

## EFFECT OF PROJECT MANAGEMENT ON PROJECT SUCCESS

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### ABSTRACT

*This study evaluates the effects of project management on project success in Blackstone Construction Company. The study adopted a survey research design, using a combination of stratified and judgmental sampling techniques. A structured questionnaire was administered on 40 top and middle levels management staff of the company. The scales in the questionnaire were content validated, and has a reliability correlation coefficient of 0.11. The data collected was analyzed using descriptive statistics and Chi-Square distribution. The research findings reveal that there is a relationship between project quality and business success, Project quality and technical success. The study also reveals that there is a significant relationship between Project cost and acceptability by clients. It was therefore recommended among others that total project cost on the side of clients should be minimized by ensuring that the project manager is innovative enough and creative in the apportion of project cost without reducing the quality of the project.*

**Keywords:** *Project, Project Success, Technical success, Quality, Cost*

### 1.0 INTRODUCTION

Managing project is one of the oldest and most respected accomplishments of mankind. This is highlighted by the achievement of the builders of pyramids, the architects of ancient cities, the mason and craftsmen of Great Wall of China and other wonders of the World (Peter, 2001). Project make up around fifty percent of all work carried out and as a result is deemed the vehicle for the execution of organizational growth. The accomplishment of project through the application and integration of the project management process of initiation, planning, executing, monitoring, controlling and closing, is known as project management. Project management integrates these functions progressively through the project life cycle with the aim of satisfying the stakeholders and constituents according to the project's established requirements. Stakeholders are those who have a direct stake in the project while the project's constituents are those who may be impacted by the consequences of the project. Project success is typically generated when the stakeholders and constituents express their collective satisfaction according to the degree of their involvement. Project management also includes planning, organizing, directing and controlling activity in addition to motivating what are usually the most expensive resources on the project.

However, this conventional approach to project management seems not to be a sufficient condition for project success. This perhaps is a result of the increasing complexity of project, large capital investment, widely dispersed project participants, stringent quality standard, escalating cost, environment shocks, increasing stakeholders' power and advancement in ICT. The foregoing challenges presented have the capacity to influence project success in different ways. However the ability to absorb the shocks thus created may depend largely on project management strategies. In the view of Harvey(1999), A very good project management framework should take cognizance of cultural, structural, practical and personal elements. Expectedly it should reflect good orientation, non-repetition activity and a particular evaluation mechanism to measure output/performance.

However, most of the investigators results are inconclusive and the specific peculiarities of the environment in which the studies were conducted. Nigerian based studies are few and far in-between. Thus, the need to further examine the conjecture.

The objective of the study is to examine the axiomatic impression of a postulate correlation between project management and project success. This conjectural statement is to be analyzed using Blackstone International Limited. The following pertinent questions would be answered in the course of the research work;

- i. To what extent does quality management enhance commercial success?
- ii. Is there any significant relationship between quality project management and technical success?
- iii. Does project management have any effect on client acceptability?
- iv. Does cost project management have an effect on commercial success?
- v. Is there any relationship between cost of project management and the project technical success?
- vi. Does cost management have effect on client acceptability?

### 1.1 RESEARCH HYPOTHESES

**H<sub>0</sub>:** There is no significant relationship between project quality management and the project business success.

**H<sub>0</sub>:** There is no significant relationship between quality project management and the project technical success.

**H<sub>0</sub>:** There is no significant relationship between project cost management and client acceptability.

### 2.0 LITERATURE REVIEW

A project is a group of tasks, performed in a definable time period, in order to meet a specific set of objectives. As project has the following characteristic, it is likely to be a one-time programme, it has a life cycle with a specific start and end data, it has budget and likely to require the use of multiple resources, most of which may be scarce and have to be shared among others. It may require the establishment of a special organization or the crossing of traditional organizational boundaries (Harvey, 1999). Akarakiri (2007) defines project as any scheme, or part of a scheme for investing recourse which can reasonably be analyzed and evaluated as independent unit.

