The Effect of Swot Analysis in Project Management in South Eastern Nigeria

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Abstract
In Nigeria today, cases of project delays, project abandonment, project cost over-runs, cancellations of projects awarded and re-awards of cancelled projects have been the order of the day. This negative scenario has been a great concern to those at the helm of affairs both in public and private sectors, including project managers and scholars on how to stem this negative trend. Projects abandonment especially in the South Eastern Nigeria has led to cases of lost of lives and properties. Improper and inadequate critical decisions relating to project planning and risk management have been attributed as the major cause of this problem. In view of this development, this study is aimed at demonstrating how SWOT analysis could be a simple and yet a powerful tool in delivering projects on time and on budget. It is equally aimed at how SWOT analysis could be a strategic planning method used to evaluate the strength, weakness, opportunities, and threats involved in a project or business venture. The work equally x-rayed how SWOT analysis could be a veritable tool that will enhance a subjective assessment of a given situation or subject in order to make critical decisions that are related to planning and risk management. Both primary and secondary data were used in the study. Data from the primary source were basically from the designed instrument, which were distributed to the population of 80 staff of Anambra, Enugu and Imo states ministry of works and housing Engineering and survey departments. In view of the size of the population the entire population were study, hence no sample size was used and all the 80 questionnaire were retrieved. Secondary data were obtained from journal articles, textbooks, Newspapers, Magazines, Public documents, Conference papers and retrieved internet materials. The data were analysed by using Relative Importance Index (R.I.I) based on the works of Lim and Alua(1995). Findings revealed that the major cause of project delays and abandonment are inadequate planning, corruption and inadequate finance. However, it was found out that Swot analysis helped managers in the planning of the project and risk evaluation both at the starting point and the midway of the project. Finally, recommendations were proferred to project managers on the need to see the conduct of SWOT analysis both at pre-planning stage and midway of the project as a solution to achieving project objectives and delivering of project according to specifications and good project management.

Keywords: Swot analysis, project delays, abandonment, project management.

1.0 Introduction
Over the past decades, one strategic management technique that has gained increased acceptance in the field of strategic planning is the SWOT analysis. SWOT analysis is a strategic planning tool used to evaluate the strengths, weaknesses, opportunities, and threats involved in a project or business venture (Duncan 2006:12). The conceptualization and the development of this technique SWOT analysis can be credited to Albert Humphrey an American management consultant. (Bonacorsi 2009:10). While working on a research project at the Stanford University sometime around 1960s and 1970s, Albert Humphrey developed an analytical tool to evaluate the strategic plans and find out why corporate planning failed. He coined this technique as SOFT analysis where-

- S Stood for what things are satisfactory at present,
- O Denoted what opportunity can be explored in the future,
- F Indicates the faults in the present and
- T Signifies the threats that could surface in the future.

SWOT analysis involves specifying the objective of the project or business venture and identifying the internal and external factors that are favourable and unfavourable to achieving that objective. The strengths and weaknesses usually arise from within an organization, and the opportunities and threats from external sources.

According to Bonacorsi (2009:21) SWOT analysis must first start with defining a desired end state or objective. A SWOT analysis may be incorporated into the planning model. The SWOT analysis is an important part of the project planning process:

- **Strengths**: attributes of the organization that help achieve the project objective,
- **Weakness**: attributes of the organization that stop achievement of the project objective,
- **Opportunities**: external conditions that help achieve the project objective,
- **Threats**: external conditions that could damage the project. (Bonacorsi 2009:23).
1.1 STATEMENT OF PROBLEMS
In view of the negative consequences associated with project delays, project abandonment and cancellations of awarded projects, the study therefore will attempt to look at the role of SWOT analysis in project management. It is aimed at seeing how SWOT analysis could be a strategic planning tool in achieving project objectives. The study will therefore provide answers to the following research questions in an attempt to provide solution to the above problem.

1. What are the causes of project delays and project abandonment?
2. What are the roles SWOT analysis play in project management?
3. What are the benefits of SWOT analysis to management?

1.2 OBJECTIVES OF THE STUDY
This study is aimed at understanding the roles of SWOT analysis in project management. Specifically, it sought to determine the following:

1. To identify the causes of project delays and abandonment.
2. To determine the roles SWOT analysis play in project management.
3. To determine the benefits of SWOT analysis to management.

