



Costing Methods and Operational Efficiency of Medium Scale Enterprises in Akwa Ibom State

Usip Mfon Ezekiel

Department of Business Education, Faculty of Education, University of Port Harcourt
mfonezekiel3@gmail.com

ABSTRACT

This paper examined how costing methods predicts the operational efficiency of medium scale enterprises in Akwa Ibom State, Nigeria. The study was guided by three objectives, with corresponding research questions and null hypotheses. The study adopted a correlational research design. The population of this study comprised of 1,320 managers in all the registered medium scale enterprises in Akwa Ibom State. The sample size for this study was 317 managers representing 24% of the entire population. A two set questionnaire was the instrument for the study and it was titled: Costing Methods Questionnaire (CMQ) and Operational Efficiency of Medium Scale Enterprises Questionnaire (OEMSEQ). Cronbach alpha reliability test was conducted to ascertain the reliability of the instruments, of which the reliability coefficients for CMQ and OEMSEQ are 0.86 and 0.82 respectively. The research question one to three were answered using simple regression, while t-test associated with simple regression was used to test hypotheses one to three. The finding of the study showed that the application of costing methods such as standard costing, contract costing, and job order costing significantly predict operational efficiency of medium scale enterprises in Akwa Ibom State. Based on the finding, it was recommended among others that the owners of medium-scale enterprises should facilitates regular training of managers on standard costing techniques which will enhanced their skills, knowledge and competencies in the use of standard costing method. Also, the Institute of Chartered Accountants of Nigerian should organise regular conferences for their members who are managers of medium scale enterprises in order to equip them with the necessary skills and knowledge to costing contract jobs.

Keywords: Costing Methods, Operational Efficiency, Medium Scale Enterprises

Introduction

Business organisations often incur costs in the process of providing goods or services to its customers. Cost is the amount of expenditure incurred on or attributable to a specified thing or activity. It is the amount of resources sacrificed or forgone towards achieving a stated objective. Mathematically, cost is the product of the quantity of a given resource used and the price per unit of the quantity of resources. It may also represent economic resources which has value and can be utilized to generate benefits. In the ascertainment of cost in business organizations, various costing methods are often used. Costing method is the systematic manner of determining the cost of a product or service as well as profit from operations. Every business enterprise, large, medium or small scale, requires different methods of costing their products in order to sustain their existence in the market. According to Abohi (2015), the kind of costing method applied in an enterprise depends on the type of product, the process of input transformation or the nature of production techniques. The methods of input transformation could be organized around processes or operational procedures. The factors surrounding a particular production, service or trade activities often determine the kind of costing method to be adopted.

Costing methods revolve around costing techniques where the manner of presenting accounting information becomes imperative to enterprises to present the necessary information needed by management to aid planning, control and decision making, as well as price determination (Institute of Cost Accountants of India ICAI, 2016). Thus, a particular costing technique must be used in combination with the relevant costing method to generate cost information that can aid management decisions. Omolehinwa (2013) emphasized the importance of the application of costing methods in business enterprises as it can determine the life span of such businesses. These techniques serve as the life-wire to every business enterprise in sustaining the life-span of such business. The application of suitable costing method in the operation of medium scale business depends on the aim and objective of the firm. Omolehinwa stated that the most common ones that could promote operational efficiency include among others; standard, contract, job, process, service, absorption and marginal, activity-based costing, through-put as well as relevant costing methods.

Standard costing method as viewed by Eze (2010), is a system of accounting which makes use of predetermined cost relating to each element of cost layout, material and overhead for each line of product manufactured or service rendered. Standard costing involves the preparation and use of standard cost, its comparison with the actual costs and the analysis of deviations to their causes so as to provide corrective action that could enhance operational efficiency in a business entity. Standard costing therefore represents the integral part of management accounting because it provides information to the

management for budgeting and responsibility accounting system. Application of standard costing in a medium scale enterprise provides information on cost control and cost reduction in producing and supplying quality products, thereby maximizing profits. In a medium scale enterprise, different kinds of job exist; some usually have long term duration while others have short-term. The management as well as the firm's accountant should be able to utilize a suitable costing method that will cater for contract jobs.

