EFFECT OF PROJECT MANAGEMENT PROCESSES ON PROJECT SUCCESS

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Abstract: Project management is a strategic competency that enables entities to link project success to business goals. The purpose of this study was to investigate the influence of project management processes on the project success of selected private sector infrastructure projects. The study was guided by four research objectives namely: to determine the influence of project initiation and planning process on project success; to examine the influence of project execution process on project success; to investigate the influence of monitoring and controlling of projects on project success; and to establish the influence of project closure processes on project success. The study focused on construction firms Abuja headquarters, from where all projects are centrally managed. Project management was overseen by a team of project managers who worked closely with other functional units such as sales and marketing, finance, quality and audit, technical units, customer support and procurement. Descriptive survey research design was adopted for the study. This study finds out that if these project management processes are well managed, there is a very high possibility of having a viable project that will guarantee a sound business success. It is recommended that more attention be placed on organizing project management processes according to their impact and influence.

Keywords: Project Management Processes Success

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, 2010). 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.

Execution of projects is undertaken through management processes carried out by various project managers daily. Specific project objectives are set to be achieved at the end of the project. The objectives may vary from one project to the other. Time, cost and quality objectives are however basic and common to almost all projects; they are discussed in the success subject matter of most projects (Belassi and Tukel, 2013).

Within the sphere of a given project there are several project management activities. Several ways of carrying out these activities emerge and become accepted as day to day processes. The need to meet certain environmental and social challenges, as may be faced by a particular organization, may cause the adoption of certain project management processes. Personnel involved in project management may also adopt certain project management processes and stick to them for purposes which may however not relate to the project success. Several processes are therefore carried out in the management of projects but not recognized as project management processes (Carvalho & Rabechini, 2011).

The need to obtain successful projects calls for the need to also undertake optimum processes. Knowing the success, or outcome or success of a project has a great deal of relevance to knowing the optimum processes. The

effort put into the measurement of project performance in the country has portrayed little or no help in this direction. The possible, simple and most

Performance of group of projects managed by an organization may differ from performance of another group of projects with similar characteristics but managed by another organization. The kind of project management processes carried out by the different organizations for achieving project success may also influence variation in the performance of the projects. The significance of such differences in performance of the groups of projects is therefore necessary for determination of the characteristics of influential project management processes (Sears 2008).

There is a relationship between project management processes and project success. Certain project management processes adopted do not necessarily have a significant satisfactory influence on projects success whilst some have. There would therefore be the need to promote optimum processes and a second look taken at others that confront the success (Horine 2009),

The studies from the empirical studies were conducted outside construction firms in Nigeria. Furthermore, some of these studies examined the factors that influence quality performance of building projects. The process industries, consisting of firms that add value by mixing, separating, forming and/or chemical reactions by either batch or continuous mode, continue to have difficulty in realizing the benefits of many of the Project management practices developments in the discrete industries. Furthermore, the study conducted by some researchers described construction industry is any worse or better compared to other industries. This research fills this knowledge gap and will examine the impacts of project management on the performance of selected construction firms in Nigeria with particular reference to selected constructions firms in Abuja namely Nahman construction Co. Ltd, Setraco Nigeria Ltd and Julius Berger Nigeria. Plc.

The objective of this study is to examine the effect of project management processes on product success of selected construction companies in Nigeria**.** The specific objectives of this study are to: determine the effect of project initiation on project success of selected construction companies in Nigeria, examine the effect of project execution on project success of selected construction companies in Nigeria, investigate the effect of monitoring of projects on project success of selected construction companies in Nigeria and establish the effect of project closure on project success of selected construction companies in Nigeria.

