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Competitive Advantage among Indigenous Construction Firms in Competing with Expatriate Contractors in Nigeria

Saheed Olanrewaju Yusuf*, Ayooluwa Femi Aribisala, Abdulhaqq Onoruoyiza Muhammed, Jonathan Oluwapelumi Mobayo, Usman Belgore

Department of Project Management Technology, School of Innovative Technology, Federal University of Technology Minna, Niger State, Nigeria

*Corresponding author's email: so.yusuf@futminna.edu.ng

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Abstract

In recent times, the preference for expatriates in the contractual process in Nigeria has become an issue of controversy and general public interest. As a result, the high presence of these foreign expatriates has raised competitiveness in the construction sector, which is partly caused by indigenous enterprises' incapacity to meet the demands placed on them in terms of construction project delivery. This paper, therefore, investigates the factors influencing clients' choice of contractor, examines the performance index of both expatriate and indigenous construction firms (ICFs), and analyzes the key performance indicators (KPI) for ICFs to increase their competitive advantage. The methodology involved the administration of structured questionnaires to a paper population of 384 construction experts comprising engineers, architects, quantity surveyors, builders, and project managers in Nigeria. With a response rate of 69%, frequencies/percentages, mean values, relative importance index (RII), and regression model were employed for the analysis. The findings revealed that the most important factors influencing clients' choice are past performance and experience, equipment capabilities, and quality specification/standards. Additionally, this paper used six (6) KPIs (human resource management, financial management practices client-based strategy, organizational culture practices, smart work methods, and quality management practices) to model the performances of ICFs to increase their competitive advantage in Nigeria. This paper concluded that there is a higher performance of foreign expatriates in terms of time, cost, scope, quality, and satisfaction over their indigenous counterparts. This paper recommended that there is a need for ICFs to increase their equipment capacity and ability to undertake mega projects, develop an effective funding strategy to execute projects and collaborate with international partners to boost their level of competitiveness.

Keywords: Expatriate contractors, indigenous construction firms, key performance indicators, Nigeria

1.0 INTRODUCTION

The responsibility of construction and management of infrastructural projects in any nation relies heavily on the construction sector of that nation. This is because the construction sector can accommodate expatriates and indigenous practitioners who are expected to progressively contribute to its growth and development (Falope et al., 2019). The overwhelming presence of these foreign expatriates has raised competitiveness in the construction sector, which is partly caused by indigenous enterprises' incapacity to meet the demands placed on them in terms of construction project delivery (Roy, 2011). Indications of reduced performances in terms of time overruns and cost, inadequate strategic analysis, and poor quality of work ensuing in low productivity are the hallmarks of projects handled by indigenous practitioners (Alintah-Abel et al., 2020). The most thrilling option a client may make is who to hire as a contractor (Kog & Yaman, 2014). Nowadays, selecting a contractor is a multi-attribute decision-making process that necessitates people to take competing aims and restricted resources into account (Watt et al., 2010). The multi-criteria decision, which revolves around several requirements, is almost always in the client's favour (Doloi et al., 2011; Khoso et al., 2020). Some of the factors influencing these choices are experience, management resources, and project facilitation (Fagbenle et al., 2011). The indigenous practitioners have also been seen as delivering poor quality projects at an extremely high cost with late project delivery which is also another issue leading to customer dissatisfaction (Tunji-Olayeni et al., 2016). Indigenous practitioners in Nigeria are also involved in corrupt practices such as contract embezzlement, fraud, and inappropriate cost-cutting strategies (Adindu et al., 2019). Summarily, sub-standard megaproject performance, unacceptable site safety practices, low productivity levels, lack of creativity and innovation, rework, outbreak of hostilities (conflicts), client dissatisfaction, delays, higher costs, and shortfall in skilled construction workers are some of the fundamental problems faced by indigenous construction practitioners (Chea et al., 2019; Development Bureau, 2018; Kasih & Adi, 2019; Osuizugbo & Ojelabi, 2020; Rachid et al., 2019). A report on the Federal Government's abandonment of many road projects awarded to indigenous contractors between 1999 and 2003 posited the recurrent prevalence of building collapse (Chendo & Obi, 2015), bringing into sharp focus the aptitude and reliability of the

construction indigenous practitioners. As the majority of megaprojects are secured and carried out by expatriate contractors, indigenous firms operating in Nigeria are falling behind in the competition brought on by the influx of foreign expatriates (Aje et al., 2016; Laryea, 2010; The Economist, 2010). As a result, it is necessary to look into the factors influencing clients' choice of contractors.

As a result, it is not surprising that emerging countries without doubts relies on foreign expatriates to satisfy their infrastructure demands. Nonetheless, the partnership should yield positive outcomes to the host country (Osei, 2013). However, the influx of foreign expatriates in mitigating the infrastructural demand of the host nation has a net effect that is often negative (Asikogu et al., 2021). This ensued from the overdependence on foreign expatriates by Nigeria to meet our infrastructural demand which has relatively increased the competitive advantage of those foreign expatriates (Uwaegbulam, 2015). According to Tawiah (1999) and Ayarkwa (2010), yearly projects performed by indigenous practitioners in Ghana's construction sector range from 10 to 20%, implying that 80 to 90% of contracts were acquired and implemented by foreign expatriates. Chilongo and Mbetwa (2017) also agreed that indigenous contractors' performance in Zambia is obviously below expectations, while the study of Abur et al. (2015) focused on the challenges of indigenous contractors in Kenya similarly posited low performances of the indigenous construction firms. Because foreign expatriates are known to be proficient at growing their capabilities over their indigenous counterparts as more works are undertaken by them (Akintunde, 2003), the performance index of both expatriates and indigenous constructions firms emerges into center of attention despite the fact that indigenous practitioners received up to 77.2 percent of the 1133 projects in Nigeria.

Additionally, it is a common building practise in Nigeria nowadays to give the largest construction contracts to foreign companies (Falope et al., 2019). During the 2015 Builders Conference in Lagos, the President of the Federation of Construction Industries (FOCI) claimed that Nigeria was having lost over ₦9 billion (as of date, ₦1 = $0.0003) annually due to the influence of foreign expatriates, Makarfi (2017) noted. This information was revealed by the Nigerian Institute of Building (NIOB) during the 2015 Builders Conference in Lagos. FOCI emphasized further that while the work rendered by these expatriates is of higher quality, there is a high chance of capital outward movement affecting the economy as similarly posited by Adelese and Abulude (2020), in their study. Additional claims were made by FOCI, which was reported in Makarfi (2017), that these foreign experts are well compensated regardless of their qualifications, causing an economic loss and an increase in the rate of joblessness for the indigenous professionals. This trend is unsustainable and causes great damage to the economy of the country. The pertinent setback now is on the performance improvement of these indigenous construction firms (ICFs) to relatively increase their competitive advantage, as poor performances of projects result in resources wastefulness (Osuizugbo and Alabi, 2021), which has therefore induced the need for the assessment of the key performance indicators (KPI) for ICFs to increase their competitive advantage. Consequently, in the light of the foregoing, this paper will, therefore, examines the key performance indicators for indigenous construction firms with expatriate contractors in Nigeria.