Contract costing can be seen as a variant of costing or specific order costing which applies where large and separated identifiable units of jobs are undertaken to customers' special requirements. Omolehinwa (2013) explained that contract costing is used for an order of work that usually takes more than one calendar year and most of the work is done outside the premises of the business. Contract jobs, being large jobs, usually require leasing of equipment or purchase of new equipment just to complete these jobs. Thus, the accountants of the firm either male or female should be able to present the financial information considering the capital invested in executing the contract as well as determining the profit without reducing the quality of their products. Contract costing as used in this work is viewed as a method of costing which is applied in a business where separate contracts of non-repetitive nature are undertaken. It is applicable to a concern which make specific contract and requires to know the cost of each.

Job order costing is another costing method which is also known as terminal costing or specific order costing. It is called terminal costing because production activities commence on individual job and ends on it, while it is called specific order costing because in most orders, jobs are made to the specification of the customers and it is exactly what is ordered that should be produced. The Chartered Institute of Management Accountants (2019) defined job order costing as a form of specific order costing in which costs are attributed to individual jobs. It is a costing method that is applied where work is undertaken to customers' special requirements and each order is of comparatively short duration. Adeniyi (2014) added that job costing is adopted when the production department issues an order to produce a unit of a product for a customer. In order words, a job is an item of work carried out to a particular customers' order or work specification. From the foregoing, Job order costing is a system of costing for assigning and accumulating manufacturing costs of an individual unit or output. The job order costing system is used when the various items produced are sufficiently different from each other and each has a sufficient cost.

Medium Scale Enterprise (MSE) according to Nigerian Institute of Management (NIM, 2012), is a business organization that has full-time labour force of 26-100 people, and a total cost and working capital, less cost of land of forty million to two hundred million naira. Central Bank of Nigeria (CBN) (2017), defined medium scale enterprises according to asset base and number of staff employed. A medium scale enterprise has an asset base that is between N5 million to N500 million, and a staff strength of between 11 and 100 people.

Medium scale enterprise is operationally defined as a business organization that has the asset based of N5 million to N300 million and a labour force of 20 – 100 employees. Medium Scale enterprises cover a wide range of economic activities, which include pharmaceutical outfits, supermarkets, transport companies, chain stores, eateries, hotel services, among others. For example, a pharmaceutical outfit deals with the production and sales of drugs and related chemical substances while supermarket deals with food and household items. Medium scale enterprises constitute the stabilizing force in any economy. These businesses provide employment for the teeming population, revenue to the governments, and market for the raw materials of small-scale producers as well as social amenities. For medium scale business enterprises to meet up with all its obligations and social responsibilities, proper management of all resources is required. The resources to be managed to ensure the attainment of organizational objective include inventory.

Medium-scale business organisations constitute the main stabilizing force in Akwa Ibom State economy. These organisations provide employment and income for the people of Akwa Ibom. The number of people who work in medium-scale business organisations increased significantly with the introduction of the Indigenization Decree of 1977, which ensured the transfer of ownership and control of business organisations from foreigners to indigenes. This reduced foreign domination of these organisations and increased indigenous participation leading to the employment of Akwa Ibom people at all levels of management (lower, middle and top levels) in these organisations in cities like Uyo, Eket, Ikot Ekpene, Ikot Abasi. The impacts of these organisations were felt in all the nooks and crannies of Nigeria as they helped in providing markets for the raw materials of small-scale producers, employment for the teeming population and revenue to the government. Going by the startup fund requirements of a business in this category, one would have expected it to enjoy sustainable operations through economies of scale over small scale businesses, but the situation is rather regrettable as it tends to respond to quick liquidation. Perhaps, this could be as a result of operational inefficiency.

Operational efficiency is the capability of an enterprise to deliver products or service to its customers in the most cost-effective manner possible while still ensuring the high quality of its products, services and support. Michael (2017) viewed operational efficiency as the ratio between an output gained from the business and an output to run a business operation. When improving operational efficiency, the output to input ratio improves. Inputs would typically be money (cost), people, measured either as headcount or the number of fulltime equivalent or time/effort while output would typically be revenue and profit margin, new customers, production, quality, speed and agility. Operational efficiency also denotes doing something with less time. Operational efficiency can be achieved if a company is able to streamline its core process in order to effectively respond to continuous customer needs. Thus, the effectiveness of a costing process is an important ingredient that the medium enterprises need to engender operational efficiency. The indicators of operational efficiency include: competency by the employees, minimization of wastages, high productivity, adaptability and proficiency among others.

