

# Journal of Finance and Accounting

ISSN Online: 2616-4965

 **Stratford**  
Peer Reviewed Journals & books

## **Management Accounting Techniques and Firm Performance of Major Construction Companies in Nigeria**

**Chinomso Asikogu, Dr. Esther Nkatha M`Ithiria & Mr. John Kebaso Omurwa**

**ISSN: 2616-4965**

# Management Accounting Techniques and Firm Performance of Major Construction Companies in Nigeria

<sup>1</sup>Chinomso Asikogu, <sup>2</sup>Dr. Esther Nkatha M`Ithiria & Mr. John Kebaso Omurwa

<sup>1</sup>MBA Student, The Catholic University of Eastern Africa

<sup>2</sup>Lecturer, Department of Accounting and Finance, School of Business, The Catholic University of Eastern Africa-Kenya

<sup>3</sup>Lecturer, Department of Accounting and Finance, School of Business, The Catholic University of Eastern Africa-Kenya

*How to cite this article:* Asikogu C., M`Ithiria E. N. & Omurwa J. K (2021). Management Accounting Techniques and Firm Performance of Major Construction Companies in Nigeria. *Journal of Finance and Accounting*. Vol 5(3) pp. 73-93 <https://doi.org/10.53819/81018102t2016>

## Abstract

To remain competitive, construction companies must continually improve and one way is by use of the right MATs. The adoption of MATs can help organizations to improve their financial performance continually and consequently overall national economic development. This study investigated influence of management accounting techniques on the firm performance of construction companies in Nigeria. The objectives were, to assess firm performance level of construction companies in Nigeria, to examine the influence of activity-based costing (ABC), strategic analysis, and budgeting practices on firm performance. The study used quantitative research design while the target population was all the 35 major construction firms. The sample size was 13 companies. The research used questionnaire to gather data from 170 managers. The study used descriptive statistics and inferential analysis. The study found that ABC, strategic analysis, and budgeting practices had positive relationship with firm performance. The study concludes that the companies employed ABC to improve firm performance. The study concludes that most companies used both internal and external analysis to improve performance. The study concludes that many companies failed to involve all departments during budgeting. The study recommends that companies should increase resources to complete projects within stipulated time frame. The study recommends that the policies should be enhanced by conducting researches and regular evaluation to improve business environment for the realization of improved performance of the construction companies.

**Key words:** *Management Accounting Techniques, Activity-Based Costing, Firm Performance, Strategic Analysis, and Budgeting Practices*

<https://doi.org/10.53819/81018102t2016>

## 1.1 Introduction

Management accounting technique is a critical accounting resource that support firms to incorporate cost accounting data, financial, and nonfinancial information to improve their performance (Ballada, 2012). Management accounting can be defined as the process of supplying the managers and employees with relevant financial and nonfinancial information (Atkinson, Kaplan, Matsumara, & Young, 2012). Management accounting techniques (MATs) have been categorized into traditional and modern techniques. The traditional MATs include standard costing, absorption costing, marginal costing, variance analysis, budgeting, and cost volume profit analysis (Georgiev, 2014). The modern MATs include; activity-based costing (ABC), target costing, kaizen costing, balance scorecard among others (Abdel-Kader & Luther, 2016).

According to Abdullahi (2015), MATs' adoption is very integral because it helps a firm to survive in the competitive market. These techniques help in providing an important competitive advantage for an organization that guides managerial action, motivates behaviors, supports and creates the cultural values necessary to achieve an organization's strategic objectives-better financial performance. According to Rickard and Kono (2013), the proper use of MATs is important because it is responsive to the demands of management and the environment thereby playing a key role in improving the overall firm performance. It has been empirically established that usage of MATs influences organizations' performance, especially with increased non-financial measures. For instance, a study by Al-Mawali, Sharif, Rumman, Kerzan, and Liu (2018) indicate that increased usage of MATs, including activity-based management, cost analysis, target costing, kaizen costing and balance scorecard resulted in high performance among construction firms. In yet another study, Kasravi and Ghasemi (2017) found that utilization of both traditional and modern MATs improves organizational performance.

Furthermore, Abdullahi (2015) observe that performance improvement is one of the major reasons for the firm to change its MATs. In support of the view of Abdullahi (2015), Achimugu and Ocheni (2015) suggests that increased usage of MATs is linked with good performance among construction companies. Therefore, to improve performance, many construction companies in both developed and developing countries have resorted to use of various MATs (Akenbor & Ibanichuka, 2012). Therefore, the current study investigated the influence of MATs on the performance of major construction firms in Nigeria.

### Construction Companies in Nigeria

The construction sector is a key driver of economic growth; however, in the developing world with much emphasis on Nigeria, the sector has not achieved desirable performance (Ayodele & Falokun, 2003). The challenges of improving performance of the construction sector globally and in the African are no different in Nigeria. Nigerian construction sector performance has dwindled over the years (Obed, 2016) despite its notable contribution to creation of employment

<https://doi.org/10.53819/81018102t2016>

opportunities. The sector was ones praised in terms of performance but has of late underperformed. The seriousness of this concern was echoed when the construction sector in Nigeria recorded an unprecedented -8% growth rate in 2015 (Ajibolade, 2017). Additionally, Nigerian construction industry have reportedly been established to perform poorly in terms of quality of work and untimely completion of projects and this has partly been attributed to inadequate use of MATs (Oladimeji & Aina, 2018). The situation is worrying given the latest challenges in the construction sector. Despite the aforementioned concerns, the construction firms still have potentials to achieve desirable results as long they can effectively embrace one of the contributors to improved performance, MATs (Tiruneh & Fayek, 2020).

## 1.2 Statement of the Problem

The Nigerian construction industry has been struggling to achieve positive performance. The seriousness of this concern was echoed when the construction sector in Nigeria recorded an unprecedented -8% growth rate in 2015 (Ajibolade, 2017). Evidences of poor performance in terms of cost and time over runs, poor quality work, inadequate strategic analysis, low productivity are evidenced in the sector (Alintah-Abel, Iheama, & Ugochukwu, 2020). In agreement, Falope, Offor, and Ofurum (2019) argue that the construction firms' underperformance has been of a great concern not only to several stakeholders. The construction industry has also been reported to deliver poor quality projects at high cost and also late projects completion that has led to customer dissatisfaction (Tunji-Olayeni, Olusoji, Fagbenle, Omuh, & Opeyemi, 2016).

