ACTIVITY BASED COST ACCOUNTING VERSUS TRADITIONAL COST ACCOUNTING- A COMPARATIVE ANALYSIS

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ABSTRACT
Activity based costing (ABC) which has become an important aspect of manufacturing and service organizations can be defined as a methodology that measures the cost and performance of activities, resources and cost objects. It can be considered as an alternative paradigm to traditional cost - based accounting systems. The objective of this paper is to illustrate the application of ABC method and to compare the results of ABC with traditional costing methods. The results of the application highlight the weak nesses of traditional costing methods and a 5 curve is used to identify the under costing and over costing of products of the firm.

Keywords: Activity; Based Costing; Cost Drivers; Overheads; Traditional Costing.

Introduction

Nowadays, global competition forced manufacturing services and organizations to become more flexible integrated and highly automated in order to increase their productivity at reduced costs. But it is impossible to sustain competitiveness without an accurate cost calculation mechanism [1]. Proposed by [2], as an alternative method to traditional cost accounting methods, ABC assigns costs to activities using multiple. Cost drivers. Then allocates costs to products based on each product's use of these activities [3] [4], using multiple activities as cost drivers. It reduces the risk of distortion and provides accurate cost information [3], in an ABC system. The total cost of a product equals the cost of the raw materials plus the sum of the cost of all value adding activities to produce it [4]. In other words, the ABC method models the usage of the organization Resources by the activities performed and link the cost of these activities to outputs, such as products, customers and services [5]. Each product requires a number of activities such as design, engineering, purchasing, production and quality control. Each activity consumes resources of different categories such as the working time of the manager. Cost drivers are often measures of the activities performed such as the number of units produced, labor hours, hours of equipment time; number of orders received in traditional cost accounting systems, direct material and labor are the only costs that can be traced directly to the product. By using the ABC system, activities can be classified as value- added and non-value added can be eliminated. Despite the advantages of providing accurate costs, it requires additional effort and expense in obtaining the information needed for the analysis [6]. However, a proper design tool can help to reduce time used for modeling and overcome the difficulties present in designing a cost model.

Significance of Study

Applying ABC could benefit production co-operative in several ways. To benefit from ABC production, cooperative must design their cost accounting systems to provide relevant cost information. Cost accountants must be able to go beyond average costs to study the basic factors affecting the production costs and the controlling forces behind these factors. Waste reduction, an important factor in applying ABC, is searching for ways to avoid product cost distortions. Cost-distortions result from using simple allocation bases in multi-product organization. These organizations face a challenge in allocating

common costs, especially if common costs represent a significant portion of their total costs. The growth of technology and industry in various aspects and following it creates changes in the complexity in a company's activities. A suitable costing system capable of recognizing activities and the section of it, impact on those activities on the company's costing is devised, on the basis of such a conventional overhead cost is shared solely on the basis of the bulk of the production on working hours of machine tools, and this cannot be a suitable base for proportion of overhead cost, but in ABC first, the main activities are specified and the overhead cost attributed to the sources consumed in each activity would be allocated to that activity. After allocating the overhead cost tax, construct to costing activities & incentives pertinent to each specified activity, then the cost of each activity to the proportion of the consumed amount of costing motives is devoted to each of products to these products.

Survey of Literature

Activity Based Costing (ABC) and Activity Based Management (ABM) are cost management tools that are relatively new to the production cooperative to determine the cost associated with each customer. ABC implementation research as developed from rationalistic survey based research addressing institutional factors. Examples of a rationalistic and institutional activity based costing field and case studies include cooper and Kaplan (1992) and Malmin (1997 &1999) and study by Hill (2000) and Cranland (2001). This method appears to be the similar to the activity based costing method (or case costing) advanced, scion, seal and Cullen (2002), Betrice Hunder (1971) in the book titled "The Administration of Hospital Wards Factors Influencing The Length of Stay In Hospital" have chosen three surgical words in each of two hospitals and studied the factors influencing the length of the stay of the patient concluded that if more surgical and nursing staff were available and no impatient time was wasted, more patients could be admitted and the cost of additional days of stay could have been saved. Expenditure of effective use of ABC for correct mechanism for user charges in public sector. This cost information can be adjusted for anticipated charges and predict future costs, identify the true costs & profitability of products and services, identify accountability / responsibility for cost behavior, analyses the profit contribution and impact of inter-relationship of product or services, identify the true cost profitability of customers or types of customers, analyze the cost and performance of alternative distribution channel.

Objectives

The main objective of this papers is to study the importance of ABC technique in production cooperative and the ascertain the needed cost data by identifying and grouping the activities involved in resources consumed and to study the cost accumulation procedure under traditional costing system and cost accumulation system under ABC in production cooperative. To achieve the main objective, the following specific objectives are set for the study

i. To compare the ABC based cost statement with the traditional cost statement and find out the differences.

ii. To examine the implicational processes of ABC in productive companies

1. First Process: Forming of system design committee; this costing system required to information from different sections such as financial; procedural & engineering, therefore various studies in this committee had better be utilized.

2. Second process: To specify company's activities;

2.1. Activities that are indirect relationship with the production of product & doing services.

2.2. Activities that are directly not traced up to products and services such as factory overhead cost and activities like shopkeeper, catering and supervision.