It is worrisome that most of the medium-scale business enterprises are found folding up almost on daily basis and this has become widespread and systemic in Nigeria generally and Akwa Ibom State in particular (Osisioma, 2012). Most of these business enterprises are either not employing the experienced and qualified employees for the appropriate key positions, not producing good qualities of product, at times prices of goods too high among others. The problem of this study is that most of the medium scale businesses are found locked up in Akwa Ibom State leading to the downsizing and complete winding-up of many such organisations due to financial insolvency. This results in loss of substantial investment by investors in the organisations, retrenchment of workers and increase in the level of unemployment with related vices such as armed robbery, kidnapping and youth

restiveness. If this ugly trend is not urgently reversed, the state will lose its attraction to investors, standard of living will fall and Akwa Ibom State will lag behind in socio-economic development. This poses a great problem and hence the researcher wants to determine the application of costing methods such as standard costing, contract costing, job order costing, process costing, service costing, absorption costing, marginal cost and Activity-Based costing on the operational efficiency of medium scale enterprises in Akwa Ibom State.

The subjects used for this study are managers of the Medium Scale Enterprises (MSE) who are knowledgeable in accounting and have the responsibilities of collecting, recording, classifying, analyzing and communicating economic events for informed decision-making by relevant stakeholders. In a medium scale enterprise, activities engaged in are production, processing of products such as chemicals and rendering of services. A production entity engaged in the conversion of raw materials into finished or semi-finished goods while a trading entity engaged in the buying and selling of goods at a profit. Relatedly, a service organisation renders services at a price with a view to making profit (Ahmad & Mohammed-Zabiri, 2013). Therefore, the application of the various costing methods in a medium scale enterprise will be determined in the study.

Statement of the Problem

Medium scale enterprises are generally regarded as the life wire of the economy as they engaged in production of goods, processing of chemical products and render services that benefit the general public. This sector of the economy receives much attention from different administration/strata of government because of its special nature and contribution to the economy. Many articles by different researchers have been written and recommendations made for the development of this category of business on areas such as lack of finances as a limitation to growth, lack of adequate management by shareholders, among others. In spite of the huge investment in these businesses by local and foreign investors, recommendations from researched articles in the areas such as agriculture, technology, commerce among others, and observation by the researcher revealed that many of these businesses have gone into liquidation in recent times.

Perhaps these businesses may have had challenges in costing their products or services which affect the operations of these businesses adversely, the products and services might have been priced too low or too high. One of the consequences of this is that business profit becomes insufficient to meet the necessary obligation such as payment of workers' salaries, taxes, electricity bills and the likes. Usually, there is lack of cost information that could aid effective operation of these businesses in the area of price determination, planning, controlling and decision making; this seems to affect the operational ability of these businesses in Akwa Ibom State. It is worrisome that the efforts of various stakeholders such as Bank of Industry (BOI), Agriculture Development Bank (ADB), Commercial Banks, business men/women and the State Government to stem the tide of liquidation of these businesses through various programmes and policies have not yielded the desired result.

Consequently, the inability of these businesses to achieve sustainable operation has led to rise in unemployment, high dependency rate and waste of investable funds. Interestingly, it appears that application of suitable costing methods in the operations of these enterprises could help to salvage the situation. Hence, this study was conducted to empirically determine the application of costing methods on the operational efficiency of medium scale enterprises in Akwa Ibom State.

Aim and Objectives of the Study

The aim of the study was to determine how costing methods predicts the operational efficiency of medium scale enterprises in Akwa Ibom State. Specifically, the objectives of the study sought to:

1. ascertain how the application of standard costing method predicts the operational efficiency of medium scale enterprises.
2. determine how the application of contract costing method predicts the operational efficiency of medium-scale enterprises.
3. Find out how the application of job order costing method predicts the operational efficiency of medium scale enterprises.

Research Questions

The following research questions guided the study:

1. How does the application of standard costing method predict the operational efficiency of medium scale enterprises in Akwa Ibom State?
2. How does the application of contract costing method predict the operational efficiency of medium scale enterprises in Akwa Ibom State?
3. How does the application of job order costing method predict the operational efficiency of medium scale enterprises in Akwa Ibom State?

