
THE RELEVANCE OF STANDARD COSTING IN NIGERIAN ORGANIZATION – A SURVEY OF SELECTED FIRMS IN UGHELLI, DELTA STATES

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ABSTRACT

Responsibility accounting systems provides the manager with information that helps control operations and evaluates the performance of subordinates. There are two ways of identifying achievement; either being effective or efficient. Effectiveness relate to whether a particular Job was done or an objective achieved, while efficiency is a more complex concept of performance because it incorporate the cost required to accomplish task. The efficiency of management depends to a larger extent upon the effective control of cost. The system of standard costing is the most efficient way of controlling cost, as it provides criteria to evaluate and compare the operating performance of set objectives and goals. Thus the study examines the relevance of standard costing in Nigerian Organizations. Structured questionnaire was employed in the cause of gathering relevant data for the study and administered on 90 staffs of five manufacturing firms in Ughelli, Delta State. Data analysis was made using simple percentage and chi square (χ^2) statistical techniques. The analysis revealed among others, significant relationships between the application of standard costing and growth in manufacturing organization. Recommendations made for effective and efficient standard costing in organization includes the establishment of cost centres with clearly defined areas of responsibility, classification of accounts, liason between many departments, formation of standing committee to assist the cost accountant in his task of setting standards for effective implementation of standard costing in manufacturing organizations.

Keywords: *Responsibility Accounting, Standard Costing, Cost Control, Performance Evaluation and Effectiveness.*

INTRODUCTION

An important feature of managing a business is controlling cost. Standard costing is one of the techniques used in cost control. It is aimed at the predetermination of what performance should be under specified conditions. Controlling cost involves providing clear cut information on what cost should be incurred, what cost was actually incurred, what is the variance between what was and what should have been, why and what remedial action should be taken to ensure that actual occurrence agree with the planned. Standard costing is a measure of comparison for quantity and qualitative values. It is a normal reference point for evaluation of performance. It has also been variously referred to as the preparation and the use of standard cost and measurement at the points of incidence Okoye (2000). Standard costing is concern with measures of efficiency, which describes how managers can have control over the acquisition and use of resources in producing a given quality of output. The degree of success is measured by comparison of actual performance and standard performance for instance; if the standard material input for a unit of production is N700 and

the actual cost is N650 then the variance (N50) is the measure of performance is an improvement over the standard. This comparison of actual cost will help in fixing responsibility for non-standard performance and will focus attention on areas in which cost improvement should be brought by showing the source of loss and inefficiency. This study is aimed at carrying out an empirical study on the relevance of standard costing in Nigeria organizations using five selected manufacturing firms in Ughelli Delta State namely: Afijoe Nigeria Limited, Civic Aluminum Nigeria Limited, Davoj Recourses Nigeria Limited, EFAC Nigeria limited, Meruvie Nigeria Limited with a view of identifying the need for standard costing, requirements in the use of standard costing, applicability of standard costing, limitations of standard costing is concerned with measures of efficiency it describes how managers can have control over the acquisition and use of resources in producing a given quantity of output costing and proffer suggestions for effective implementation of standard costing in manufacturing organizations.

However, the study will aim at addressing the following research questions:

1. Does effective implementation of standard costing has significant relationship in the optimization of resources in your organization?
2. Does effective implementation of standard costing has significant relationship with the simplification of costing procedures in organization?

In order to achieve the objective of this study, the understated null hypotheses will be tested:

Ho₁: Effective implementation of standard costing has no significant relationship in the optimization of resources in the firm under study.

Ha₁: Effective implementation of standard costing has no significant relationship with the simplification of the costing procedures in the firms under study.

