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EFFECT OF INTERNAL ENVIRONMENT AND PROJECT-RELATED DETERMINANTS ON BUSINESS STRATEGY OF SMALL AND MEDIUM CONSTRUCTION ENTERPRISES IN NIGERIA

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The construction business environment is characterized by high levels of competition and dynamism. This is especially challenging to small and medium construction enterprises (SMCEs) in terms of the formation of strategies that enhance performance. These strategies are products of the environment under which the SMCEs operate. This study, therefore, investigates the effect of the selected internal environment and project-related determinants on the business strategies of SMCEs with a view to promoting the adoption of appropriate strategies for improved competitiveness. Lagos, which has the highest concentration of construction firms was selected as the study area. A sample of 80 construction firms in the SME category, selected randomly from the population of construction firms operating in Lagos was used. Data collection was by structured questionnaires. 70 questionnaires were returned but only 50 was found usable. Thirty-four determinants of business strategy from previous studies were identified and categorized into seven groups namely: Owner, Firm, Technical, Financial, Project, Client and Procurement-related. Data analysis was done using percentage, mean score and t-test. The findings revealed that project and procurement determinants constitute the top three determinants of the SMCEs' business strategies. Further results show that the effects of the project and procurement-related determinants are the same. Owner-related determinant has the least effect on SMCEs business strategy. The study concluded that the preferred business strategy of SMCEs in Nigeria is a differentiation strategy. The study recommends that SMCEs should promote a deeper understanding of project details, adapt their strategies to procurement methods and engage qualified and competent employees to enhance their competitiveness. The research will promote the knowledge and adoption of appropriate business strategies for SMCEs improved competitiveness.

Keywords: business strategy, business strategy determinants, construction industry, Nigeria, SMCEs

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INTRODUCTION

The Construction Industry in most nations is perceived as the barometer for measuring the growth of the economy and vital to the development of any nation. This is because the pace of economic growth and quality of life can be measured by the development of physical infrastructures, such as buildings, roads, and bridges (Farooqui, Masood, & Aziz, 2008). However due to the intense competition occasioned by the large number of indigenous construction firms which are basically in the SME category, the limited number of projects available, the stifling challenge from large multinationals and the government preference of foreign contractors to the indigenous ones (Idoro, 2010; Ogunlana, 2010): the survival of construction firms is threatened. Small and medium construction enterprises (SMCEs) are known to have the highest exit rate with a peak lifespan of 4 years of activities (Nunes & Sarmento, 2010).

This competition is more intense among small and medium construction enterprises because of their particular challenges of underfunding, ownership structure and firm size among others and has forced the SMCEs to adopt low mark up as a survival strategy (Theong, Tan, & Ang, 2014). The adoption of low mark up strategy has also introduced unforeseen performance issues such as poor quality of completed projects, cost, and time overruns and rework (Idoro & Akande-Subar, 2008; Oyewobi et al., 2011). It is therefore evident that small and medium construction enterprises (SMCEs) do not possess the capacity to compete with the larger firms on low-cost strategy because of the absence of a low-cost model in terms of ownership of plants and equipment, discounts from bulk purchase of materials, adequate capitalisation and access to funds at low interest rate (Basil, 2005; Ofori, 2009). This suggests that the SMCEs must formulate strategies different from the larger firms and peculiar to their challenges.

Previous studies suggest that strategic management enhances performance, however, lack of strategic management has been noted as a weakness of SMCEs (Barry & Sebone, 2009; Tunji-Olayeni, Owolabi, Amusan, Ogunde, & Omuh, 2014). The central theme of strategic management is the formation of a specific business strategy based on identified competitive advantage (Kotler & Keller, 2012). Business strategy is however defined as the firm's plan to generate economic profits through higher value creation due to lower costs, better quality or newer products compared to other competitors (Mu-Jeung, Lorenz, & Bryan, 2015). Porter (1991) classifies business strategy as cost leadership, differentiation and focus strategies which are achieved by analyzing the industry environment, matching the opportunities with the firms' resources and reducing the threats.