Research Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance.

H₀₁: Application of standard costing method does not significantly predict the operational efficiency of medium scale enterprises in Akwa Ibom State.

H₀₂: Application of contract costing method does not significantly predict the operational efficiency of medium scale enterprises in Akwa Ibom State.

H₀₃: Application of job order costing method does not significantly predict the operational efficiency of medium scale enterprises in Akwa Ibom State.

Methodology

This study adopted a correlation survey design to ascertain if the independent variable (costing methods) predict the dependent variable (operational efficiency of medium scale enterprises). The population of this study comprised of 1,320 Managers (servicing enterprises = 677, production enterprises = 480 and chemical/processing enterprises = 163) in all the registered medium scale enterprises in Akwa Ibom State. Source: Corporate Affairs Commission, 2023. The sample size for this study was 317 managers chosen for the study. This was made up of 163 managers from service enterprises, 115 from production enterprises and 39 from chemical/processing enterprises. The researcher used 24% of the population for the sample size in order to have a proportionate distribution of the population. This is done in line with Boll and Gall (1971) cited in Uzoagulu (2011), who suggested that for a population of within 1000, 20% can be used to determine the sample. The proportionate sampling technique was used to select the sample for the study from the three types of enterprises. This method ensured that all the three types of enterprise in the population were fully represented in the study. The research instrument was a two set questionnaire titled: Costing Methods Questionnaire (CMQ) and Operational Efficiency of Medium Scale Enterprises Questionnaire (OEMSEQ). The instruments have two sections (A and B). Section A elicited respondents personal information, while section B elicited information CMQ and OEMSEQ. The instruments were structured on four-point Likert-scale of Very Strongly Predict (VSP) = 4, Strongly Predict (SP) = 3, Weakly Predict (WP) = 2 and Very Weakly Predict (VWP) = 1 respectively. Cronbach Alpha reliability statistics was used to test the reliability of the two instruments which yielded these coefficients 0.82, 0.86 and 0.92 for the three clusters, while the reliability value for CMQ and OEMSEQ are 0.86 and 0.82. These high coefficient values indicated that the instruments are reliable for the study as recommended by Uzoagulu (2011); that the coefficient value of 0.70 and above is considered reliable. For the data that were analyzed, research questions one to three were answered using simple linear regression by multiplying the regression squared coefficient by 100%. The decision rule in determining the level of relationship for each of the research questions was based on the recommendations by Nworgu (2015). According to him, interpretation of r-value relationship of the variables are as follow: 0.00 - 0.19 = Very Weak Prediction, 0.20 - 0.39 = Weak Prediction, 0.40 - 0.59 = Fairly Strong, 0.60 - 0.69 = Strong Prediction, 0.70 - 0.99 = Very Strong Prediction, and + 1 = Perfect Prediction. Consequently, t-test associated with simple linear regression was used to test hypotheses one to three at 0.05 level of significance.

Results and Discussion

Data generated were presented in tables, analysed and were discussed. As part of data collection efforts, the researcher designed and distributed 317 copies of the questionnaire to respondents, after which 294 copies were retrieved and found suitable for analysis resulting in 93% retrieval rate.

Answer to Research Questions

Research Question One:

How does the application of standard costing method predict the operational efficiency of Medium Scale Enterprises in Akwa Ibom State, Nigeria?

Table 1: Simple Linear Regression Analysis on the Application of Standard Costing Method on the Operational Efficiency of Medium Scale Enterprises in Akwa Ibom State

Variables	R	R ²	% of Prediction	Adjusted R ²	Remarks
Standard Costing Method	.840	.705	70.5	.704	VSP
Operational Efficiency					

Source: Field Data, 2020.

Decision Rule: 0.00 - 0.19 = Very Weak Prediction, 0.20 - 0.39 = Weak Prediction, 0.40 - 0.59 = Fairly Strong, 0.60 - 0.69 = Strong Prediction, 0.70 - 0.99 = Very Strong Prediction, and + 1 = Perfect Prediction.

The result in Table 1 indicates the values of calculated R (extent of prediction) and R² (coefficient of determination) between the standard costing method and operational efficiency of medium scale enterprises in Akwa Ibom State. R² of 0.705 implies that the independent variable (application of standard costing method) accounts for 70.5 percent variation in the dependent variable (operational efficiency) of medium scale enterprises in Akwa Ibom State.