2.0 LITERATURE REVIEW
2.1 EVOLUTION OF SWOT ANALYSIS
The first mention of the term SWOT can be traced back to the Long Planning Seminar held in Zurich in 1964. In that seminar, Urick and Orr (1964, P:48) proposed the concept of SWOT analysis which was derived from SOFT by replacing the F for fault with W for weaknesses. With its initial promotion in Britain, the concept soon gained recognition among strategic planners and management consultants the world over.

The new interpretation of SWOT, the way it is used these days, differ slightly from SOFT.

- The S in SWOT now represents the strength—which give the business an advantageous edge over other similar businesses.
- W stands for weaknesses and these weaknesses can be understood as the comparative disadvantages that a business faces as against other similar businesses.
- O represents opportunities—the external possibilities that can be explored or utilized to boost the business’s growth.
- T signifies threats—the external or environmental factors which can cause problems for the business.

2.2 USEFULNESS OF SWOT ANALYSIS TO PROJECT MANAGEMENT
SWOT analysis is a tool that enables a subjective assessment of a given situation or subject in order to make critical decision that are related to planning and risk management (Olusegun, 2011:142). During a project kickoff, the output of a SWOT analysis can provide you key inputs for creating the project plans. For example, if a specific section or set of activities of a project are being outsourced, a swot analysis can help you determine the risks and opportunities associated with each outsourced vendor that is being considered, you then create the plans accordingly. Therefore, SWOT analysis is useful for risk management and resource management. For example, you can conduct a swot analysis to identify risks and then calculate the expected monetary value Sharma(2010:23). A Swot analysis falls under the category of strategic business planning or looking at trends to weed out the negatives in your projects and boost the positives of your project management (Sharma, 2010:27).

2.3 UNDERSTANDING PROJECT AND PROJECT MANAGEMENT
According to Nagarajan (2010 :1), the term ‘project’ has a wider meaning. A project is accomplished by performing a set of activities. For example, construction of house is a project. The construction of a house consists of many activities like digging of the foundation pits, construction of the foundation, construction of the walls etc. The construction is accomplished by performing the set of activities. Another aspect of ‘project’ is the non-routine nature of each activities. Each project is unique and non-routine. A project consumes resources and the resources required for completing a project are men, material, money and time.

Project management is an organized venture for managing projects. It involves scientific application of modern tools and techniques in planning, financing, implementing, monitoring, controlling, coordinating unique activities or tasks to provide predetermined objectives within the constraints of time and cost.

Project management consists of the following stages:
- Planning,
- Project scheduling,
- Project implementation, controlling and monitoring.

Every person, organization and every nation is concerned with project management. An individual building a
house, it is his project. He perform marriages for his children, these are all projects that he undertake in his life time. An organization sets up a new factory, it is a project for that organization. The government of a nation builds highways, dams, thermal power plant etc. These are all projects the country undertakes. Project are the backbone of every organization since the help to create productive assets Nagarajan (2010 P:2). I quite agree with Nagarajan on the above assertion, but investigation revealed that in some cases in the Nigerian contex the revise is the case, instead of projects being productive assets to the citizens, some have turned to be killing tools because of corruption in the awards and execution of contracts in this part of the World. Commuters travelling or who have travelled through Enugu-Portharcourt express road, Enugu- Onitsha express road and Abakiliki-Enugu express road all in the south eastern Nigeria just to mention but a few will attest to this fact. Contracts for the maintenance of these roads have been awarded many years ago, but today these roads are dead traps, and travelling on them is like a nightmare. And as a result, many innocent lives have been lost on these roads through accidents.

2.4 SWOT ANALYSIS IN PROJECT MANAGEMENT

According to Michelli Symonds (2009 ) SWOT which is an acronym for strength, weaknesses, opportunities and threats is not purely a method used for controlling areas of planning and risk, but it is also used to highlight areas of the project that could be maximized to the benefit of the whole project or individual areas where some competitive advantage may be gained. It is used to evaluate particular activities of the project in order to optimize their potential as well as to evaluate risks in order to determine the most appropriate way of mitigating those risks. This assertion is correct in the developed economies, not in some developing economies, where construction projects are awarded based on party affiliation and contributions made during electioneering campaign. In such case, the issue of risk evaluation in project management does not apply,because the purpose of the project is for political settlement.

SWOT analysis is normally performed during the initial project start-up phase so that the elements of the analysis can form the basis of the project plan, but it can also be used later in the project if the project is running into difficulties with scheduling, deliverables or budget and needs to be brought back on track.

For example, if a certain key activity in the project requires new software, a SWOT analysis can be used to assess the risks and the opportunity of purchasing the software and training staff in its use in order to help with the resource planning.