Studies have established the linkage between MATs and performance. A study by Aksoylu, and Aykan (2013) revealed a positive link between MATs and performance of Jordanian firms while Van Der Stede (2014) found that budgeting practices have a negative link with performance. Abdel-Kader and Luther (2016) found no relationship between MATs and Malaysian firm performance while Salawu, Oyesola, and Tajudeen (2015) found that some manufacturing firms in Nigeria demonstrated improved performance after ABC adoption. From the past studies, there seems to be mixed outcome on effective MATs that could improve performance of firms. Further, most studies were done on different industries hence it is prudent a study on construction firms in Nigeria be conducted. Some of the studies only used one technique of MATs while this study will use ABC, strategic analysis, and budgeting practices to establish how each influence firm performance. Therefore, due to contradicting influence of MATs on performance, the study investigated how MATs' influence performance of major construction firms in Nigeria.

<https://doi.org/10.53819/81018102t2016>

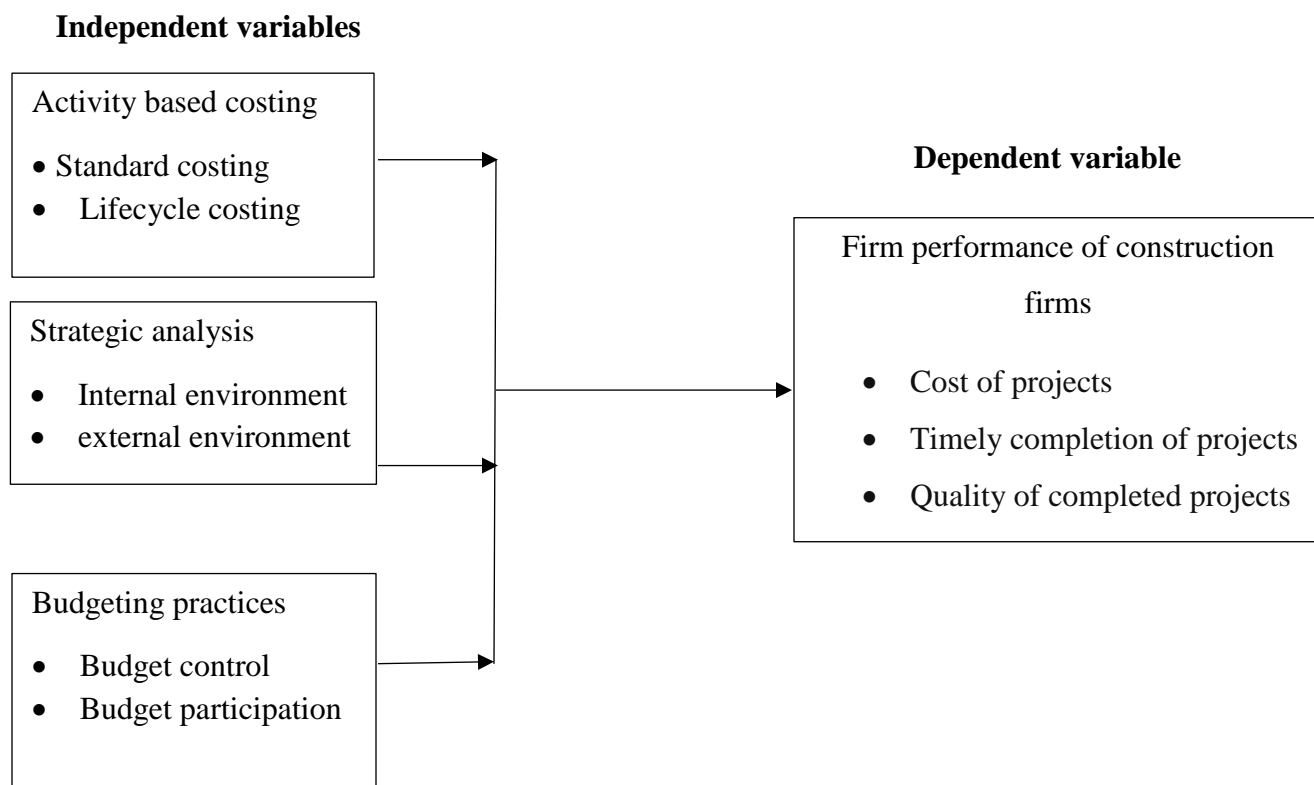
### 1.3 Research Objectives

- i. To determine the level of performance of major construction companies in Nigeria.
- ii. To examine the influence of ABC on the performance of major construction companies in Nigeria
- iii. To assess the influence of strategic analysis on the performance of major construction companies in Nigeria
- iv. To evaluate the influence of budgeting practices on the performance of major construction companies in Nigeria.

### 1.4 Conceptual Framework

The dependent variable is the firm performance and the independent variables included ABC, strategic analysis, and budgeting practices while the intervening variable was government policies. Figure 1 shows the diagrammatical representation among variables.

**Figure 1: The Conceptual Model**





## **2.0 Literature Review**

### **2.1 Theoretical Framework**

#### **2.1.1 Contingency Theory**

The study was premised on the contingency theory that was developed in the 1960s by Fred Fiedler. The theory focuses on specific significant elements that aid the finance managers to make decision on suitable techniques (Burns & Stalker, 1961). The theory states that no universally appropriate management accounting systems can apply equally to all organizations in all circumstances. Therefore, each organization adopt its own MATs that helps in promoting performance (Islam & Hui, 2012). The Contingency theory was enforced by Otley (1980) and he observed that there is no sole overall definitive accounting technique that can be enforced to all firms. However, in criticizing the theory, Abba, Yahaya, and Suleiman (2018) argued that the theory is flawed because firms cannot force fit contingencies.