A firm's business strategy is a product of the dynamics of the operating environment which consists of both macro and micro-environment. The macro-environment consists of socio-cultural, political, economic, demographic and technological factors which are within the purview of governmental control that influence a firm but outside of the firm's control (Jalila, Yunus, & Saidc, 2011). The micro-economic environment, however, is the atmosphere in which the individual firm operates and consists of the forces that affect the firm's ability to work such as local competitors, infrastructure, capital resources, local suppliers, customers' demand among others (Uc & Kaja, 2013). Bamber, Lansbury, and Wailes (2004)

opine that the development of business strategies is based on the firm's perception of the environment. In line with this perception, the contingency theory proposes that there is no single best approach to business success but that firms should develop strategies based on the unique situation in their organizations, in other words, their business strategies should be contingent on the environment (Tunji-Olayeni et al., 2014). The Resource-Based View (RBV) theory, however, focuses on firm's resources and capabilities to understand business strategy and to provide direction to strategy formulation premised on the assumption that sustainable competitive advantage is achieved by developing superior capabilities and resources from the internal distinctive resources of the firm (Yan & Chew, 2011; Barney, 1991).

Findings from previous studies suggest that SMCEs adopt the three strategies (Betts & Ofori, 1992) while Langford and Male (2001) opine that focus strategy may provide SMCEs some potentials for creating competitive advantage and achieving superior performance. Yan & Chew (2011) however differ and conclude that focus strategy does not enhance SMCEs performance. Based on RBV theory, Eniola & Ektebang (2014) focused on SMEs' performance and categorized competitive advantage determinants as financial-related, owner-related and technical-related. Ogbu (2016) focused on survival practices and categorized them as owner, firm, project and client- related determinants. Procurement and client-related determinants are adopted from Love, (2002) and Ogunsanmi, (2015). Odediran, Babalola, and Adebiyi (2002) focussed on business development strategies, Uchegbulam, Akinyele, and lbidunni (2015) focussed on comparative advantage and performance while Tunji-Olayeni et al (2014) hinged on strategic management practices of construction SMEs. Glaringly, the business strategy domain as an intervening variable has not been well researched. This study will attempt to fill this gap. The objectives of the study are to evaluate and compare the effect of the internal environment and project-related determinants on business strategies of SMCEs in Nigeria with a view to promoting the adoption of appropriate strategies for their growth and ultimate survival. The hypothesis of the study states that the difference in the effect of the business strategy determinant groups is not statistically significant.

LITERATURE REVIEW

The construction business environment is characterized by increased intensity in competition and instability which is attributable to external influences, internal competition between firms in the same sector and vertical integration by manufacturers of construction materials (Tan, Shen, & Langston, 2012; Kale & Arditi, 2003). This competition is however more intense with small and medium enterprises because of their peculiar challenges (Basil, 2005). Deriving from the National policy on MSMEs (2003), small and medium construction enterprises (SMCEs) can be defined as firms with an asset base (excluding land) of between 5 million Naira and 500 million Naira, and labour force of between 11 and 300 in their employment (Ajose, 2010). The challenges facing the SMCEs are even more pronounced as a result of the peculiar nature of the construction industry and it is, therefore, crucial for the SMCEs to adapt to the changing environment by strategic positioning. Strategic management has been identified as an important determinant of business success (Tunji-Olayeni et al., 2014). Andendorff, Appels,

and Botha (2011) also submit that firms that practice strategic management perform better than those that do not and that if SMCEs can proactively manage their firms strategically, the potential to grow and develop into larger enterprises will be enhanced. Abu-Hassan, Mohamad, and Aulina (2011) emphasize that strategic perception is essential for surviving in the dynamic and uncertain environment of the construction industry.

Strategic management, business strategy, and competitive advantage

Literature is replete with various definitions of strategic management. David (2005) defines strategic management as the art and science of formulating, implementing and evaluating cross-functional decisions that enable an organization to achieve its objectives. The central theme of strategic management is strategy formulation. Kotler & Keller (2012) define strategy as a process that can allow an organization to concentrate its resources on optimal opportunities with the objectives of increasing sales and achieving sustainable competitive advantage. Strategy has also been defined as the process by which an organization can create a unique and valuable position by undertaking a set of activities that are different from those of an organization's competitors (Porter, 1991).

