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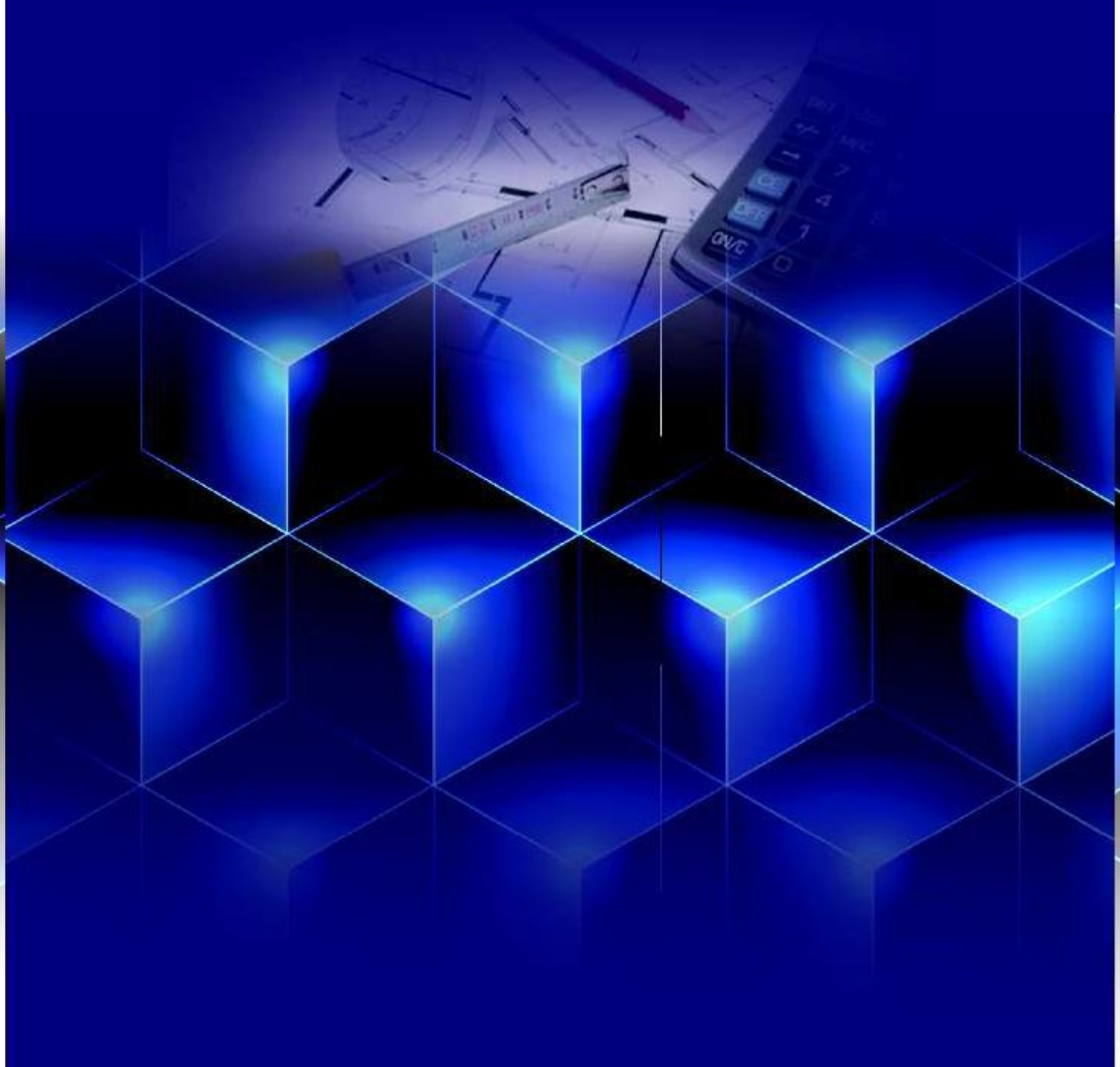

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AIMS AND SCOPE

The Quantity Surveyor is published bi-annually (twice per year) including special issue(s) where necessary, through the Nigerian Institute of Quantity Surveyors.

