FRAMEWORK FOR CONTRACTORS' BID SUCCESS IN NIGERIA: SWOT APPROACH

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Abstract
Models concerning bid/no bid decision have been worked upon by different types of researchers. However, to maintain fee schedules at a level that will assist contractors run a profitable and high quality business that best serves the need of clients who rely on their products and services, successful bids are required. Therefore, building contractors need to consider both internal (strengths and opportunities) and external (weaknesses and threats) factors necessary to develop a framework for successful bids. SWOT tool is considered as a structured approach that could help management to systematically analyze issues that may affect the fulfilment of their goals and objectives. An examination of the factors influencing contractors' bidding activities in Nigeria was considered with a view to developing a framework that could enhance bid success. One hundred and seventy-one useable responses were retrieved through questionnaire administration on randomly selected building contractors. The responses were used to elicit information on the factors identified, and were later classified into internal and external factors using SWOT tool as a structured approach to contractors' bid success. The classification identified availability of equipment and materials, size of contract, strength of the firm in the industry - internal factors; while government policy, tax liability, timing requirement - external factors. The study concluded that building contractors in Nigeria must always conduct initial project research and embark on evaluation processes during bidding activities, and base on SWOT tool come up with an approach for a successful bid before committing much resource on the project.

Keywords: Bid success, Contractors, Framework, Nigeria, SWOT

1 Introduction

Bidding is a method used for procuring major construction projects such as building and infrastructures in the construction industry. Public sector bidding therefore guarantees transparency, publicity and equal opportunity to all bidders as it reduces the risk of bias and corruption (Auriol, 2006; Celentani *et al.,* 2002). The search for a competitive advantage is an idea that is much sought for by contractors in the construction industry (Tan *et al.,* 2008). The construction industry is one of the largest job creators in developing countries and has become highly competitive with the advent of globalization (Garbharran, *et al.,* 2012; Nguyen *et al.,* 2004). The construction industry in Nigeria has grown tremendously over the years and it has become a multi-billion naira business (Olatunji, 2011). It is an industry that is rich enough to drive the economy of the country.

In the construction industry, projects are usually awarded through bidding process and the goal of contractor's is to be successful by winning a bid award. Tan *et al.* (2008) asserts that, being involved in bids help maintain fee schedules at a level that will support and ultimately assist in running a profitable and high quality business that best serves the need of clients who rely on the contractor's products and services. Hoffmann (2000) confirms that the fundamental basis of long-run success of bids by construction firms is the achievement and maintaining of a sustainable competitive advantage. By knowing the intense nature of competitors, construction firms would be more creative and environment conscious in their strategic planning than just lowering price. This study therefore aims at identifying factors influencing contractors' bid activities in Southwest, Nigeria, with a view to developing a framework that could enhance bid success.

2 Contractors' Bid Success/SWOT Approach

2.1 Bid Success

The variations in contractors' bids are expressed as a function of time relative to winning a bid, which carries implications for capacity level of a construction firm (Bee *et al.*, 2012). It is important for contractors to strike a balance between a bid price and bid success, as bidders would always bid low. Bidding low at the expense of the actual profit to be accrued into the contractors' organization makes them less competitive in the construction market. Bee *et al.* (2012) posits that bidders in general bid low for time periods before a winning bid and they are less competitive in time periods after a winning bid.

However, by considering the individual bidders' characteristics that relate to differences in bidding competitiveness, it is shown that there is remarkable heterogeneity among the bidders in bid pricing decision for pre and post winning periods. Nevertheless, the statistically significant bidding trends before and after a winning bid strengthen the notion that systematic changes in bidding behaviour over time in reality in responses to changes in firm capacity level. These changes in capacity level therefore brought to the fore the reason for SWOT analysis to be employed in order to classify and identify internal (strengths and opportunities) and external (weaknesses and threats) factors necessary for recording success in bids.