#### **2.1.2 Institutional Theory**

The study also used institutional theory that was founded by Rowan and Meyer in 1977. The theory is anchored on the social constructs that help define the structure and processes of MATs in an organization (Scott, 2001). Under this theory, MATs are conceived as routine, and potentially institutionalized, organizational practice. The institutional theory argue that institutionalized MAs can both shape and be shaped by institutions that manages firm activities. However, the theory has been criticized by Bardhan (1989) who argues that the theory puts an enormous amount of restraint on management to conform to requirements within its own environment. Too much constraint could prove to be damaging to the firm since it could inhibit creativity, and diversity within a given field.

#### **2.1.3 Transaction Cost Theory**

The study was guided by the transaction cost theory put forth by Commons (1931). The theory opines that the optimum organizational structure is one that achieves economic efficiency by minimizing the costs of exchange during negotiations for services to be provided. It suggests that each type of transaction produces coordination cost of monitoring, controlling and managing of project so as to obtain good performance. The theory, therefore, argue that such costs are to be distinguished from production costs and that a decision maker can choose to use accounting techniques that augers well with firm performance so as to introduce transaction costs during negotiations. However, then theory has been criticized on the basis that minimization of transaction cost could have little advantage if transaction specific assets are not valued in the market. Secondly, when a transaction is initiated, there is no guarantee that this could minimize transaction negotiations. Such a scenario could as well results to costly bargaining. This means the theory underestimates costs related with organizing transaction (Cuypers, Hennart, Silverman, & Ertug, 2021).

<https://doi.org/10.53819/81018102t2016>

## 2.2 Empirical Reviews

### 2.2.1 Firm Performance

Performance measures are vital signs of an organization which helps to recognize whether the activities of a process or the outputs of the process achieve the specified objectives (Horonec, 1993). They can be used to translate the strategy of the organization into a set of goals and objectives and the results obtained through the measures reflect the successfulness of achieving the strategy (Eccles, 1991). Performance measures indicate the priority factors of the organization and the way the employees should behave to give maximum outcome to the organization (Neely 2002). In Nigeria, a study by Ogunde et al. (2016) established that satisfaction of client with product and services, timely deliveries of services and productivity as well as safety can be used to measure performance. In another study in Netherlands by Van Der Stede (2014) found that most organizations in Netherlands measured firm performance using project cost, project quality, customer satisfaction and timely completion of projects. Also, Ibarrondo-Dávila, López-Alonso, and Rubio-Gámez (2015) study in Spain established that delivery of quality of delivered projects, safety of projects, timely delivery of projects, productivity, and customer satisfaction can be used to measure performance.

### 2.2.2 Activity Based Costing and Firm Performance

A study by Saaydah and Khatatneh (2014) evaluated the effects of MATs on performance of Jordan companies. The study found that there was adoption of ABC as measured by target costing. ABC had positive significant relationship with performance. Similarly, Mazumder (2017) carried out a study on assessment of MATs and performance of Bangladesh firms. The study found that ABC as measured by standard costing and cash-flow analysis had positive significant relationship with performance. Further, Dugdale et al. (2015) carried out a study on impact of MATs on performance of UK service firms. ABC measures such as standard costing, absorption costing and marginal costing were found to have positive significant relationship with performance. The results are consistent with Anand, Sahay, and Subhashish (2014) who studied the association between MATs and performance among Indian corporations. The study found that ABC as measured by accurate cost and profit information had positive significant relationship with firm performance.

Moreover, Karanja, Mwangi, and Nyaanga (2012) conducted a study on adoption of modern MATs to enhance performance among SMEs in Kenya. Data was analyzed using regression analysis. ABC as measured by target costing and operational costs had positive significant relationship with SMEs' performance. Similarly, Salawu et al. (2015) studied the influence of MATs adoption on performance among agricultural Companies-Nigeria. ABC technique was measured using target costing. A positive significant relationship was found between ABC and performance. Further, Aksoylu and Aykan (2013) investigated effects of MATs on performance of industries in Nigeria. Measures of ABC (life cycle costing) was found to have negative influence on performance. Meanwhile, Isa and Thye (2016) study focused on effect of MATs on

<https://doi.org/10.53819/81018102t2016>

performance in construction firms in Malaysia. Both standard and Kaizen costings were used as measures of ABC. The study found that standard and Kaizen costings had negative relationship with performance.

### **2.2.3 Budgeting Practices and Firm Performance**

A study by Ashfaq, Younas, Usman, and Hanif (2014) investigated the role of traditional and contemporary MATs on performance of Pakistani financial and service sector. It was found that budgeting as measured by budget authorization had positive significant relationship with financial sector performance. In uniformity, another study by Melek (2017) was on impact of MATs on performance of 500 Turkey firms. The study used budget participation and expenditure auditing to measure budgeting practices. It was found that there was a positive relationship between budget practices and performance existed. Another study was done by Qi (2014) on impact of MATs on performance of SMEs in China. Budgeting process was measured by budgeting control and goals. It was found that budgeting process had positive significant relationship with firm performance. The results are similar with a study by Mohammed and Ali (2013) based on the effectiveness of MATs and performance of Telkom Kenya. The study found that budgeting process such as regular budgeting had statistically significant positive relationship with performance. Furthermore, another study by Van Der Stede (2014) investigated the effect of MATs on performance of Netherlands' construction firms. The study found that budgeting practices as measured by budgetary control and budgeting participation had negative link with performance. However, a study by Wairegi (2011) was on the relationship between MATs and SMEs' performance in Kenya. Budgeting practices was measured by budgeting authorization. It was found that there was no significant relationship between budgeting practices and performance.

### **2.2.4 Strategic Analysis and Firm Performance**

A study by Mbawuni and Anertey (2014) assessed the influence of MATs on performance of Nigerian' communication firms. It was found that strategic analysis as measured by internal environment scanning measures such as skills and knowledge had positive significant relationship with performance. In support, the study by Aksoylu and Aykan (2013) examined effects of MATs on performance of Turkey businesses. Strategic analysis measures were cost, customer, and competitor-oriented techniques. It was found that strategic analysis and planning had significant weak positive impacts on performance. Another study by Gichaaga (2014) investigated the effects of MATs on performance of Kenya's manufacturing firms. Measures of strategic analysis (customer and employee satisfactions) had positive relationship with performance. Similarly, Mbawuni and Anertey (2014) examined contribution of MATs on performance of Nigeria's telecommunication firms. Strategic analysis practices (external environmental analysis) had positive relationship with performance.