Spinner (1997) also defines project as series of task or activities that have several distinguishing characteristics. Such as: Having specific starting and ending data, Achieving a specified result on product, Well defined objectives, A unique, non-repetitive endeavor.

This view point is collaborated by Verna (1995) when he defines project as the investment of capital in a time bound intervention to create assets. In the same way Kerzner (2003) further define project as an assignment that has to be undertaken and completed within a set time, budget, resources and performance specification designed to meet the needs of stakeholders and beneficiaries.

Although, there are numbers of general definition of the term project; it must be recognized at the outset that projects are distinct from other organizational processes. As a rule, a process refers to ongoing, day-to-day activities in which an organization engages, while producing goods and services, processes use existing systems properties and capabilities in a continuous, fairly repetitive manner. Projects, on the other hand, take place outside the normal, process oriented world of the firm. Certainly, in some organizations, such as construction, day-to-day processes center on the creation and development of project. Nevertheless, for the majority of organizations project management activities remain unique and separate from the manner in which more routine, process driven work is performed (Kerzner, 2003). Project work is continuously evolving, established its own work rules, and is the antithesis of repetition in the work place. As a result, it represents an exciting alternative to business as usual for many companies. Probably the simplest definition is found in the Project Management Body of Knowledge (PMBOK) guide of the Project Management Institute (PMI). PMI is the world's largest professional project management association, with over 200,000 members' world wide as of 2005. In their PMBOK guide, a project is defined as "a temporary endeavor undertaken to create a unique product or service".

PMI (2005) examined the various elements of projects as identified by the following set of definitions:

- Projects are complex, one time processes- A project arises for a specific purpose or to meet a stated goal. They are complex because they typically require the co-ordinate inputs of numerous members of the organization, project members may be from different departments or other organizational unit or from one functional area. On the other hand, some projects such as new product introductions, work best with representatives from many functions, including marketing, engineering, production and design. Because a project is intended to fulfill a stated goal, it is temporary. It exists only until its goal has been met, and at that point, it is dissolved.
- Projects are limited by budget, schedule and resources. Project work requires that members work with limited financial and human resources for a specified time period. They do not run indefinitely. Once the assignment is completed, the project team disbands. Until those points, all its activities are

constrained by limitations on budget and personnel availability. Projects are “resource constrained” activities.

- Projects are developed to resolve a clear goal or set goals. There is no such thing as a project team with an on-going, non specific purpose. Its goals, or deliverables, define the nature of the project and that is its team. Projects are designed to yield a tangible result, either as a new product or service. Whether the goal is to build a new bridge, implement a new account receivable system or win a presidential election, the goal must be specific and the project organized to achieve a stated aim.
- Projects are customer focused: Whether the project is responding to the needs of an internal organizational unit (e.g. accounting) or intended to exploit a market opportunity external to the organization the underlying purpose of any project is to satisfy customer needs. In the past, this goal was sometimes overlooked. Projects were considered successful if they attained technical, budgetary or scheduling goals. More and more, however, companies have realized that the primary goal of a project is customer satisfaction. If that goal is neglected, a firm runs the risk of “doing the wrong things well” pursuing projects that may be done efficiently but ignore customer needs or fail commercially.
- Therefore project is not determined by the amount of money involved or its size. For example, the construction of a house, relocation of an office, introducing a new business, installing new facilities for education or health are all projects because they are unique, have well-defined objectives and constrained by a time factor in a broad sense. I believe a project is a specific and finite task to be accomplished at a given time.

