2016). According to (Glen, James, & Thanuja, 2011), the primary skill expected from a project manager is to have "good people skills". It is very obvious and true that project managers deal with different types of people, trades and attitudes throughout the project lifecycle. The project manager takes the responsibility of the project and the process. They receive the blame or the praise at the end of the outcomes. They manage all the people but they do not have any authority over them, therefore, they have to have enough skills to influence the team and make them do what they plan to achieve. They have to persuade, negotiate and sometimes even have to beg to get things done. Thus interpersonal skills are required to be at the top of all skill requirements. (Shibani & Denish, 2015) listed the following as the skills and knowledge a project manager must possess in order to carry out his duties as expected; Communication skill, Empowerment skill, influencing skill, Team building skill, Problem-solving skills, Conflict resolution skill, Planning and goal setting skill, Visioning skill, Sense of responsibility skill, Ethics, Initiative skill, Time management skill, Monitoring skill, Positivity and Personal traits.

The role of construction project manager is very important in the process of construction. The construction process is risky and its success largely depends on the choice of the right project manager. It is recognised by (Ayeni, 2019) that quantity surveyor's professional work relates directly and indirectly to construction work of all kinds. Traditionally, quantity surveyors control construction cost by accurate measurement, tendering, valuation, claims management and cost estimation. (Burgers & Jorkers, 2013) also opined that, quantity surveying is a specialized field that primarily lends itself to financial and contractual management of construction project, offering a distinct service in the built environment. 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. It is to be noted that the most common name for this professional in Nigeria is "quantity surveyors". A Quantity Surveyor is "a professional trained, qualified, and experienced in handling construction cost, construction management and construction communication on behalf of the client" (Aje et.al, 2015). (The Nigerian Institute of Quantity Surveyors, 2012) defines the quantity surveyor as a cost and procurement management expert who is concerned with financial

probity and achieving value for money in the conceptualization, planning and execution of building, civil and other heavy engineering projects.

However, in addition to this, it also has a broad spectrum of services that can be offered by the individual going into the field of study. Clients look to many construction professionals including the quantity surveyor for the provision of project management services in this regards. However, the quantity surveyors' expertise regarding cost advice and planning attracts a client to use their services for the project management role, more so the reputation for multidisciplinary knowledge and skills. The development of the modern day quantity surveyor has seen the profession undergo many changes, including the adaptation to the role of cost consultant and project manager.

More so, the quantity surveyor alleviates the design process bottleneck by adopting a systematic application of cost criteria so as to maintain a sensible and economic relationship between cost, quality, utility and appearance, also he has traditional role that are independent of the ones played by the team comprising Client, Architect, Engineer and Contractor. However, Project managers in construction industry are responsible for the overall success of delivering the owner's physical development within the constraints of cost, time, quality, environmental and safety requirement (Martyn et al, 2008). It is widely acknowledged by construction professionals that quantity surveyors play a critical role in the contract administration and other areas directly or indirectly related to project management. There is therefore the urgent need for quantity surveyors to embrace capacity building and competencies to effectively provide project management services.

The study sought to answer the question "can Nigerian quantity surveyors contribute their expected quota efficiently and effectively to project management exercise based on their experience and training by examining, the roles of project managers on building construction projects, the qualities and skills required of a Quantity Surveyor to be a competent Project Manager and the factors affecting the choice of Quantity Surveyors as project managers on building construction projects.

Methodology

Self-administered structured questionnaire survey was used to answer the objectives of the study. This method is easier and demands less time to complete for data collection and analysis (*Wuensch, 2005). With the adoption of Likert rating, information was obtained from the respondents.* The data collected from respondents will be analysed using the descriptive data methods and the data will be presented using tables, bar chart, mean score and ranking methods. The mean score being the mean value or score of certain set of data set divided by total number of value. A mean which is the same as average is represented as; Mean score = $\frac{\Sigma fx}{\sum f}$

Result and Findings

The demography of the respondents revealed that 82% of them are male, 18% female, 91% are 30 years or more, while 9% are below 30 years, 66% are married, 48% had worked for over 10 years in their current firms and 77% have been in the industry for over 5 years. 50% of the respondents were consultants, while 25% were contractors, 12.5% works in Project Managers, 5% civil servants and others 7.5%. Quantity Surveyor were 45%, Architect 37.5%, Civil Engineers, 5%, Builders, 7.5%, others, 5%. Lastly, while Only 4% of the respondents hold a doctorate degree in a construction related field, 25% hold Master of Science (M.Sc)., 27.5% are first degree holders, 5% hold PGD, 31% hold HND certificate and those with other educational qualification apart from the listed ones are (7.5%).