With a percentage of 70.5, it therefore means that the application of application of standard costing method very strongly predicts operational efficiency of medium scale enterprises in Akwa Ibom State.

Research Question Two:

How does the application of contract costing method predict the operational efficiency of medium scale enterprises in Akwa Ibom State, Nigeria?

Table 2: Simple Linear Regression Analysis on the Application of Contract Costing Method on the Operational Efficiency of Medium Scale Enterprises in Akwa Ibom State

Variables	R	R ²	% of Prediction	Adjusted R ²	Remarks
Contract Costing Method	.892	.796	79.6	.795	VSP
Operational Efficiency					

Source: Field Data, 2020.

Decision Rule: 0.00 - 0.19 = Very Weak Prediction, 0.20 - 0.39 = Weak Prediction, 0.40 - 0.59 = Fairly Strong, 0.60 - 0.69 = Strong Prediction, 0.70 - 0.99 = Very Strong Prediction, and + 1 = Perfect Prediction.

The result in Table 2 reveals the values of calculated R (extent of prediction) and R² (coefficient of determination) between the contract costing method and operational efficiency of medium scale enterprises in Akwa Ibom State. This is interpreted that the application of contract costing method predicts operational efficiency of medium scale enterprises by 79.6 percent.

With a percentage of 79.6, it therefore means that the application of contract costing method very strongly predicts operational efficiency of medium scale enterprises in Akwa Ibom State.

Research Question Three

How does the application of job order costing predict operational efficiency of medium scale enterprises in Akwa Ibom State, Nigeria?

Table 3: Simple Linear Regression Analysis on the application of Job Order Costing on the Operational Efficiency of Medium Scale Enterprises in Akwa Ibom State

Variables	R	R ²	% of Prediction	Adjusted R ²	Remarks
Job Order Costing Method	.865	.748	74.8	.748	VSP
Operational Efficiency					

Source: Field Data, 2020.

Decision Rule: 0.00 - 0.19 = Very Weak Prediction, 0.20 - 0.39 = Weak Prediction, 0.40 - 0.59 = Fairly Strong, 0.60 - 0.69 = Strong Prediction, 0.70 - 0.99 = Very Strong Prediction, and + 1 = Perfect Prediction.

The result in Table 3 indicates the values of calculated R (extent of prediction) and R² (coefficient of determination) between the job order costing method and operational efficiency of medium scale enterprises in Akwa Ibom State. R² of 0.748 implies that the independent variable (application of job order costing method) accounts for 74.8 percent variation in the dependent variable (operational efficiency) of medium scale enterprises in Akwa Ibom State.

With a percentage of 74.8, it therefore means that the application of job order costing very strongly predicts operational efficiency of medium scale enterprises in Akwa Ibom State.

Test of Hypotheses

Research Hypothesis 1:

Standard costing method does not significantly predict operational efficiency of medium scale enterprises in Akwa Ibom State, Nigeria.

Table 4: t-test Associated with Simple Linear Regression Analysis on the Application of Standard Costing Method on the Prediction of Operational Efficiency of Medium Scale Enterprise in Akwa Ibom State.

Variables	Source of Variation	Sum of Square	df	Mean Square	F-Cal	Decision at p<0.05
Standard Costing Method	Regression	29220.424	293	29220.424		.000
Operational Efficiency	Residual	12202.001		41.788	699.259	Sig.

Source: Field Data, 2020

- a. Dependent Variable: Operational Efficiency

- b. Predictors: (Constant), Standard Costing Method

The result in Table 4 depicts that the F-calculated of 699.259 has the probability level of 0.00 which is less than the significance level of 0.05. This is interpreted to be statistically significant at the degree of freedom of 293. The null hypothesis which stated that standard costing does not significantly predict operational efficiency of medium scale enterprises in Akwa Ibom State, Nigeria is rejected. This means that the application of standard costing significantly predicts the operational efficiency of medium scale enterprises in Akwa Ibom State.

Research Hypothesis 2:

Contract costing method does not significantly predict operational efficiency of medium scale enterprises in Akwa Ibom State, Nigeria.