2.2 Factors Influencing Contractors' Bid Success

Contractors need to understand their specific resources that generate competitive advantage and accordingly develop strategies to win contracts (Tan *et al.*, 2010). Improving the construction industry's competitiveness according to Green *et al.* (2008) has long been of interest to the international construction management research community. Egemen *et al.* (2007) investigated a framework for contractors to reach strategically correct bid/no bid and mark-up size decisions. The study identified the key determining factors and their importance weights by presenting survey findings of eighty (80) contracting organizations from Northern Cyprus and Turkish construction markets. Among these factors are; current workload, need for work, contractor involvement in the design phase, availability of cash to carry out the work, availability of skilled workers, availability of qualified site management staff, size of head office overhead, government policy, tax liability, availability of reliable subcontractors, reliability of company pricing, portion of nominated subcontract, portion of domestic subcontract, overall economy (availability of work), timing requirement, past experience in managing similar project, availability of labour, availability of equipment, quality of available labour, risk of fluctuation in labour prices, risk of fluctuation in material prices, availability of other projects for tendering (Bagies *et al.*, 2006; Ling *et al.*, 2005).

2.3 SWOT Analysis

SWOT is an acronym for Strengths, Weaknesses, Opportunities and Threats. It is a device that helps business managers evaluate the strengths, weaknesses, opportunities and threats involved in any business enterprise, including construction activities (Ahmad *et al.*, 2011). SWOT analysis can help construction firms gain insights into the past and think of possible solutions to existing or potential problems, either for an existing business or for a new venture (USDA, 2008; Nouri *et al.*, 2008). SWOT is a basic and candid model that assesses what a business can and cannot do, as well as its potential opportunities and threats. The method of SWOT analysis is to take the information from an environmental analysis and separate it into internal (strengths and weaknesses) and external issues (opportunities and threats). Once this is completed, SWOT analysis determines what may assist the firm in accomplishing its objectives, and what obstacles must be overcome or minimized to achieve the desired results (Singh, 2010).

SWOT analysis has been in use since the 1960s as a tool to assist strategic planning in various types of enterprises including those in the construction industry (Lu, 2010). It has its origins in the 1960s (Learned *et al*., 1965), and was popularized by Weihrich's (1982) work. It is commonly adopted for the analysis of internal and external situations, in turn encouraging the development of strategies which can cope with these situations. The usage of SWOT analysis has been reported in many fields including that of the construction sector. For example, Shen *et al.* (2006) use the tool to analyze the situations for foreign-invested construction enterprises in China. Lu *et al.* (2009) used it in relation to Chinese construction companies in the international construction market.

Ayub *et al.* (2013) explained that SWOT helps in identifying organization's potential strengths and utilizing those in exploiting opportunities and counteracting threats; and identifying weaknesses in order to diminish them. Hence, SWOT analysis is considered as a structured approach that helps management to systematically analyze the issues that may affect the fulfilment of their vision, mission, goals and objectives. In order words, SWOT analysis is a convenient and concise way of evaluating the past, present and the future in order to make best use of data in utilizing opportunities, linking those with organization's strengths, identifying major threats, and minimizing weaknesses.

Lu (2010) in a critical review believe that SWOT is a widely used tool for analyzing internal and external environments in order to attain a systematic understanding of a strategic management situation. In turn, it encourages contractors to adopt a strategy that can best cope with the situation. The philosophy behind the SWOT analysis is that the strategies an organization adopts should match the environmental threats and opportunities with the organization's weaknesses and especially its strengths.

3 Research Methodology

Being a descriptive and quantitative study, the survey method was used to gather primary data. The scope of the study was confined to public sector projects alone and the target population were building contractors registered with the Bureau of Public Procurement. The investigation was therefore limited to the building contractors in categories A, B and C according to BPP registers. These categories were purposively considered due to the kind of projects they are eligible to bid for and manage in the construction industry. For the purpose of this study, population details of active contractors from each category were obtained, indicating 60, 82 and 95 contractors for categories A, B and C respectively. Since the population size was relatively small, questionnaire was administered and data was collected from every member of the population. The response rate constitutes 42 (70%), 61 (72%) and 68 (74%) contractors in categories A, B and C respectively.