The analysis indicates higher level of responsibility (male), academic education (Master) and experiences in project delivery (Professional in the building institute with a decade of experiences)

Research question one: What are roles of project managers on building construction projects.

Table 1: The roles of Project Managers on building construction projects

	Roles of Project Managers	**5**	**4**	**3**	**2**	**1**	**Total**	**Mean**	**Rank**
	Identifying and managing project risks	22	12	3	1	2	40	4.28	1st
	Establishing communication and management protocols	21	11	3	2	3	40	4.13	2nd
	Controlling, monitoring and reporting on project progress	20	12	2	3	3	40	4.08	3rd
	Leading and managing project teams	21	9	5	0	5	40	4.03	4th
	Identifying needs and developing the client brief	20	10	4	2	4	40	4.00	5th
	Advising on the selection and appointment of the project team	12	14	8	3	3	40	3.73	6th
	Advising on methods by which to engage with the construction industry (Procurement of design and construction)	12	19	3	4	2	40	3.88	6th
	Reviewing and commenting on emerging design proposals to identify if they remain consistent with the project brief	11	17	6	2	4	40	3.73	8th
	Managing the integration and flow of design information	10	19	4	3	4	40	3.70	9th
	Administering consultant appointments and construction contracts	9	20	4	3	4	40	3.68	10th

	Conducting tender evaluation and contractor selection	13	12	8	3	4	40	3.68	10th
	Advising on statutory requirements, such as planning permission and how to obtain it	12	14	4	6	4	40	3.60	12th
	Production of sufficient design documentation or the employers' obligation under the particular building contract	11	12	7	4	6	40	3.45	13th

From the table above, it can be confirmed that "Identifying and managing project risks" is an important duty of the Project manager. Important projects tend to be time constrained, have significant technical challenges and lack necessary, so it is important for a project manager to be able to identify and manage risks associated with building projects, this was ranked first by the respondents. "Establishing communication and management protocols" was ranked second. Project managers must have strong communication skills to be able to convey messages to clients and team members, they need this skill to effectively share their vision, goals, ideas and issues. Controlling, monitoring and reporting on project progress" as the 3rd most important role of a project manager. While "Leading and managing project teams" was 4th, then other roles follows as identified in the table above

Research question two: What are qualities and skills required of a quantity surveyor to be a competent project manager on Building construction project.

Table 2: Qualities and skills required of a quantity surveyor to be a competent project manager on Building construction project.

	Qualities and Skills required of a Quantity Surveyor	**5**	**4**	**3**	**2**	**1**	**Total**	**Mean**	**Rank**
	Having an awareness of, and where necessary being conversant with the different types of critical path and project programming techniques	16	18	4	1	1	40	4.18	1st
	Having in-depth knowledge of design, construction and relationship between trades and construction operations	18	15	4	0	3	40	4.13	2nd

	Being a good communicator at various levels within the project organisation; Remaining calm under pressure, able to resolve difficult situations in a timely manner and having good team building and problem-solving skills.	20	13	2	2	3	40	4.13	2nd
	Demonstrating the ability to establish and maintain appropriate project procedures and record keeping commensurate with the scale and nature of the building contract and the works	19	13	4	1	3	40	4.10	4th
	Having a good understanding of risk and being able to identify and analyse project risks to understand where prudent risk taking is acceptable whilst avoiding acting recklessly or taking an unnecessarily risky approach	19	13	2	4	2	40	4.08	5th
	Possessing the knowledge, ability and skill to understand the scope of the role to be undertaken and knowing how to apply them,	18	14	2	3	3	40	4.03	6th
	including project management terminology, techniques and processes								
	Acting in a manner that is consistent with the terms of their appointment, e.g. where required, acting in an independent, impartial and fair way when making decisions, but acting on behalf of the client at other times	16	17	2	2	3	40	4.03	6th