Business strategy is a set of fundamental choices, which define its long-term objectives, its value proposition to the market and its intentions to build and sustain a competitive business system and how it organizes itself. It deals with a firm’s plan to generate economic profits through higher value creation due to lower costs, better quality, or newer products compared to other competitors (Mu-Jeung et al., 2015). However, the key objective of business strategy is to outperform competitors, and the concept of competitive advantage has proved immensely useful in assessing and developing business strategies

Porter (1982) describes competitive advantage as the value that a firm is able to create for its buyers which exceeds the firm's cost. These competitive advantages lead to three generic competitive strategies namely: cost leadership strategy, differentiation strategy, and focus strategy. He advised against adopting more than one strategy at a time to avoid organizational confusion. However, this must be applied either in the broad or narrow market segment, which according to Thompson, Strickland, and Gamble (2010) produces four strategy orientations namely: cost leadership strategy, differentiation strategy, cost focus strategy (cost focus) and focused differentiation strategy (differentiation focus). Cost leadership is described as the company's ability to design, create and market a comparable product in a way that is more efficient than its competitors. This must, however, be supported by a low-cost model such as the reduction of labour cost and reduction of operating costs. Differentiation is the ability to provide unique and superior value to the buyer in terms of quality, features or after-sales service. To achieve sustainable differentiation strategy, ways of improving product or service quality must become an organizational priority. Focus strategy is the firm’s ability to create a niche market for its products (Tunji-Olayeni et al., 2014).

Small and medium construction enterprises (SMCEs) in Nigeria have been found to adopt appropriate business strategies to outperform their competitors and the most adopted or preferred strategy orientation is differentiation strategy, followed by focus strategy and a combination of the three (cost leadership, differentiation

and focus strategies) while Chinese construction companies prefer differentiation and marker diversification strategies (Cheah, Kang, & Chew, 2007); Tunji-Olayeni et al., 2014). Betts and Ofori (1992) also confirm that all three strategies have application in the construction industry. Low mark-up, which is a strategy employed by most SMCEs to remain competitive in their final bid is a type of cost leadership strategy while design and build, private-public partnership (PPP) and project specialization are types of differentiation strategy. Executing projects in a fixed geographical location, operating in a specific project such as mass housing construction are examples of focus strategy in construction (Naismith, 2007). However, Yan and Chew (2011) contend that focus strategy does not enhance SMCE's performance because the instability of the market coupled with the narrow market makes the SMCEs more vulnerable to local market fluctuations.

Determinants of business strategies

The choice or preference of a strategy over the other is influenced mainly by the degree of uncertainty of the environment which consists of both external and internal environments. According to Bamber et al. (2004), firms develop their business strategies based on their perception of the environment. External environment refers to the macro and micro-economic realities surrounding a firm. The macro-environment consists of socio-cultural, political, economic, demographic and technological factors which are within the purview of government control, they influence the firm but outside of the firm's control (Jalila et al., 2011). Proponents of the contingency theory believe that there is no single best approach to business success, firms should, therefore, develop strategies contingent on the uniqueness of their organizational situations (Tunji-Olayeni et al., 2014).

The macro-economic environment, however, is the atmosphere in which the individual firm operates and consists of the forces that affect the firm's ability to work (Uc & Kaja, 2013). The variables of the micro-environment of a construction firm consist of local competitors, infrastructure, capital resources, local suppliers, customers' demand among others. These variables influence firm-level decisions (Ogbu, 2016). According to Babatunde and Olaniran (2009), firms' internal environment is tailored to adjust to the dynamism of the micro-environment. Organizations perceive their environments in different ways, thus adopting different strategies. The strategic choice approach is very relevant to SMCEs because strategies enable them to offset their resource limitations. The Resource-Based View focuses on the firm's resources and capabilities to understand business strategy and to provide direction to strategy formulation (Yan & Chew, 2011). The RBV proponents argue that a firm's competitive advantage comes from resources and capabilities that satisfy the VRIN criteria, that is, those that are valuable, rare, imperfectly imitable and non-substitutable (Barney, 1991). RBV proposes that if a firm possesses and deploys these resources which are regarded as core competencies, it has a competitive advantage and can formulate its business strategy based on the advantage (Eniola & Ektebang, 2014).