The questionnaire was divided into two sections. Section one comprises of the background information relating to the respondents and their respective firms while the second section seeks to identify the factors in relation to the SWOT required by building construction firms for success in their bidding activities. Using SWOT analysis technique, these factors were classified into their different categories (internal and external factors). The questionnaire preparation comprised of closed-ended questions using a five point likert scale (extremely important-5 and not important-1). Closed ended questions were preferred in order to reduce the level of bias and to facilitate coding (Akintoye and Main, 2007), considering the fact that construction professionals are often too busy to attend to academic works. Data retrieved were analyzed using frequency tables, percentages and weighting values.

4 Findings and Discussion

4.1 Background Information of the Respondents

Results shown in Table 1 revealed that, more than 90% of the respondents for categories A, B and C are male (91%, 98% and 99% respectively). This is an indication that males are more dominant in the construction industry when compared to their female colleagues. Likewise, majority of the respondents were found within the age range 20-39, with 64% in category A and 75% and 87% in categories B and C respectively. Implication is that, respondents within this age group have a minimum of twenty years to be involved in public sector projects, thereby becoming experts in bidding for building construction projects. This was further highlighted by the result on the years of experience in the industry. More than 70% of the respondents have between five to ten years of experience. This indicates that their knowledge on bidding is limited, and cannot compete favourably with individuals who have more than ten years of experience on the subject of bidding. Further results show that the respondents are practicing professionals in the construction industry, majority of whom are builders and engineers, with 38%, 46% and 57% found in categories A, B and C respectively. In addition, results in category A also revealed that 21% and 29 % of the respondents are architects and quantity surveyors respectively. Quantity surveyors are referred to as project cost estimators; therefore, their services are very important during bidding process.

Table 1. Background details of respondents

Respondents	Category A (N=42)	Category B (N=61)	Category C (N=68)
Gender			
Male	90.5	98.4	98.5
Female	9.5	1.6	1.5
Total	100.0	100.0	100.0
Age			
20-39	64.3	75.4	86.8
40-59	31.0	24.6	13.2
60 & above	4.7	0	0
Total	100.0	100.0	100.0
Years of experience in the industry			
Less than 5 years	0	0	10.3
5 – 10 years	71.4	83.6	77.9
Above 10 years	28.6	16.4	11.8
Total	100.0	100.0	100.0
Professionals			
Architects	21.4	8.2	0
Builders	38.1	45.9	36.8
Engineers	11.9	26.2	57.4
Quantity Surveyors	28.6	19.7	5.8
Total	100.0	100.0	100.0

4.2 Factors base on SWOT Approach

This section describes the respondent's opinion on the factors itemized in relation to the SWOT aspect of their organization. The items were categorized into internal factors (strengths and weaknesses) and external factors (opportunities and threats).

4.2.1 Internal factors (strengths)

Table 2 shows the overall major strengths factors ranked in order of importance as considered by the respondents. Relationship with owners was ranked first with an average weight of 0.767. This is an indication that building contractors generally place much emphasis on relationship which was considered as an area of strength in their organisation. Other factors ranked according to their order of strengths include availability of cash to carry out the work, availability of skilled workers, availability of reliable subcontractors, availability of site management staff, availability of equipment and materials among others. In order for contractors to gain entry to an approved standing list of the clients, Merna *et al.* (1990) opined meeting up with the requirement of financial stability, managerial capability, organizational structure, technical expertise and the previous record of comparable construction.

Table 2. Strength related factors

	Internal factors	Category A (weight)	Category B (weight)	Category C (weight)	Average Weight	Rank
Strengths	Relationship with owner	0.922	0.713	0.666	0.767	1
	Availability of cash to carry out the work	0.812	0.802	0.672	0.762	2
	Availability of skilled workers	0.771	0.879	0.556	0.735	3
	Availability of reliable of subcontractors	0.846	0.650	0.695	0.730	4
	Availability of site management staff	0.802	0.668	0.663	0.711	5
	Availability of equipment and materials	0.879	0.571	0.531	0.660	6
	Past experience in managing similar projects	0.760	0.650	0.557	0.656	7
	Strength of business partners	0.802	0.518	0.580	0.633	8

4.2.2 External factors (opportunities)

Results from Table 3 shows that majority of the contractors capitalise majorly on their strength in the industry which gives them an opportunity of landing projects when bidding. Degree of buildability was also captured among the SWOT as an opportunity to the contractor when bidding for projects. This is as a result of clear design and specifications provided by the design team for the project. Size of the contract has also been harnessed by contractors as an opportunity when bidding for public works.