	Having the presence and authority to be a natural leader of the team, to be inspirational and able to communicate to the other project participants the vision and goals to be achieved	17	12	4	4	3	40	3.90	8th

From the Table above, having an awareness of and where necessary being conversant with the different types of critical path and project programming techniques" as the first skill and quality a Quantity Surveyor must possess in order to be able to take up the role of a project manager on building construction projects. While "Having in-depth knowledge of design, construction and relationship between trades and construction operations" and "Being a good communicator at various levels within the project organisation; Remaining calm under pressure, able to resolve difficult situations in a timely manner and having good team building and problem solving skills**.**" are other skills and qualities that were ranked second respectively as requirements for the Quantity Surveyor to take up the role of a project manager. Demonstrating the ability to establish and maintain appropriate project procedures and record keeping commensurate with the scale and nature of the building contract and the works" as the 3rd most important requirements for a Quantity Surveyor to be a Project manager.

Research question three: what are the factors affecting the choice of quantity surveyors as Project managers

Table 3: Factors affecting the choice of Quantity surveyors as Project managers on building construction projects.

	Factors affecting the choice of Quantity surveyors as Project managers	**5**	**4**	**3**	**2**	**1**	**Total**	**Mean**	**Rank**
	The client's desire	15	14	6	2	3	40	3.90	1st
	Level of management	15	14	4	5	2	40	3.88	2nd
	Professional Skills	18	9	4	5	4	40	3.80	3rd
	Professional competency	18	10	1	6	5	40	3.75	4th
	Design team familiarity	8	17	9	4	2	40	3.63	5th
	Size of firm	9	14	10	6	1	40	3.60	6th
	Poor working conditions and environment	12	13	5	7	3	40	3.60	6th
	Nature of the work	6	16	11	5	2	40	3.48	8th
	Insufficient support from others	9	10	11	9	1	40	3.43	9th

	Competition from other professionals	8	14	6	10	2	40	3.40	10th

"The client's desire" is ranked the most important factor in choosing the quantity surveyor as project manager. Since the aim of majority of client is to make profit, it is natural that the Quantity Surveyor becomes the choice of the Client because of his expertise regarding cost advice and planning. "Level of management" was ranked 2nd most important factor affecting the choice of Quantity surveyors as Project managers. Furthermore, "Professional Skills" was the 3rd most important factor, with the Quantity Surveyor's fundamental training in understanding of design, aesthetics, appearance safety, quality of workmanship and client satisfaction, this will assist him in demonstrating his abilities. "Professional competency" was ranked 4th, it is imperative for the client to have assessed the competency of the Quantity Surveyor to know if he is capable to perform the role of project manager on his project. Other factors are ranked according to their importance as analysed in the table above.

Table 4: Effectiveness of Quantity surveyors as Project Managers on Building Construction Projects

	Rate the Effectiveness of Quantity surveyors as Project Managers on Building Construction Projects	**5**	**4**	**3**	**2**	**1**	**Total**	**Mean**	**Rank**
	Team building skill	14	16	5	3	2	40	4.40	1st
	Initiative skill	17	15	5	2	1	40	4.13	2nd
	Planning and goal setting skill	17	16	3	2	2	40	4.10	3rd
	Sense of responsibility skill	16	18	2	2	2	40	4.10	3rd
	Ethics	19	12	3	5	1	40	4.08	5th
	Positivity	20	10	5	1	4	40	4.03	6th
	Communication skill	19	12	2	2	5	40	3.93	7th
	Monitoring skill	17	13	3	3	4	40	3.90	8th
	Conflict resolution skill	17	13	3	2	5	40	3.88	9th
	Problem-solving skill	13	16	6	2	3	40	3.85	10th
	Influencing skill	12	18	4	4	2	40	3.85	10th
	Empowerment skill	9	19	8	2	2	40	3.78	12th

	Personal traits	11	14	7	6	2	40	3.65	13th
	Time management skill	16	12	3	2	4	37	3.63	14th

From the above, it can be deduced that the Quantity Surveyor is very exquisite in "Team building skill" as it was ranked the highest of the effectiveness of Quantity surveyor as Project manager on building project. Team building is essential to make everyone in the team understand why decisions have been taken and communicate key expectations, foster learning, and knowledge sharing. "Initiative skill was ranked 2nd**,** this indicate that Quantity surveyors are great initiator as they are good in identification of new ideas, procedures, sharing of ideas, resolution of problems, and in overcoming obstacles. "Planning and goal setting skill" and "Sense of responsibility skill" are ranked 3rd highest respectively of the skills that the Quantity surveyor has shown in his role as project manager in the past.