Firm's internal environment

Business strategies are based on competitive advantage. The essence of business strategy is to do something distinctive, hence construction firms need distinctive individuals, distinctive capacities and distinctive market positions to prosper in the

rapidly changing, highly competitive construction market. Management must, therefore, rely on the imagination and initiative of employees, and they must attract and develop talented individuals. Man, Lau, and Chan (2002) emphasize that the role played by the owner/manager is one of the major determinants of SMCEs' competitiveness because of the concentration of decision-making power in the owner/manager in an SME environment. Maupa (2004) confirms that the characteristics of the individual manager/owner, the characteristics of the company and the external business environment have a direct influence and a positive and significant impact on business strategy. Also, the business strategy has a direct influence and a positive and significant impact on the growth of the company. The resource-based view is therefore suitable for analyzing the business strategy formation of SMCEs. The internal environment as the domain of resources and capabilities through which the firm reacts to the demands of the macro-environment is considered as the major determinant of business strategies of SMCEs in this study.

Relevant variables for categorizing internal environment (firm resources) for competitive advantage enumerated in Eniola & Ektebang (2014) include financial; comprising firms borrowing capacity, capacity to raise capital and cash account and cash in hand; human; comprising of owner's experience and capabilities and technical; comprising technical and scientific skills and innovation capacities. Ogbu, (2016) categorized internal environment variables into owner, firm and industry characteristics. Owner characteristics considered comprise the age of the owner, education, marital status, professional qualification, construction work experience, gender, previous self-employment and ethnicity of owner. Firm characteristics considered are firm age, firm size, firm location, firm experience, technological usage, firm legal status, level of firm registration and organizational structure (Ogbu, 2016).

Milovanovich (2018) suggests that firms should establish a match between resources and availability of projects, hence apart from internal environment determinants, project-related determinants such as project type, procurement type, and client type should be considered in SMCEs business strategy formation. Ogbu (2016) includes project specialization determinants such as building and civil engineering projects and client-related determinants adopted from (Lobos and Szewczyk, 2012). Previous studies have also identified traditional lump sum, traditional cost-plus, traditional with provisional quantities, design and manage, construction management, management contracting, project management, design and build, innovation and build, own, operate and transfer (BOOT), labour-only, direct-labour, alliancing, partnering and joint ventures as prominent procurement methods used in the industry (Love, 2002; Ogunsanmi, 2015). To this extent, the business strategy determinants of this study are in two broad groups namely: internal environment and project-related determinants. Internal environment has four categories namely: owner, firm, technical and financial characteristics while the project-related group has three categories namely: project specialization, client and procurement characteristics.

RESEARCH METHODOLOGY

Research Approach

In order to achieve the objectives of this study, a cross sectional survey was adopted.

Study population and sample size

A pilot study was carried out prior to the actual field survey because the population of construction firms was not readily available. The pilot study identified 100 construction firms in the SME category that have been consistently involved in construction project execution in the past 5 years (2013-2017). This condition is premised on the fact that the study is part of a larger study that needs quantitative data on projects executed within the stated period of time. A sample frame was developed from the list of registered contractors with Lagos State procurement office, registers of the Federation of construction industry (FOCI), Nigerian Institute of Building (NIOB) and Council of registered builders of Nigeria (CORBON). The sample size was calculated using Yamane (1967) formula for calculating sample proportion. A sample of 80 construction firms was obtained from the calculation.

Sampling techniques

A multistage sampling approach comprising simple random sampling and purposive sampling was used for the study. The simple random sampling technique was used for selecting the 80 firms from the population of the study. Using the Microsoft Excel worksheet random numbers function, 80 random numbers ranging from 1 to 100 were generated. Each of the construction firms on the sampling frame had an equal and independent chance of being selected. Furthermore, a purposive sampling technique was used to get the respondents from each of the randomly selected firms. The targeted respondents were either the owners of the firms or their professional representatives.

Survey instrument

A structured questionnaire was developed and used for collecting data for the study. A total of 80 questionnaires were delivered by hand to the respondents through the help of trained research assistants. Six (6) research assistants were trained and engaged in collecting the data for the study. They were trained to guide the respondents where necessary, on how to fill the questionnaires. Three sections of the questionnaire are relevant to this study; section A solicits background information on the respondent, section B on the firm characteristics and section C on the effect of selected determinants on business strategies.