2.5 PERFORMING A SWOT ANALYSIS

Michelle Symonds(2009) indicates that a SWOT analysis session should always have a clear objective and it is the project manager’s responsibility to communicate that objective to all those present at the session. A typical session will include stakeholders, where possible, and key members of the project team. If the analysis is being performed at the start of a project, the objective is likely to be fully identifying all required activities and potential risks so that a proper plan can be put in place. However,if it is being conducted during an ongoing project, the objective may be to re-asses the budget or schedule. Because the objective of a SWOT analysis can vary so too can the questions used to elicit the required information. For this reason, there is no standard set of pre-defined questions that will meet every situation but every session must have a set of question written down before the session to ensure the attendees remain focused. This again, is the project manager’s responsibility. Depending on the urgency of completing the analysis and starting the project planning phase, it may be necessary to send out the questions in advance to allow attendees the opportunity of gathering any relevant information in advance.

Typical question for each part of the SWOT are listed below:

Strengths
- Does the company have the necessary skills in-house?
- Has a budget been assigned to the project?
- What are the business benefits of completing the project?
- Will the project require new technology or equipment?
- How experienced is the project team on similar project?

Weaknesses
- Is there a reliable estimate of costs available?
- Does the company have the budget to provide contingency funding?
- What are the drawbacks of the project?
- Will parts of the project need to be outsourced?
- Is the proposed schedule realistic?

Opportunities
- Can a local project be leveraged nationally or internationally?
- Do the competitors have any weakness?
- What are the latest industry trends?
- Are there any new, or imminent, technology developments?

**Threats**
- Is there well established competition already in the marketplace?
- Are experienced staff difficult to replace?
- Has new technology been fully tested?
- Could national or global economic conditions affect the project?

In the light of the above, Steven Bonacorsi (2011) suggests that SWOT analysis can help your team reach the best solution by:
- Helping decision makers share and compare ideas
- Bringing about a clearer common purpose and understanding of factors for success
- Organising the important factors linked to success and failure in the business world.
- Analyzing issues that have led to failure in the past.
- Providing linearity to the decision making process allowing complex ideas to be presented systematically.

**Criticism of SWOT**

Some findings from Menon et al. (1999 P:52) and Hilland Westbrook (1997 P:80) have shown that the SWOT may harm performance. Other criticisms against SWOT includes:
- It may persuade organisations to compile lists rather than think about what is important in achieving objectives.
- Presents lists uncritically and without clear prioritisation so, for example, weak opportunities may appear to balance strong threats.
- Usually a simple list and not critically presented.

### 2.6 Importance of SWOT analysis

SWOT analysis can help you and your organization reach the best solution by:
- Helping decision makers share and compare ideas.
- Bringing about a clearer common purpose and understanding of factors for success.
- Organizing the important factors linked to success and failure in the business world.
- Analyzing issues that have led to failure in the past.
- Providing linearity to the decision making process allowing complex ideas to be presented systematically.
- Produces new ideas to help take advantage of an organization’s strengths and defends against threats.
- Awareness of political and environmental threats allows an organization to have response plans prepared.

### 3.1 RESEARCH METHODOLOGY

The research design used in this study was the survey research method. The survey research focuses on population from which data are collected for intensive study and analysis. This study, primary and secondary sources were used in gathering information. In the primary sources of gathering information, questionnaires were administered to Quantity Surveyors, Civil Engineers, Architects and Builders in the three eastern states of Anambra, Enugu and Imo works departments. As indicated earlier, the population of the study were 80 staff of the engineering and survey departments of the three states ministry of works. In view of the size of the population, the entire population were studied. The respondents rated each factor on scale 1-4. The eighty well completed questionnaires were retrieved. The data were analysed by the use of Relative Importance Index (R.I.I) based on the works of Lim and Alua (1995). Data from secondary sources were obtained from journal articles, textbooks and public documents.

\[
R.I.I = \frac{4n_4 + 3n_3 + 2n_2 + n_1}{4N}
\]

Where \(n_4\) = most important, \(n_3\) = important, \(n_2\) = not important, \(n_1\) = most not important and \(N\) = no of respondents.