The Quantity Surveyor publishes high quality - minimum of double - blind peer-reviewed research papers in the areas of Cost management; Cost information management; Construction economics; Construction project management; Design and construction management processes; Housing and infrastructure development; Stakeholders management; Project planning and project impact assessments; Procurement management; Management of construction companies; Industry development; Knowledge management in construction; Innovation in construction; Sustainable construction; Project financing; Current and emerging infrastructure issues in developing countries. as well as other relevant issues.

The goal of the journal is to broaden the knowledge of construction professionals and academicians by promoting access to quality information and providing valuable insight to construction-related information, research and ideas.

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Editorial

Risk have always been a major threat to the successful delivery of construction joint venture (JV) projects. Researchers have employed risk factors that are known to affect JV project performance with the assumption that, these factors are independent of one another. However, the independencies of these factors have not been tested. And so, it is worthwh ile to evaluate the relationships amongst the risk factors affecting construction JV projects. Abdulrahman, Kolo, Ibrahim And Abdullahi uncovered a strong and positive relationship with a high level of significance between the different categories of risk factors. This depicts the dependencies of these risk categories on one another and renders the categorisations unreliable.

The stakeholder management concept has become an important tool for steering project stakeholders towards successful project delivery. However, there are no adequate research studies in Nigeria that have examined the practice used in engaging project stakeholders in construction projects. Ibrahim, Ibrahim, Abdulmumin and Shehu thus studied the practice used in engaging project stakeholders in TETFUND construction projects. They compared the practice used by consulting project management firms in engaging project stakeholders to the guidelines stated in the literature. This study will assist project managers in handling the various stakeholders to achieve more successful project delivery.

Omoraka, Oke and Aje assessed the training of Nigerian quantity surveyors in relation to the knowledge requirements of SCM, with a view to examine their capability to function as supply chain managers. They revealed the level of incorporation of the knowledge requirements of SCM into the quantity surveying curricula and thus concluded that Nigerian quantity surveyors have the potential to function as supply chain managers. Finally, they recommended a need for academic institutions, and the Nigerian Institute of Quantity Surveyors (NIQS) to take into serious consideration certain areas when reviewing the academic programme of Quantity Surveying.

Project planning is an essential element in the management and execution of construction projects. The knowledge of the planning processes will influence its ultimate implementation. The professionals' level of awareness of project planning processes in the Nigerian construction industry was exposed by Akinola and Bashir. They provided enlightenment on the knowledge areas with the least level of awareness and posited that trainings in this areas will enhance project performance.

Olatunji acknowledged that the use of Public-Private Partnerships (PPPs) for infrastructure projects in Nigeria have increased significantly in recent years across the three levels of government. He carried out a comparative analysis between the result of his survey in Nigeria with previous studies carried out in the United Kingdom and the United Arab Emirates. This revealed some similarity in some of the key factors. His work will support relevant stakeholders in PPPs policy formulation and development; and enhance the collaboration and manner in which partners go about PPP projects.

Oke and Otasowie appraised the required mentoring practices in quantity surveying firms in Nigeria with a view to providing possible practices for effective professional transition and developing leaders within the built environment. The study affirms the problem of adopting mentoring concept in quantity surveying firms despite knowledge of the concept. This paper highlighted the required mentoring practices in Nigerian quantity surveying firms and postulated ways through which the practices can be implemented in the firms for better professional transition and development of leaders in the construction industry.

Majority of the construction sites in Nigeria experience a wide gap between safety expectation and safety realization. Williams, Hamid, Williams, Obagboye and Seghier blamed this on the passion to achieve cost minimization, quality and timely delivery of the project. They systematically reviewed past studies to unearthed and affirm the factors responsible for poor safety performance by construction stakeholders in Nigeria. They identified those responsible for the poor safety performance and illustrated various ways to promote safety in the construction sites.

Using inputs from both teaching and non-teaching staff of Federal University Kasher, Gombe State, Nigeria; Mohammed, Nuru and Zadawa showed the effect of moral stakeholders' participation on satisfaction with delivery of projects in the university. The authors stated that there is need for both private and public clients to integrate the expectations of moral stakeholders into the planning, design, and delivery of their project. This is necessary to improve the usability of the project after completion.