2.0 LITERATURE REVIEW

2.1 Expatriate and Indigenous Construction Firms in Nigeria

In Nigeria, contractors are categorized as either indigenous or expatriates. The latter is frequently given precedence over the former in contract awards, though stakeholders believe this practice is harmful to growth and development (Idoro, 2010). Indigenous contractors, per Idoro's definition, are those who are wholly owned and managed by Nigerians. The study identified expatriate contractors, the majority of which are private businesses owned equally by Nigerians and foreigners but under total professional direction, as multinational contractors. This statement claims that the ownership and administration of the company, which is either wholly or mostly handled by expatriate staff, is the primary differentiator between indigenous and expatriate contractors. Other factors like labour, supplies, and equipment have not been used to distinguish between the two categories of contractors if there are variances in them. According to Makarfi (2017), the foreign expatriate has been prevalent in the Nigerian construction industry before the independence era. Majority of construction works were given to foreign expatriates who were seen to have management and technical skills as well as higher efficiency in funding those projects against the backdrop of small and technically inefficient indigenous firms (Ugochukwu & Onyekwena, 2014). Accordingly, it was estimated that between 1974 and 1978, the Federal Government granted projects totaling $11.25 billion worth of money, comprising 1,033 projects in all. This coincided with the time when Nigerian building activity peaked (Ugochukwu & Onyekwena, 2014). In recent times, the preference of expatriates in the award of contracts in Nigeria became an issue of controversy and general public interest. Studies have shown that these expatriates are often used by clients, according to Olubunmi and Olukanyin (2015). It is well known that despite charging more than their local competitors, these few foreign expatriates complete over 90% of the value of all construction projects in Nigeria (Adelese & Abulude, 2020). Owing to the prevalence of such practice in the construction industry, it remains a source of concern for the construction stakeholders as it does not encourage sufficient participation from the indigenous firms, as well as restricts indigenous practitioner's capacity building and technological advancement, and causes the needless drain to the already scarce foreign exchange of the country (Adelese & Abulude, 2020). According to Abdullahi et al. (2019), the performance index for these construction firms includes the use of cost monitoring during design, project completed within budget, use of collaboration tools to improve effectiveness, clearly articulated scope and nature of work in the tender, and provisions of clear specifications and requirement. Similarly, Ogbu (2017) identified the use of time monitoring and control, project completed at the estimated time, the schedule is minimized, scope document not altered during project execution, financial transparency, and use of quality management systems as the construction firms performance indicators. Tunji-Olayeni et al. (2017) and Somiah et al. (2022) highlighted the following factors as performance indicators for these contractors: the supply of detailed requirements, proper procurement procedures, documentation control mechanisms in place, frequent monitoring of client/customer satisfaction, and organisation's utilisation of data from customers to enhance services. Additionally, Femi (2015) and Ogbu (2017) proposed the following performance indicators: affirmative client and customer feedback, documented quality manual and procedures for key activities, appropriate procurement system, minimised schedule, and clearly stated scope and nature of work in the tender.

2.2 Factors Influencing Clients' Choice of Contractor

Various perspectives on the impact of expatriate building methods on indigenous practitioners have been proposed during the last decades. Akinsiku and Oyediran (2020) highlighted a number of elements that affect clients' decisions, such as insufficient monitoring, controlling, and funding concerns, insolvency and cost overruns, technical problems, among several others. According to Holt et al. (1994), the primary factors influencing a client's choice of contractor are the contractor's current task, their knowledge in terms of the scope of work executed, their managerial assets in regards to the formal training routine, the time of year, such as weather. Similar to this, Liu et al. (2015) proposed that these factors include the contractor's ability to access appropriate facilities, general firm expertise, particular exposure related to the nature and scope of the project, history of collaboration with the owner and consultant, number of change orders in prior contracts, disputes and claims in prior projects, and track record of time and budget management. According to Nieto-Morote and Ruz-Vila (2012), these factors include project type, health, and safety culture, a good understanding of the project, contractor project supervision capacity, past performance and experience, quality specification/standards. Furthermore, Semaan and Salem (2017) posited these factors to inculcate equipment capabilities, practitioners' financial stability, quality of workmanship, usage of requisite construction method, project management on schedule, fast decision making, and practitioners' geographical location.

2.3 Performance Index of Both Expatriate and Indigenous Construction Firms

Concerning the performance of both expatriates and indigenous construction firms, Adewuyi (2014) discovered that clients generally prefer the expatriates' category of contractors despite their significantly higher fees than those of their indigenous counterparts, even though the expatriate contractors are fewer. This phenomenon continues to be a source of worry for construction stakeholders as it gives low indigenous involvement, or technical improvement in the construction sector, representing an unneeded drain on the nation's precarious economy. For instance, Lawani (2019) reported that out of ₦634.15 billion road projects contract awarded in the south-eastern part of the country, foreign companies account for 79.16% as shown in Figure 1.

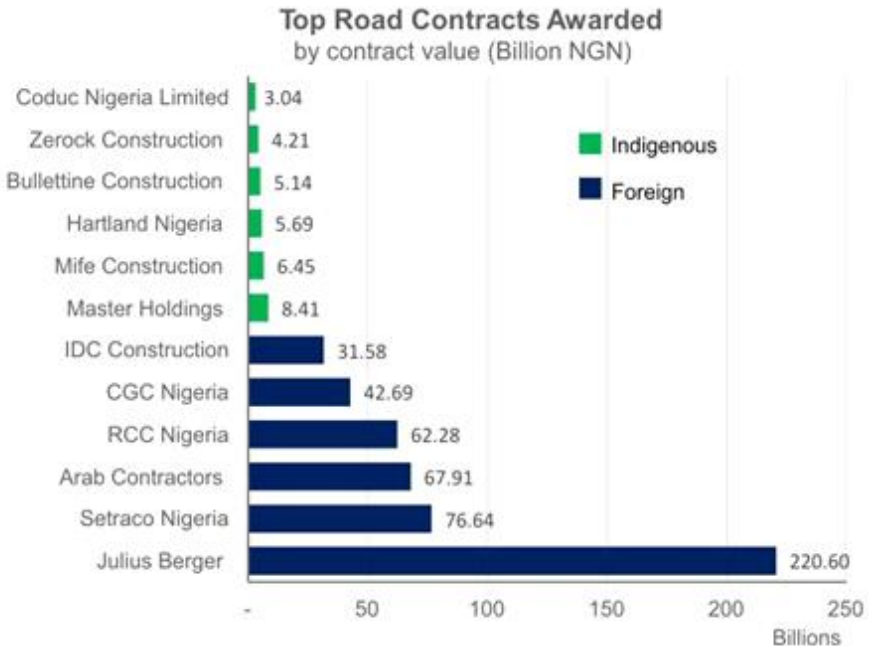

Figure 1 Top road contracts awarded in 2018
(Source: Lawani, 2019)

