Competitiveness of South African Construction Firms in the Business Environment of Other African Countries

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Abstract
This paper presents the findings of evaluating the factors influencing the competitive abilities of South African construction organizations in other African countries. This was conducted to unravel a roadmap to aid the penetration of contractors domiciled in South Africa into other African countries' construction markets. Using a post-positivism philosophical approach, the study employed a quantitative method for data collection from construction professionals, forming the target respondents. Collected data were analysed using mean item score, Kruskal-Wallis h-test, and Student Newman Kaul post hoc test. The analysis showed that the most significant factors influencing the participation of South African construction organizations in other African countries are clients' procurement strategy, government policies, and contractor management strategy. Based on the study's findings, recommendations were proffered to boost the competitive capacity of South African construction organizations in the construction market of other African countries.

Keywords
African countries, Construction, Contractors, Competitiveness, South Africa.

1. Introduction
The construction industry is cardinal to any country's social and economic development as it provides the requisite infrastructure for nation-building (Chigara and Moyo, 2014; Ikuabe et al., 2021). Also, the industry delivers the infrastructural needs of other sectors of any economy, which includes roads, schools, health facilities, ports, railways, urban utilities (drainage, water supply, sewage), airports, telecommunication, agricultural systems, etc. (Rangelova, 2015; Ikuabe et al., 2022a). Furthermore, the construction industry serves as a significant employer of labour both in the formal and informal sectors (Stats SA, 2010), thereby contributing to the socio-economic well-being of the country's people. Araya (2021) indicates that the construction industry is attributed with a contribution of an estimated 13% of the global Gross Domestic Product (GDP). This underscores the importance of the industry not just to nations of the world but to the world in general. South Africa's construction industry contributed 83 billion rands in 2020 to the nation's GDP (Statistica, 2021), despite the challenges posed by the coronavirus (COVID-19) pandemic.

The construction industry in South Africa is highly competitive and made up of a plethora of stakeholders, both public and private entities whose obligations and interests vary. These include contractors, sub-contractors, consultants, manufacturers, suppliers, marketers, government institutions, and regulatory agencies. Contractors are important actors in the construction sector scheme. According to the Construction Industry Development Board (2020), about 56 653 contractors are listed on the Register of Contractors in the country. This emphasizes the stiff competition exhibited among construction contracting organizations in the country. Unfortunately, quite a few contracting organizations belong to the 'heavy bottom' strata of the aggregate formation of all organizations (Emuze and Smallwood, 2014). Hence, this limits their chances of engaging in high-priority projects in the construction market. Due to the country's highly competitive industry, South African construction contracting firms can strive to penetrate the market in other climes, especially in other African nations.

According to Oyewobi et al. (2016), due to the stern competitive nature of the construction industry, there is a need for contractors in South Africa to explore cross-border markets, which presents less competition. The penetration of

South African entities into other African countries is a ‘high risk-high reward’ move attributed to high uncertainty and risk, albeit the provision of profitable opportunities (Luiz and Stephan, 2012). Moreover, the competitiveness of a construction organization is viewed as a tangible ‘predictor’ of its aggregate business tenacity and its ability to sustain itself in a competitive business terrain (Ikuabe et al., 2022b; Oyewobi et al., 2016). Hence, it becomes imperative to explore the factors influencing the competitiveness of South African construction organizations in other African countries. The study’s findings would present a roadmap for intending contractors seeking to explore the construction markets in other African countries. Furthermore, it would aid in boosting capital flow among African countries; also the exploration of markets within the continent would boost economic activities, upscale employment opportunities, encourage technology transfer and aid the delivery of infrastructure.

2. Review of Related Studies

Construction is a highly competitive business that necessitates intentional strategies by contracting organizations to sustain attained or anticipated economic projections (Ikuabe et al., 2020). In South Africa, contracting organizations are in a peculiar market resulting from stiff competition. However, exploring the construction market in other African countries has received significant encouragement. Several factors are influential to the competitiveness of South African construction organizations in other African countries. These factors must be reflected as they can affect the operations of construction firms in other African countries. According to Olivier and Root (2014), the political instability of the host nation plays a vital role in the consideration for penetration into the construction market. A hostile political environment does not encourage the participation of intending firms in conducting business. Also, government relations are essential factors that influence the competitive edge of foreign entities in the host country (Deng et al., 2014). For most African countries, the government is the principal financier of construction projects; hence, developing a good relationship with the host government boosts the likelihood of economic buoyancy by the contracting organization. Furthermore, the policies promulgated by host governments affect the possibility of penetration and survival by organizations from other countries (Nyoni and Bonga, 2016). Some African countries have formulated policies stipulating the transfer of a minimum shareholding rate to the host nation's locals. This can be inimical to potential contracting organizations seeking to expand their business scope to the shores of that country.

