

Tasks Based Costing Technique And Labour Place Effectiveness In Processing Firms

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Abstract: Processing lines lack the ability to process and deliver enormous quantity of different products which are required in the market of recent. Business entities are threatened with despicable functioning situations and must respond promptly to customers and trades, competitiveness, financial weights, working complications, timely processing and delivery of their product. The study investigated relationship between tasks based costing technique and labour place effectiveness in listed processing firms. Survey and ex-post facto methods were used to gather relevant data for analysis using appropriate statistical tools. The results revealed that: there exists a significant relationship between tasks based costing technique and labour place effectiveness; there exist a significant relationship between tasks reduction and effectiveness in management of finance; and there exist a relationship between self-directed factors of tasks sharing and skilful supervision of work. Consequently by way of conclusion and recommendation, processing firms should apply tasks based costing technique in the determination of labour place effectiveness; products and services that are non-value added had better be reduced and eliminated from the processing procedure while prices of those overprices items ought to be reduced; processing firms be duty-bound to increase automation of tasks to reduce labour hours spent during processing; and tasks technique with similar characteristics had better be shared among personnel to improve shift time and knowledge in the processing procedure.

Keywords: Costing, effectiveness, labour, processing firms, Tasks, technique, time reduction.

I. INTRODUCTION

Nowadays, processing lines lack the ability to deliver an enormous quantity of different products, world-wide competition influences many establishments, and modernization has displaced work in the market. The working environment has gotten to be vigorous and multifaceted for the reason of fast changes in innovation that have accelerated globalization and general competitiveness. Business entities are threatened with despicable functioning situations and must respond promptly to customers and trades, competitiveness, civil modifications, financial weights, and working complications. The availability of credit has degenerated, benefactors are parting the business, and patronage to business has declined as a result of disappointment by the customers on transactions deliveries. Business organizations require concentration on the changes they have to make, keeping in mind the end objective to stay aggressive and manage to survive the current financial slump and economic depression, especially in a developing economy like our nation. Holland [11] & Hilton [12] both explained the modern methods of costing that will result in maximum utilization of scarce human and material resources cannot be overemphasized. They went to emphasize on responsibility centres that could be ascertain of each responsibility carried out and by whom and the extent to which the task is effectively and efficiently accomplished.

Hilton [13], Hilton, Maher & Selton [14] are of the view that firms must embrace vigorous tasks to fine-tune organization assets, pick up an upper hand, and enhance authoritative execution. Mundane accounting stratagems missed the mark in giving organisation the vital facts required in today's working environments. Creative organizational accounting strategies can help with the enrichment and accomplishment of the vital management policies and goals. Decision-making accounting systems which is well vested good information technology facilities can play an important role in linking the information gap and supporting management decision making tasks based costing can offer fast, reliable, and strategic information for decision making so that management can react quickly to the market, competition, and customer demands. Tasks based costing is a costing methodology that identifies tasks in an organization and assigns the cost of each task with resources to all products and services according to the actual consumption by each product or service. This model, which is liken to standard magnitude variance/optimal decision model, assigns more indirect costs (overhead) into direct costs compared to conventional costing [3, 4].

1.1 Objectives of the Study:

1. To examine whether there is a significant relationship between tasks based costing and effective management of finance.
2. To determine whether tasks reduction ensures effective management of finance significantly.
3. To evaluate the relationship between tasks selection and effective management of labour.
4. To assess the relationship between movement sharing and time management.

1.2 Hypotheses:

1. There is no significant relationship between tasks based costing technique and work place effectiveness.
2. There is no significant relationship between tasks reduction and effective management of finance.

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3. There is no significant relationship between tasks selection and effective management of labour.
4. There is no critical relationship between movement sharing and time administration.

2.0 LITERATURE REVIEW

Brimson [6], Bruns & Kaplan [7], Burns & Stalker, [8] opined that cost drivers are established to assign the tasks costs to individual products or services. Thus making the specialization more effective and efficient in the production of goods and rendering of services respectively. Task based costing enhances effective capacity utilization and consequent return of higher rate of productivity in organizations that adopt the technique in the processing and production processes. This allows costs to be traced to products depending on the individual activities that they consume. Task based costing was developed as a result of the evident increasing overhead costs in processing firms, thus curtailing many of the old-fashioned costing techniques' inaccuracies. Moll [25], Willie [29] & Wusen [30] have explored the application of task based costing in these environments and have noted that the use of task based costing in the processing sector is still predominant and had yielded effective and efficient outcomes in the past. Task based costing is also important in the service sector due to the need to reduce the costs of services for retaining competitive capabilities. It is the modern costing technique which adopts the scientific approach to provision of management information for decision making and cost control alongside cost reduction.