Again, Adler, Everett, and Waldron (2015) study investigated impact of MATs on the performance of Chile's public institutions. The study found that strategic analysis (internal and external

<https://doi.org/10.53819/81018102t2016>



environment) had significant negative relationship with performance. Similarly, Amoako (2013) studied the link between MATs and performance of Nigerian SMEs. It was found that strategic analysis as measured by competitor scanning had a negative relationship with performance. Further, Rickard and Kono (2013) study was based on effect of MATs on performance of construction firms in Belgium. Strategic environmental analysis was found to have negative relationship with performance. Similarly, Musso and Francioni (2012) study established the relationship between strategic analysis and performance of engineering firms in Turkey. Strategic analysis as measured by competitor's responsiveness had negative relationship with performance.

### 3.0 Research Methodology

The paper adopts a case study research design. Case study is an empirical enquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2003). Case studies are most suitable for answering the how questions. Case studies provide a rich understanding of the context and processes of a research (Morris and Wood, 1991). The paper adopted a case study research design. Case study is an empirical enquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2003). Case studies are most suitable for answering the how questions (Morris and Wood, 1991). The study utilized descriptive research design (Myers, Well, & Lorch Jr, 2013) because it helped in measuring the accuracy of the study variables by describing the population's characteristics as they exist at present thereby minimizing biasness and also helps in maximizing the reliability of the collected evidence. There are a total of 35 major construction companies in Nigeria. The study focused on managers from all departments. The study used Yamane formula (Yamane, 1967).

Yamane formula,  $n = N \div [+N(e^2)]$

Whereby;

*n*: Sample size

*N*: Population:

*e*: Margin error of 0.05%

Therefore,  $n = 35 \div [1 + 35(0.05^2)]$

Companies sample size = 13

The questionnaire was distributed through stratification sampling method to all senior managers. The study used questionnaire because they generate data that are easy and fast to analyze and can be collected within shorter period of time (Creswell, 2013). Description of Data Analysis Procedures. The returned questionnaire was coded, processed, and analyzed by use of SPSS version 20.0. The study made use of descriptive statistics. The study also used Pearson correlation and multiple regression model. The study carried out diagnostic tests (normality, heteroscedasticity, and multicollinearity) to establish the reliability of the regression model.

### The multiple regression model

$$P = \alpha_0 + \beta_1ABC1 + \beta_2SA2 + \beta_3BP3 + \varepsilon$$

Where:

- $\alpha_0$  - Is the constant
- $\beta_1, \beta_2, \text{ \& } \beta_3$  - Coefficients of independent variables
- P - Firm performance
- ABC - Activity based costing
- SA - Strategic analysis
- BP - Budgeting practices
- $\varepsilon$  - Residual error term

The normality test using Shapiro Wilk test was done to help in ascertaining whether data is normally distributed or vice versa (Schmidt & Finan, 2018). The study used the Variance of Inflation (VIF) to test multicollinearity. VIF values less than 10 implied that there was no multicollinearity and vice versa (Disatnik & Sivan, 2016). The study used Breusch-Pagan test to find out presence of absence of heteroscedasticity. The thumb rule in determining heteroscedasticity is when the requirement of constant variance is violated (Klein, Gerhard, Büchner, Diestel, & Schermelleh-Engel, 2016).

## 4.0 Findings and Discussion

### 4.1 Descriptive Statistics

The results for level of firm performance of construction companies are shown in Table 1

**Table 1: Descriptive Statistics for Level of Firm Performance of Construction Companies**

	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)	Mean
Average time taken to deliver projects is within stated time	20	42.1	12.6	12.6	12.6	2.56
Increased projects' productivity to meet customer demands	7.4	18.4	8.4	36.8	28.9	3.32
The organization insist on the completion of quality projects that has longer lifespan	5.3	11.6	12.6	26.3	44.2	3.93
Presence of project acceptability by customers	8.4	10.6	3.2	38.8	36.8	3.85
Delivery of quality affordable projects based on customer segments	8.4	22.1	11.6	23.2	34.7	3.54

<https://doi.org/10.53819/81018102t2016>

The results in Table 1 show that 42.1% and 20.0% of the respondents disagreed and strongly disagreed respectively that the average time taken to deliver projects is within stated time frame thus ensuring improved performance with a mean score was 2.56. The results are inconsistent with a study by Tiruneh and Fayek (2020) who found that timely deliveries of services improve performance. The results show that most firms have increased projects' productivity levels to meet customer demands thereby improving performance as supported by 36.8% (agree) and 28.9% (strongly agree) of the respondents with a mean score of 3.32. In agreement, Ogunde *et al.* (2016) used productivity to measure performance and found that increase in productivity indicates improved project performance. The results established that the firms insisted on the completion of quality projects that has longer lifespan as supported by 44.2% (strongly agree) and 26.3% (agree) of the respondents with a mean score of 3.93. The results resonate with a study by Van Der Stede (2014) that found that project adherence to quality promotes customer satisfaction thereby increasing performance. Again, 34.7% and 23.2% strongly agreed and agreed, respectively that there was delivery of quality affordable projects based on customer segments with a mean score of 3.54. In agreement, a study by Rickard and Kono (2013) found that several companies resorted to delivery of quality but affordable projects and this improved performance.

The results for the influence of ABC on the firm performance of construction companies are shown in Table 2.