In both the public and private sectors, giving precedence to foreign contractors in contract awards is based on stakeholders' and even the general public's views of the standard of the work completed by the two groups of contractors. The study concluded by making reference to the unfavourable claim that all contracts given to indigenous contractors by the federal government between 1999 and 2003 were cancelled, as well as the frequent incidences of building collapses, which have seriously questioned the competence and professionalism of indigenous contractors. According to Inuwa et al. (2014), clients generally used ICFs in traditional and non-traditional procurement systems; public clients use traditional systems for 75 percent of their projects, while private clients used non-traditional systems for 78-100 percent of their projects. It was also discovered that ICFs had significant rates of time overruns (traditional: 34-146 percent; non-traditional: 45-60 percent), and cost overruns (traditional: 35-47 percent; non-traditional: 31-36 percent). According to the study by Akinsiku (2020), the most significant obstacles for ICFs and contractors includes a lack of technical experience, unsatisfactory turnover on projects, and delays in disbursement of funds to subcontractors for work done. The most important measures of enhancing ICFs' performance were the application of project management techniques in building operations, quality control of materials, and

boosting delivery capacity. Also, corruption in the construction industry (Adindu et al., 2019), delayed payment, political instability and interference (Muhammed et al., 2022), and lack of adequate research and development (R&D) (Makarfi, 2017), in the industry among others are the factors affecting the capacity of indigenous construction companies in Nigeria. Hence, increased investment in research and development (R&D) of the construction industry, encouraging foreign companies to provide training and knowledge transfer, foreign companies' investment in local construction materials, and encouraging foreign companies to adopt local content are some of how the foreign construction firms in Nigeria can contribute to the capacity building of indigenous construction companies. Subsequently, the results from the study of Ajayi et al. (2021) revealed that regular payment of works done as and when due, as well as the expertise of the contractors at work, are important criteria for both indigenous and expatriate construction businesses to perform successfully. According to Akinbo et al. (2018), localized firms have a lower degree of understanding of sustainable development than their expatriate counterparts. This level of awareness was also been seen to have an impact on the consistency of practice and execution of these sustainable advances. Expatriate enterprises were generally aware of the importance of performing periodic materials audits as part of a sustainable building plan, and this was consistent with their construction operations. Localized construction enterprises connect environmental protection as a sustainable construction strategy in their site operations. Engaging in sustainable building practice was critical for expatriate construction businesses to improve their corporate identity, while localized enterprises participated in sustainable construction practice to meet the demands of their clients. Tsado et al. (2019) concluded that the prevailing factors that contributed to the low patronage and participation of indigenous contractors in public project development were ranked first, second, and third, respectively, as a lack of requisite skill and technical know-how, a weak or poor educational framework, and a lack of financial strength. Idoro (2010) also demonstrated that expatriate contractors are given precedence in contract awarding. It was also shown that clients regard the quality performance of expatriate contractors to be superior to that of indigenous contractors, and this difference was ascribed to the preference for patronage. It was proposed that indigenous contractors take steps to enhance their quality performance to reduce their reliance on expatriate contractors. According to Ilori and Omopariola (2018), some of the major factors affecting the time performances of the indigenous contractors include lack of financial aid from a financial institution, delayed payment to the contractor, lack of plant and equipment, and high lending interest rates. Similarly, Olubunmi and Olukanyin (2015), observed that financial assistance from parent countries and technological development are some performance determinants of expatriate construction firms.

2.4 Key Performance Indicators (KPI) for Indigenous Construction Firms to Increase Competitive Advantage

Idoro (2012) stated that indigenous contractors use project control tactics more frequently than expatriate contractors. More recently, Somiah et al. (2021) recommended that ICFs seeking a competitive advantage in the Ghanaian construction industry may consider prioritizing the 21 success attributes for competitive advantage presented in the work, giving the highest priority to the ability to raise funds offshore with better or no interest in projects, the existence of a well-functioning motivation scheme for workers, the political influence of firm owners, and firm owners' political influence. Tan (2008) recognized focus, expansion, distinctiveness, and cost leadership as essential success strategies for Hong Kong construction enterprises seeking a competitive edge. Furthermore, Flanagan et al. (2005) highlighted fundamental values as well as enterprises' goals and objectives in the industry as essential success strategies for competitive advantage in the UK, Finland, and Sweden by embracing lean construction. Following that, Lu (2006) stated that distinctive technology, public image, bidding strategy, legal competence, relationships with government departments, cost management strategy, organizational culture, and client relations strategies were essential success strategies for competing in China. According to the conclusions of the study of Tunji-Olayeni et al. (2017), the most important competitive strategy of ICFs is quality in constructed facilities. The study also found a substantial and positive relationship between quality, schedule, and cost competitiveness. Compromises in any of these three essential project performance parameters (quality, schedule, and money), can have a disastrous influence on project performance. Hence, according to Ogbu (2018), survival practices for ICFs' seven survival practice variables includes human resource management, marketing, bid strategy, financial management, organizational culture, smart work techniques, and firm strategy components – which account for the majority of the ICFs' survival practices. Other key KPIs identified from literature are presented in Table 1. According to previous research findings, there are limited studies that identified how expatriate construction practices influence indigenous practitioners in Nigeria. As a result, by focusing on Nigeria, this present study aims to address the stated flaws in prior studies.

Table 1 Key performance indicators
(Source: Authors' compilation)

S/No	Sources	KPI
1	Ofori-Kuragu et al. (2016)	Client Satisfaction, cost, time, quality, health and safety, business performance, productivity, people and environment
2	Tripathi and Jha (2018)	Profitability and asset management, satisfaction of key stakeholders, predictability of time and cost, environment, health, and safety (EHS), quality consciousness, and low staff turnover
3	Takim and Akintoye (2002)	Construction cost, construction time, cost predictability, time predictability, defects, client satisfaction with the product, and client satisfaction with the service
4	Alkilani (2018)	Project cost, project time, project quality, project health and safety, project environmental sustainability, project socio-economic performance contribution result

3.0 METHODOLOGY

3.1 Development Processes of Cost Breakdown Structure (CBS)

The qualitative methodology approach was adopted using a structured questionnaire administered to a sample size of 384 respondents. Data generated using this approach can be subjected to rigorous quantitative analysis (Kothari, 2004), which is much easier with less error (DeVault, 2020). This approach is generally accepted and evidence in the studies of Yusuf and Diugwu (2021), Mobayo et al. (2021) and Muhammed et al. (2022). This study adopted the research methodology process cycle presented in Figure 2, to achieve the set objectives. Cochran's (1977) formula was applied for sample size determination due to the infinite study population, as presented below.

$$n_0 = \frac{Z^2 pq}{e^2}$$

…….(Eqn. 1)

where, e = precision level (i.e. the margin of error),
p = the proportion of the population which has the attribute in question,q = 1 – p.