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Assessment of professionals' level of awareness of project planning processes in the Nigerian construction industry

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Abstract

Project planning is an essential element in the management and execution of construction projects. The knowledge of the planning processes will influence its ultimate implementation. The study therefore assesses the professionals' level of awareness of project planning processes in the Nigerian construction industry. A total of 108 questionnaires were administered to professionals in construction firms in Lagos state. A quantitative research method was adopted. Stratified sampling technique was used. Data was obtained through the use of structured questionnaire. The collected data was analyzed using frequency and mean. The result showed that professionals have high level of awareness of the planning processes. However it was discovered that amongst the 10 knowledge areas, project risk management has the least level of awareness followed by communication management. The study concluded that the knowledge of these planning processes will enhance project performance and hence recommends that trainings on risk and communication management should be conducted by the professional bodies for their members. Also these planning processes should be strictly adhere to in order to improve project performance.

Keywords: Awareness, construction industry, planning processes, professionals, project planning.

Introduction

The popular saying, ''if you fail to plan, you plan to fail'' is equally true in the production process of construction projects as appropriate plan is the key to the success of any project. The term "project planning" is not uniformly defined, sometimes it is reduced only to scheduling. However, many researchers and practitioners accept a broader definition.

Nicholas and Steyn (2008) defined project planning as a process including a number of phases, which starts shortly after a business need, contract request, or request for proposal has been received. Project planning is de?ned as the establishment of a set of directions in sufficient detail to tell the project team exactly what must be done, when it must be done and what resources to use in order to produce the deliverables of the project successfully (Meredith & Mantel, 2006 cited in Zwikael, 2009). Naoum, Fong and Walker (2004) described project planning as one of the key tools that stakeholders use to ensure that construction projects are successful. Consequently, what is understood from these definitions above is that without carrying out construction project planning, a project cannot be done successfully.

The importance of conceptualisation and planning is relatively prominent compared to other phases in the project lifecycle and they both have remarkable influence on project success (Globerson & Zwikael, 2002; Meyer, Marc, Utterback & James, 1995; Zwikael, 2009). Idoro, (2012) asserted that project planning is a continuous process throughout the delivery of a project. Unfortunately, there is strong anecdotal evidence that projects are often executed without any formal planning and these informally planned (or unplanned) projects tend to experience a greater number of problems, such as excessive changes, exceeding the budget, failure to complete the work on time, low (or no) and the likes (Menches, Hanna, Nordheim & Russell, 2008). Improper planning has been discovered in many literatures as the cause of delay in several projects (Sambasivan and Soon, 2007; Aziz and Abdel-Hakam, 2016). However it is the knowledge of the processes that will determine its ultimate practice.

Project planning processes are itemized in various literatures such as; Russell and Taylor (2003), Kerzner (2013) amongst others. Also, the PMBOK which itemise 47 project management processes recognized 24 as planning processes (PMI, 2013).

The construction industry stakeholders' enhanced concern for construction planning and successful project delivery demands further research beyond the studies conducted by Zwikael (outside Nigeria) and Idoro (in Nigeria). This research fills the research gaps by assessing the level of professionals' awareness of project planning processes.

Literature review

The Nigerian Construction Industry

The construction industry is the hub of social and economic development in all countries of the world. The industry is considered as the leading sector and a big player in economic growth (Idoro, 2007). The level of activities in the industry is directly proportional to the level of economic growth. Though, the construction industry contributed only about 1.80%

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of the total Gross Domestic Product (GDP) to the Nigerian financial status in 2013, its importance and roles in the development of the economy of any nation can never be disputed (National Bureau of Statistics, 2013).

The relevance of the construction industry in developing the Nigerian economy cannot be overemphasized. Kissick *et al.* (2006) reported that, "housing is a key input in economic, social, and civic development; many housing-related activities contribute directly to achieving broader socio-economic development goals; it is a major driver of economic growth; worldwide and especially in low-income countries, housing construction creates job opportunities".

Organized construction contracting in Nigeria began in the 1940s with few foreign companies coming into operation (Olowo-Okere, 1985). Nigeria's Independence in 1960 bolstered by the "oil boom" of the 1970s brought an upward trend in the construction activities and up to the end of the second Republic in 1983, the construction industry in Nigeria has witnessed an overwhelming upsurge in construction contracting dominated by expatriate companies with few indigenous companies (Idoro, 2010). Unfortunately, the period also exposed the country's indigenous companies low level of human resources development required for; planning, designing, constructing and maintaining the magnitude (in size and number) of projects conceived by the government.