### PRESENTATION AND ANALYSIS OF DATA

The table below indicates the findings on the opinion of respondents on the causes of project delays and project abandonment.
Table 1: CAUSES OF PROJECT DELAYS AND ABANDONMENT

<table>
<thead>
<tr>
<th>S/N</th>
<th>CAUSES</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>R.I.I</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inadequate planning</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>73</td>
<td>0.978</td>
</tr>
<tr>
<td>2</td>
<td>corruption</td>
<td>0</td>
<td>3</td>
<td>15</td>
<td>65</td>
<td>0.953</td>
</tr>
<tr>
<td>3</td>
<td>Inflation</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>62</td>
<td>0.944</td>
</tr>
<tr>
<td>4</td>
<td>Bankruptcy of contractor</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>55</td>
<td>0.921</td>
</tr>
<tr>
<td>5</td>
<td>Variation of project scope</td>
<td>0</td>
<td>11</td>
<td>36</td>
<td>33</td>
<td>0.818</td>
</tr>
<tr>
<td>6</td>
<td>Death of client</td>
<td>11</td>
<td>22</td>
<td>15</td>
<td>32</td>
<td>0.713</td>
</tr>
<tr>
<td>7</td>
<td>Delaying in payment</td>
<td>0</td>
<td>4</td>
<td>18</td>
<td>58</td>
<td>0.919</td>
</tr>
<tr>
<td>8</td>
<td>Inadequate finance</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>65</td>
<td>0.953</td>
</tr>
<tr>
<td>9</td>
<td>Inflation</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>62</td>
<td>0.944</td>
</tr>
<tr>
<td>10</td>
<td>Bankruptcy of contractor</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>55</td>
<td>0.921</td>
</tr>
<tr>
<td>11</td>
<td>Variation of project scope</td>
<td>0</td>
<td>11</td>
<td>36</td>
<td>33</td>
<td>0.818</td>
</tr>
<tr>
<td>12</td>
<td>Death of client</td>
<td>11</td>
<td>22</td>
<td>15</td>
<td>32</td>
<td>0.713</td>
</tr>
<tr>
<td>13</td>
<td>Delaying in payment</td>
<td>0</td>
<td>4</td>
<td>18</td>
<td>58</td>
<td>0.919</td>
</tr>
<tr>
<td>14</td>
<td>Inadequate finance</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>65</td>
<td>0.953</td>
</tr>
<tr>
<td>15</td>
<td>Inflation</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>62</td>
<td>0.944</td>
</tr>
<tr>
<td>16</td>
<td>Bankruptcy of contractor</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>55</td>
<td>0.921</td>
</tr>
<tr>
<td>17</td>
<td>Variation of project scope</td>
<td>0</td>
<td>11</td>
<td>36</td>
<td>33</td>
<td>0.818</td>
</tr>
<tr>
<td>18</td>
<td>Death of client</td>
<td>11</td>
<td>22</td>
<td>15</td>
<td>32</td>
<td>0.713</td>
</tr>
</tbody>
</table>

From the table above, inadequate planning, corruption, lack of adequate funds and inflation are the major causes of project delays and abandonment with 0.978, 0.966, 0.953 and 0.944 rankings respectively. According to the respondents, when a project is not planned critically, the project is bound to fail at a long run.

Table 11: THE ROLE OF SWOT ANALYSIS IN PROJECT MANAGEMENT

<table>
<thead>
<tr>
<th>S/N</th>
<th>CAUSES</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>R.I.I</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Project Planning and risk management role</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>73</td>
<td>0.978</td>
</tr>
<tr>
<td>2</td>
<td>Evaluation of project activities in order to optimize the project potentials and risk evaluation role</td>
<td>0</td>
<td>4</td>
<td>14</td>
<td>62</td>
<td>0.931</td>
</tr>
<tr>
<td>3</td>
<td>Plays the role of bringing back difficult projects back on track through the use of scheduling and budgeting</td>
<td>0</td>
<td>11</td>
<td>18</td>
<td>51</td>
<td>0.875</td>
</tr>
<tr>
<td>4</td>
<td>Prudent Resource management role</td>
<td>0</td>
<td>11</td>
<td>14</td>
<td>55</td>
<td>0.887</td>
</tr>
<tr>
<td>5</td>
<td>Plays evaluation technique role that aid in decision making process</td>
<td>0</td>
<td>4</td>
<td>11</td>
<td>65</td>
<td>0.941</td>
</tr>
<tr>
<td>6</td>
<td>Plays the role of weeding out the negatives of projects and boosting the positives</td>
<td>0</td>
<td>4</td>
<td>14</td>
<td>62</td>
<td>0.903</td>
</tr>
<tr>
<td>7</td>
<td>Plays the role of Maximization of project objectives through gaining of competitive advantage</td>
<td>0</td>
<td>14</td>
<td>22</td>
<td>44</td>
<td>0.843</td>
</tr>
</tbody>
</table>