Moreover, some policies can influence the regulatory framework of contract administration. This plays a vital role in determining the choice of participating in the construction market of the host country. The availability of skilled labour in the host nation is an essential feature in determining construction organizations to seek opportunities (Kernen and Lam, 2014). Skilled labour is an important element in the successful delivery of construction projects. Hence, its availability in a country boosts the willingness and capacity of contracting organizations to deliver construction projects in the host countries. Also, construction procurement is integral to successfully administrating and delivering construction projects (Yevu et al., 2022). The procurement strategies deployed for construction projects present guidelines that determine the type of contractor(s) to be engaged, the mode of engagement, the system of contract administration, etc. Consequently, procurement strategies deployed for the delivery of construction determine foreign entities' eligibility to offer services for construction project delivery. Moreover, due to the growing complexity and stringent contractual obligations attributed to construction projects, the management strategies deployed by contracting organizations determine their competitiveness in the business environment (Kermanshachi et al., 2021). Hence, this influences the exploration tendencies of construction contractors in the business landscape of foreign nations. Also, the competencies exhibited by contracting organizations determine the tendency of their acceptance in a foreign country. Increasing project complexities characterized by sophisticated designs, rapid completion stipulations, and sustainability conformance, amongst others, are requisite demands to be attained by contracting organizations (Chigara and Moyo, 2014).

3. Research Methodology

A post-positivism philosophical approach premised on a quantitative method was adopted for the study. Using a questionnaire, data were elicited from construction professionals domiciled in the Gauteng province of South Africa. The choice of a questionnaire for the study stems from its ability to acquire quantifiable data and also the ability to reach out to a large pool of respondents within a limited time frame (Tan, 2011). The target respondents of the study include quantity surveyors, engineers, construction managers, architects, and construction project managers. The questionnaire comprised two sections. The former asked questions about the demographic information of the respondents. At the same time, the latter enquired about the significance of the factors affecting the competitiveness of South African construction contractors in other African countries. The study employed a purposive sampling technique. This was employed to facilitate the coverage of respondents with experience with construction project execution in other African countries. A total of sixty-three respondents were contacted to participate in the survey;

however, only fifty-two respondents participated, and their responses were well-captured and deemed appropriate for analysis. Thus indicating a response rate of 83%. Data collection was made with the purview of ethics considerations. The acquired data were analysed using the mean item score (MIS), Kruskal Wallis h-test (K-W), and Student Newman Kauls (SNK) post hoc test. MIS was deployed to rank the identified factors affecting the competitiveness of South African construction contractors in other African countries. Also, the Kruskal Wallis h-test was used to ascertain if there is a statistical disparity in the viewpoints of the groups of professionals making up the respondents. Furthermore, the SNK post hoc test revealed the disparity in the mean responses based on the respondents' professional designation. Moreover, the research instrument of the study was subjected to validity and reliability evaluation using Cronbach's alpha test. The test result gave an alpha value of 0.932, which upholds the reliability and validity of the research instrument since the alpha value is beyond the threshold of 0.7 and closer to 1.00 (Tavakol and Dennick, 2011).

4. Findings

4. 1 Demographic Information of Respondents

The first section of the research instrument elicited information on the respondents' demographic information for the study. The findings from the analysis show that based on the professional designation of the respondents, quantity surveyors made up 38% of the total respondents, 21% are engineers, 18% are construction managers, 16% are construction project managers, and 7% are architects. For the highest educational qualification obtained by the respondents, it is revealed that 42% possess a bachelor's degree, 32% have an honor's degree, and 21% have a master's degree. Based on the years of professional experience, 42% have 1-5 years, 15% have 6-10 years, and 9% have 11-15 years. Based on the number of projects handled in other African countries, 47% of the respondents have handled 3-4 projects, 28% have been involved in 5-6 projects, and 18% have been involved in more than eight projects.

4. 2 Competitiveness of South African Contractors in African Countries

The literature review identified ten factors influencing contractors' competitiveness in other African countries. With a questionnaire, these factors were presented to the target respondents of the study for rating based on the significance level using a Likert scale. The collected data were subsequently analysed using MIS to rank the factors and the Kruskal Wallis h-test to ascertain the difference in the sampled professionals' opinions. The results of the ranked factors influencing contractors' competitiveness are presented in Table 1. The findings indicate that all the factors have a mean value above 3.50, underscoring the identified factors' significance. The most ranked factors are client procurement strategy, having a mean value of 4.69; government policies, with a mean value of 4.52; and contractor's management strategy, with a mean value of 4.37. The least ranked factors are competition from rival organizations and government relations, with mean values of 3.63 and 3.77, respectively. Also, with the aid of the K-W test, the disparity in the respondents' viewpoints was ascertained based on their professional designation. The results indicate that the respondents differ in the opinions presented for two identified factors influencing contractors' competitiveness in other countries. These two factors are attributed to a p-value less than 0.05, which portrays a divergence in the opinions given by the respondents. However, there was a convergence in the respondents' viewpoints for eight identified factors; they have a p-value above 0.05.