The study is restricted to the effect of project management processes on project success of selected construction firms in Nigeria. Project success is considered in the context of achievement of a project's Time, Quality and Cost objectives; it does not include other emerging performance metrics used in the measurement of project success. Conceptually the study hovers around the influence of project management. In the light of broad coverage, the researcher focuses three (3) selected construction firms in Abuja, Nigeria with difference reference to Nahman construction co. Ltd, Setraco Nigeria Ltd and Julius Berger Nig. Plc
The following hypotheses are stated in a null form:

$H0_1$: There is no significant effect of project initiation process on project success of selected construction companies in Nigeria
$H0_2$: There is no significant effect of project execution on project success of selected construction companies in Nigeria
$H0_3$: There is no significant effect of monitoring of projects on project success of selected construction companies in Nigeria
$H0_4$: There is no significant effect of project closure on project success of selected construction companies in Nigeria

Concept of Project Management Processes

Project quality are evaluated by performance measurement which can be defined as the process of evaluating performance relative to a success in terms of time, cost and quality these are the basic criteria to project success. While project creates productive assets through the conversion of resources into productive assets, for the right quality, time and cost (Nagarajan, 2012).

In the realm of project management, the schedule, cost and quality achievement is also referred to as the iron triangle. Out of these three aspects, it is the achievement of schedule and cost compliances that the project management is attending to most of the time. This results in a halfhearted attempt to achieve quality at project sites. In order to achieve the schedule and cost objectives, project quality is sometimes also overlooked, (Jha and Iyer, 2006). Quality professionals use a number of definitions to define project quality. Quality in its simplest form can be defined as: 'meeting the customer's expectations,' or 'compliance with customer's specification.' No matter what definition we follow for quality, it becomes very complex when we try to put it into actual practice. For a user, quality is nothing but satisfaction with the appearance, performances, and reliability of the project for a given price range. There need for creative conversion of resources into project asset through effective organizes, plans, schedules, and controls the field work to achieve project time, cost and quality, this is the responsibility of the project manager he is responsible for getting the project completed within the time, cost limitations and quality. The success of any project is attributed to the proper management role of the project manager in putting together available resource.

According to Horine (2009), Project management is applying both the science and art to planning, organizing, implementing, leading, and controlling the work of a project to meet the goals and objectives of the organization. The process of defining a project, developing a plan, executing the plan, monitoring progress against the plan, overcoming obstacles, managing risks, and taking corrective actions. The process of managing the competing demands and trade-offs between the desired results of the project (scope, performance, quality) and the natural constraints of the project (time and cost).

Project management has increasingly been a strategy used by organizations to construct their plans to achieve their goals. Since the beginning of the 2000s, project management (PM) and its issues have been growing in relevance in a more specific way, even being adopted as organizational model (Carvalho & Rabechini, 2011). This new tendency has become strong enough to create a new category of organizations, composed by those that conduct all or almost every organizational activity by projects: project-based organizations (PMI, 2013). Considering this new scenario faced by most of the modern firms, their managers also need to be much engaged to achieve success in project management.

Concept of Project success

The literature presents several ways and criteria to assess the development and success of projects; the most traditional is based on the so-called "iron triangle", comprising the criteria of cost, time and quality (Meredith; Mantel, 2000). Thus, a project that would not overly move away from the initial budget, meet the timeline and fulfill the requirements established by stakeholders would be considered successful. When considerations about project management success are made, it is possible to find and use many different approaches. One of the most traditional ones is the iron triangle approach. It affirms that three main aspects that must be managed together characterize projects: scope, cost and time. PMI (2013) defines the scope as "the work performed to deliver a product, service, or result with the specified features and functions". In addition PMI approaches cost management as: "the cost of resources needed to complete project activities the effect of project decisions on the subsequent recurring cost of using, maintaining, and supporting the product, service, or result of the project" PMI (2013), and finally time management as "the processes required to manage the timely completion of the project" PMI (2013).

Theory of Execution

There is a structured weekly dispatching procedure, where the site manager together with subcontractors and crews decides about the tasks to be carried out in the next week. Here the principle is that the assignments should be sound regarding their prerequisites. This means that work should not start until all the items required for its completion are available. Only tasks in the Can category are transferred to the Will category.

After the week in question has gone, the crews inform whether they have realized the assigned tasks or not. This procedure contrasts to the conventional project management, where execution just consists of task authorization: the site manager notifies the subcontractor or the crew that the task should be started. Theoretically interpreting, the execution phase in Last Planner is similar to the language/action perspective model in that communication is a two-way process, and commitment is created for the realization of the tasks within the planning conversation

where plans prepared by one crew are understood as promises to others and through the obligation to report on the completion of the task.