Seventy (70) questionnaires were retrieved. The retrieved questionnaires were checked for completeness and accuracy. It was found out that twenty (20) of them were poorly completed and unusable for the study and thus discarded. A total of 50 questionnaires were therefore used for the study representing 62.5% response rate. Baruch and Holtom (2008) opine that an average of 52.7 percent is acceptable. In view of this, a 62.5% response was considered adequate for analysis.

Thirty-four (34) determinants of business strategies identified from previous studies were used for the study. These determinants were categorized into seven determinant groups namely: Owner-related, Firm-related, Client-related, Technical-related, Project-related, Financial-related, and Procurement-related

groups. The effect of each determinant on the business strategies of the SMCEs sampled was measured on a 5-point Likert scale namely: Nil = 1, Low = 2, Moderate = 3, High = 4, Very high = 5. The reliability of the instrument was determined using Cronbach Alpha test which gave a coefficient of 0.818. Using the Statistical Package for Social Sciences (Version 23) and Microsoft Excel, data collected were analysed using percentage and mean score while paired t-test was used to test for significant difference between the effects of the business strategy determinant groups.

Data collection duration
Data collection for the main field survey lasted a period of 9 (nine) months (precisely June 2018 to February 2019).

RESULTS

The results of the analysis of data collected are presented as follows:

Effect of selected determinants of the business strategies of Small and Medium Construction Enterprises (SMCEs)
To investigate the effect of selected determinants on the business strategies of SMCEs, thirty-four determinants of SMCEs business strategies were identified from previous studies. Inference from analysis of result was assigned scores as follows: Very high = 4.5 -5.0, High = 3.5 -4.49, Moderate = 2.5 -3.49, Low = 1.5 - 2.49 and Nil = 1.0 -1.49. The total and mean scores of the effects of each determinant were analysed. The results are presented in Table 1.

Table 1 reveals that majority (23) of the determinants have a high effect, nine (9) determinants which constitute the minority have a moderate effect, while two determinants have low effect on the business strategy of the SMCEs. Table 1 further shows that a project-related determinant namely: project specification, has the highest effect on SMCEs' business strategies, followed by another project-related determinant namely: project type. Construction management (a procurement-related determinant) and employee's work experience (a technical-related determinant) come third in their effect on SMCEs business strategy. The results further show that among these 23 determinants with high effects, one owner-related determinant, one firm-related determinant, two technical-related determinants, three project–related determinants and three procurement-related determinants constitute the top ten determinants of SMCEs' business strategy. Financial-related and client-related determinants have no representation among the top ten determinants of business strategy.

Table 1 also shows that one owner -related determinant namely: marital status has the least effect on the business strategy of SMCEs. Furthermore, among the 34 determinants, three owner-related determinants, one each of firm-related, client-related, technical-related, project-related, financial-related and procurement-related determinants have the least effect on the business strategy of the SMCEs. Also, all the seven groups have representation among the least ten determinants of business strategy.

Table 1. Mean score of effect of selected determinants on business strategies of SMCEs

Business strategy determinants	N	1	2	3	4	5	TS	MS	Rk
Project specification	50	0	2	7	31	10	215	4.30	1
Project Type	50	0	1	9	18	22	211	4.22	2
Construction management	50	6	2	6	19	17	209	4.18	3
Employee's work experience	50	0	2	2	31	15	209	4.18	3
Project management	50	0	2	6	25	17	207	4.14	5
Project duration	50	0	2	11	18	19	204	4.08	6
Owner's technical experience	50	0	2	5	31	12	203	4.06	7
Management contracting	50	0	2	3	37	8	201	4.02	8
Firm experience	50	0	2	9	26	13	200	4.00	9
Req. skill and qualification	50	0	2	3	38	7	200	4.00	9
Project specialization	50	1	0	8	15	26	199	3.98	11
Firm size	50	0	2	7	32	9	198	3.96	12
Project size	50	0	4	9	22	15	198	3.96	12
Adaptation to new tech	50	2	1	10	24	13	195	3.90	14
Firm age	50	0	1	16	25	8	190	3.80	15
Client financial standing	50	0	4	8	32	6	190	3.80	15
Advance payment	50	0	6	4	35	5	189	3.78	17
Design and build	50	7	0	12	29	7	189	3.78	17
Use of technology (ICT)	50	1	4	15	16	14	188	3.76	19
Client financial credibility	50	2	0	15	27	6	185	3.70	20
Access to loan from banks	50	1	1	17	24	7	185	3.70	20
Owners prof. qualification	50	0	2	18	27	3	181	3.62	22
Access to credit from suppliers	50	0	4	19	25	2	175	3.50	23
Clients involvement	50	0	7	16	23	4	174	3.48	24
Owner's educational qualification	50	0	6	22	19	3	169	3.38	25
Traditional procurement system	50	0	2	30	17	1	167	3.34	26
Project location	50	6	0	27	14	3	164	3.28	27
Use of own capital	50	2	5	32	7	4	156	3.12	28
Age of owner	50	1	9	25	14	1	155	3.10	29
Firm location	50	2	13	25	9	1	144	3.88	30
Altitudes to correction	50	8	20	11	6	5	130	3.60	31
Client's social standing	50	6	15	25	3	1	128	2.56	32
Gender	50	14	26	7	1	2	101	2.02	33
Marital status	50	17	22	8	3	0	97	1.94	34