Table 3. Opportunities related factors

	External factors	Category A (weight)	Category B (weight)	Category C (weight)	Average Weight	Rank
Opportunities	Strength in the industry	0.802	0.731	0.571	0.701	1
	Degree of buildability	0.663	0.760	0.663	0.695	2
	Size of contract	0.838	0.665	0.558	0.687	3
	Completeness of drawings and specifications	0.879	0.553	0.580	0.670	4
	Degree of technological difficulty	0.760	0.700	0.518	0.659	5
	Nature of the project	0.879	0.556	0.502	0.646	6
	Market condition	0.719	0.583	0.624	0.642	7
	Government policy	0.760	0.559	0.538	0.619	8

4.2.3 Internal factors (weaknesses)

Table 4 is a reflection of the weaknesses level of construction firms. Past experience in managing similar projects, relationship with owner, availability of equipment and materials, strength in the industry and degree of buildability were identified by the respondents as top weaknesses required in achieving bid success.

Table 4. Weaknesses related factors

	Internal factors	Category A (weight)	Category B (weight)	Category C (weight)	Average Weight	Rank
Weaknesses	Past experience in managing similar projects	0.724	0.663	0.624	0.670	1
	Relationship with owner	0.650	0.580	0.719	0.650	2
	Availability of equipment and materials	0.879	0.500	0.556	0.645	3
	Strength in the industry	0.670	0.518	0.602	0.597	4
	Degree of buildability	0.760	0.518	0.500	0.593	5

4.2.4 External factors (threats)

Results from Table 5 shows that government policy, tax liability, timing requirement and market conditions pose a big threat on building contractors and their success when bidding for public works. Government policies and regulations are very rigid external factors which influences the construction industry of any country (Wijewardana *et al.,* 2013). Inability of contractors to fulfil their responsibility by paying their tax will deny them the opportunity of bidding for public works. This is a major threat on the part of the contractors.

Table 5. Threats related factors

	External factors	Category A (weight)	Category B (weight)	Category C (weight)	Average Weight	Rank
Threats	Government policy	0.700	0.879	0.623	0.734	1
	Tax liability	0.724	0.879	0.556	0.720	2
	Timing requirement	0.667	0.587	0.719	0.658	3
	Market condition	0.737	0.558	0.663	0.653	4

5 Framework

Highlight of the SWOT factors that make up the framework for contractors' bid success is shown in Figure 1. Factors found important and benefiting to the contracting firms' in the realization of their goals and objectives as they bid for success includes relationship with owner, availability of cash to carry out the work, availability of equipment and materials, size of contract, strength of the firm in the industry and degree of buildability of the work. These among others has opined by Merna *et al.* (1990) will give entry to the contractor to be included among the standing list of contractors with the client capable of executing work with them. However, some factors will limit a contractor's entry to the standing list. These among others includes past experience with managing similar projects, relationship with the owner, availability of equipment and materials, strength in the industry, government policy, tax liability, timing requirement and market condition. Bowen *et al.* (2002) noted that timely completion of a construction project is frequently seen as major criteria of project success by clients, contractors and consultants.