LITERARY REFLECTIONS

This study is aimed at finding facts from opinions and thoughts of various authors and other persons about the implication of the application of standard costing in manufacturing organizations. Jhingan (2004) define standard costing as the preparation and the use of standard costs, their comparison with costing as the preparation and the use of standard costing as the preparation and use of standard costs, their causes and points of incidence. Abohi (2003) defined standard costing as a technique whereby standard cost are computed and subsequently computed with the actual cost to find out the difference between the two. According to I.C.M.A. London, standard costing is defined as the preparation and the use of standard costs, their comparison with actual costs and analysis of variance to their cause and point of incidence. Okoye (2000) defined standard costing as technique of cost accounting which compares the standard cost of each product or service with the actual costs, to determine the efficiency of the operation so that remedial action may be taken immediately. Eze et al argued that standard costing involves:

- i. The setting of standard costs of different elements of cost, i.e material labour and overheads.
- ii. Ascertaining actual costs.
- iii. Comparison with actual costs to determine the differences, known as variance.
- iv. Analyzing variances for ascertaining reasons thereof.
- v. Reporting of these variances and analysis thereof to management for appropriate action, where necessary.

The application of standard costing requires certain conditions to be fulfilled. Nwoko (2000) stated that these preconditions include:

- ❖ A sufficient volume of standard products or components should be produced.
- ❖ Methods, operations and processes should be capable of being standard.
- ❖ A sufficient number of costs should be capable of being controlled.

(Jhnigan, 2004; Okoye 2000; Arora 2006; and Abohi 2003) extrapolated the following merits of standard costing:

- ❖ It helps in establishing a yardstick with which the efficiency of performance is measured that helps to exercise control.
- ❖ It provides how the clear goal is to be achieved by providing incentive and motivation to work.
- ❖ It provides the management the basic information to fix selling price, transfer pricing, etc.
- ❖ It facilitates delegation of authority and allocation of responsibility.
- ❖ It helps in achieving optimum utilization of plant capacity.
- ❖ It provides means for cost reduction.
- ❖ Variance analysis and reporting is helpful for taking corrective measures.
- ❖ It facilitates co – ordination of various functions in an organization.
- ❖ It eliminate waste, by fixing standard certain waste, such as materials wastage, idle time, lost machine hours, etc are reduced.
- ❖ Economical and simple. Standard costing is an economical and simple means of cost accounting and generally results in a saving in the cost of costing system. It results in the reduction in paper work in accounting and needs lesser number of forms and records. This lead to considerable saving in clerical labour.
- ❖ Valuation of stocks. Standard costing simplifies the valuation of stock because the stock is valued at standard cost. The difference between standard and actual cost is transferred to a variance account. This ensures a uniform pricing of stocks in the form of raw materials, work in progress and finished good.
- ❖ Helps in fixing standards which are usually useful in business planning which instills in the management a habit of planning in advance.
- ❖ It provides a basis for the prediction of future costs that is useful for decision making purposes.

The problems involved in setting standard costing according to (Jhnigan, 2004; Okoye 2000; Arora 2006; Pandey 2005; and Abohi 2003 are:

- ❖ Application of standard costs is quite difficult in practice.
- ❖ The system may not be appropriate to a particular business organization.
- ❖ Frequently, standards become rigid over time and do not keep pace with changes in conditions.
- ❖ The staff may not be capable of operating the system.
- ❖ If the standards are outdated, loose, inaccurate or unreliable, they may be more harmful to the business as compared to the function they are expected to perform.
- ❖ If standards set are higher than being reasonable, they act as discouraging factor.
- ❖ Operation of a standard costing system is a costly affair and most times small firms cannot afford it.
- ❖ Standard costing is expensive and unsuitable in job order industries which manufacturer's non – standardized products.
- ❖ It is difficult to distinguish between controllable and non – controllable variances.
- ❖ Setting of standard cost can be a highly technical and mechanical task.
- ❖ When there are random factor, it is difficult to explain variances properly.
- ❖ Standards are sometimes considered to have discouraging impact on the efficiency and morale of individuals.
- ❖ Standard costing system would be an utter failure if top management does not have failure in it.