N=Number of respondents, TS=Total score, MS=Mean score, Rk=Rank, SMCEs= Small and Medium Construction Enterprises

Relative effect of selected determinants of SMCEs business strategy based on classification

To investigate the effect of the determinants within each group, the 34 determinants were classified into seven (7) groups as follows: Project-related group consists of five determinants, procurement-related group has five determinants, firm-related group consists of six determinants, technical-related group has four determinants, financial-related group consists of five determinants, client-related group consists of three determinants while owner-related group consists of six determinants. The groups and their mean scores are presented in Table 2

Table 2 shows that project specification, project type, and project duration are the top three determinants within the project-related group while construction management, project management and management contracting are the top three determinants in the procurement-related group. Firm experience, project specialization and firm size constitute the top three determinants in the firm-related group. Adequate work experience, possession of required skill and qualification and adoption of new technology constitute the top three

determinants within the technical-related group. Advance payment, client financial credibility and access to loan from banks are the top three determinants in the financial-related group, client's financial standing and client's involvement in a project constitute the top two determinants within the client-related group while technical experience, professional qualification and educational qualification are the top three business strategy determinants in owner-related group.

Table 2. Mean scores of the effect of selected determinants on the business strategy of SMCEs based on their group classification

Business strategy Determinants	N	TS	MS	Rk	GTS	GMS	GRk
Project-related determinants					198.40	3.97	1
Project Specification	50	215	4.30	1			
Project Type	50	211	4.22	2			
Project Duration	50	204	4.08	3			
Project Size	50	198	3.96	4			
Project Location	50	164	3.28	5			
Procurement-related determinants					194.60	3.89	2
Construction Management	50	209	4.18	1			
Project Management	50	207	4.14	2			
Management Contracting	50	201	4.02	3			
Design and Build	50	189	3.78	4			
Traditional System	50	167	3.34	5			
Firm-related determinants					187.00	3.73	3
Firm experience	50	200	4.00	1			
Project specialization	50	199	3.98	2			
Firm size	50	198	3.96	3			
Firm Age	50	190	3.80	4			
Use of Technology (ICT)	50	188	3.76	5			
Firm Location	50	144	2.88	6			
Technical-related determinants					184.00	3.67	4
Employee's work experience	50	209	4.18	1			
Requisite skill/qualification	50	200	4.00	2			
Adaption to new technology	50	195	3.90	3			
Attitude to correction	50	130	2.60	4			
Financial-related determinants					178.00	3.56	5
Advance payment	50	189	3.78	1			
Client financial Credibility	50	185	3.70	2			
Access to loan from banks	50	185	3.70	3			
Access to credit for suppliers	50	175	3.50	4			
Use of own capital	50	156	3.12	5			
Client-related determinants					164.00	3.28	6
Client financial standing	50	190	3.80	1			
Client involvement	50	174	3.48	2			
Client social standing	50	128	2.56	3			
Owner-related determinants					151	3.02	7
Owner's technical experience	50	203	4.06	1			
Professional qualification	50	181	3.62	2			
Education qualification	50	161	3.38	3			
Age	50	155	3.10	4			
Gender	50	101	2.02	5			
Marital status	50	97	1.94	6			

N=Number of respondents, TS=Total score, MS=Mean score, Rk=Rank, GTS= Group total score, GMS= Group mean score, GRk= Group rank, SMCEs= Small and Medium Construction Enterprises.