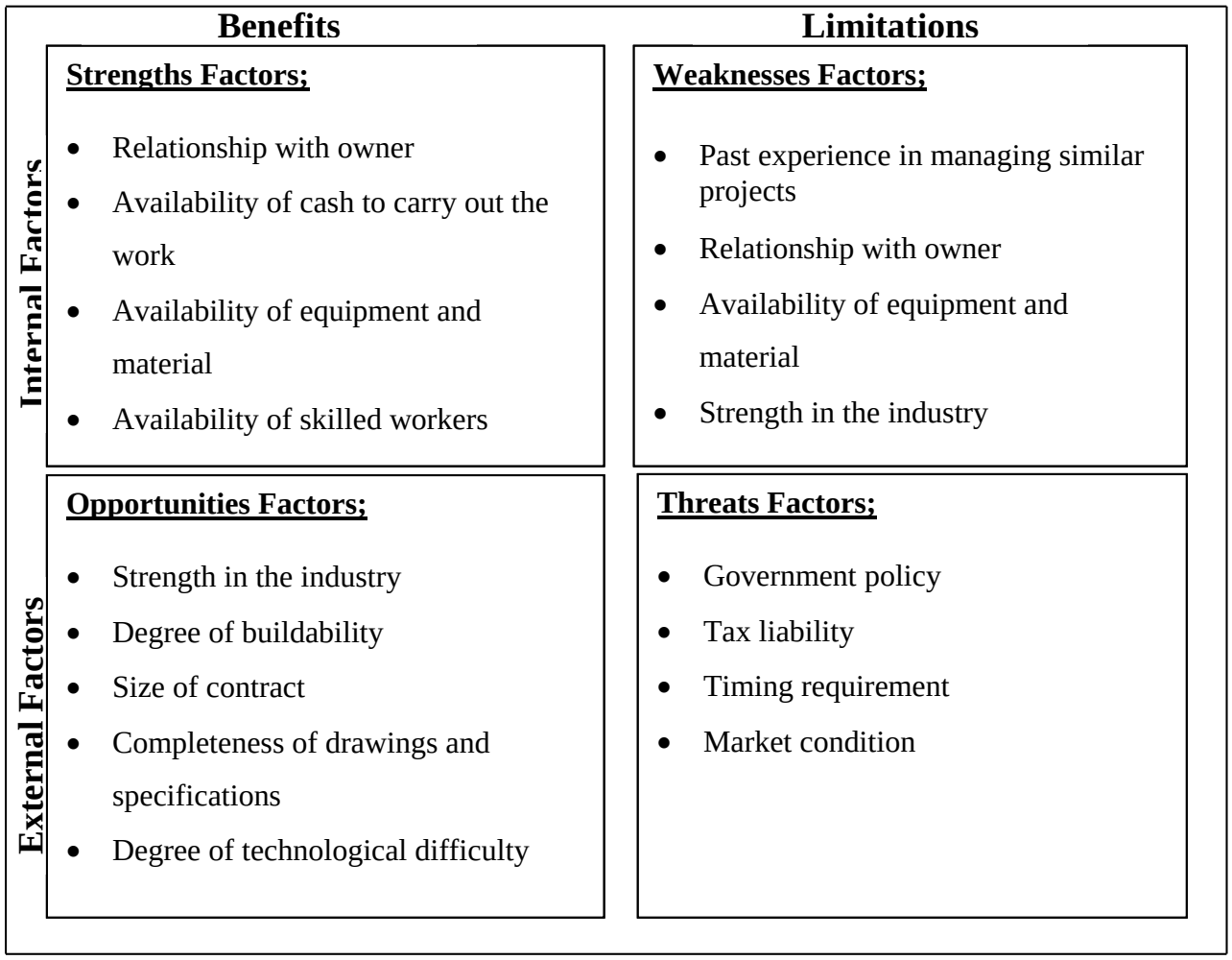

Figure 1. Framework for contractors' bid success

6 Conclusion

Generally in the construction industry, award of public projects has been based on a competitive process of bidding. Contractors are faced with the challenge of gaining entry into the standing list of the client and therefore must meet up with the required standard of technical and financial strength, social and economic conditions, management skills, good organization structure and operations and marketing ability (Shen *et al.*, 2006; Shen *et al.*, 2003). These among others are necessary for the achievement and maintenance of a sustainable competitive advantage as contractors bid for success. This study therefore reports the outcome of factors considered by contractors among others as shown in the framework that could influence their bidding activities. It is imperative for contractors to always conduct initial project research and embark on evaluation processes during bidding activities, and base on SWOT tool come up with an approach for a successful bid before committing much resource on the project.

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