Areas standard costing helps in improving management efficiency, includes;

- a. Cost reduction and control
- b. Pricing
- c. Stock variation
- d. Salary varied
- e. Cost estimate
- f. Measurement of profits
- g. Business planning

RESEARCH METHODOLOGY

A survey approach was adopted in generating data for this study. This was achieved through the distribution of questionnaire and personal interviews. Data were also gathered from authoritative textbooks. Information from the textbooks constituted the secondary data for the study. The population of study consisted of manufacturing companies in Ughelli Delta State. The simple random sampling technique was used. Five manufacturing companies were selected out of the population of various manufacturing companies in Ughelli Delta State. With this sample procedure every manufacturing firm had an equal chance of being chosen out of the population of study. In all, 90 respondents which made up the sample population randomly selected. This consisted of 18 each from the five manufacturing firms under study. A total of ninety (90) questionnaires were distributed. All the questionnaires were returned yielding a response rate of one hundred percent. The questionnaires were properly configured to produce a "Yes" or "No" answer. This was done to encourage the respondents

to complete the questions quickly with less stress. Data analysis includes the use of tables in analyzing the frequencies and the percentage of respondent from the responses. The hypotheses were tested using the chi-square (χ^2) statistics.

DATA ANALYSIS/FINDINGS

The study examined the implication of standard costing in Nigeria organizations.

- ❖ A survey of five selected manufacturing firms in Ughelli Delta State.
- ❖ Tables I and II contained tabular presentation of analyzed data according to percentage of the responses in the questionnaire distributed to the 90 respondents, 18 each from the five manufacturing firms under study.

Table I: **Effective implementation of standard costing and its significant relationship with optimization of resources**

Responses	Frequency of Occurrence	Percentage (%)
Yes	87	96.67
No	3	3.33
Total	90	100

Sources: Research Data 2012

A close look at table 1 above shows that eighty – seven respondents (87) are of the view that effective implementation of standard costing has significant relationship with optimization of resources in the firms under study. While three (3) respondents are of the view that effective implementation of standard costing has no significant relationship with optimization of resources in the firms under study.

The gave response rates of appropriately ninety – seven percent (97%) and three percent (3%) respectively. Bases on the opinion of the majority of the majority of the respondents, we accept the view that effective implementation of standard costing has significant relationship with optimization of resources in the organizations under study.

Table II: **Effective implementation of standard costing has significant relationship with the simplification of costing procedures**

Responses	Frequency of Occurrence	Percentage (%)
Yes	86	95.55
No	4	4.45
Total	90	100

Sources: Research Data 2012.

Table II shows that eighty – six (86) of the respondents agreed that effective implementation of standard costing has significant relationship with the simplification of costing procedures in the organization under study while four (4) were averse to this view. This gave response rate

of approximately ninety – six (96) percent and four (4) percent respectively. Based on the percentage rating, it was confirmed that effective implementation of standard costing has significant relationship with the simplification of costing procedures in the organization under study.

TEST OF HYPOTHESES

In testing the hypotheses, the following steps are adopted.

- i. Statement of the hypothesis in the null (Ho) and in the alternative (Ha).
- ii. Identification of the test statistic: - the test statistic used is the chi – square. This is given as

$$X^2 = \frac{\sum(fo - fe)^2}{fe}$$

where: fo = Observed frequency
fe = the expected frequency

where fe = Total number of respondents divided by the number of categories.

- iii. Formation of decision rule. The null hypothesis is rejected if the calculated chi – square is less than the critical value at 0.05 level of significance and (c - 1) (r - 1) degree of freedom. Where this is the case, the alternative hypothesis is accepted and vice – versa.

HYPOTHESIS I

Ho₁: Effective implementation of standard costing has no significant relationship in the optimization of resources in the organization under study.

Ha₁: Effective implementation of standard costing has significant relationship in the optimization in the optimization of resources in the firms under study.

Table III: **Computation of the chi – square (x²) for hypothesis 1**

Responses	Observed Frequency (fo)	Expected Frequency (fe)	fo – fe	$\frac{(fo - fe)^2}{fe}$
Yes	87	45	42	39.2
No	3	45	-42	39.3
Total	90	90	-	78.4

Source: Research Data 2012.