Theory of Control

Control consists of measurement of the realization rate of assignments, investigation of causes for non-realization and elimination of those causes. Here a metrics called Percent Plan Complete (PPC) is used. In conventional project management, main control consists of comparing progress with the performance baseline, expressed in money or hours. Theoretically interpreting, Last Planner is using the scientific experimentation model of control.

Theory of Project

Tasks are the central unit of analysis in Last Planner. Even though flows are not directly represented in theory of project, the principles used contribute to the generic principles of flow management. Theory of project facilitates avoiding both variability propagation and unnecessary penalties of variability.

The focus on plan realization diminishes the risk of variability propagation to downstream flows and tasks reducing the need for large material buffers on site. Theory of project effectively combines control and improvement to fight back against variability and the waste caused by it. Thus, theory of project combines the flow and the transformation view in short term planning, execution and control

Empirical Review

Kerzner (2010) and Anantatmula (2015) have discussed project success criteria from various perspectives. These studies include technical aspects that are considered easy to measure, and subjective aspects, which are often intangible and difficult to measure (Freeman & Beale, 1992). Wit (1988) and Cooke-Davies (2002) distinguish between two broad categories of success criteria: project success criteria and project management success criteria. Freeman & Beale (1992) argue that the criteria with a greater subjective element, such as organisational effects and stakeholder's perceived satisfaction, are related to project success, whereas technical aspects relating to the triple constraint (time, scope, and quality) are measurement criteria related to project management success.

In order to overcome the criticisms of the current attribute-based studies of project management competence, Chen and Partington (2006) followed the phenomenon-graphic approach focusing on the relation between the work and the worker, namely, worker's conceptions of work, to understand project management competence from a conception-based perspective. From their workplace interviews with 30 construction project managers in the UK, those authors identified three different basic conceptions of construction project management work, namely project management as: (1) planning and controlling; (2) organizing and coordinating; and (3) predicting and managing potential problems.

Each conception includes a different main focus and key attributes that appeared when project managers experienced and accomplished their work. Differences in conception reflect a hierarchy of three forms of conception-based construction project management competence in the UK (Chen and Partington, 2006). By taking project management work and project managers as a unified entity, their study revealed the conceptual determinants of construction project management competence in the UK.

According to the report by Standish Group International, published in 2003, there has been an improvement compared to the ones previously published by the same organization. Indeed, the amount of IT projects rated as unsatisfactory dropped from 84% in 1994 to 66% in 2002. In that publication, which consolidated the analysis of about 50,000 IT projects, the percentage of projects with cost above the originally planned budget was 43%. In addition, there have been extension of time in 82% of the projects and quality specifications were met in only 52% them.

Chang, et al (2011) studied about resource management and methods of obtaining donor resources, paying attention to how to maximize the use of resources. In addition, Freeman (2004) studied how to allocate the post disaster reconstruction financing to housing. Guarnacci and Guarnacci (2012) contributed to the management method of sustainable reconstruction with Indonesia as case. Raju and Becker (2013) studied on the stakeholders

of post-disaster reconstruction; found that the government orientation, information sharing network, cooperative target and the contribution degree were the key factors of post-disaster reconstruction stakeholders.

The study by Ogunde, et al, (2017) on Challenges Confronting construction Project Management System for Sustainable Construction in Developing Countries: Professionals Perspectives (A Case Study of Nigeria) recommended the institutionalization of construction project management practice, compulsion of adequate training and skill modification programs for construction professionals to aid the sustainability of construction project management systems in Nigeria.

Methodology

This study employed a descriptive research design using survey techniques. The population of the study comprised 520 employees of Arab contractors, Nahman Construction co. Ltd, Setraco Nigeria Ltd and Julius Berger Nig. Ltd. The population of this study therefore, consists of all the 520 employees in project and engineering department. A disproportionate stratified sampling technique is used to select the desired sample in each category of the stratum of participating employees. This technique ensured that subjects drawn from each stratum is proportionate to the number of elements in the stratum. A total of 520 employees is sampled to participate in the study.