4.5: Discussion of Results

The information retrieved from the administered questionnaire found out that Quantity surveyors in Lagos state Nigeria are performing well above average. It reveals that the most important role of the project manager is identifying and managing project risks, establishing communication and management of protocols and it was established that the required skills for a Quantity Surveyor to take up the role of a project manager is to have an awareness of, and where necessary being conversant with the different types of critical path and project programming techniques, and also to be a good communicator at various levels within the project organisation; Remaining calm under pressure, able to resolve difficult situations in a timely manner and having good team building and problem solving skills. the factor which determine whether the Quantity Surveyors should be considered as project managers on building construction projects in Lagos state which the client's desire ranked as they are the determinant of who takes the role of project manager on their project. It also revealed that the Quantity Surveyor has exhibited exquisite team building skill, initiative skill and a good sense of responsibility in the past as a project manager among others. It was however stated that, as a result of their background and training, some quantity surveyors do have the potential to be a successful Project manager.

Conclusion

It can be concluded that assigning a Project manager on Building construction projects plays an important role in stream operations and ensuring that the objectives of the construction firm are achieved. Key to achieving customer satisfaction is delivering the construction product within the required timelines, at or within the projected costs, and at the stipulated quality, so therefore choosing the best professional for the job is a key determining factor in achieving success on any project. It can be concluded based on the result of the finding that Quantity surveyors in Lagos state can significantly function as Project managers and contribute their expected quota effectively and efficiently. The client should always consider Quantity Surveyor as an important professional to be considered as project manager for effective delivery of projects.

Recommendations

Based on the findings of this study the following recommendations are proposed in order to improve the competencies of Quantity Surveyors as Project managers on building construction project in Lagos state.

1. The need for quantity surveyors to broaden their knowledge of Project management by attending conferences, seminar, workshop, symposium, etc.
2. The Nigerian Institute of Quantity Surveyors (NIQS) and the Quantity Surveyors Registration

Board of Nigeria (QSRBN) could include Project management as a course in their professional examinations as this will contribute to the knowledge of the members.

3. More Quantity surveyors should put themselves forward for the role of Project managers on building construction projects.

4. Management of Quantity surveying firms should delve more into project management as it will also ensure cost effectiveness of these projects since the areas fall within quantity surveying competencies jurisdictions.

REFERENCES

Abdel Naser, O.R., Ilias, I.O., & Moha, W. (2010). The Comprtrncy requirements for Quantity Surveyors: Enhancing continuous professional development. *Bulleting of Engineering ACTA Technical conveniences*, 105-111.

Achara, K. (2016). *Project Management Knowledge and Skills for the Construction Industry.* London (UK): International Conference on Civil, Architecture and Sustainable Development.

Aje, I.O., Adedokun, O.A., & Ibironke, O.T. (2015). Analysis of projects undertaken by quantity surveyors. *Organization, technology and management 1216 in construction · an international journal*, pg 1209-1216.

Ayeni, O.F. (2019). An Appraisal of Qantity Surveyors as Project Managers in Construction Industry in Nigeria: Oyo as case study. *The Yabatech Journal of Environmental Research*, 16-22.

Barnes, M. (2011). *Construction project management.* London, UK: Construction Project Management.

Bresnen, M. &. (2010). *Cultural change in construction: Developing the project managers role to improve project Performance.* Swindon: Innovative Manufacturing Research Center. [7] Burgers, M., & Jorkers, R. (2013). Quantity Surveyors' Career Potential As Construction Managers. *Business Management; Advanced Research in Scientific Areas*, pg 27-33.