**Table 2: Influence of ABC on Firm Performance of Construction Companies in Nigeria**

	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)	Mean
Firms used target costing to ascertain realistic prices of products/services	8.4	15.8	13.7	32.6	29.5	3.59
Firms utilized standard costing to assist in pricing decisions	24.2	40.0	9.5	13.7	12.6	2.51
Firms used lifecycle costing on operations to generate better revenue	17.4	36.3	8.4	17.9	20	3.14
Firms utilizes costing techniques to promote activity assessment and evaluation	7.4	24.2	6.3	32.6	29.5	3.53
Costing techniques embraced to facilitate product mix decision	5.3	17.9	6.3	43.2	27.4	3.69
Availability of adequate maintenance and operational costs	14.7	49.5	5.3	17.9	12.6	2.64

<https://doi.org/10.53819/81018102t2016>

The results show that 36.3% and 17.4% disagreed and strongly disagreed respectively that organizations use lifecycle costing on operations to generate better revenue with a mean score of 3.14. The results are supported by another study by Aksoylu and Aykan (2013) that found that life cycle costing had negative influence on performance and this could be reason the construction firms in Nigeria ignored it. Further, it shows that most respondents said that organization utilized costing techniques to promote activity assessment and evaluation to promote performance as reported by 32.6% (agreed) and 29.5% (strongly agreed) with a mean score of 3.53. The results concur with a study by Anand et al. (2014) that found that accurate cost and profit information had positive significant relationship with firm performance which was an indication that their usage increases assessment of activities and consequently improves performance. The results also show that majority respondents agreed at 43.2% and strongly agreed at 27.4% that costing techniques has been embraced to facilitate product mix decision to suit customer demand with a mean score of 3.69. However, a study by Isa and Thye (2016) found that use of costing techniques such as standard and Kaizen costing had negative relationship with performance.

The results for the influence of strategic analysis on the firm performance of construction companies are shown in Table 3.

**Table 3: Strategic Analysis and Firm Performance of Construction Companies in Nigeria**

	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)	Mean
Strategic analysis assists in the management of operational risks	4.2	15.8	9.5	41.1	29.5	3.76
Firms used both internal and external analysis to assess competitor positioning	7.4	17.9	5.3	42.1	27.4	3.64
Firms employ strategic analysis to aid in strategic planning	8.4	14.7	6.3	32.6	37.9	3.77
Firms embrace internal environmental analysis to evaluate employee productivity	9.5	11.6	4.2	40	34.7	3.79
Firms use external environment analysis to facilitate comparison between firms and competitors	6.3	15.8	7.4	32.6	37.9	3.8
Employees are regularly subjected to regular role-based training to sharpen their skills	17.9	52.6	7.4	12.6	9.5	2.43

The results presented in Table 3, shows that 41.1% and 29.5% of the respondents agreed and strongly agreed respectively that strategic analysis assists in the management of environmental operational risks to promote performance with a mean score of 3.76. The results corroborate

<https://doi.org/10.53819/81018102t2016>

another study by Mbawuni and Anertey (2014) that found that firms that used strategic analysis exhibited improved performance. It was also found that 42.1% and 27.4% strongly agreed and agreed, respectively that organizations used both internal and external analysis to assess competitor positioning so as to promote performance with a mean score of 3.64. The results are in concurrence with another study by Adler, Everett, and Waldron (2015) that found that strategic analysis as measured by internal and external environment was used by several firms. The results also show that most organizations employed strategic analysis to aid in strategic planning to improve project performance as supported by 37.9% and 32.6% strongly agreed and agreed, respectively with a mean score of 3.77. The results are in uniform with a study by Aksoylu and Aykan (2013) that found that that strategic analysis as measured by strategic planning had significant weak positive impacts on performance an indication that the use of strategic planning leads to improved performance. On whether the firms used external environment analysis to facilitate comparison between firms and competitors to improve performance, 37.9% and 32.6% of the respondents strongly agreed and agreed respectively that indeed they used external environment analysis to improve performance with a mean score of 3.80. In agreement, a study by Mbawuni and Anertey (2014) found that use of strategic analysis practices such external environmental analysis had a positive relationship with performance an indication that the use of external environmental analysis increases performance. Lastly, on whether employees are regularly subjected to role-based training to sharpen their skills to improve performance, 52.6% disagreed while 17.9% strongly disagreed with a mean value of 2.43. In disagreement, Mbawuni and Anertey (2014) found that most firms used internal environment scanning measures such as training to improve skills and knowledge.

The study sought to establish the influence of budgeting practices on the firm performance of construction companies. The results are shown in Table 4.

**Table 4: Budgeting Practices on Firm Performance of Construction Companies in Nigeria**

	Strongly disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly agree (%)	Mean
Firms allow for pre-budget participation across the departments	15.8	55.8	6.3	12.6	9.5	2.44
Firms regularly prepares budget for future period to avoid project failures	2.4	1.8	5.5	41.6	48.7	3.67
Final budgeting authorizing officers are normally involved	8.4	20	10.5	33.7	27.4	3.52
Evaluation and auditing of finances are subjected to qualified external auditors	4.2	14.7	11.6	38.9	30.5	3.77
Qualified officers oversee final budget authorization to ensure funds good use	22.1	45.3	8.4	12.6	11.6	2.46

<https://doi.org/10.53819/81018102t2016>



Funds are allocated based on urgency and priority of projects	6.3	10.5	6.3	35.8	41.1	3.95
---	-----	------	-----	------	------	------

In Table 4, it was found that 55.8% and 15.8% disagreed and strongly disagreed respectively that firm allows for pre-budget participation across the departments to enhance adequate distribution of resources for better performance with a mean score of 2.44. The results contradict a study by Melek (2017) that found that inclusive budget participation increased performance scores as projects were adequately financed. On whether the firm regularly prepares budget for future period to avoid project failures thus promoting performance, 48.7% of the respondents strongly agreed while 41.6% agreed with the statement with mean score of 3.67. The results agree with a study by Mohammed and Ali (2013) that found that budgeting process such as regular budgeting was significantly and positively related with performance. Regarding whether final budget authorizing officers are normally involved to ensure resources not mishandled, 33.7% and 27.4% agreed and strongly agreed respectively with a mean value of 3.52. The results are in agreement with another study by Ashfaq et al. (2014) who found that firms used relevant authorization officers to ensure accountability. Results also show that 38.9% and 30.5% agreed and strongly agreed that evaluation and auditing of finances are subjected to qualified external auditors with a mean score of 3.77. Lastly, regarding whether budgeting processes ensure that funds are allocated based on urgency and priority of projects, 41.1% strongly agreed and 35.8% agreed with a mean of 3.95. The results resonate with a study by Qi (2014) that found that established that prompt allocation of funds positively influence firm performance.

#### 4.2 Diagnostic Tests

The results for diagnostic tests are presented in Table 5.