Thus,

$$n_0 = \frac{1.96^2(0.5*0.5)}{0.05^2}$$

……. ……..(Eqn. 2)

$n_0 = 384$

Figure 2 Research process

The questionnaire used for data collection was sectioned into four sections which were administered to key construction practitioners including Engineers, Quantity Surveyors, Architects, Builders, and Project Managers affiliated with both indigenous and expatriate construction firms in Nigeria. The first section was focused on the background information of the respondents. The other sections were sectioned into the factors influencing clients' choice of construction practitioners, the performance index of both expatriate and indigenous

construction firms, and the key performance indicators (KPI) for ICFs to increase their competitive advantage extracted from literature. Additionally, thirty-one KPIs were identified from the literature and sub-divided into six variables. The level of agreement or disagreement of respondents was measured using the 5-point Likert scale "(1-strongly disagree, 2-agree, 3-undecided, 4-agree, and 5-strongly disagree)". This paper thus, adopted the purposive sampling technique through physical contacts for close-by respondents, while emails and Google survey forms were used for distanced respondents. Finally, Statistical Package for the Social Sciences (SPSS) was employed for descriptive statistics using frequencies/percentages mean values and relative importance index (RII). Inferential statistics using a regression model was also conducted using the same software.

$$RII = \frac{\sum_{i=0}^{5} aixi}{5\sum_{i=0}^{5} xi} \qquad (0 \leq RII \geq 1) \quad \text{…….(Eqn. 3)}$$

where ai = constant expressing the weight given to a group,
xi = Response frequency;
a value of RII approaching 1 signifies a high respondent's agreement on variable factors measured.

4.0 RESULTS AND DISCUSSION

4.1 Background Data of Respondents

The data were analyzed using 265 valid responses (69 percent return rate) from 384 completed questionnaires. The high response rate indicates that respondents were eager to participate in the survey, while the remaining 119 questionnaires were either incomplete or not returned, resulting in disqualification. The educational qualification survey shows that 4.9% have NCE/ND, 54.7% have HND/BSC, 29.4% have a Master's degree and 12.8% had PhD; this indicates that the respondents have the fundamental and necessary educational credentials to provide the necessary responses to support the study's conclusions. Furthermore, among these respondents, 11.3% were Architects, 9.4% represent Engineers, 29.8% were Quantity Surveyors, 25.3% were Builders and 24.2% were Project Managers. About 38.1% of the respondents had experience spanning 11 – 15 years while 4.9% had the least experience of 1 – 5 years. This further implies that industry professionals are experienced in their various fields and have also developed extensive expertise in handling industry-related challenges; as a result, the data gathered is reliable and appropriate. Table 2 shows the respondents' background information.

Table 2 Background information of respondents

Profile	Freq	%
Academic Qualification		
NCE/ND	8	3.0
HND/BSC	145	54.7
MBA/MSC/M.Eng	78	29.4
PhD	34	12.8
Years of Experience		
1 – 5	13	4.9
6 – 10	35	13.2
11 – 15	101	38.1
16 – 20	85	32.1
0ver 20	31	11.7

Profile	Freq	%
Industry Professionals		
Architect	30	11.3
Engineers	25	9.4
Quantity Surveyors	79	29.8
Builders	67	25.3
Project Managers	64	24.2

4.2 Factors Influencing Clients' Choice of Contractor

The factors influencing clients' choice of the contractor were identified from literature with respondents asked to rank them according to their level of importance. As presented in Table 3, the findings show the most important factors influencing clients' choices are past performance and experience (RII = 0.992), equipment capabilities (RII = 0.988), quality specification/standards (RII = 0.978), financial stability of practitioners (RII = 0.976) and quality of workmanship (RII = 0.970) ranked first, second, third, fourth and fifth respectively while contractor project supervision capacity (RII = 0.930), good understanding of the project (RII = 0.904), health and safety culture (RII = 0.902) and project type (RII = 0.900) were ranked low.

Table 3 Factors influencing clients' choice of contractor

Factors	Mean	SD	RII	Rank
Past performance and experience	4.96	0.34	0.992	1
Equipment capabilities	4.94	0.54	0.988	2
Quality specification/standards	4.89	0.55	0.978	3
Financial stability of practitioners	4.88	0.63	0.976	4
Quality of workmanship	4.85	0.62	0.970	5
Use of appropriate construction methods	4.79	0.54	0.958	6
Contractor technical capacity	4.78	0.60	0.956	7

Factors	Mean	SD	RII	Rank
Management of project within a scheduled period	4.76	0.77	0.952	8
Geographical location of practitioners	4.75	1.03	0.950	9
Procurement method used	4.67	0.77	0.934	10
Fast decision making	4.66	0.53	0.932	11
Contractor project supervision capacity	4.65	0.32	0.930	12
Good understanding of the project	4.52	0.55	0.904	13
Health and safety culture	4.51	1.02	0.902	14
Project type	4.50	0.34	0.900	15

These findings are in agreement with Khoso et al. (2020) who discovered that clients place a higher value on a contractor's past performance and experience than their financial stability. Nevertheless, it is increasingly important for a contractor to have financial capacity. The financial stability of the contractors boosts work completion with minimal interferences or delays. According to Semaan and Salem (2017) and Cheaitou et al. (2019) previous project performances, human resources, financial capacity, firm's reputation, experience and a record of previously completed projects are all considered by the clients. In consonance, Nieto-Morote and Ruz-Vila (2012) established financial stability, reputation, technical capacity, past performance, management capability, occupational health and safety, and past relationship as the factors considered by the clients in the choice of contractors.

4.3 Performance Index of Both Expatriate and Indigenous Construction Firms

To measure the performance of both expatriate and indigenous construction firms, industry professionals were asked to state according to their experience in the construction industry the level of performance of both expatriate and indigenous companies using the performance indicators identified (Time, Cost, Scope, Quality, and Satisfaction). The findings are presented in Table 4 using a 5-point Likert scale to measure the level of agreement or disagreement.