However, with improved training institutions, engagement of expatriates, collaborations between indigenous and foreign entrepreneurs, political stability and improved government policies, the apparent resources gap needed for successful completion of complex projects between indigenous companies and their foreign counterparts are now closer compared to the pre-independence era (Mbamali and Okotie, 2012).

The major source of capital formation in the construction sector that can spur growth and development in Nigeria is from the public sector, with the traditional approach in the major infrastructure procurement process of funding through annual capital budgetary provision. This large correlation of government participation with the level of construction industry was due to minimal private involvement in capital formation and formal infrastructure procurement that limits the potential of the sector (Isa, Jimoh & Achuenu, 2013). However, with the rising emphasis and growing interest of stakeholders on bridging Nigeria's infrastructure gap, the future growth of construction as a tool for sustainable economic development is somewhat optimistic. Major milestone over the last decade which includes self-sufficiency in cement production that guaranties materials price stability and the growing emphasis on PPPs to supplements the capital expenditure in the construction industry are cases for optimism.

Project Planning

Planning is a common term in the construction industry and has been defined in various ways. As defined by Mawdesley *et al.* (1997), a plan is a detailed scheme or procedure for achieving an objective. "Detailed scheme" entails the process, the work to be done, the duration of each work, the resources to be utilized and the cost implication. Project planning is the formation of a set of directions in adequate detail to inform the project team precisely what to do, when to do it and what resources to apply so as to successfully produce the project's objectives (Meredith & Mantel, 2006 cited in Zwikael, 2009). However, Faniran *et al.* (1998) defined project planning to be the procedure of deciding proper schemes for the accomplishment of predetermined project goals.

Classification of Project Planning

Various researchers have attempted to classify project planning using different terminologies as dep icted in Table 2.1 below.

Table 2.1: Various classification of project planning

Author	Classification	Term Used
Faniran et al. (1998)	Pre-construction planning Construction planning	Classification of planning
Bamisile, 2008; Harris & McCaffer, 2013; Gahlot & Dhir, 1992; Seeley, 1986.	Strategic planning Operational planning	Levels of planning
Dvir, Raz and Shenhar (2003)	End-user level (Project conception planning) Technical level (Project design planning) Project management level (Contract planning)	Levels of planning
Gidado (2004)	Physical planning Financial planning	Categories of Planning
Gidado (2004)	Pre-tender	Milestones

	Tender Pre-contract Contract Pre-construction Construction Commissioning Post-construction Conception Design	
Puthamont and Charoenngam, (2007)	Tendering Construction Closeout	Categories of Planning

(Source: Akinola *et al.,* 2019)

Planning Processes

Many researchers such as Russell and Taylor (2003); Zwikael and Globerson (2006); Kerzner (2013) amongst others identi?ed different planning processes. However, the PMBOK identi?ed 24 planning processes as depicted in Table 2.2 (PMI Standards Committee, 2013).

Table 2.2: Planning process group and output

Knowledge Areas	Planning processes	Major Output
Project Integration Management	Project management Plan Development	Project management Plan
Project Scope Management	Scope management Planning Requirements Collection Scope Definition Work Break down Structure Creation	Scope management plan Requirements documentation Project scope statement Scope baseline
Project Time Management	Schedule management Planning Activities Definition Activities Sequencing Activity resources Estimation Activity duration Estimation Schedule Development	Schedule management plan Activity list Project schedule network diagrams Activity resource requirements Activity duration estimates Schedule baseline
Project Cost Management	Cost management Planning Cost Estimation Budget Determination	Cost management plan Activity cost estimate Cost baseline
Project Quality Management	Quality management Planning	Quality management plan
Project Human resource Management	Human resource management Planning	Human resource management plan
Project Communication Management	Communications management Planning	Communications management plan
Project Risk Management	Risk management Planning Risk Identification Qualitative Risks Analysis Performance Quantitative Risks Analysis Performance Risk Responses Planning	Risk management plan Risk register Project documents updates Project documents updates Project management plan updates
Project Procurement Management	Procurement management Planning	Procurement management plan
Project Stakeholder Management	Stakeholder management Planning	Stakeholder management plan

(Source: PMBOK, 2013)

Research methodology

This study aimed to assess professionals' level of awareness of construction project planning processes. In order to achieve this aim, data was collected from professionals working in construction firms of all categories (large, medium and small) in Lagos state, Nigeria. The choice of this state benefits the study because it permits the sampling of a large population of professionals engaged in construction firms.