**Table 5: Results for Diagnostic Tests**

*Observation (N) = 95*

Variables	Normality	Multicollinearity	Heteroscedasticity
	Sig.	VIF	Sig
Firm Performance	0.272		
ABC	0.523	1.264	0.661
Strategic analysis	0.826	1.247	0.407
Budgeting practices	0.149	1.037	0.712
Government Policies	0.994	1.228	0.378

a. Dependent variable: Firm performance

<https://doi.org/10.53819/81018102t2016>

The results shown in Table 5, the normality test using Shapiro Wilk test) indicate that projects' performance had a p-value of 0.272, ABC had a p-value of 0.523, strategic analysis had a p-value of 0.826, budgeting practices had a p-value of 0.149, and finally, government policies had a p-value of 0.994. The data is normally distributed hence the null hypothesis of non-normal distribution of data is rejected. As shown in Table 8, the VIF value for ABC is 1.264, for strategic analysis is 1.247, for budgeting practices is 1.037 while the VIF for government policy is 1.228. The results mean that data was free from biasness. The results in Table 8 reveal that ABC, strategic analysis, budgeting practices, and government policy had values p-values of 0.661, 0.407, 0.712, and 0.378 respectively. Based on the results, heteroscedasticity is absent hence, the requirement of constant variance is not violated.

### 4.3 Correlation Analysis

The study conducted a correlation analysis to determine the relationship between two variables as presented in Table 6.

**Table 6: Correlation Analysis**

*Observation (N) = 95*

		ABC	Strategic analysis	Budgeting Practices	Firm performance
ABC	Pearson Correlation	1			
	Sig. (2-tailed)				
Strategic analysis	Pearson Correlation	.280**	1		
	Sig. (2-tailed)	0.006			
Budgeting practices	Pearson Correlation	0.136	0.157	1	
	Sig. (2-tailed)	0.19	0.13		
Firm performance	Pearson Correlation	.232*	.206*	0.259*	1
	Sig. (2-tailed)	0.024	0.045	0.012	

\*. Correlation is significant at the 0.05 level (2-tailed).

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

The results in Table 6 shows that ABC had a positive Pearson correlation with project performance at 0.232 and with a P-value of .024 which is less than 0.05. The study also found that strategic

<https://doi.org/10.53819/81018102t2016>

analysis was positively correlated with project performance ( $r=.206$ ) and significantly related ( $P$ -value = .045). Further, budgeting practices was also positively correlated with project performance ( $r = .259$ ) and significantly related ( $P$ -value = 0.012). Finally, budgeting practices was established to be positively correlated with project performance ( $r = .329$ ) and significant with each other (.001) which is less than 0.01. From the results it can be said that all variables had positive relationship with dependent variables hence an increase in any of the variables could lead to improved project performance. However, the variables (budget practices, ABC, strategic and analysis) had weak correlation with project performance because none of their correlation coefficients were above 50%.

#### 4.4 Regression Model

The regression model results are presented in Table 7.

**Table 7: Regression Analysis**

Dependent variable = Firm performance				
Variables	Standardized Coefficient (Beta)	Standard errors	t-value	p-value
Constant	0.654	5.508	0.119	0.906
ABC	0.265	0.131	3.631	0.03
Strategic analysis	0.316	0.104	3.093	0.003
Budgeting practices	0.231	0.117	2.478	0.015
R	.496 <sup>a</sup>			
Adjusted R square	0.213			
ANOVA:				
F-statistic (p-value)		7.355 (0.000 <sup>b</sup> )		
	N = 95			

<sup>a</sup> = Constant; <sup>b</sup> = Coefficients of each variable.

Significance level = 0.05

Results presented in Table 7 show that the model was good fit as explained by an R of 49.6%; it is about 50% of the variation in firm performance. ANOVA results reveal that the p-value is 0.000; hence the model is reliable. The results show that ABC was significant and positively related with firm performance ( $\beta = .265$ ,  $p$ -value = .030) at the 5% level. In agreement, Saaydah and Khatatneh (2014) found a positive relationship between ABC and performance. Further, strategic analysis was found to be significant and positively related with firm performance ( $\beta = .316$ ,  $p$ -value = .003) at the 5% level. In the contrary, Adler et al. (2015) found that strategic analysis had significant

<https://doi.org/10.53819/81018102t2016>

negative relationship with performance. The results presented in Table 9 show that budgeting practices had significant and positive relationship with firm performance ( $\beta = .231$ ,  $p$ -value = .015) at the 5% level. The results are similar to Qi (2014) study who found that budgeting process had positive significant relationship with firm performance. Regarding government policies, the results reveal that the variable had significant and positive relationship with firm performance ( $\beta = .393$   $p$ -value = .000) at the 5% level. The results concur with a study by Mazumder (2017) who established that government policies had a significant positive relationship with the performance of Bangladesh firms. Therefore, the hypothesis of no relationship between MATs and firm performance is rejected.

## 5.0 Conclusions

The study concluded that most construction projects did not meet time frame set for completion of projects. The untimely completion could be attributed to inadequate resources; both human and financials. The study concludes that most organizations did not utilize standard and lifecycle costing to assist in pricing decisions and to generate revenues to improve organizational performance. Thus, it can be said that several organizations ignored use of standard costing while making pricing decisions thereby posing a negative effect on performance of the construction firms in Nigeria. Further, the study concludes that firm failed to regularly subject employees to role-based training. The lack of role based training could be attributed to inadequate funds, lack of goodwill, and the incapacity of the construction firms to offer training services. The study concludes that most firms did not allow departmental pre-budget participation and this posed negative impact on project performance due to a lack of all-inclusive budgeting process. The failure to allow for pre-budgeting could be as a result of the unwillingness by the management to embrace all departments. The study concludes that the construction companies' institutional frameworks, policies, and business guidelines did not provide conducive business environment thereby affecting the growth of companies and consequently the overall performance of the construction companies.

## 6.0 Recommendations

The study recommends that companies can ensure timely completion of projects through provisions of adequate resources, continuous supervision, and monitoring as well as evaluation of progress of projects to ensure that issues that could hamper completion are minimized. The companies should also ensure that all employees and in particular project team are frequently subjected to role-based internal training to increase their knowledge and skills for effective projects' implementation. The study recommends that the construction companies' institutional frameworks and policies should be enhanced to provide conducive business environment for the realization of improved performance of the construction companies. For instance, the government through policy makers can research, evaluate and come up with polices that are adaptable to

<https://doi.org/10.53819/81018102t2016>

changing construction business conditions. The government could also come up with strategies that unearths the potential areas of conflicts and difficulties that inhibits growth of construction companies to promote successful identification of policy gaps that can be improved to support fair competition.