Adams [1], Innes & Mitchell [16], Ittner, Lanen & Larker [17], McGregory, [24] are of the view that shifting and movement based costing technique is an organized routine prepared for workers on schedule and linked up job specialization and specification. It is principally organized to check out all expenses of assets to the exercises in action grips in light of the asset drivers and the sum paid for an asset and allotted to a movement is known as a cost component. Cost component leads to cost pool and a cost pool is the grouping of cost components connected with one movement. Usually, cost pool does not need to contain stand out movement. It can be designed by characterizing an extensive number of exercises into combined bunch. In

3.0 METHODOLOGY

3.1. Research Design

Survey as well as ex-post facto research designs were used for this study because both allowed the researchers to make inferences about the population under study and facilitate the collection of relevant data for study.

3.2 Population and Sample of the study

The population for this study comprised of sixty-six processing firms registered in the Nigerian Stock Exchange market and the principal cost accountants of the firms, who have skills and technical knowhow of the modern techniques applicable to tasks based costing, to ensure effectiveness of employees in labour place were used as respondents to obtain the required data. From this population, samples of fifty-seven accountants were purposively chosen for the study.

the second stage, expenses are allotted to cost pools and after that transferred to the items in light of the items utilization movement and after that level of the action in the action based costing progressive system, the costs become accumulated and accounted for in terms total cost, total fixed cost or total variable cost of production of goods or rendering of services. Cost could be traceable or untraceable and these characteristics of cost could possibly be revealed accurately by the adoption and full implementation of tasks based costing technique in the organizational processing processes [18, 9, 15].

In addition, the competitive strategy will dictate the organizational structure and managerial accounting practices used to direct and control an organization to strategically achieve desired performance. It is expected that in the short-run generation limit is altered and can't be promptly changed. This makes bottlenecks or requirements. Over the long haul, in any case, more costs get to be variable, particularly when spending and utilization are brought into arrangement. This strengthens the suppositions fundamental bustles based costing. These strategies depend on various arrangements of suspicions with independent time skylines; consequently, claims that one approach is better over the other ought to be surrendered. There is space for both methodologies when they are utilized suitably. Bookkeepers need to see every instrument and how they function by keeping in mind the end goal to know when one is proper and the other is most certainly not [2, 10, 26, 28,].

Basic contingency framework exogenous environmental factors, organizational structure factors management accounting competitive practices: Performance strategy planning & controlling performance measurement, performance evaluation endogenous cost management organization factors. The exogenous factors are defined as competition and environmental uncertainty and the endogenous variables as strategy, technology, and organizational culture. Additional contingency factors such as firm size, production type, degree of centralization, and product diversity may influence an organization. Division of labour, job description and specialization are essential features of work place effectiveness and efficiency [20, 21, 22, 23].

3.3 Sampling Technique

Simple random sampling technique was adopted to select the required sample for the study. Firstly, the name of each of the processing firms were written on pieces of papers and put in a polythene bag. Fifty seven draws were then randomly made and the names of the corporations selected were then used for the study". In each of the selected firm, a copy of the questionnaire was then administered to the chief cost accountants of the firm. In all, fifty seven copies of the questionnaire with prepaid envelope were sent through post mail to different processing firms under study. This was followed by call reminders. Fifty usable responses were received.

3.4 Sources of Data

Both primary and secondary data were appropriate in the course of this study. Primary data for the study involved the use of a questionnaire to determine the relationship between tasks based costing and work place effectiveness

in processing firms registered on the Nigerian stock exchange. Also employees' schedules and records of jobs assignment and specifications in the processing units were examined and relevant data extracted for analysis.

3.5 Instrumentation

The main instrument used for data collection was title tasks based costing and labour place effectiveness questionnaire (TBCLPEQ). The questionnaire contains a four point Likert scale consisting of 24 items. The questionnaire was made up of two sections: A and B. Items in section A were designed to measure the independent variables of tasks reduction, tasks selection and tasks sharing. Items on section B were designed to measure the dependent variable of management of finance, labour management and task management. Each of these variables was measured using 4 items.