The degree of freedom (c - i) (r - i) = 1

Significant level is taken to be 0.05. Critical value of X² 0.05 level of significance and the degree of freedom I = 3.841

DECISION RULE

Since the computed value of X² = 78.4 is greater than the critical value of 3.841 the null hypothesis (Ho) is rejected and the alternative (Ha) accepted. Thus, there is significant

relationship between effective implementation of standard costing and the optimization of resources in the resources in the organizations under study.

HYPOTHESIS II

Ho₂: Effective implementation of standard costing has no significant relationship with the simplification of costing procedures in the organizations under study.

Ha₂: Effective implementation of standard costing has significant relationship with the simplification of costing procedures in the organizations under study.

Table IV: **Computation of chi – square (χ^2) for hypothesis II**

Responses	Observed Frequency (fo)	Expected Frequency (fe)	fo – fe	$\frac{(fo - fe)^2}{fe}$
Yes	86	45	41	37.35
No	4	45	-41	37.35
Total	90	90	-	74.70

Source: Research Data 2012.

Since the computed value of $\chi^2 = 74.70$ is greater than the critical value of 3.841, the null hypothesis (Ho) is rejected and the alternative (Ha) accepted. Thus, effective implementation of standard costing has significant relationship with the simplification of costing procedures in the organization under study.

CONCLUSION

In the light of the data analysis and findings, the following conclusions were drawn:

- i. Effective implementation of standard costing has significant relationship in the optimization of resources in the organizations under study. The establishment of standard costs based on assumed efficient operating conditions demand effective implementation of standard costing, which, requires that production facilities and processes will eliminate unnecessary wastage in utilizing resources. Furthermore, employees will have to use plant facilities and other resources optimally if they have to attain standards.
- ii. Effective implementation of standard costing significant relationship with the simplification of costing procedures by minimizing paper work and clerical labour. The proper application of standard costing requires standardization of productive operations as well as accounting and recording system. Unnecessary filling of forms and lengthy accounting procedures are eliminated. For example, under a historical cost system, each item on each materials requisition must be separated valued. This is a complicated and enormous task in a large company where a large number of requisitions are issued. Under a system of standard costs, all the items of a particular kind need only be multiplied once the standard cost at the end of a specific cost.

Similarly, whenever the firm receives an order or produces units of some product it need not calculate cost of production in detail again and again. Under standard costing, materials requisitions, labour time cards and production cards are prepared in advance. Therefore, time of a new order or production, the previously determined requirements, processes and costs will apply. Standard costing system is cheap to maintain since standardization of production facilities and accounting procedures minimizes waste and clerical efforts.

RECOMMENDATIONS

In the light of the findings and conclusion drawn from this study, the following recommendations are proffered for effective implementation of standard costing in organizations.

1. The establishment of cost centre's with clearly defined areas of responsibility. In establishing cost centre's, there should be no doubt about the responsibility of each cost centre's so that in case of off standard performance, responsibility may be identified.
2. The success of a standard costing system depends on the reliability, accuracy and acceptance of the standards. Extreme care, therefore, must be taken to ensure that all factors have been considered in the establishment of standards. The preparation of the standards calls for liaison between many departments. For example, purchasing department advises on the standard cost of materials to be used during the period under review, the personnel manager provides information relating to wage rates, the production manager supplies details of routing, specification, cost of operation, etc. thus, a standard committee, consisting of representatives of various concerned departments, may be found to assist the cost accountant in his task of setting standards.
3. Management should use a standard costing only when standards are acceptable to employees. Some of the recent studies on the impact of standard costing have revealed that standards are not welcomed by workers and supervisors, since they consider standards to be too oppressive and would do everything to resist their administration.
4. For the success of standard costing, top management should not only take keen interest in it but should also seek genuine participation by all.

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