<https://doi.org/10.53819/81018102t2016>



## REFERENCES

- Abba, M., Yahaya, L., & Suleiman, N. (2018). Explored and critique of contingency theory for management accounting research. *Journal of Accounting and Financial Management ISSN*, 4(5).
- Abdel-Kader, M., & Luther, R. (2016). Management accounting practices and the performance of the British food and drinks industry. *British Food Journal*, 2(4), 336-357. <https://doi.org/10.1108/00070700610661321>
- Abdullahi, R. (2015). The impact of management accounting practices on firm performance: A UK-based empirical analysis. *British Accounting Review*, 40(1), 2-27. <https://doi.org/10.1016/j.bar.2007.11.003>
- Achimugu, A., & Ocheni, S. I. (2015). Application of management accounting techniques in the public sector of Nigerian economy. *Journal of Good Governance and Sustainable Development in Africa (JGGSDA)*, 2(4), 234-240
- Adler, R., Everett, A. M., & Waldron, M. (2015). Role of management accounting techniques on the performance of public institutions in Chile. *International Journal of Business and Social Science*, 9(2), 49-58.
- Ajibolade, S. O. (2017). Management accounting techniques and company performance in Nigerian construction companies: A contingency theory perspective. *British Journal of Arts and Social Sciences*, 14(2), 228-244.
- Akenbor, C., & Ibanichuka, E. (2012). Creative management accounting practices in Nigerian banks. *An International Multidisciplinary Journal*, 6(3), 23-34. <https://doi.org/10.4314/afrev.v6i3.2>
- Aksoylu, S., & Aykan, E., (2013). Effects of management accounting techniques on perceived performance of businesses industries in Nigeria. *Journal of US-China Public Administration*, 10(10), 1004-1017
- Alintah-Abel, U. V., Iheama, N. B., & Ugochukwu, S. C. (2020). Effect of Company Strategies on Organisational Performance in Nigerian Construction Industry. *Journal of Engineering Research and Reports*, 25-33. <https://doi.org/10.9734/jerr/2020/v14i417132>
- Al-Mawali, H., Sharif, A. A., Rumman, G. A., Kerzan, F., & Liu, G. (2018). Environmental strategy, environmental management accounting and organizational performance: evidence from the United Arab Emirates market. *Journal of Environmental Accounting and Management*, 6(2), 109-118. <https://doi.org/10.5890/JEAM.2018.06.002>
- Amoako, G. K. (2013). Accounting practices of SMEs and contribution on performance. A case study of Kumasi Metropolis in Ghana. *International Journal of Business and Management*, 8(24), 121-127. <https://doi.org/10.5539/ijbm.v8n24p73>
- Anand, A., Sahay, B., & Subhashish, S. (2014). Cost management practices and performance of Indian corporations. *ASCI Journal of Management*, 3(3), 1-12.

<https://doi.org/10.53819/81018102t2016>

- Ashfaq, K., Younas, S., Usman, M., & Hanif, Z. (2014). Traditional vs contemporary management accounting practices and their role on performance: Evidence from Pakistani financial sector. *International Journal of Academic Research in Accounting, Finance and Management Science*, 4(4), 104-125. <https://doi.org/10.6007/IJARAFMS/v4-i4/1285>
- Atkinson, A., Kaplan, R., Matsumara, E., & Young, M. (2012). Management accounting: Information for decision-making and strategy execution. *Management Accounting Research*, 12(4), 111-114
- Ayodele, S. A., & Falokun, G. O. (2013). Assessing effect of management accounting techniques on SMEs performance. *The Nigerian Economy-Structure and Pattern of Development*, 26-153
- Ballada, W. (2012). Basic management accounting made easy. The competencies and problems facing managers. *International Scientific Research Journal*, 1(4), 131-166.
- Bardhan, P. (1989). The new institutional economics and development theory: A brief critical assessment. *World Development*, 17(9), 1389-1395. [https://doi.org/10.1016/0305-750X\(89\)90080-6](https://doi.org/10.1016/0305-750X(89)90080-6)
- Burns, J., & Scapens, R. W. (2000). Conceptualizing management accounting change: an institutional framework. *Management accounting research*, 11(1), 3-25. <https://doi.org/10.1006/mare.1999.0119>
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approach*. Sage publications, New York.
- Cuypers, I. R., Hennart, J. F., Silverman, B. S., & Ertug, G. (2021). Transaction cost theory: Past progress, current challenges, and suggestions for the future. *Academy of Management Annals*, 15(1), 111-150. <https://doi.org/10.5465/annals.2019.0051>
- Disatnik, D., & Sivan, L. (2016). The multicollinearity illusion in moderated regression analysis. *Marketing Letters*, 27(2), 403-408. <https://doi.org/10.1007/s11002-014-9339-5>
- Dugdale, D., & Jones, T. C. (2015). Impact of management accounting techniques on performance of service firms in the UK. *Accounting, Business and Financial History*, 13(3), 305-338. <https://doi.org/10.1080/09585200310001606608>
- Dul, J., & Hak, T. (2015). *Case study methodology in business research* (1st Ed.). Oxford: Butterworth-Heinemann.
- Falope, F. J., Offor, N. T., & Ofurum, D. I. (2019). Environmental cost disclosure and corporate performance of quoted construction firms in Nigeria. *Int. J. Adv. Acad. Res*, 5(6), 17-31.
- Georgiev, G. (2014). The relationship of budgetary participation and reliance on accounting performance measures with individual-level consequent variables: A Meta-Analysis. *European Accounting Review*, 18(2), 203-239. <https://doi.org/10.1080/09638180802652371>
- Gichaaga, P. M. (2014). Effects of management accounting practices on financial performance of manufacturing companies in Kenya. *Research Journal of Finance and Accounting*, 3(5), 45-66