Specifically, a cross-sectional survey via questionnaire was used to gather data for the study using stratified sampling method. From 108 copies of administered questionnaire, 102 were returned which amount to 94% response rate. However, 94 questionnaires were found to be adequately completed and thus used for this study. Professionals' level of awareness of construction project planning processes was tested on a five-point scale (1= no awareness 2 = little awareness 3= moderate awareness 4= high awareness 5= very high awareness). The data obtained from the returned questionnaire were analysed with the aid of descriptive statistics using frequency, mean and percentages.

Findings and discussion

Background information of Respondents

Table 4.1 shows demographic characteristics of the respondents. 36 (38.3%) of the respondents had educational background in Quantity Surveying followed by Architecture and Structural Engineering with 22 (23.4%), then Building with 14 (14.9%). Majority 90 (95.7%) of the respondents were affiliated to their various professional bodies. While 60% of the total respondents have more than 10 years working experience. About 77% of the respondents were Managing Directors, Project /Construction Managers and Site Supervisor/Managers. Others fill the position of Procurement Manager, Commercial Managers etc. An adequate level of accuracy in the information gathered was guaranteed since all the respondents occupied position at management level or higher. Furthermore, medium firms constitute 57 (60.6%), small firms constitute 20 (21.3%) while large firms constitute only 17 (18.1%) of the respondents; this supports the assertion that Nigerian building firms are made up of large percentage of small firms than large firms. This demographic information pertaining to the respondents justify the proposed assumption that respondents are knowledgeable to exercise right judgment. Thus, their response to the questions could be trusted as valid for this research.

Table 4.1: Background information of respondents

Personal characteristics of respondents	Frequency	Percentage
Educational background		
Architecture	22	23.4
Building	14	14.9
Structural Engineering	22	23.4
Quantity surveying	36	38.3
Highest academic qualification attained		
OND/HND	15	16.0
BSc/B.Tech	28	29.8
MSc/MBA/MPM	51	543
Professional qualification		
NIA	22	23.4
NIOB	14	14.9
NSE	22	23.4
NIQS	32	34.0
NONE	4	4.3
Grade of membership of the professional body		
Probationer	9	9.6
Graduate	16	17.0
Associate/Corporate	63	67.0
Fellow	2	2.1
None	4	4.3
Industrial experience of the respondent		

Less than 5yrs	12	12.8
5-10yrs	24	25.5
10-20yrs	39	41.5
20-30yrs	8	8.5
Above 30 yrs	11	11.7
Respondents' designation		
Managing Director	20	21.3
Head planning/procurement	4	4.3
Project/construction manager	26	27.7
Commercial manager	4	4.3
Site supervisor/manager	26	27.7
Others	14	14.9
Size of organization		
Small	20	21.3
Medium	57	60.6
Large	17	18.1

4.2 Level of awareness of the processes involved in construction project planning

The study had identified 24 planning processes, participants were required to show their knowledge of the planning processes. The result is presented in Table 4.2.

Table 4.2: Level of awareness of the planning processes

Knowledge Areas	Planning processes	Mean	Group Mean
Project Integration Management	Project Management Plan Development	4.31	4.31
Project Scope Management	Scope Management Planning	4.26	4.30
	Requirements Collection	3.99	
	Scope Definition	4.36	
	Work Breakdown Structure Creation	4.59	
Project Time Management	Schedule Management Planning	4.51	4.43
	Activities Definition	4.47	
	Activities Sequencing	4.50	
	Activity Resources Estimation	4.34	
	Activity Durations Estimation	4.32	
	Schedule Development	4.46	
Project Cost Management	Cost Management Planning	4.33	4.44
	Costs Estimation	4.59	
	Budget Determination	4.39	
Project Quality Management	Quality Management Planning	4.15	4.15
Project Human Resources Management	Human Resource Management Planning	4.03	4.03
Project Communication Management	Communications Management Planning	3.84	3.84
Project Risk Management	Risk Management Planning	3.88	3.65
	Risk Identification	3.90	
	Qualitative Risk Analysis Performance	3.53	
	Quantitative Risk Analysis Performance	3.50	
	Risk Responses Planning	3.45	
Project Procurement Management	Procurement Management Planning	4.14	4.14
Project Stakeholder Management	Stakeholder Management Planning	3.95	3.95

As indicated in Table 4.2, given that ; 4.5-5.0 = very high awareness, 3.5-4.49 = high awareness, 2.5-3.49 = moderate awareness, 1.5-2.49 = little awareness and 1-1.49 = no awareness, the level of awareness of the processes ranges from moderate awareness (3.45) for plan risk response up to very high awareness (4.59) for create work breakdown structure and estimate cost.