3.6. Validity and reliability of the instrument

To ensure that the instrument measures consistently what it is purported to measure, a trial study was conducted in one of the sampled sub-area replicates. Using the developed instrument to achieve this, the questionnaire was administered twice to (5) randomly selected processing firms that were not part of the actual study. After filling the questionnaire for the first time, they were retrieved and scored two weeks later. The instrument was taken to the same group of persons after explaining to them the reasons for the exercise. Again, after filling the instruments, they were retrieved and scored. The results from the two administrations were then correlated using Pearson product moment correlation coefficient to ascertain the reliability of the instrument. The reliability estimate derived from the analysis ranges from 0.67 to 0.85 and was considered to be high enough to validate the research instrument. The instrument for this study was consistent and reliable to be used for generating data for the actual study. Ayara [5] also states that reliability estimates of 0.50 should be considered enough to render instrument reliable and valid for any scientific study.

3.7 Model Specification

Certain models were implicit and in line with the theories to break down the concentrate better.

$LPE = f(TR, TS, TSH) \dots \dots \dots i$

$EMF = f(TR); EML = f(TS) \& EMT = f(TSH) \dots \dots \dots ii$

Stating it in mathematical equation, we have:

$LPE = a_0 + a_1TR + a_2TS + a_3TSH + U; MF = b_0 + b_1TR + U$

$ML = c_0 + c_1 TS + U ; TM = d_0 + d_1 TSH + U$

Where: LPE = Labour Place Effectiveness; TR

= Tasks Reduction (+)

TS = Tasks Selection (+);

TSH = Tasks sharing (+)

EML = Effective management of labour (+)

EMF = Effective management of finance (+)

EMT = Effective management of task (+)

a_0, b_0, c_0, d_0 , = Unknown constant to be estimated

a_1, b_1, c_1, d_1 , = Unknown coefficients to be estimated;

U = Stochastic Error term

3.8 Estimation and Validation

The study embraces the inductive and experimental methodological system. After accumulation of the information from the poll, the information was arranged and measurably examined utilizing the Ordinary Least Square investigative procedure. The Ordinary Least Square stratagem was embraced in light of the fact that it is the best direct fair-minded appraisals utilized for the expectation. In any case, the strategy is censured for failure to represent criticism impact of the logical factors. Every one of the conditions was evaluated utilizing the ordinary least square systems. The indications of the relapse coefficients are verified whether they are in accordance with from the earlier financial remedies. The F-proportion will be utilized to check the presence of a relationship between the reliant and free factor. The t-statistics was employed to find the significance of the coefficients of the independent variables. On the basis of the traditional criteria, the coefficients were checked against the expected signs, the values of the R² and the ratios of the estimated coefficients to their respective standard errors. As usual, the R² measures the goodness of fit and the presence of the first order serial correlation will be detected through an examination of Durbin Watson (D/W) statistic. "In the Durbin Watson test, we compare the empirical d-value calculated from the regression residuals with the du, and du in the Durbin Watson tables and with their transformation (4-d) and (4-du). If d < d1, we reject the hypothesis since there exist no auto-correlation and accept that there is a positive auto-correlation of the first order. If du < d (4-du), we accept the null hypothesis of no auto-correlation and if d < du or if 4-du < d < 4-d1, the test is inconclusive. This process was corrected using first differencing". The result was then stylized for easy comprehension.

4. RESULTS AND DISCUSSION FINDINGS

4.1 Data Presentation and Test of Hypotheses

Data gathered for the study were summarized and presented in tables as follows:

**TABLE 1
DISTRIBUTION OF QUESTIONNAIRE**

Distribution	Frequency	Percentage
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Total number of questionnaire distributed	57	100
Number completed and return	50	87.70
Number return but not completed	3	5.30
Number not returned	4	7.0

Source: Fieldwork & Researchers' Analysis

The result in Table 1 revealed a total of 57 copies of the questionnaire were distributed and 50 (87.7 per cent) were completed and returned. Three 3 (5.3 per cent) copies of the questionnaire were return but not completed while 4 (7 per cent) copies of the questionnaire were not returned. These respondents had worked in their various companies for a minimum of five (5) years.