Table 4 Performance index of both expatriate and indigenous construction firms

Variables	Expatriate (RII)	Indigenous (RII)
Time Performance		
Use of time monitoring and control	0.948	0.752
Project completed at an estimated time	0.942	0.652
Regular schedule updates	0.928	0.606
The schedule is minimized	0.912	0.578
Cost Performance		
Use of cost monitoring during the design	0.950	0.608
Project completed within budget	0.964	0.574
Financial transparency	0.956	0.504
Appropriate procurement system	0.978	0.506
Scope Performance		
Scope document not altered during project execution	0.966	0.650
Use of project breakdown structure	0.958	0.752
Use of collaboration tools to improve the effectiveness	0.962	0.486
Articulated scope and nature of work in the tender.	0.956	0.726
Quality Performance		
Use of quality management systems	0.986	0.534
Provisions of clear specifications and requirement	0.978	0.610
Quality Policy is reviewed periodically for continuing suitability	0.970	0.466
Documentation control systems are in place	0.990	0.574
Quality manual and procedures for key activities are documented	0.994	0.598
Satisfaction Performance		
Regular monitoring of Client/Customer Satisfaction	0.986	0.470
The organization uses data from customers to improve services	0.990	0.408
Positive feedback from clients and customers	0.990	0.652

Table 4 was summarized and further presented in Table 5 to have a better understanding of the performance index. This result therefore shows that expatriate firms perform better than indigenous firms in all the five parameters with satisfaction (RII = 0.988), quality (RII = 0.984), cost (RII = 0.962), scope (RII = 0.960) and time (RII = 0.932) ranked first, second, third, fourth and fifth respectively for expatriate firms while for indigenous firms, scope (RII = 0.654), time (RII = 0.648), quality (RII = 0.556), cost (RII = 0.548) and satisfaction (RII = 0.510) ranked first, second, third, fourth and fifth respectively. This result is an indicator of the Nigerian construction industry clients preferring the usage of expatriates than their indigenous counterparts owing to the rise in client satisfaction, cost performance, quality performance, time performance and scope performance in construction project delivery than what is obtainable from the indigenous contractors. This was reinforced by the studies of Tsado et al. (2019) and Idoro (2010) who opined that clients prefers the usage of this expatriate against patronising indigenous contractor despite their considerable high fees. This preference for expatriate is as a result of the perceived quality performances expected of the expatriate which is largely lacking the performances prevalent to the local contractors. Consequently, the poor performances of these indigenous contractors was emphasized by the study of Akinsiku (2020), who

suggested delays in meeting project completion time, reduced quality of work and insufficient capital leading to bankruptcy as the poor performance related factors prevalent to this indigenous contractors.

Table 5 Performance index summary of both expatriate and indigenous firms

Variables	Expatriate (RII)	Indigenous (RII)
Time Performance (TP)	0.932	0.648
Cost Performance (CP)	0.962	0.548
Scope Performance (SP)	0.960	0.654
Quality Performance (QP)	0.984	0.556
Satisfaction Performance (SAP)	0.988	0.510

4.4 Analysis of Key Performance Indicators (KPI) for Indigenous Construction Firms to Increase Competitive Advantage

The third objective was to analyze the KPIs for ICFs to increase competitive advantage. Respondents were further asked to show their level of agreement as it applies to them. A multiple regression model was adopted to show the effect of these identified KPIs on the performance of ICFs and also to predict the performance level using the KPIs, resulting in the given equation:

$$PIC = f(HRP, FMP, CBS, OCP, SWM, QMP)$$

Transforming into a multiple regression model:

$$PIC = \beta_0 + \beta_1 HRP + \beta_2 FMP + \beta_3 CBS + \beta_4 OCP + \beta_5 SWM + \beta_6 QMP + \varepsilon \quad \text{……(Eqn. 4)}$$

where:
PIC = Performance of Indigenous Firm
B_0 = Constant
$\beta_1 – \beta_6$ = Regression Coefficients
HRP = Human Resource Management Practices
FMP = Financial Management Practices
CBS = Client-based Strategy
OCP = Organizational Culture Practices
SWM = Smart Work Methods
QMP = Quality Management Practices
ε = Stochastic Disturbance Error Term

The model summary presented in Table 6 shows that there are multiple correlations (R = 0.764) of the six significant variables with the criterion. The *R* Square of this model is 0.795 which means that this model explains 79.5% of the total variation. This implies that the stochastic disturbance error term (ε) covers the rest.

Table 6 Model summary

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	0.764	0.795	0.787	0.32153

The multiple regression variable coefficients presented in Table 7 show that all six variables are statistically significant and positively related to the criterion in the regression. Hence, all the variables have a significant influence on the performance of the indigenous firms.

Table 7 Multiple regression variable coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	1.834	0.194		11.231	0.000
Human Resource Management	0.653	0.032	0.739	1.112	0.000
Financial Management Practices	0.623	0.043	0.726	6.244	0.000
Client-based Strategy	0.677	0.034	0.743	3.305	0.001
Organizational Culture Practices	0.589	0.039	0.614	4.408	0.000
Smart Work Methods	0.727	0.038	0.763	3.305	0.001
Quality Management Practices	0.789	0.033	0.834	4.408	0.000

4.4.1 Quality Management Practices (QMP)

Quality management practices have a regression coefficient of 0.789, indicating that MPs have a stronger and unique contribution to improving the performance of ICFs. The fundamental variables underpinning this indicator include *monitoring and documentation of quality procedures, the design of a quality strategy, systematic coordination, stage-by-stage implementation of a quality strategy, the*

integral use of statistical analysis in construction processes, quality inspection routines which are similarly the indicators from the studies of Abdullahi et al. (2019) and Femi (2015). Producing competitive advantage is one of the advantages inherent in proper quality management, reputation improvement, schedule improvement and increase in budget performance as well as increment in their chances of winning contractors' domestically. According to Tunji-Olayeni et al. (2017), reaching high quality performance in construction projects can secure ICFs construction contracts, as well as increase their market share and competitiveness. This emphasizes the reason behind ICFs consideration of high quality construction to be the most pertinent indicator in gaining a competitive advantage over their foreign counterparts.

4.4.2 Smart Work Methods (SWM)

Smart work methods have a regression coefficient of 0.727, which thus, indicates that an increase in smart works will increase the performance of indigenous firms. The key variables underlying this indicator include the *new construction method adoption, computerized records usage for new project scheduling and estimating, processes improvement documentation, computerized project management and control, proper supervision, and storage of materials & waste control, and early warning systems application* as suggested by the study of Ogbu (2017), suggested that the culture of optimizing construction resources and processes has the potential to significantly improve project margins and reduce the possibility of project loss. As a result, smart work methods with a clear cost-cutting vision will improve indigenous construction firms' chances of survival.