From the table above, project planning and risk management role ranked first in the opinion of the respondents. According to them, SWOT analysis help project managers in planning and managing the risks inherent in the project.
Table :111
Benefits of Swot Analysis to management

<table>
<thead>
<tr>
<th>S/N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>R.I.I</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>It enables management to acknowledge the strength and weakness areas of business and work towards preparing better strategies for improving them</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>76</td>
</tr>
<tr>
<td>2</td>
<td>It helps management to overview the internal factors as well as external factors and the distinctive capabilities of the organization that be in favour of the companys development.</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>69</td>
</tr>
<tr>
<td>3</td>
<td>It provides management with a better understanding of the internal strengths and the external threats so that the can adopt to better policies for changing threats into opportunities.</td>
<td>0</td>
<td>4</td>
<td>14</td>
<td>62</td>
</tr>
<tr>
<td>4</td>
<td>With the help of a well research analysis, the management can respond to the opportunities quickly and maximize their profit share.</td>
<td>0</td>
<td>11</td>
<td>22</td>
<td>47</td>
</tr>
</tbody>
</table>

The above analysis showed that item no 1 ranked first, this indicates that Swot analysis enables management to acknowledge the strengths and weaker areas of project and work towards preparing better strategies for improving them.

Table :1V
EFFECTS OF PROJECT ABANDONEMENT

<table>
<thead>
<tr>
<th>S/N</th>
<th>EFFECTS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>R.I.I</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Disappointment of the populace</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>76</td>
<td>0.988</td>
</tr>
<tr>
<td>2</td>
<td>Lowering of living standard</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>69</td>
<td>0.966</td>
</tr>
<tr>
<td>3</td>
<td>Wastage/ under utilization of resources</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>65</td>
<td>0.953</td>
</tr>
<tr>
<td>4</td>
<td>Reduction of employment opportunities</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>62</td>
<td>0.944</td>
</tr>
<tr>
<td>5</td>
<td>Decrease in revenue accruing to government</td>
<td>4</td>
<td>11</td>
<td>25</td>
<td>40</td>
<td>0.817</td>
</tr>
<tr>
<td>6</td>
<td>Decrease in the tempo of economic activities</td>
<td>0</td>
<td>7</td>
<td>22</td>
<td>51</td>
<td>0.888</td>
</tr>
<tr>
<td>7</td>
<td>Difficulties in attracting foreign loans</td>
<td>4</td>
<td>11</td>
<td>29</td>
<td>36</td>
<td>0.803</td>
</tr>
</tbody>
</table>

The table above indicates that when a project is abandoned, the populace bears the consequences. Not only that the populace are disappointed, it lowers their standard of living and not only that, their resources are wasted.

FINDINGS
It was found out that the major causes of project delays and abandonment are inadequate planning, corruption and inadequate finance.

1. SWOT analysis plays an effective evaluation technique role that aids project managers in their decision making process by ensuring that issues are identified, classified and prioritized clearly, showing the problem in terms of key underlying issues. Decision makers can then see the answer.
2. SWOT Analysis helps project managers in the planning of the project and risk evaluation both at the starting point and the mid way of the project.
3. SWOT Analysis equally enable management to acknowledge the strengths and weaker areas of business and work towards preparing better strategies for improving them.
5. It helps in weeding out the negatives of project and boosting the positives.
6. The study equally indicates that when projects are abandoned, the populace are disappointed and their standard of living are affected and equally, resources are eventually wasted.

RECOMMENDATION
Based on our findings, the following recommendations are made
1. Project managers should see the conduct of SWOT Analysis both at the pre planning stage and mid way of the project as a panacea in achieving the project objectives.
2. To drastically reduce the effects of project abandonment, clients of projects should undertake an adequate planning for the project at inception and should make enough funds available based on reliable estimate made by the Quantity Surveyor at inception. Prompt payment to the contractor as dictated by Quantity Surveyors valuation and Architect’s certificate.
3. The Government should also put in all efforts to reduce inflation and when there is change in
government, projects awarded and started should not be abandoned by the new Government.

CONCLUSION
SWOT Analysis is a very effective way of identifying your strengths and weaknesses, and of examining the Opportunities and Threats you face. Carrying out an analysis using the SWOT framework will help you focus your activities into areas where you are strong, and where the greatest opportunities lie. In any business, it is imperative that the business be its own worst critic, a SWOT analysis forces an objective analysis of a company's position via its competitors and marketplace. Simultaneously, an effective SWOT analysis will help determine in which areas a company is succeeding, allowing it to allocate resources in such a way as to maintain any dominant positions it may have.

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