## 2.1 Project Success

In recent time, organizations activities are becoming more project based, The implication is that organization tends to split routine work into programs of project in order to quickly achieve organizational goal of value added . Good management of these projects is essential if the organization is going to succeed. Equally important to individual project success is ensuring that the right projects are carried out. Directing all the projects successfully will ensure we are doing the right projects. Judges and Muller (2005) in their article mentioned that in order to define what success means in a project context is like gaining consensus from a group of people on the definition of "good art." Project success is a topic that is frequently discussed and yet rarely agreed upon (Baccarini, 1999). One was limited to the implementation phase of the project life cycle to definitions that reflect an appreciation of success over the entire project and product life cycle (Judges and Muller, 2005).

Rowe *et al*, (1982) say that "Key result areas (KRAs) and critical success factors (CSFs) provide clue that help to answer the question of whether the organization is able to effectively mobilize its resources where there are conflicting sub goals, environmental uncertainty, and internal politics and constraints".

Verma (1995) writes that communication, teamwork, and leadership are vital components of effective management of project human resources and are necessary to accomplish project objectives successfully. Cleland (1986) suggested that "project success is meaningful only if considered from two vantage points: the degree to which the project's technical performance objective was attained on time and within budget; the contribution that the project made to the strategic mission of the enterprise." Freeman and Beale (1992) provided an interesting example of the different points of view of people: "An architect may consider success in terms of aesthetic appearance, an engineer in terms of technical competence, an accountant in terms of dollars spent under budget, a human resources manager in terms of employee satisfaction, and chief executive officers rate their success in the stock market."

## 2.2 Project Management and Project Success

Atkinson (1999) reported that project management has cost quality, and time as its critical factor. This earlier reviewed literature limited their critical success factors to cost, quality and time. This is a major short coming of the research and as such the submission there can't be generalized. An inclusion of business success and client acceptability to the model will make it to be better encompassing. Turner and Muller (2005) in their study postulate that impact of project leader and his/her leadership style is the major determinant of project success; in their research they believe people ignore the impact of the project manager, and his or her leadership style and competence, on project success. This Research work limited critical success factor to project manager competency. This is a major short coming of the research and there off can't be generalized an inclusion of technical success and client acceptability to the model will make it to be more encompassing. Baker *et al* (1983) use a sample of 650 completed aerospace, construction with data provided primarily by project managers on the factors contributing to project success. The major short coming of this research is limiting the study to aerospace construction alone without considering other construction areas such as Road construction, Rail construction and so on.

### 3.0 RESEARCH METHOD

The study was based upon a survey of middle and top level managers of Blackstone International Civil Works Limited located in Lagos. The choice of the company is because of its strategic position of being a market leader in the industry and its location in Lagos, which is noted as the nucleus of company activities in Nigeria. Random sampling technique was applied in the study. The sample selected for this study consisted of forty mid level manager of the company. The respondents were managers from IT, Accounts, Human Resources, Engineering and Operations departments. In pursuit of the study objectives, the research instruments used was a structured and non-disguised questionnaire with close-ended questions, designed from review of related literature. The data collected was analyzed using descriptive statistic and Chi-square distribution

#### 3.1 Model Summary

##### MODEL1: Business Success and Project Quality

CHI-SQUARE VALUE	543.5
DEGREE OF FREEDOM	3
SIGNIFICANCE LEVEL	0.000

##### MODEL2: Project Quality and Technical Success

CHI-SQUARE VALUE	688.5
DEGREE OF FREEDOM	4
SIGNIFICANCE LEVEL	0.000

##### MODEL3: Project Cost and Client Acceptability

CHI-SQUARE VALUE	537.8
DEGREE OF FREEDOM	3
SIGNIFICANCE LEVEL	0.000

### 4.0 RESULTS AND DISCUSSION

#### 4.1 Personal details of the respondents

Personal details of the respondents covered are sex, qualification and working experience. The data in Table 1 reveals that males and females consist 82% and 18% of the sampled population respectively. This is because the construction and engineering firm are dominated by males due to its nature. Also from Table 1, respondents with Bachelor's degree/HND ranked highest with 52.5% followed by holders of OND/NCE with 20%. This revealed that the majority of the respondents are knowledgeable and well trained enough to understand the concept of project management and project success. The respondents who have working experience of 6-10 years are majority, followed by those in the range of 11-15. The implication of this is that most of the respondents have stayed enough in the company to understand how projects are being managed and executed. The model summary showed the Chi-Square value is very high. The implication of this is that for this study the three research hypotheses were rejected.