4.2 Hypothesis One

There is no significant relationship between tasks based costing technique and labour place effectiveness. Ordinary least square multiple regression statistical technique was used to test this hypothesis. The result is presented in Table 2. The R^2 value of 0.88 in Table 2 revealed that about 88 per cent changes in labour place effectiveness could be caused by changes in tasks based costing. This means that the remaining 12 per cent changes in the dependent

variable labour place effectiveness could be caused by other variables not found in the equation, and is represented by the error term. The Adjusted R^2 value of .85 means that the model is 85 per cent well fitted. The F-value of 28.78 which is greater than the critical F-value of 3.14 at 5 per cent level of significance confirmed that there exist significant relationships between tasks based costing technique and work place effectiveness.

The estimated coefficient for TR, TS and TSH are positive, meaning that there exist a direct relationship between independent variables of TR (Tasks reduction), TS (Tasks selection) and TSH (Task Sharing) and labour place effectiveness. These results are in line with economic a priori criteria and are all significant at 5 per cent level of significance. The test for autocorrelation shows that the calculated D.W of 1.83 falls within the area of no correlation.

TABLE 2
REGRESSION RESULTS OF THE RELATIONSHIP BETWEEN TASKS BASED COSTING AND LABOUR PLACE EFFECTIVENESS.

Variable	Estimated Coefficients	Standard Errors	T-Statistics	p-Value
Constant	18.863	2.97	6.35	.000
TR	.003	.043	.064	.949
TS	.132	.058	2.68	0.24
TSH	.130	.031	4.197	.000

R = 0.91 R-Square = 0.88 Adjusted R-square = 0.85 F- Statistics = 28.78 Durbin Watson statistics = 1.68 Dependent Variable: Labour Place Effectiveness (LPE) Significant at 5 per cent level of significance. The test for autocorrelation shows that the calculated D.W of 1.68 falls within the area of no correlation.

Source: Fieldwork & Researchers' Computation.

4.3 Hypothesis Two

The R^2 value of 0.87 in Table3 revealed that about 82 per cent changes in effective management of finance could be caused by changes in tasks reduction. This means that the remaining 18 per cent changes in the dependent variable effective management of finance could be caused by other variables not found in the equation, and is represented by the error term. The Adjusted R^2 value of 0.78 means that the model is 78 per cent well fitted. The F-ratio of 16.89 which is greater than the critical F-value of

3.14 at 5 per cent level of significance confirms that there exist a significant relationship between tasks reduction and effective management of finance. The estimated coefficient for BR is positive, meaning that there exist a direct relationship between independent variables of TR (Tasks Reduction) and effective management of finance. This implied that increase in tasks reduction will lead to effective management of finance. This result is in line with economic theory

TABLE 3
REGRESSION RESULTS OF THE RELATIONSHIP BETWEEN TASKS REDUCTION AND EFFECTIVE MANAGEMENT OF FINANCE.

Variable	Estimated	Standard	T-	P
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	Coefficients	Errors	Statistics	Value
Constant	20.06	.937	21.357	.000
TR	.152	.059	2.59	.042

R = 0.87 R-Square = 0.87 Adjusted R-square = 0.78 F- Statistics = 16.89 DW statistics = 1.68 Dependent Variable: Efficient Management of Finance (EMF)

Source: Fieldwork & Researchers' Computation.

4.4 Hypothesis Three

There is no significant relationship between tasks selection and effective management of labour. Using Ordinary least square regression technique, the result is presented in table 4. The R^2 value of 0.78 in table 4 revealed that about 78 per cent changes in effective management of labour could be caused by changes in tasks selection. This means that the remaining 22 per cent changes in the dependent variable effective management of labour could be caused by other variables not found in the equation, and is represented by the error term. The Adjusted R^2 value of 0.76 means that the model is 76 per cent well fitted. The F-value of 12.06 which is greater than the critical F-value of 3.14 at 5 per

cent level of significance confirms that there exist a significant relationship between tasks selection and effective management of labour.

The estimated coefficient for RS is positive, meaning that there exist a direct relationship between independent variables of TS (Tasks Selection) and effective management of labour. This implied that increase in tasks sharing will lead to effective management of labour. This result is in line with economic theories and significant at 5 per cent level of significance. The test for autocorrelation shows that the calculated D.W of 1.26 falls within the area of no correlation.