3. Third Process: Allocation of activity costing to the products on the basis of suitable cost driver. After specifying the activities, the cost of each activity is allocated to on the basis of contents of costing allocation. An example of the allocation of contents is as follows:

Table 1
Table 2
Table 3
Table 4
Table 5
Table 6
Table 7
Table 8
Table 9

Finding

Regarding the above example 8 comparing the two procedures we observe that product C in the conventional way having toll because of devoting improper over head costs and this product through costing based on activity (ABC) contains profit to the amount of 8.6 rials and also the company's profit

in the conventional method equals 65/88 & in the ABC equal 70.95.finally it can be concluded that the application ABC in productive and service companies having high over head cost & complicated activities would lead to the following result.

Research Limitation

1. The society culture towards ABC
2. Managers culture towards ABC
3. Supervision manner in company
4. High cost execution.

Conclusion:

1. Improving of company's costing system.
2. Specifying of and price of products in an actual & logical way.
3. Evaluation of manager's performance
4. Reducing costs of activities on compassing high expenditure.
5. Omission of the products lack of increasing charge.

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Table 1- Allocation of contents.

ACTIVITY COST POOLS	ACTIVITY COST DRIVERS
Preparation – Purchasing	Number of Purchase orders
Supervisions	Number of direct labor hours
Electricity cost	Machine hours
Store Keeper	Average of goods Sales
selling cost	time cost for selling

Table 2- Financial data in Amin's company in 2008

Product	A	B	C	Total
Number of Sales	4000	2000	1000	7000
Sales price per unit	30	60	20	
Sales amount	120000	120000	120000	260000
Costs :				
Direct material	16000	12800	4800	33600
Direct Labor	4000	2600	3600	10200
Real overhead cost :	Supervisors	preparation	electricity	store keeper
6000 36000		18000	6000	6000

Table 3- Calculation on the basis traditional cost accounting system.
Calculations on the basis at activity:
Material costs and labor directing are like mentioned methods are substituted, but over head costing are as following.

Product	**A**	**B**	**C**	**Total**
Cost material per unit	4=16000/4000	6.4 = 12800/2000	4.8=4800/1000	15.2
Cost Labour per unit	1=4000/4000	1.3 = 2600/2000	3.6=3600/1000	5.9
Cost overhead per unit				
Total overhead / total labour = overhead consumed rate 3.53 = 36000/ 10200				
14120 = 3.53 * 4000		9178 = 3.53 * 2600	12708 = 3.53 * 3600	
Divide by		Divide by	Divide by	
Number of product	4000t	2000	1000	
Cost overhead per unit	3.53	4.59	12.8	21.23
Price sale per unit	30	60	20	
Total cost per unit	(8.53)	(12.29)	(21.2)	
Gross income	21.47	47.71	(12)	
Sales costs 2% les	(0.6)	(1.2)	(0.4)	
Less or income net in (traditional cost accounting)	20.87	46.51	(1.6)	

Table 4- Activity cost - supervision: total declared supervision of production process 100 hours orders for products as above.

Product	**A**	**B**	**C**	**Total**
Number of supervisors Hours	45	40	15	100
Cost of supervisor per an hour 60 = 6000/100	60	60	60	
Total supervisors activity	2700	2400	900	6000
Divided by				
Number of product	4000	2000	1000	
Supervisors cost per unit	0.67	1.2	0.9	

Table 5- Catering expenditure on the total number of sale order which has been reported to be 240

Product	A	B	C	Total
Number of purchase Orders	100	120	20	240
Cost per order 18000/240	75	75	75	
Total cost of purchase activity	7500	9000	1500	18000
Divided by				
Number of product	4000	2000	1000	
Supervisors cost per unit	1.87	4.5	1.5	

Table 6- Cost of activity- the declared working hour electricity of machine tools from production process is over 200 hours in terms of production parting.

Product	A	B	C	Total
Machine hours	90	100	10	200
Machine hours cost Per unit 30=6000/2000	30	30	30	
Total electric activity	2700	3000	300	6000
Divided by product	4000	2000	1000	
Electric cost of product Per unit	0.67	1.5	0.3	

Table 7- The activity cost of storekeeping on the basis of goods average is allocated in production as above.

Product	A	B	C	Total
Stored goods average	50	45	5	100
Holding cost per unit 60=6000/1000	60	60	60	
Total storekeeping	3000 6000	2700	300	
Divided by number Of product	4000	2000	1000	
Holding cost of product Per unit	0.75	1.35	0.3	

Table 8- Activity cost- The selling in the basis at consumed time for production selling is allocated. The consumed time per each product is above.

Product Total	A	B	C	Total
Consumed time for sale	25	10	5	40
Cost of per consumed Hour 150=6000/40	150	150	150	
Total of sale activity	3750	1500	750	6000
Divided by product	4000	2000	1000	
Cost sale of product Per unit	0.94	0.75	0.75	

Table 9- Comparing of final price per unit of estimated product in traditional & ABCChart 1

Explanation	**Traditional method**			**ABC method**		
Product	A	B	C	A	B	C
Cost of goods sold :						
Direct material	4	6.4	4.8	4	6.4	4.8
Direct labor	1	1.3	3.6	1	1.3	3.6
Absorption	3.53	4.59	12.7	Supervisor .67	1.2	0.9
Preparation				1.87	4.5	1.5
Electricity				0.67	1.5	0.3
Storekeeper				0.75	1.35	0.3
Total Cost	8.53	12.29	21.2	8.96	16.25	11.4
Sales	30	60	20	30	60	30
Cost of goods sold:	(8.53)	(12.29)	(21.1)	(8.96)	(6.25)	(11.4)
Less or income gross	21.47	47.71	(1.2)	21.04	43.75	8.6
Sales cost	(0.6)	(1.2)	(0.4)	(0.94)	(0.75)	(0.75)
Less or income net	20.87	46.57	(1.6)	20.1	43	7.85