#### 4.2 Discussion of findings

The discussion of findings is based on major issues raised in the hypothesis of this study. All finding were held at a significant level,  $p < 0.05$ . Hypothesis one states that project quality management has no significant relationship with business success. The null hypothesis was rejected (Model Summary1) because in the cause of the research it was revealed that in the organization, project management team has a reputation for using considerable time and resource to manage the perceived benefits from investing in the management of the system, during the research it was discovered that there should be increase in awareness of both perceived and actual benefits of standardization of project. One way in which this can be improved is by increasing awareness of the benefits of good project management. It was also discovered that increasing level of innovation on the improvement of quality of service delivery of this organization will enhance a better market share in terms of total of revenue growth of the organization which will also ensured profitability and client loyalty for the construction firm.

Hypothesis two states that project quality has no significant relationship with technical success.

The null hypothesis was rejected (Model Summary2). In the course of this research it was revealed that there are many reasons why an organization (particularly a multi site organization) failed in standardizing their activities and set out what the organization regards as best practice. It was discovered that improved on inter-site communication, ensuring that everyone is talking the 'same language' in project management team will minimize duplication of effort and waste. For example by having common resources, documentation and training.

Also, in an effort to create some degree of standardization across an organization, project management approaches often end up being very prescriptive based on a series of checklists, guidelines and mandatory reporting forms. Furthermore, in trying to create a common standard across the company no allowance is made for local or cultural variations which, in a multinational, multi-cultural company can be substantial. Some sites may have no clear idea of how their performance relates to the 'standard' in addition; some may have had a greater exposure and a longer history of project management than others. For those with little experience or skills in project management, having to adopt a corporate standard is a daunting prospect.

Hypothesis three states that there is no significant relationship between project cost and client acceptability. The null hypothesis was rejected (Model Summary3).

In this result, three issues were addressed by all those involved in project management. These are the project definition, the client role, and project cost. In the cause of this research it was discovered that project definition and early decision making is critical to overall success. The efforts of the project team will not redeem a project that is doomed to fail because of poor early decision making. There is the possibility that poor project management could threaten a potentially good project. The client should responsible for the creative processes in identifying possible ideas for a project. The role of project management can help in this process by ensuring that the feasibility study identifies ideas which are unlikely to succeed and recommending to the client that they should be abandoned. Feasibility should not be confined in this case to the feasibility of the development process, but should be extended to the subsequent use. Even in this situation the project team is not involved in the creative process of producing ideas, but with the checking of ideas generated by the client.

#### **4.3 Implications of the study on the case study**

The research was carried out to examine how the various hypotheses tested in this research work affect the success of Blackstone construction Nigeria limited, which was selected as the case study of the research topic, from the findings the study revealed that the production process of the organization needs proper control. The companies recognize the possibility to succeed among the construction firms in Nigeria, therefore the company must make a commitment on the continuous improvement in developing innovative products idea and services that are once combine exceptional quality. This line of could lead to the innovations strategy of producing structure, or fancy blocks that satisfies the need and culture of the companies immediate environment, with that acceptance of the quality level of the project actualized by the company the patronage of the customer will definitely increased, this will definitely enhance a better market share for the organization, that will tends to increase the profitability and ensure sustainability of the organization in the country.

The findings also revealed that quality management will enhance technical success of the organization, technical success of project execution contributed tremendously to the positions variance that occur in customer satisfaction, naturally technical success ensure that the scope of project execution of the construction firms is relevant to the need and requirement of the client, the base line should be controlled and the technical success is achieved. It was revealed that quality is intertwined with issues of technical performance, specification and achievement of functional objectives and it is achievement on these criteria that will be most subject to variation in perception by project shareholders.