Table 2 also shows that project-related determinant group has the highest effect on business strategy of the SMCEs, followed by procurement-related and firm-related determinant groups. Technical-related, financial-related and client-related

determinant groups come fourth, fifth and sixth respectively. The owner-related determinant group has the least but moderate effect on the business strategy of the SMCEs.

Difference between effects of SMCEs business strategy determinant groups. The study also investigates the difference in the overall effect of the seven business strategy determinant groups. To achieve this, a research hypothesis was postulated. The hypothesis states that the difference in the effect of the business strategy determinant groups is not significant. The hypothesis was tested using t-test at $p \leq 0.05$. The decision rule for the rejection of the hypothesis is that when the p-value is > 0.05, the test fails to reject the hypothesis (LaMorte, 2017). However; when the p-value is ≤ 0.05, the test rejects the hypothesis. The mean scores of the business strategy determinant groups were used to test the hypothesis. The results are presented in Table 3.

Table 3: Results of paired t-test of difference between the effects of business strategy determinant groups

Variables paired	N	Mean	t-value	Df	p-value	Sig
Project	50	3.97				
Procurement	50	3.89	0.935	49	0.354	NS
Firm	50	3.73	2.576	49	0.013	S
Technical	50	3.67	2.607	49	0.012	S
Financial	50	3.56	5.279	49	0.001	S
Client	50	3.28	5.878	49	0.001	S
Owner	50	3.02	8.190	49	0.001	S
Procurement	50	3.89				
Firm	50	3.73	1.621	49	0.111	NS
Technical	50	3.67	2.730	49	0.009	NS
Financial	50	3.56	4.215	49	0.001	S
Client	50	3.28	5.709	49	0.001	S
Owner	50	3.02	7.669	49	0.001	S
Firm	50	3.73			.	
Technical	50	3.67	0.560	49	0.578	NS
Financial	50	3.56	1.982	49	0.053	NS
Client	50	3.28	4.051	49	0.001	S
Owner	50	3.02	8.112	49	0.001	S
Technical	50	3.67				
Financial	50	3.56	1.281	49	0.206	NS
Client	50	3.28	4.551	49	0.001	S
Owner	50	3.02	6.006	49	0.001	S
Financial	50	3.56				
Client	50	3.28	2.980	49	0.004	S
Owner	50	3.02	5.619	49	0.001	S
Client	50	3.28				
Owner	50	3.02	2.422	49	0.019	S

N=Number of respondents, df =Degree of freedom, S=Significant, NS=Not significant

Table 3 shows that the difference between the effect of project-related and procurement-related determinant groups is insignificant. The result indicates that the effect of these two determinant groups on the business strategies of SMCEs is the same. However, the difference between the effects of project-related group and firm-related, technical-related, financial-related, client-related and owner-related determinant groups are significant. The results indicate that the effects of these six determinant groups on business strategy of SMCEs are not the same and that the effect of project-related determinant group is significantly higher than that

of firm-related, technical-related, financial-related, client-related and owner-related determinant groups.

Table 3 also shows that the difference between the effects of procurement-related determinant group and firm-related and technical-related determinant groups are insignificant. The results indicate that the effects of these three determinant groups are the same. However, the difference between the effects of procurement-related group and financial, client and owner-related determinant groups are significant. The results indicate that the effects of these four determinant groups are not the same and that the effect of procurement-related determinant group is significantly higher than the effects of financial, client and owner-related determinant groups.

Table 3 further shows that the difference between the effects of firm-related determinant group and technical-related and financial-related determinant groups are insignificant. The results indicate that the effects of these three groups of business strategy determinants are the same. However, the difference between the effects of firm-related determinant group and client and owner-related determinant groups are significant. The results indicate that the effects of these three determinant groups are not the same and that the effect of firm-related determinant group is significantly higher than the effects of the client and owner-related determinant groups.

Table 3 also shows that the difference between the effect of technical-related and financial-related determinant group is insignificant. The results indicate that the effect of these two business strategy determinant groups is the same. However, the difference between the effects of technical-related determinant group and client-related and owner-related determinant groups are significant. The results indicate that the effect of technical-related determinants is significantly higher than the effects of client and owner determinant groups.