Table 1 Sample Stratification

Category	Population (N)
Nahman Construction Co. Ltd	250
Setraco Nigeria Ltd.	200
Julius Berger Nig. Ltd. Plc.	350
Total	**520**

Source: field survey, 2021

Based on this population, the sample size will be determined at 95% level of confidence and 5% error tolerance using Taro Yamane's sample size determination formula (1967)
Yamane formulae sated below

$$n = \frac{N}{1 + N(e)^2}$$

Where n = n = Population
e = Level of significance
1 = A constant

$$n = \frac{520}{1+520\ (0.05)^2}$$

$$= \frac{520}{1 + 520(0.0025)}$$

$$= \frac{520}{1 + 1.3}$$

$$= \frac{520}{2.3}$$

n = 226

This gives a sample size of 226

The designated organizations were properly represented using proportionality formula.
Thus: Q = A/N x n/1

Where:
Q = the number of the questionnaire allocated to each selected construction firm
A = the population of each construction firm
N = the total population of all selected construction firm
n = the estimated sample size used in the study.

The researcher subjected the instrument to face to face validity where the instrument was designed and presented to renowned experts for modification and corrections. Sampling validity is concerned with whether a given population is adequately sampled. To ensure that the research instruments used in this work are valid, a proper structuring of the questionnaire and a conduct of a pre-test of every question contained in the questionnaire was carried out to ensure they are valid.

Apart from examining the data collected on distribution and dispersion, the data was also subjected to validity tests to check whether the instrument tested what it should have tested. Content validity involved the examination of content to determine whether it covered a representative sample of the behavioural domains to be measured. Further, the items or factors within variables were compared to other research factors, covering parameters in question, to ensure that there was consistency. Validation was also done by dividing the instrument into several sections. Each section was carefully checked to ensure that it conveyed the necessary message and attracted the relevant feedback, as per the tested specific themes of the research objectives and hypotheses.

To test for reliability of the instrument, the researcher adopted a test re-test method in which the researcher distributed 9 copies of the questionnaire to the construction organizations studied, that is, 3 copies for each organization. After some days, the instrument was collected and re-administer for the second time. The questionnaire distributed were completed and returned Spearman Rank Order Correlation Coefficient was used to test the reliability of the research instrument which was found to be high, P = 0.0988 showing that there is consistency in the items of the survey.

The study made use of frequencies (f) to show the number of times each score occurred. The frequencies were converted to percentages (%), which enabled the researcher compare the responses meaningfully. Translating frequency counts into percentages showed the number per hundred compared, using a common base of "100" for comparison. The statistical software packages named SPSS 20.0 was used for analysis, statistical techniques linear regression model were used to test the hypotheses and regression is indicated below:

Data presentation and Discussion

From a total of two hundred and twenty six (226) copies of the questionnaire distributed to the respondents, two hundred and twenty (220) copies representing 97.3% were duly completed and returned while (6) copies representing 2.7% were not returned. All the tables are illustrated in percent.

Table 2: How does project initiation and planning effect project success

	Options	Agree	Strongly agree	Disagree	Strongly disagree	Total
1	There are no effect that determines the project initiation and planning process on project success	84	36	23	17	160
2.	There are effect that determines the project initiation and planning process on project success	66	80	7	7	160
	Total	**266(95%)**		**54(5%)**		**320**

Source: Field Survey, 2021

Table 2 shows that 266(95%) indicated agreement while 54(5%) indicated disagreement; this shows that there is influence of project management processes on project success.

Table 3: What effect does project execution process have on project success

	Options	Agree	Strongly agree	Disagree	Strongly disagree	Total
1.	There are no influences that examine the project execution process on project success	71	45	25	19	160
2.	There are influences that examine the project execution process on project success	94	48	10	8	160
	Total	**258(93%)**		**62(7%)**		**320**

Source: Field Survey, 2021

Table 3 shows that 258(93%) indicated agreement while 62(7%) indicated disagreement; this shows that There is a significant difference between project execution process on project success.