TABLE 4
REGRESSION RESULTS OF THE RELATIONSHIP BETWEEN TASKS SELECTION AND EFFECTIVE MANAGEMENT OF LABOUR.

Variable	Estimated Coefficients	Standard Error	T-Statistics	p-Value
Constant	20.246	.500	40.21	.000
TS	.003	.043	.064	.949

R = 0.82 R-Square = 0.78 Adjusted R-square = 0.76 F- Statistics = 12.06 DW statistics = 1.26 Dependent Variable: Effective Management of Labour (EML)

Source: Field Work & Researchers' Computation,

4.5 Hypothesis Four

There is no critical relationship between tasks sharing and time administration. Conventional slightest square relapse was utilized to test the theory. The R^2 estimation of 0.78 uncovered that 78 per cent changes in time administration could be brought on by changes in tasks sharing. This implies the rest of the 22 per cent changes in the needed variable time administration of work could be brought about by different factors not found in the condition, and is shown by the mistake term. The Adjusted R^2 estimation of 0.76 implies that the model is 76 per cent fit to be used prediction. The F-estimation of 34.23 which is more

noteworthy than the basic F-estimation of 3.14 at 0.05 level of criticalness affirms that there exist significant relationships between tasks sharing and time administration. The evaluated coefficient for BS is certain, implying that there exist an immediate relationship between autonomous factors of TSh (Task sharing) and proficient administration of work. This inferred increment in task sharing will prompt to proficient administration of work. This outcome is in accordance with monetary speculations and huge at 5 per cent level of importance. The test for autocorrelation demonstrates that the computed D.W of 1.92 falls inside the range of no connection.

TABLE 5
REGRESSION RESULTS OF THE RELATIONSHIP BETWEEN TASKS SHARING AND EFFECTIVE MANAGEMENT OF LABOUR.

Variable	Estimated Coefficients	Standard Error	T-Statistics	p-Value
Constant	20.246	.500	40.21	.000
TSH	.132	.058	2.68	0.24

R = 0.82 R-Square = 0.78 Adjusted R-square = 0.76 F- Statistics = 3.14 DW statistics = 1.92 Dependent Variable: effective management of work.

Source: Field Work & Researchers' Computation

5. Discussion of Findings

The findings of research hypothesis one revealed that tasks based costing is a significant predictor of labour place effectiveness. This finding suggested that implementation of tasks based costing in a processing corporation leads to effectiveness at the labour place. The finding of research

hypothesis two of this study revealed that there exist a significant relationship between tasks reduction and labour place effectiveness. This finding strongly suggests that an increase in tasks reduction in a corporation will certainly lead to more effectiveness at the labour place. The finding of research hypothesis three of this study revealed that

there exists a significant relationship between tasks selection and labour place effectiveness. The implication of this finding is that when a company is capable of selecting tasks that are vital in a processing procedure, that company will certainly increase its labour place effectiveness.

The finding of hypothesis four of this study revealed that there exists a significant relationship between tasks sharing and labour place effectiveness. This finding is in agreement with the findings obtained by Rasiah [27] who found out that there exists a significant relationship between tasks sharing and labour place effectiveness. This finding is also in line with the findings obtained by Krumwiede & Charles [19], Adamu & Olotu [2] whom, in their study on tasks based costing and labour place effectiveness found out that there exist significant relationship between tasks sharing and labour place effectiveness.

6. CONCLUSION

Based on the findings of the study as presented above, it was concluded tasks based costing techniques can be efficiently and effectively used to ensure labour place effectiveness during processing by the processing corporations. The following conclusions were further drawn from the analysis that: there exists a significant relationship between tasks based costing techniques and labour place effectiveness; there exist a significant relationship between tasks reduction and effectiveness in management of finance; and there exist a relationship between self-directed factors of tasks sharing and skilful supervision of work. Therefore, processing firms should apply tasks based costing technique in the determination of labour place effectiveness; products and services that are non-value added should be reduced and eliminated from the processing procedure while prices of those overpriced items should be reduced; processing firms have a duty to increase automation of tasks to reduce labour hours spent during processing; and responsibilities technique with similar characteristics should be shared among personnel and knowledge to improve shift time in the processing process.

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