Table 3 also shows that the difference between the effects of financial-related determinant group and client-related and owner-related groups are significant. The results indicate that the effect of financial-related determinant group is significantly higher than the effects of client-related and owner-related determinant groups. Similarly, Table 3 shows that the difference between the effect of client-related determinant group and the owner-related group is significant. The result indicates that the effect of client-related determinant group is significantly higher than the effect of owner-related determinant group.

DISCUSSION OF FINDINGS

The study discovers that project-related determinants of business strategy have the highest effect. It also discovers that the effect of project-related determinants is significantly higher than the effects of other determinants except for procurement-related determinants. The results suggest that project-related factors are the major determinants of the business strategy of SMCEs. Project specification and project specialization (project-related) determinants enhance quality performance (Barry & Seborne, 2009). The finding tends to suggest that the preferred business strategy of SMCEs is a differentiation strategy. This finding agrees with that of Tunji-Olayeni et al. (2014) that the preferred strategy of SMCEs

is a differentiation strategy. The study also discovers that four of the project-related determinants namely: project specification, project type, project duration, and project size have a high effect and rank among the top ten determinants of SMCEs as indicated in Table 1. This finding suggests that only four factors constitute the main determinants of the business strategy of SMCEs. This finding agrees with the finding of Srivannaboon (2009) that project conditions help to improve the formation and execution of business strategy.

The study also discovers that procurement-related determinants of business strategy have the second highest effect. It is also discovered that the effect of procurement-related determinants is significantly the same with project-related determinants. The finding implies that the business strategy adopted by SMCEs is also based on procurement-related factors. The quality level desired in a project is the main consideration in procurement method selection (Ghadamsi & Braimah, 2012). Since quality enhancement is a feature of differentiation strategy, the finding tends to suggest that the business strategy adopted by SMCEs is a differentiation strategy.

The study further discovers that four of the five procurement-related determinants namely: construction management, project management, management contracting, and design and build have a high effect on the business strategy of SMCEs while three of the four high effect procurement-related determinants rank among the top ten determinants of SMCEs business strategy. The finding suggests that only the four procurement-related factors play a major role in determining the business strategy adopted by SMCEs.

The result of the study reveals that owner and client-related determinants have the least effect and that the effects of the other five determinants are significantly higher than their effects. The finding implies that owner and client-related factors are the least determinants of SMCEs business strategy. They indicate competitive parity and not a competitive advantage. They are not indicative of cost reduction, enhancement of quality or creating a niche market, hence they do not indicate a strategic position of the SMCEs. The finding supports the finding of Barney (1991) that resources for competitive advantage must satisfy the VRIN criteria. The results of the study have also revealed that the top ten determinants of business strategy are drawn from five business determinant groups namely: project, procurement, technical, financial and owner-related determinants. The finding implies that although the drivers of the business strategy of SMCEs are concentrated in the project and procurement-related determinants, SMCEs do not neglect some other factors in the selection of the business strategy adopted.

CONCLUSION AND RECOMMENDATION

It is established from the study that the top ten determinants of SMCEs' business strategy are project specification, project type, employee work experience, construction management, project management, project duration, technical experience, management contracting, firm experience, and required skill and qualification. It further discovered that project specification has the highest effect on the business strategy of SMCEs. It further established that the respondents' perceptions of the effect of project-related and procurement-related determinant

groups are the same. It is therefore concluded that project and procurement-related factors are the main determinants of the business strategy of SMCEs in Nigeria and that their preferred strategy is differentiation strategy.

It is therefore recommended that SMCEs should promote a deeper understanding of project details for enhanced project performance. They should also strengthen their human resources by employing competent employees with the expertise, skills, capacity and work experience to enhance their competitiveness. Furthermore, the use of construction managers, project managers and management contractors should be matched with the complexity of projects for competitive advantage.

LIMITATION OF THE STUDY

The respondents of the study were SMCEs that were actively involved in project execution from 2013- 2017. It is an extract from on-going research that needs a lot of quantitative data. The reluctance to supply the data affected the sample size and response rate of this study. If it was carried out independently, the sample and response rate would have greatly improved.

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