Table 5: t-test Associated with Simple Linear Regression Analysis on the Application of Contract Costing Method on the Prediction of Operational Efficiency of Medium Scale Enterprises in Akwa Ibom State

Variables	Source of Variation	Sum of Square	df	Mean Square	F-Cal	Decision at $p \leq 0.05$
Contract Costing Method	Regression	32954.577	293	32954.577		.000
Operational Efficiency	Residual	8467.848		28.999	1136.385	Sig.

Source: Field Data, 2020.

- a. Dependent Variable: Operational Efficiency
 b. Predictors: (Constant), Contract Costing Method

Table 5 shows the calculated F-value of (1136.385) has the probability level of 0.00 which is less than the significant level of 0.05. This is interpreted to be statistically significant at the degree of freedom of 293. Therefore, the null hypothesis which states that contract costing method does not significantly predict operational efficiency of medium scale enterprises in Akwa Ibom State, Nigeria is rejected. This means that contract costing significantly predicts operational efficiency of medium scale enterprises in Akwa Ibom State, Nigeria.

Research Hypothesis 3:

Job order costing method does not significantly predict operational efficiency of medium scale enterprises in Akwa Ibom State, Nigeria.

Table 6: t-test Associated with Simple Linear Regression Analysis on the Application of Job Order Costing Method on the Prediction of Operational Efficiency of Medium Scale Enterprises in Akwa Ibom State.

Variables	Source of Variation	Sum of Square	df	Mean Square	F	Significance
Job Costing Method	Regression	30999.784	293	30999.784		.000
Operational Efficiency	Residual	10422.641		35.694	868.488	Sig.

Source: Field Data, 2020

- a. Dependent Variable: Operational Efficiency
 b. Predictors: (Constant), Job Costing Method

Table 6 reveals that at 0.05 level of significance with 292 degree of freedom, the p-value of 0.00 which is lesser than the 0.05 level of significance is obtained. Therefore, the null hypothesis which stated that Job order costing method does not significantly predict operational efficiency of medium scale enterprises in Akwa Ibom State, Nigeria is rejected. This means that job order costing significantly predicts operational efficiency of Medium scale enterprises in Akwa Ibom State, Nigeria.

Discussion of Findings

The first finding of the study shows that standard costing method very strongly predicts operational efficiency of medium-scale enterprises in Akwa Ibom State. This is in consonance with the study of Sadiq et al. (2016) who conducted a study to examine the effects of standard costing on the profitability of MTN Telecommunication Companies (a servicing company) in Kano. The result indicated that the application of standard costing in a servicing firm such as MTN Telecommunication had a positive influence on the profitability of the organization. However, the result with that of Ezejirofor et al. (2015), who stated that standard costing is one of the traditional costing methods, hence, not suitable with the modern business environment. Rashid (2016) had

however explained that standard costing method is still useful tool in the hand of management in controlling cost and in making managerial decisions. The reason for this result could be attributed to the fact that standard costing method mission is to provide relevant information to management on deviations of actual results from set plans when such deviations warrant management's corrective action. The availability of relevant information to management aid in effective decision making which invariably propels operational efficiency of medium scale enterprises. Furthermore, the result could be explained in terms of the fact that setting an ideal standard helps an organization to avoid wastage in terms of resources.

The finding from the study showed that the application of standard costing significantly predicts operational efficiency of medium scale enterprises. Relatedly, Bassey (2014) found out that there is significance difference between standard costing system and management cost control. Hamide and Metin (2015), also affirmed in their study that standard costing system influences the management cost control by establishing standards and analyzing variances. This study was also in consonance with the study of Illiemen and Amedu (2019), who further observed that the more a firm practices standard costing, its profit increases. This is achieved as standard costing aid the organization to control cost by comparing the actual and the budgeted price to detect variances. Where a favourable variance is established, it inform the organization of its progress and where there is adverse variance, the organization utilizes the information and try to forestall costing system that will bring about cost control. Also, increase in profit due to the application of standard costing could be due to cost savings in record-keeping and possible reductions in production costs. A standard cost system may lead to cost savings. The use of standard costs may cause employees to become more cost conscious and to seek improved methods of completing their tasks.