Table 4: What is the effect of monitoring and controlling on project success

	Options	Agree	Strongly agree	Disagree	Strongly disagree	Total
1	The influence that investigates the monitoring and controlling of projects on project success is low	74	60	13	13	160

2.	The influence that investigates the monitoring and controlling of projects on project success is high	60	74	13	13	160
	Total	**248(96%)**		**42(4%)**		**320**

Source: Field Survey, 2021

Table 4.7 shows that 248(96%) indicated agreement while 42(4%) indicated disagreement; this shows that the investigates the monitoring and controlling of projects on project success is high

Regression Result

In Appendix A: the regression sum of squares (47.778) is less than the residual sum of squares (55.012), which indicates that more of the variation in the dependent variable is not explained by the model. The significance value of the F statistics (0.000) is less than 0.05, which means that the variation explained by the model is not due to chance.
R, the correlation coefficient which has a value of 0.682, indicates that there are no influences that determine the project initiation and planning process on project success. R square, the coefficient of determination, shows that 46.5% of the variation in project initiation and planning process on project success is explained by the model. With the linear regression model, the error of estimate is high, with a value of about 0.37899. The Durbin Watson statistics of .064, which is not tends to 2 indicates there no is autocorrelation.

Project planning coefficient of 0.682 indicates a positive influences that determine the project initiation and planning process on project success, which is statistically significant (with t = 14.223). Therefore, the null hypothesis should be rejected and the alternate hypothesis accordingly accepted that there is an influence that determines the project initiation and planning process on project success.

Table (5) in appendix shows the descriptive statistics with a mean response of 2.8253 and std. deviation of 1.27682 for levels of project execute process and a mean response of 3.1613 and std. deviation of 1.37593 for project process and number of respondents (130). By careful observation of standard deviation values, there is not much difference in terms of the standard deviation scores. This implies that there is about the same variability of data points between the dependent and independent variables.

Table (6) in appendix is the Pearson correlation coefficient for influences that examine the project execution process on project success.

The correlation coefficient shows 0.716. This value indicates that correlation is significant at 0.05 levels (2tailed) and implies that the extent to which examines the project execution process on project success. (r = .716). The computed correlations coefficient is greater than the table value of r = .195 with 383 degrees of freedom (df. = n-2) at alpha level for a two-tailed test (r = .716, p< .05). However, since the computed r = .716, is greater than the table value of .195 we reject the null hypothesis and conclude that there is an influences that examine the project execution process on project success. (r =.716, P<.05).

The regression sum of squares (66.109) is less than the residual sum of squares (633.008), which indicates that more of the variation in the dependent variable is not explained by the model. The significance value of the F statistics (0.000) is less than 0.05, which means that the variation explained by the model is not due to chance.
R, the correlation coefficient which has a value of 0.808, indicates that the influence that investigates the monitoring and controlling of projects on project success is low

R square, the coefficient of determination, shows that 79.5% of the variation in project success is explained by the model.

With the linear regression model, the error of estimate is high, with a value of about 0.90787. The Durbin Watson statistics of .044, which is not, tends to indicates there is no autocorrelation. Monitoring and controlling project

and project success coefficient of 0.513 indicates that the influence that investigates the monitoring and controlling of projects on project success is high, which is statistically significant (with t = 24.956). Therefore, the null hypothesis should be rejected and the alternate hypothesis accordingly accepted.

Table (6) in appendix shows the descriptive statistics of project closure process via, project success with a mean response of 1.8261 and std. deviation of 1.16043 for project closure process and a mean response of 1.9065 and std. deviation of 1.26713 for project success with sample size (130). By careful observation of standard deviation values, there is not much difference in terms of the standard deviation scores. This implies that there is about the same variability of data points between the dependent and independent variables.

Table (7) in appendix is the Pearson correlation coefficient for influence of project management processes on project success. The correlation coefficient shows 0.955. This value indicates that correlation is significant at 0.05 levels (2tailed) and implies that the influence establish the project closure processes on project success is negative.(r = .955). The computed correlations coefficient is greater than the table value of r = .195 with 383 degrees of freedom (df. = n-2) at alpha level for a two-tailed test (r = .955, p< .05). However, since the computed r = .955, is greater than the table value of .195 we reject the null hypothesis and conclude that the influence establish the of project closure processes on project success is positive. (r =. 955, P<.05).

Discussion of Results

Hypothesis one was tested using simple linear regression to find out how the project initiation and planning process influence project success. With a computed result (r = 0.682; F= 332.632; t= 14.223; p < 0.05).The null hypothesis was rejected and alternate hypothesis was accepted resulting in the conclusion that there is an influences that determine the project initiation and planning process on project success.