In summary, it was discovered that for a project to be successful there must first be an improved appreciation of the role of project management within projects, and this role must be placed within the context of a wider project alongside other outside criteria and long term expectations. Second, the project manager must allow the client to contribute actively in the planning and productions phases and at the same time the project team involvement has to be extended to the utilization phase. This would be accommodated properly in a project evaluation technique that examines not only the implementation process but also the economic and financial performance.



## 5.0 CONCLUSION AND RECOMMENDATIONS

The most important step towards project management maturity is to set up project management operations that can best be developed and utilized. Skilled personnel and direct efforts are used via a set of project management practices. In the construction industries, some components and practices include work scope, time, resources, costs, quality, communication, risk, and contracts procurement. This study finds out that if these project management practices are well managed, there is a very high possibility of having a viable project that will guarantee a sound business success. This is associated with the corresponding increase with the cost of production. The reduction in the number of indigenous construction companies competing actively within the last few years could be attributed to the rising cost of production and other environmental factor. The erratic and most times unavailable supply of energy experience in the country is responsible for the lack of power needed in the industries.

In the light of the findings of this research, this study recommends that: To preserve the construction projects after its completion, the quality of materials used in construction projects must not be compromised, Measures should be taken by project managers and projects team leaders to ensure that project objectives are effectively communicated to team members as this will help go a long way determining its achievement, Since the implementation and execution of projects will be dependent on an earlier appraisal carried out, it is recommended professionals should adequately project to achieve quality and performance, Measures should be taken to ensure that project management skills and strategies are adequately considered in the planning and execution of construction projects, The use of locally manufactured materials should be encouraged in the execution of construction projects provided that such materials are not sub – standard, Clients should be enlightened on the danger and effect of using low quality materials in the execution of construction projects as well as the implications of employing the services of incompetent professionals in the execution of project, To minimize total project cost on the side of the clients, the project managers should be innovative enough and creative in the way they apportion project cost. The cost of executing a particular project could be reduced without necessarily reducing its quality.

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## APPENDIX

**Table 1: Personal details of the respondents**

<b>Sex of the respondents</b>	<b>No.</b>	<b>%</b>
Male	33	82
Female	7	18
<b>Highest Qualification</b>		
OND/NCE	08	20
Bachelor's Degree/HND	21	52.5
Postgraduate Diploma	05	12.5
Masters' Degree	06	15
<b>Working Experience (Years)</b>		
1-5	10	25
6-10	17	42.5
11-15	09	22.5
Above 15 years	04	10

Source: Field survey, 2011

**Table 2: Analysis of the Respondents on Project Quality**

Statements	Very Extent	High	High Extent		Average Extent		Low Extent		No Extent	
	F	%	F	%	F	%	F	%	F	%
There is a form of design/product planning before quality production	10	25	9	22.5	20	50	1	2.5	0	0
After production there is verification of compliance of product before final handling over of the project.	20	50	10	25	10	25	0	0	0	0
Control measures are put in place against quality defective	16	40	8	20	8	20	2	5	2	5
Innovation has an effect on the continuous improvement on quality of services delivery	25	62.5	10	25	5	12.5	0	0	0	0
Products are primarily designed to conform with the specification of our client	6	15	6	15	10	25	10	25	8	20

Source: Field survey, 2011.