<https://doi.org/10.53819/81018102t2016>

- Ibarrondo-Dávila, M. P., López-Alonso, M., & Rubio-Gámez, M. C. (2015). Managerial accounting for safety management. The case of a Spanish construction company. *SafetyScience*, 7(9), 116-125. <https://doi.org/10.1016/j.ssci.2015.05.014>
- Isa, C. R., & Thye, N. K. (2016). Advanced management accounting techniques: an exploratory study on Malaysian manufacturing firms. *Proceeding of the International Business and Information*, 3(12), 118-119.
- Islam, J., & Hui, H. (2012). A review of literature on contingency theory in managerial accounting. *African Journal of Business Management*, 6(15), 5159-5164. <https://doi.org/10.5897/AJBM11.2764>
- Karanja, J., Mwangi, E., & Nyaanga, P. (2012). Adoption of modern management accounting techniques in enhancing performance among SMEs in Kenya. *Research Journal of Finance and Accounting*, 3(2), 58-69.
- Kasravi, A., & Ghasemi, M. (2017). The effect of management accounting, financial performance and organizational performance in Tafresh University. *Journal of Internet Banking and Commerce*, 22(3), 1-10.
- Klein, A. G., Gerhard, C., Büchner, R. D., Diestel, S., & Schermelleh-Engel, K. (2016). The detection of heteroscedasticity in regression models for psychological data. *Psychological Test and Assessment Modeling*, 58(4), 567.
- Mazumder, R. (2017). Empirical assessment of management accounting techniques and performance private manufacturing firms in Bangladesh. *European Accounting Review*, 11(4), 787-794.
- Mbawuni, J., & Anertey, A. (2014). Exploring management accounting techniques and their influence in the performance of emerging telecommunication market in Nigeria. *Accounting and Finance Research*, 3(4), 71-85. <https://doi.org/10.5430/afr.v3n4p71>
- Melek, E. (2017). Impact of management accounting techniques: impact of MATs on the performance of top 500 firms in Turkey. *Journal of Modern Accounting & Auditing*, 8(1), 39-40.
- Mohammed, M., & Ali, H. (2013). Effectiveness of cash budgeting in public institutions: A case study of Telkom Kenya. *The Accounting Review*, 42(4), 701-712.
- Musso, F., & Francioni, B. (2012). The influence of decision-maker characteristics on the international strategic decision-making process: An SME perspective. *Procedia-Social and Behavioral Sciences*, 58, 279-288. <https://doi.org/10.1016/j.sbspro.2012.09.1002>
- Myers, J. L., Well, A. D., & Lorch Jr, R. F. (2013). *Research design and statistical analysis*. Routledge: USA. <https://doi.org/10.4324/9780203726631>
- Ogunde, A., Owolabi, D., Olusola, K. O., Tunji-Olayeni, P., Amusan, L., Joshua, O., & Akhigbe, A. O. (2016). Factors affecting the competencies and project delivery of small-sized indigenous construction firms in Lagos state. *Covenant Journal of Research in the Built Environment*, 4(1). 456-461

<https://doi.org/10.53819/81018102t2016>

- Oladimeji, O., & Aina, O. O. (2018). Financial performance of locally owned construction firms in southwestern Nigeria. *Journal of Financial Management of Property and Construction*, 3(11), 212-219. <https://doi.org/10.1108/JFMPC-01-2017-0003>
- Otley, D. T. (2018). The contingency theory of management accounting: achievement and prognosis. In *Readings in accounting for management control* (pp. 83-106). Springer, Boston, MA. [https://doi.org/10.1007/978-1-4899-7138-8\\_5](https://doi.org/10.1007/978-1-4899-7138-8_5)
- Pallant, J. (2005). SPSS survival manual: a step-by-step guide to data analysis using SPSS for windows. Australia: *Australian copyright*.
- Rickard, S. J., & Kono, D. Y. (2013). Effect of management accounting techniques on performance of construction firms in Belgium (case of Hasselt limited). *Review of International Organizations*, 9(3), 333-352. <https://doi.org/10.1007/s11558-013-9177-x>
- Saaydah, M. I., & Khatatneh, W. R. (2014). The level of adoption of some recent management accounting tools and the perceived effect on the performance of Jordan manufacturing companies. *Global Review of Accounting and Finance*, 5(1), 52-75. <https://doi.org/10.21102/graf.2014.03.51.04>
- Salawu, R., Oyesola, A., & Tajudeen, J. (2015). Activity based costing adoption among agricultural companies in Nigeria. *Journal of Modern Accounting & Auditing*, 8(1), 39-40.
- Schmidt, A. F., & Finan, C. (2018). Linear regression and the normality assumption. *Journal of Clinical Epidemiology*, 98(12), 146-151. <https://doi.org/10.1016/j.jclinepi.2017.12.006>
- Scott, W. R. (2005). Institutional theory: Contributing to a theoretical research program. Great minds in management. *The Process of Theory Development*, 37(2), 460-484.
- Tiruneh, G. G., & Fayek, A. R. (2020). Competency and performance measures for organizations in the construction industry. *Canadian Journal of Civil Engineering*, 2(6), 234-239
- Tunji – Olayeni, P. F., Lawal, P. O. & Amusan, L. M. (2012). Developing infrastructure in Nigeria: Why is the cost so high? *Mediterranean Journal of Social Sciences*, 2(3), 262-270
- Tunji-Olayeni, P., Olusoji M. T., Fagbenle, O.I., Omuh, I. O., & Opeyemi J. (2016). Evaluating construction project performance: A case of construction SMEs in Lagos, Nigeria. *Journal of Innovation and Business Best Practices*, 10(5), 171-201. <https://doi.org/10.5171/2016.482398>
- Van Der Stede, T. (2014). The effect of management accounting techniques on performance of Fluor Construction Company in Netherlands. *Journal of Integrative Business and Economics Research*, 2(2), 616-626
- Wairegi, B. W. (2011). Management accounting techniques and performance of Small and Micro Enterprises in Kenya. *Journal of Language, Technology and Entrepreneurship in Africa*, 3(1), 79-98. <https://doi.org/10.4314/jolte.v3i1.66591>
- Yamane, T. (1967). *Statistics: An Introductory Analysis*. 2<sup>nd</sup> ed. New York: Harper and Row.

<https://doi.org/10.53819/81018102t2016>