Hypothesis two was tested with linear regression in order to determine influences that examine the project execution process on project success. With a computed result (r = 0.716; p < 0.05), the null hypothesis was rejected and the alternate hypothesis was accepted resulting in the conclusion that there is an influences that examine the project execution process on project success.

Hypothesis three was tested using simple linear regression to identify the influence that investigates the monitoring and controlling of projects on project success is low with a computed result (r = 0.808; F 80.207; t=24.956; P < 0.05). The null hypothesis was rejected and the alternate hypothesis was accepted resulting in the conclusion that the influence that investigates the monitoring and controlling of projects on project success is high.

Hypothesis four was tested using linear regression to identify the influences that establish the project closure processes on project success is negative.(r =. 955, P < 05). The null hypothesis was rejected and the alternate hypothesis was accepted resulting in the conclusion that the influence establishes the project closure processes on project success is positive.

Conclusion and Recommendation

This study finds out that if these project management processes 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. 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 industry.

Based on the findings from the study on the influence of project management processes on project success of selected construction firm and in light of data collected by personal observation and though the questionnaire conducted in the organization; it is necessary to offer the following recommendations.

i. Project management operations should be developed and skilled personnel should be made to handle the operations
ii. There should be Project management re-engineering process in order to reduce cost of production
iii. Government should provide or develop basic infrastructures, eg roads, power etc to reduce cost of production
iv. Standard quality enlightenment campaign to both internal and external clients should be carried out to communicate the danger in using low quality materials and engaging unskilled professionals.

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Table 4.2. Descriptive Statistics

	Mean	Std. Deviation	N
Project initiation	1.7766	.51738	226
Planning process	3.4727	.85386	226

Table 4.3 Correlations

		Project initiation	Planning process
Pearson Correlation	Project initiation	1.000	.682
	Planning process	.682	1.000
Sig. (1-tailed)	Project initiation	.	.000
	Planning process	.000	.
N	Project initiation	226	226
	Planning process	226	226

Table 4.4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.682[a]	.465	.463	.37899	.064

a. Predictors: (Constant), project initiation

b. Dependent Variable: planning process

Table 4.5 ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	47.778	1	47.778	332.632	.000[a]
	Residual	55.012	302	.144		
	Total	102.790	303			

a. Predictors: (Constant), project initiation

b. Dependent Variable: planning process

Table 4.6 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.342	.081		14.223	.000
	Project initiation	.413	.023	.682	18.238	.000

a. Dependent Variable: planning process

Table 4.7 Descriptive Statistics

	Mean	Std. Deviation	N
Project execution process	2.8253	1.27682	226
Project success	3.1613	1.37593	226

Source: SPSS version 25.00

Table 4.8 Correlations

		Project execution process	Project success
Project execution process	Pearson Correlation	1	.716(**)
	Sig. (2-tailed)		.000
	N	220	220

Project success	Pearson Correlation	.716(**)	1
	Sig. (2-tailed)	.000	
	N	226	226

** **Correlation is significant at the 0.01 level (2-tailed).**

Table 4.9 Descriptive Statistics

	Mean	Std. Deviation	N
Monitoring and controlling of project	1.7532	.95348	226
Project success	1.9948	.64304	226

Table 4.10 Correlations

		Monitoring and controlling of project	Project success
Pearson Correlation	Monitoring and controlling of project	1.000	.808
	Project success	.808	1.000
Sig. (1-tailed)	Monitoring and controlling of project	.	.000
	Project success	.000	.
N	Monitoring and controlling of project	220	220
	Project success	220	220

Table 4.11 Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.808[a]	.795	.693	.90787	.044
a. Predictors: (Constant), monitoring and controlling of project					
Dependent Variable: project success					

Table 4.12 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T
		B	Std. Error	Beta	
1	(Constant)	2.663	.107		24.956
	Monitoring and controlling of project	1.456	.051	.808	18.956

a. Dependent Variable: project success

Table 4.13 ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	66.109	1	66.109	80.207	.000[a]
	Residual	633.008	606	.824		
	Total	699.117	607			