**Table 3: Analysis of the Respondents on Project Cost**

Statements		Very Extent	High	High Extent		Average Extent		Low Extent		No Extent	
Production Cost helps identify needed resources and maintain budget control		F	%	F	%	F	%	F	%	F	%
		25	65.5	10	25	5	12.5	0	0	0	0
cost raw material enhance project planning to be incurred in the completion of a project		20	50	10	25	10	25	0	0	0	0
cost estimation are properly appraised to avoid project failure		20	50	10	25	10	25	0	0	0	0
cost analysis exposes potential risks to be encounter in a project		8	20	20	50	12	30	0	0	0	0
Costs of labor are properly package to motivate our workers		19	47.5	10	25	10	25	1	2.5	0	0

*Source: Field survey, 2011.*

**Table 4: Analysis of the Respondents on client acceptability**

Statements	Very Extent	High	High Extent		Average Extent		Low Extent		No Extent	
The delivery time is prompt and better than as agreed	F 9	% 22.5	F 15	% 37.5	F 10	% 25	F 2	% 5	F 4	% 10
The responses to client complaints are prompt and adequate	35	87.5	5	12.5	0	0	0	0	0	0
Price quoted for jobs are competitive	20	50	10	25	7	17.5	1	2.5	2	5
There is a social relation between client and the management of the company	28	70	12	30	0	0	0	0	0	0
There is high level of trust, integrity and honesty in the business relationship	30	75	5	12.5	12.5	0	0	0	0	0

*Source: Field survey, 2011.*



**Table 5: Analysis of the Respondents on business success**

Statements	Very Extent	High	High Extent	Average Extent	Low Extent	No Extent				
The high level of competition has not prevented the organization from making enough profit to guarantee organizational survival	F 21	% 52.5	F 5	% 12.5	F 12	% 30	F 2	% 5	F 0	% 0
Customers have ensured our profitability and overall success through their continues patronage and loyalty	20	50	15	37.5	5	12.5	0	0	0	0
The price of our product has gave us a competitive edge against our competitors.	27	65.5	10	25	3	7.5	0	0	0	0
Our total revenue (sales) growth rate enhances a better market share	15	37.5	15	37.5	8	20	1	2.5	1	2.5
Our Client is satisfied with prompt delivery of our project compare to other competitor.	18	45	10	25	7	17.5	0	0	5	12.5

*Source: Field survey, 2011.*

**Table 6: Analysis of the Respondents on technical success**

Statements	Very Extent	High	High Extent		Average Extent		Low Extent		No Extent	
	F	%	F	%	F	%	F	%	F	%
Our brand name and product range has been a major source of competition in the market	22	55	12	30	4	10	2	5	0	0
Our styles and design are one of the most sought after throughout the industry	10	25	15	37.5	10	25	2	5	1	2.5
Our designs incorporate past and present culture.	20	50	10	25	10	25	0	0	0	0
our brand gives a unique product differentiation	20	50	15	37.5	5	12.5	0	0	0	0
Our project are properly scrutinize before delivery	10	25	15	37.5	10	25	2	5	1	2.5

*Source: Field survey, 2011.*

**Table 7: Business success and project quality**

	Observed N	Expected N	Residual
2.00	24	100.0	-76.0
3.00	24	100.0	-76.0
4.00	51	100.0	-49.0
5.00	301	100.0	201.0
Total	400		

**Test Statistics**

	Business success and project quality
Chi-Square	543.540 <sup>a</sup>
df	3
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 100.0.

**Table 8: Project cost and client acceptability**

	Observed N	Expected N	Residual
2.00	14	100.0	-86.0
3.00	14	100.0	-86.0
4.00	76	100.0	-24.0
5.00	296	100.0	196.0
Total	400		

**Test Statistics**

	Project cost and client acceptability
Chi-Square	537.840 <sup>a</sup>
Df	3
Asymp. Sig.	.000

**Test Statistics**

	Project cost and client acceptability
Chi-Square	537.840 <sup>a</sup>
Df	3
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 100.0.

**Table 9: Technical success and project quality**

	Observed N	Expected N	Residual
1.00	1	80.0	-79.0
2.00	26	80.0	-54.0
3.00	30	80.0	-50.0
4.00	56	80.0	-24.0
5.00	287	80.0	207.0
Total	400		

**Test Statistics**

	Technical success and project quality
Chi-Square	688.525 <sup>a</sup>
Df	4
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 80.0.