2.

Table 1. Influencing factors of contractors' competitiveness

Factors	$\bar{X}$	R	*K-W*	
			X^2	Sig.
Clients' procurement strategy	4.69	1	1.229	0.124
Government policies	4.52	2	3.892	0.088
Contractor's management strategy	4.37	3	1.835	0.629
Competency of contractor	4.18	4	2.938	0.522
Availability of skilled labour	4.18	4	4.441	0.041**
Availability of resources	4.01	6	2.327	0.003**
Cultural disparity	3.98	7	4.986	0.417
Political stability	3.83	8	3.217	0.228
Government relations	3.77	9	5.823	0.391
Competition from rival organizations	3.63	10	4.025	0.072

N.B: $\bar{X}$ = Mean Item Score; *K-W* = Kruskal Wallis *h*-test

Table 2 showcases the findings of the SNK post hoc test conducted in the study. It presents the multiple evaluations of the viewpoints given by the study respondents based on their professional designation. The results show a disparity in the opinions on the factors influencing the competitiveness of South African contractors in other African countries. The views are outlined in two broad categorizations. The first category comprises engineers and architects with values of 2.6931 and 2.4885, respectively. The second category comprises quantity surveyors, construction project managers, and construction managers, having values of 3.5910, 3.5038, and 3.3847, respectively. The disparity in the opinions given by the two groups of respondents might be due to the similar professional obligations of the professionals.

Table 2. SNK Post Hoc Test

Groups	N	Subset for alpha=0.05	
		1	2
Engineers	10	2.6931	
Architects	10	2.4885	
Quantity Surveyors	10		3.5910
Construction Project Managers	10		3.5038
Construction Managers	10		3.3847
Sig.		1.000	.222

5. Discussion

The study's outcome outlines the significant factors influencing the competitiveness of South African contractors in other countries. The most rated factor is the client procurement strategy deployed for construction project delivery. Construction procurement is an integral part of successfully administrating and delivering construction projects. The procurement strategies deployed for construction projects present guidelines that determine the type of contractor(s) to be engaged, the mode of engagement, the system of contract administration, etc. (Yevu et al., 2022). Consequently, procurement strategies deployed for the delivery of construction determine foreign entities' eligibility to offer services for construction project delivery. Also, it is revealed that policies formulated by the host government influence the competitiveness of contracting organizations in foreign nations. This is corroborated by Nyoni and Bonga (2016), affirming that the policies promulgated by host governments affect the possibility of penetration and survival by organizations from other countries. The enactment of policies such as transferring a stipulated shareholding percentage to the host nation's citizens can serve as a deterrent to expanding construction business to these nations. Furthermore, it is shown that the management strategies deployed by contractors significantly influence the decision to penetrate the construction market in other countries. Kermanshachi et al. (2021) noted that the management strategies deployed by contracting organizations determine their competitiveness in the business environment.

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6. Conclusion and Recommendations

The study presented the findings of the evaluated factors influencing the competitiveness of South African construction organizations in other African countries. Through a concise review of the literature, the factors were identified and presented to the target respondents of the study for rating using a Likert scale enquiring on their significance. The survey analysis of the retrieved data indicates that the most significant factors are clients' procurement strategy, government policies, and contractor management strategy. Furthermore, it is shown that there is no statistical difference in the opinions of the categorized respondents based on their professional affiliations on eight of the identified factors. However, there is a divergence of viewpoints from the respondents on two factors: the availability of skilled labour and the availability of resources. Based on the study's outcome, it is recommended that the government of African countries formulate policies that would aid the penetration of construction organizations of other African origins into the construction markets of their countries. The involvement of foreign organizations in the construction business environment would yield attendant benefits such as technology transfer, improved economic activities, and upscaling employment opportunities. Also, construction organizations in South Africa should imbibe strategies that accommodate exploring the business environment in other African countries. The inculcation of such internal policies would help create the needed propagation for seeking opportunities in other African countries. It is important to state that the study was limited to the Gauteng province of South Africa. Further studies can be conducted in other provinces for a more robust outlook.

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