The level of awareness of the different knowledge area is computed by the average level of awareness of the processes pertaining to it, depicted as group mean, as represented in Table 4.2 and depicted in decreasing form in Figure 4.1.

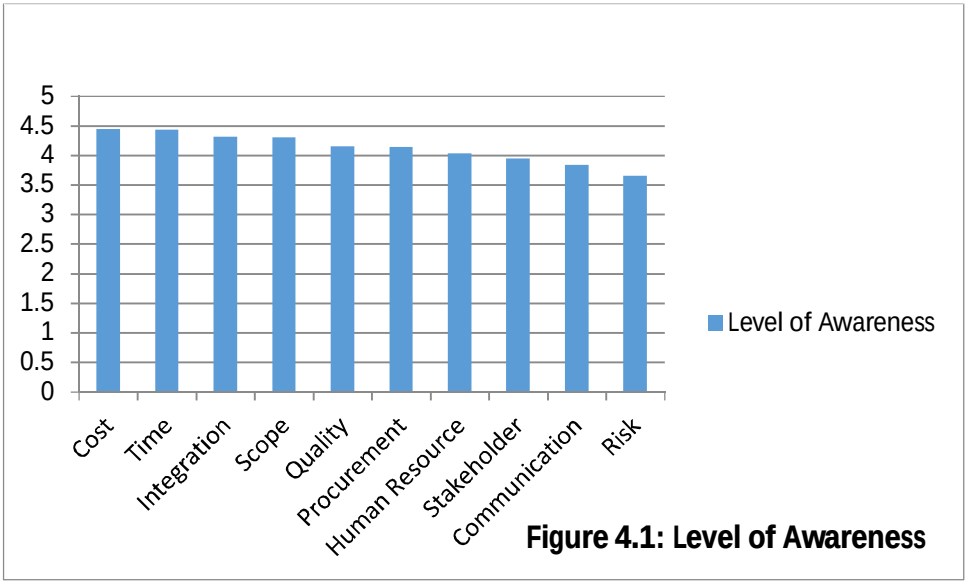

Figure 4.1: Level of Awareness of the ten knowledge areas

The study has attempted to examine the level of awareness of the processes encompassed in construction project planning. There are 24 planning processes categorized into ten knowledge areas. The result of the study has shown high level of awareness of the planning processes. However, project risk management followed by project communication management were the least respectively.

Gidado (2004) research confirmed that at pre-construction level the re?nement process of all the deliverables outlined was not totally done by the current planning practice. He opined that this could be as a result of insu? cient time, or cost implication (not being too sure of the bid success), or no awareness, or not having technical know-how or any combination or all of the factors. However, this research has disclosed that the level of awareness of all the identified planning process by Nigerian construction professionals is quite high. This implies that lack of awareness cannot be a factor for not carrying out adequate planning of all the deliverable.

Conclusion and recommendation

Respondents of this research comprised professionals working with construction firms. The respondents had attained high education at the level of degree and above, the Quantity Surveyors occupying the highest percentage of 38.3% in comparison to the Architects 23.4%, Builders 14.9%, Civil Engineers 12.8% and Structural Engineers 10.6%. The response rate of 94 % was considered very adequate for the study.

Level of awareness of Twenty-four (24) planning processes categorized into ten knowledge areas: Integration, Scope, Time, Cost, Quality, Human resource, Communication, Risk, Procurement and Stakeholder management was found to be high. That is professionals in the Nigerian construction industry are well informed of the processes involved in construction project planning. However project risk management followed by project communication management were the least respectively.

Planning is no doubt one of the functions of management. It is the process that initiates the commencement of management process and is therefore a prerequisite to other management functions such as monitoring, evaluation and control. The study recommends that trainings on risk and communication management should be conducted by the professional bodies for their members to enhance their knowledge of this practice.

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