4.4.3 Client-based Strategy (CBS)

Client-based strategy has a regression coefficient of 0.677, and shows that an increase in customer-oriented strategies will increase the performance of indigenous firms. *Upholding clients' loyalty, value creation through consistent client satisfaction, clients better services provision, and rendering services to clients better,* are the key variables underpinning this indicator. In consonance, Ogbu (2017) similarly asserted that client-bid strategies that are primarily focused on interacting directly with clients boost firm performances. Developing social bonds with potential and existing clients, as well as expanding communication and feedback channels, is an enhancer of clients' trust in the firm and can induce repeated patronage.

4.4.4 Human Resource Management Practices (HRP)

The next indicator, i.e. human resource management practices, has a coefficient of 0.653 and is statistically significant. Hence, an increase in human resource management practices will inadvertently elevate the performance of indigenous firms. The key underlying factors are *poor performers' removal, training and retraining of workforce, conflict avoidance among staff and with clients, rewarding high-performers through bonuses/incentive schemes, looking out for the welfare of staff/remuneration to labourers in kind, and occupational safety and security improvements.* As a result of this, Ogbu (2017) suggested that an often overlooked risk in this regard is that critical manpower may be lost in the process, jeopardizing the firm's chances of winning future jobs or profitably executing current ones. ICFs are sometimes hired based on the expertise of individuals in the firms. Thus, the loss of such critical manpower may be fatal to the firm's survival.

4.4.5 Financial Management Practices (FMP)

Another criterion, i.e. financial management practices, has a coefficient of 0.623, which depicts that an increase in financial management practices will increase the performance of indigenous firms. *Project execution through the usage of requisite financial interactions, financial claims during projects, invoice audits and budget reserves on appropriate accounting processes, turnover ratios review, and limit setting on the size of project in order to prevent firm's failure in the event of the failure of one part* are the key variables underpinning this indicator.

4.4.6 Organizational Culture Practices (OCP)

The final determinant, i.e. organizational culture practices, has a coefficient of 0.589. Furthermore, an increase in organizational culture practices will increase the performance of indigenous firms. The key underlying factors are *company performance benchmarking against industry practicable standards, accomplishment of goals and tasks, effective organizational structure and workers input in the face of firm's difficulties, mentorship arrangement with multinational companies, and organizational performance appraisal periodically.* Consequently, organizational culture is a robust tool that is related to "attitude and behaviour" of team members, project managers, and the contractors in the process of project execution will importantly influence effective construction risk management (Adeleke et al., 2016; Den Hartog & Verburg, 2004).

5.0 CONCLUSION AND RECOMMENDATIONS

This paper examined the factors influencing clients' choice of construction firms and concludes that past performance and experience, equipment capabilities, quality specifications, and financial stability of practitioners are the most significant factors influencing the choice of indigenous or expatriate contractors. Additionally, this paper also observed that expatriate construction firms perform better based on the following indicators - time, cost, scope, quality, and satisfaction. The analysis of KPI for ICFs to increase competitive advantage used

six variables (human resource management, financial management practices, client-based strategy, organizational culture practices, smart work methods, and quality management practices) to model the performance of ICFs given as PIC = 1.834 + 0.653HRP + 0.623FMP + 0.677CBS + 0.589OCP + 0.727SWM + 0.789QMP. In conclusion, contractors in their practice should look out for the most prevailing factors influencing their selection in Nigeria. This would improve their preparedness and considerations for mega projects, and the clients are assured of quality project delivery. Subsequently, the mathematical model developed in this paper would greatly increase the competitive advantage of ICFs. The limitation of this paper was in the inability of the authors to conduct an in-depth case study investigation on an expatriate construction firm and make comparisons with an ICF. This could reveal gray areas as well as provide further improvements for ICFs. Hence, further studies could be carried out to fill this knowledge gap.

The findings amongst other discussions in this paper contribute to the existing body of literature by assisting both categories of the contractor to improve construction project delivery using the KPIs analysis. Another significant contribution of the paper to knowledge is for ICFs to leverage factors influencing clients' choice of contractor. Hence, based on the findings and conclusion from this paper, it is recommended that ICFs need to increase their equipment capacity, acquisition and ability to undertake mega projects as these would boost their level of selection amongst clients and project sponsors, and also increase their competitive advantage. The ICFs also need to develop an effective funding strategy to execute projects as funding is a crucial part of any project, and needs to be adequately and timely sourced to avoid project delays. Similarly, proper measures should be put in place for the repayment of loans acquired from financial institutions to complete the project as there is need for ICFs to keep clean and reputable financial records to avoid embarrassment. Additionally, there is also need to embrace international partnerships and collaboration which would increase the exposure and experiences of ICFs. This paper similarly recommends that ICFs embark more on government-funded projects which are mostly huge in terms of scope and finance.

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References

Abdullahi, U., Bustani, S. A., Hassan, A., & Rotimi, F. E. (2019). Assessing quality management practice in Nigerian construction industry. *Journal of Construction Business and Management*, *3*(2), 17-25.

Abur, H. A., K'Obonyo, P., & Omamo, A. (2015). Expatriate employees' perception of challenges in their work environment in the NGO sector in Nairobi Kenya. *International Journal for Innovation Education and Research, 3*(12), 153-163.

Adeleke, A. Q., Bahaudin, A. Y., & Kamaruddeen, A. M. (2016). Rules and regulations as potential moderator on the relationship between organizational internal and external factors with effective construction risk management in Nigerian construction companies: A proposed framework. *AIP Conference Proceedings, 1761*(1), Article 020008.

Adelese, S. A., & Abulude, F. O. (2020). Perception of some professionals in Ondo State, Nigeria on the impact of outsourcing in construction projects. *Continental Journal of Applied Sciences, 15*(2), 25-44.

Adewuyi, H. A. (2014). *Performance evaluation of indigenous and expatriate construction firms in Nigeria* (Unpublished diploma research project). Federal Polytechnic Ede, Osun State, Nigeria.

Adindu, C., Diugwu, I., Yusuf, S., & Musa, M. (2019, July 24-26). Issues of corruption in construction projects and infrastructure development in Nigeria: An empirical approach. In C. Tembo-Silungwe, I. Musonda, C. Okoro, F. Muleya, L. Haabazoka, & E. Mwanaumo (Eds.), *DII-2019. Proceedings of the 6th International Conference on Development and Investment in Infrastructure - Strategies for Africa* (pp. 145-154). Johannesburg: The Development and Investment in Infrastructure (DII) Conference Series.

Ajayi, A. A., Babalola, O., Oyeyipo, O., & Anjorin-Ohu, A. (2021). Examining the quality performance of indigenous and expatriate contractors in Nigeria: Clients' perspective. *Journal of Accounting and Management, 11*(2), 91-102.