The second finding indicates that the application of contract costing method very strongly predicts operational efficiency of medium scale enterprises in Akwa Ibom State, Nigeria. The finding of Opeyemi and Kole (2016) revealed that cost projection measure is the most frequent cost control method used by contractors. Sanni and Hashim (2013) study revealed that cost control practices play a vital role in Nigerian construction Industry. The difference in the finding could be due to difference in business environments. Even though contract costing could be effective in costing contract jobs by contractors in a medium-scale business organization, its application could be marred by fear of assumptions of comparing current cost level or planned cost level, problem of identifying direct cost, problem of low indirect cost and problem of dividing profit between different account period. In spite of the nature of contracts available, that is, short and long term contract. Application of the accurate costing method in any business organization aid in curtailing wastage and controlling of cost at every phase of their projects as well as approximation of costs of the resources needed to complete project objectives. Moreso, the findings of this study is in consonance with the study of Opeyemi and Kole (2016) because it enlists the most effective cost control methods available to contractors to include financial reports, weekly cost reports and cost projections value reconciliation, these are in a bid to control and prevent reduced profit available for the organization. In spite of the cost control methods, it is observed that contractors should embrace cost control methods which ensure close monitoring and reporting of work progress and cost performance.

The study further showed that the application of contract costing method significantly predicts operational efficiency of medium-scale enterprises in Akwa Ibom State. This finding is in line with the findings of Mitchell (2015) whose finding indicated that management accounting techniques has a significant relationship with performance evaluation in large scale organizations. The application of contract costing needs to be done with care as this would also help the medium scale enterprise to get quick and accurate reports to solve cost overrun and its associated problems that might be identified in the cause of operation. The main objective of applying contract cost in a medium scale is to reduce to the barest minimum the deviation of the final cost from the initial cost and still maintain the profitability level.

The third finding of the study shows that the application of Job order costing method very strongly predicts operational efficiency of Medium Scale Enterprises in Akwa Ibom State, Nigeria. This finding is in consonance with the findings of Madhav and Srikirrit (2013) who found that managers need to acquire the job costing skills to aid them cost their jobs from the point of purchase to pricing of products, among others. However, Stephen (2012) reported that every business organization operating must weigh the different cost reduction methods and employ the most suitable and appropriate method(s) to its organization so as to broaden the profit based of the organization by blocking wasteful spending. In view of the above finding, the ability of managers to acquire job costing method skill will aid the manager in costing the firm's product and still maintain profit.

The requirement for a skilled manager is in consonance with the procedure for the performance of job in an organization. Mostly, before any material is purchased or issued out from the store, materials requisition are prepared for material available in store, while purchase requisition are raised for materials to be purchased. Also, a job card setting out the stages of work to be performed is raised, the required personnel are stated as well as the cost for each unit of job perform, these require a trained manager who is invested with the knowledge of costing, otherwise such business organization can run at a loss. Moreso, the job card does not just carry only cost of each job but some costs are administrative, selling and distribution overheads, at the end the total cost accumulated will then be compared with the quoted price of jobs, the difference represents profit or loss on a job. This requires the knowledge of a trained manger or an accountant. Obviously, adequate utilisation of job order costing would enable a medium-scale business organisation dive into setting appropriate procedure for the performance of job to avoid wastage as reported by Stephen (2012).

The finding further showed that the application of Job order costing method significantly predicts operational efficiency of medium scale enterprises in Akwa Ibom State, Nigeria. This finding is in line with the finding of Femi (2016) whose finding indicated that there a significant relationship between cost accounting information and price determination. The utilization of job order costing needs to be done with care to ensure all necessary cost incurred in the job is captured to avoid wastage and loss.

Conclusion

Based on the findings of this study, it was concluded that the application of costing methods such as standard costing, contract costing, and job order costing are crucial determinants of operational efficiency of medium scale enterprises in Akwa Ibom State; hence, significantly predicts operational efficiency of medium scale enterprises in Akwa Ibom State.

Recommendations

Based on the findings of the study, the following recommendations are therefore made:

1. The owners of medium-scale enterprises should facilitates regular training of managers on standard costing techniques which will enhanced their skills, knowledge and competencies in the use of standard costing method.
2. The Institute of Chartered Accountants of Nigerian should organise regular conferences for their members who are managers of medium scale enterprises in order to equip them with the necessary skills and knowledge to costing contract jobs.
3. Managers of medium scale enterprises should designed a template for job order costing application in their various entities which will help book keepers and accounting clerks in the effective application of the technique to ensure operational efficiency.

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