Chileshe, C.S. (2006). *Exploring the role of the Project Manager within the construction designteam: Observations from the UK.* Howard Street, Sheffield, S1 1WB, UK.: Sheffield Hallam University, Faculty of Development and Society, Built Environment Division, City Campus.

CIRIA. (2013). Leadership for project managers. *Design Manual, CIRIA, London*, pg 134. David, I.C., & Lewis, R.I. (2010). *Project's manager portable hand book 3rd Edition.* New York, Chicago: McGraw Hill.

Drucker, P.F. (2010). *Concept of the corporation.* Boston: Beacon Press.

Edum-Fotwe, F.T., & McCaffer, R. (2000). Developing project management competency: perspectives from the construction industry. *International Journal of Project Management 18*, 111-124.

Formoso, C.T., & Soibelman, L. (2012). Material waste in building industry: Main causes and prevention. *Journal of Construction Engineering and Management, 128(4)*, 316-325. [13] Glen, M., James, O.R.,

& Thanuja, R. (2011). The Skill Sets Required for Managing Complex Construction Projects. *BUSINESS EDUCATION & ACCREDITATION Volume 3 Number 1*.

Greenwood, R., Jones, P., & Snow, C. (2013). *Construction waste minimization.* London: Good Practice Guide.

Hwang, B.G., & Ng, W. (2013). Project management knowledge and Project management knowledge and. *International Journal of Management 31*, 272-284.

Ilias Said, M.W. (2010). *The Competency Requirements for Quantity Surveyors: Enhancing continuous professional development.* Hunedoara, Romania: University Politehnica Timisoara, Faculty of Engineering Hunedoara.

Jha, K.N. (2013). Factors for the success of a construction project. *An empirical study (Doctoral thesis, Indian Institute of Technology*.

kerzner, H. (2004). *Advanced Project Management: Best Practices on Implementation.* 2nd ed. New Jersey: John Wiley & Sons, Inc.

Love, P.E. (2013). Benchmarking, benchaction, and benchlearning: Rework mitigation in projects. *ASCE Journal of Management in Engineering*, 147-159.

M.O, O. (2006). *Tendering and Estimating for Building Students.* Auchi: Best Way Press. [21] Martyn, H.J., Paul, F.W., Carol, K.H., Patrick, F.S., & Martin, S. (2008). The Role of Project Managers in Construction Industry Development. *International's 52nd Annual Meeting & ICEC's 6th World Congress on Cost Engineering, Project Managment and Quantity Surveying*, (pp. 14.1-14.19). Toronto, Ontario, Canada.

McDonald, B. &. (2012). Implementing a leadership plan during the construction phase of a project. *Journal of construction management economics, 16(1)*, 71-78.

Molloy, J.B. (2000). Quantity Surveyors as Project Managers. *HKIS Newsletter*, 9-10. [24] Ogunsemi, D., & Ayodeji, O. (2009). Competencies of quantity surveyors as value managers in a developing economy. *RICS COBRA Research Conference,* 23 - 38.

P., R. (2011). *Accountability in Succeeding in the Project Management Jungle: How to manage the people side of the projects.* New York: Amacom.

Project Management Institute, Inc. (2004). A guide to project management body of knowledge. PMBOK® guide. – 3rd ed. *Project Management Institute, Inc.*

Royal institution of chartered surveyors (RICS). (2013). *Appointing a project manage.* United Kingdom: Royal institution of chartered surveyors (RICS), Parliament square, London SW1P 3AD UK.

Shibani, D.A., & Denish, S. (2015). The Role of the Project Manager in Construction Projects in India. *Chinese Business Review, June 2015, Vol. 14*, 298-324.

Team, I.e. (2021). *Indeed*. Retrieved from Indeed career guide: https://www.indeed.com/career-advice/career-development/project-management-skills [30] Team, T.e. (2021). *Nutcache*. Retrieved from https://www.nutcache.com/blog/10attributes-effective-project-manager/

The Nigerian Institute of Quantity Surveyors, N. (2012). Bulletin of Nigerian Institute of Quantity Surveyors. *QS Connect*, 16-20.

Wand, F., & Hannafin, M.J. (2012). Design-based research and technology-enhanced learning environments. *Educational Technology Research & Development, 53(4)*, 5-23.