Aje, I. O., Oladinrin, T. O., & Nwaole, A. N. C. (2016). Factors influencing success rate of contractors in competitive bidding for construction works in South-East, Nigeria. *Journal of Construction in Developing Countries, 21*(1), 19-34.

Akinbo, T. F., Fagbenle, I. O., Amusan, L. M., Afolabi, A. O., & Tunji-Olayeni, P. F. (2018). Exploratory study on sustainability practices of localized and expatriate construction businesses. *International Journal of Civil Engineering and Technology*, *9*(13), 1446-1456.

Akinsiku, O. E., & Oyediran, O. S. (2020). Constraints of Nigeria indigenous construction contractors (NICCS) in a competitive business environment. *Journal of Construction Innovation and Cost Management (JCICM), 1*(1), 92-102.

Akinsiku, O. E. (2020). Challenges confronting Nigeria indigenous construction enterprise. *Journal of Surveying, Construction and Property*, *11*(1), 63-73.

Akintunde, I. (2003). *Nigerian construction industry: Past, present, problems and prospects*. Ibadan: Ibadan University Press.

Alintah-Abel, U. V., Iheama, N. B., & Ugochukwu, S. C. (2020). Effect of company strategies on organisational performance in Nigerian construction industry. *Journal of Engineering Research and Reports, 14*(4), 25-33.

Alkilani, S. G. R. Z. (2018). *Performance measurement and improvement model for small and medium contractors in developing countries* (Doctoral dissertation). The University of New South Wales, Sydney, Australia. Retrieved from https://unsworks.unsw.edu.au/bitstreams/f77b891e-064a-42d9-b286-05ed6516b52c/download

Asikogu, C., M'Ithiria, E. N., & Omurwa, J. K. (2021). Management accounting techniques and firm performance of major construction companies in Nigeria. *Journal of Finance and Accounting*, *5*(3), 73-93.

Ayarkwa, J. (2010). Perspectives on environmental management in the construction industry in Ghana. *International Journal of Sustainable Development, 3*(9), 60-68.

Chea, Z., Balasubramaniam, G., & Edirisinghe, R. (2019). Productivity improvement in the construction industry: A case study of mechanization in Singapore. In I. Mutis & T. Hartmann (Eds.), *Advances in Informatics and Computing in Civil and Construction Engineering* (pp. 497-503). Cham: Springer.

Cheaitou, A., Larbi, R., & Al Housani, B. (2019). Decision making framework for tender evaluation and contractor selection in public organizations with risk considerations. *Socio-Economic Planning Sciences, 68*, Article 100620.

Chendo, I. G., & Obi, N. I. (2015). Building collapse in Nigeria: The causes, effects, consequences and remedies. *International Journal of Civil Engineering, Construction and Estate Management, 3*(4), 41-49.

Chilongo, S., & Mbetwa, S., (2017). An investigation into the factors affecting project performance among contractors in Lusaka district of Zambia. *The International Journal of Multi-Disciplinary Research*. Retrieved from http://www.multiresearch.net/cms/publications/CFP5392017.pdf

Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). New York, NY: John Wiley & Sons.

Den Hartog, D. N., & Verburg, R. M. (2004). High performance work systems, organisational culture and firm effectiveness. *Human Resource Management Journal, 14*(1), 55-78.

Development Bureau. (2018). *Construction 2.0: Time to change*. Hong Kong: Project Cost Management Office. Retrieved on 11 February 2022 from https://www.psgo.gov.hk/assets/pdf/Construction-2-0-en.pdf

DeVault, G. (2020, April 12). Advantages and disadvantages of quantitative research. Retrieved from https://www.liveabout.com/quantitative-research-advantages-and-disadvantages-2296728

Doloi, H., Iyer, K. C., & Sawhney, A. (2011). Structural equation model for assessing impacts of contractor's performance on project success. *International Journal of Project Management, 29*(6), 687-695.

Fagbenle, O. I., Makinde, F. A., & Oluwunmi, A. O. (2011). Factors influencing construction clients'/contractors' choice of subcontractors in Nigeria. *Journal of Sustainable Development, 4*(2), 254-259.

Falope, F. J., Offor, N. T., & Ofurum, D. I. (2019). Environmental cost disclosure and corporate performance of quoted construction firms in Nigeria. *International Journal of Advanced Academic Research*, *5*(8), 17-31.

Femi, O. T. (2015). Barriers and benefits of total quality management in the Nigerian construction industry: A review. *International Journal of Engineering Works*, *2*(1), 7-13.

Flanagan, R., Jewell, C., Ericsson, S., & Henricsson, J. P. E. (2005). *Measuring construction competitiveness in selected countries* [Final report]. Unpublished manuscript, School of Construction Management and Engineering, University of Reading, Reading, United Kingdom.

Holt, G. D., Olomolaiye, P. O., & Harris, F. C. (1994). Factors influencing U.K. construction clients' choice of contractor. *Building and Environment*, *29*(2), 241-248.

Idoro, G. I. (2010). Influence of quality performance on clients' patronage of indigenous and expatriate construction contractors in Nigeria. *Journal of Civil Engineering and Management, 16*(1), 65-73.

Idoro, G. I. (2012). Influence of the monitoring and control strategies of indigenous and expatriate Nigerian contractors on project outcome. *Journal of Construction in Developing Countries*, *17*(1), 49-67.

Ilori, O. J., & Omopariola, E. D. (2018). Analysis of time performance of indigenous contractors in Kwara State, Nigeria. *The International Journal of Engineering and Science (IJES), 7*(10), 79-86.

Inuwa, I. I., Githae, W., & Diang'a, S. (2014). Indigenous contractors involvement and performance in construction procurement systems in Nigeria. *Global Journal of Researches in Engineering: J General Engineering*, *14*(1), 4-16.

Kasih, R. P. A., & Adi, T. J. W. (2019). Construction project productivity assessment model and its implementation in Indonesia construction industry. *MATEC Web of Conferences, 258*, Article 02026.

Khoso, A. R., Memon, N. A., Sohu, S., Siddiqui, F., & Khan, J. S. (2020). Decision criteria for assessment of contractors in prequalification phase of public projects. *International Journal of Advanced Science and Technology*, *29*(11s), 2624-2635.

Kog, F., & Yaman, H. (2014). A meta classification and analysis of contractor selection and prequalification. *Procedia Engineering, 85*, 302-310.

Kothari, C. R. (2004). *Research methodology – Methods and techniques* (2nd rev. ed.). New Delhi: New Age International (P) Limited.

Laryea, S. (2010, July 27-28). Challenges and opportunities facing contractors in Ghana. In S. Laryea, R. Leiringer & W. Hughes (Eds.), *Proceedings of the West Africa Built Environment Research (WABER) Conference* (pp. 215-226). Accra: West Africa Built Environment Research (WABER) Conference.

Lawani, O. (2019). How Nigeria's firms can lead the construction industry. Retrieved on 10 February 2022 from https://archvisionworkgroup.com/leading-the-construction-industry-of-nigeria/#

Liu, B., Huo, T., Meng, J., Gong, J., Shen, Q., & Sun, T. (2015). Identification of key contractor characteristic factors that affect project success under different project delivery systems: Empirical analysis based on a group of data from China. *Journal of Management in Engineering*, *32*(1), 05015003(1-11).

Lu, W. (2006). *A system for assessing and communicating contractors' competitiveness* (Doctoral dissertation). The Hong Kong Polytechnic University, Hong Kong, China. Retrieved from https://theses.lib.polyu.edu.hk/handle/200/2123

Makarfi, A. S. (2017). *The contributions of foreign construction companies towards capacity building of indigenous construction companies in the Nigerian construction industry* (Unpublished master's thesis). University of the Witwatersrand, Johannesburg, South Africa.

Mobayo, J. O., Aribisala, A. F., Yusuf, S. O., & Belgore, U. (2021). Artificial intelligence: Awareness and adoption for effective facilities management in the energy sector. *Journal of Digital Food, Energy & Water Systems, 2*(2), 1-18.

Muhammed, A. O., Muhammed, A. A., Yakubu, H. A., Suleiman, A., & Adam, A. (2022). Assessment of factors affecting contractors tendering success for construction projects in North-Central Nigeria. *International Journal of Real Estate Studies,*16(1), 87-99.

Nieto-Morote, A., & Ruz-Vila, F. (2012). A fuzzy multi-criteria decision-making model for construction contractor prequalification. *Automation in Construction, 25*, 8-19.

Ofori-Kuragu, J. K., Baiden, B. K., & Badu, E. (2016). Key performance indicators for project success in Ghanaian contractors. *International Journal of Construction Engineering and Management*, *5*(1), 1-10.

Ogbu, C. P. (2017). Marketing strategies and performance of indigenous construction firms in Nigeria. *Journal of Construction in Developing Countries*, *22*(1), 1-19.

Ogbu, C. P. (2018). Survival practices of indigenous construction firms in Nigeria. *International Journal of Construction Management*, *18*(1), 78-91.

Olubunmi, I. F., & Olukanyin, A. K. (2015). An evaluation of success factors of foreign construction companies in Lagos State. *International Journal of Science, Environment and Technology, 4*(2), 533-542.

Osei, V. (2013). The construction industry and its linkages to the Ghanaian economy – Policies to improve the sector's performance. *International Journal of Development and Economic Sustainability, 1*(1), 56-72.

Osuizugbo, I. C., & Alabi, A. S. (2021). Built environment professionals' perceptions of the application of artificial intelligence in construction industry. *Covenant Journal of Research in the Built Environment (CJRBE), 9*(2), 48-66.

Osuizugbo, I. C., & Ojelabi, R. A. (2020). Building production management practice in the construction industry in Nigeria. *Engineering Management in Production and Services, 12*(2), 56-73.

Rachid, Z., Toufik, B., & Mohammed, B. (2019). Causes of schedule delays in construction projects in Algeria. *International Journal of Construction Management*, *19*(5), 371-381.

Roy, S., (2011). Competitiveness in service sector: A case of hotel industry in India. *Global Business Review, 12*(1), 51-69.

Semaan, N., & Salem, M. (2017). A deterministic contractor selection decision support system for competitive bidding. *Engineering, Construction and Architectural Management, 24*(1), 61-77.

Somiah, M. K., Aigbavboa, C. O., & Thwala, W. D. (2022). Critical success strategies for competitive advantage of indigenous construction firms in developing countries: A Ghana study. *Global Business Review, 23*(5), 1188-1199.

Somiah, M. K., Aigbavboa, C., & Thwala, W. D. (2021). Rethinking the attributes for competitive advantage of indigenous construction firms in developing countries: A Ghana study. *International Journal of Construction Education and Research*, *17*(3), 242-257.

Takim, R., & Akintoye, A. (2002, September 2-4). Performance indicators for successful construction project performance. In D. Greenwood (Ed.), *Proceedings of the 18th Annual ARCOM Conference* (vol. 2, pp. 545-555). Northumbria: Association of Researchers in Construction Management.

Tan, Y. (2008). *Contractor's competitiveness and competitive strategy in Hong Kong* (Doctoral dissertation). The Hong Kong Polytechnic University, Hong Kong, China. Retrieved from https://theses.lib.polyu.edu.hk/handle/200/3774

Tawiah, O. (1999). *Factors affecting the performance of Ghanaian owned construction firms* (Unpublished master's thesis). Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.

Tripathi, K. K., & Jha, K. N. (2018). An empirical study on performance measurement factors for construction organizations. *KSCE Journal of Civil Engineering*, *22*(4), 1052-1066.

Tsado, J. A., Alumbugu, P. O., & Archibong, I. M. (2019). Contract awards disparity among multinational and indigenous construction companies. *Journal of Engineering, Project, and Production Management, 9*(2), 126-131.

Tunji-Olayeni, P., Mosaku, T. O., Fagbenle, O. I., Omuh, I. O., & Opeyemi J. (2016). Evaluating construction project performance: A case of construction SMEs in Lagos, Nigeria. *Journal of Innovation and Business Best Practices, 2016*, Article 482398. Retrieved from https://ibimapublishing.com/articles/JIBBP/2016/482398/

Tunji-Olayeni, P. F., Mosaku, T. O., Fagbenle, O. I., & Omuh, I. O. (2017). Competitive strategies of indigenous construction firms. *International Journal of Civil Engineering and Technology (IJCIET)*, *8*(10), 350-362.

Ugochukwu, S. C., & Onyekwena, T. (2014). Participation of indigenous contractors in Nigerian public sector construction projects and their challenges in managing working capital. *International Journal of Civil Engineering, Construction and Estate Management, 1*(1), 1-21.

Uwaegbulam, C. (2015, April 20). Patronage of foreign contractors has led to rising unemployment, say engineers. *The Guardian*. Retrieved from https://guardian.ng/property/patronage-of-foreign-contractors-has-led-to-rising-unemployment-say-engineers/

Watt, D. J., Kayis, B., & Willey, K. (2010). The relative importance of tender evaluation and contractor selection criteria. *International Journal of Project Management, 28*(1), 51-60.

The Economist. (2010, April 17). The world turned upside down: A special report on innovation in emerging markets. Retrieved from https://www.economist.com/sites/default/files/special-reports-pdfs/15894419_0.pdf

Yusuf, S. O., & Diugwu, I. A. (2021). Geotechnical investigations and implications on the execution of building projects in Nigeria. *Construction and Human Settlements Management Journal (CHSMJ), 1*(2), 67-82.