

**EXPLORING THE RELAVANCE OF ACTIVITY BASED COSTING (ABC) IN
TODAYS BUSINESS ORGANISATIONS.**

BY

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Abstract

Proponents of Activity-Based Costing (ABC) are of the view that traditional costing methods mislead decision makers by giving inaccurate cost information in a contemporary changing environment. Implementing ABC will rectify this through improving competitiveness and efficiency in organization. The aim of this paper after concept definition and review is to dig out the importance of Activity-based costing in both manufacturing and service sector organizations. The paper discusses three kinds of cost drivers, Stages to follow while implementing ABC and the role of management Accountants in the process of ABC implementation. The paper conclude by passing recommendation as: Awareness campaign and seminars should be organized by relevant Practitioners, Academicians and Government agencies to educate business owners and managers on the benefits of implementing Activity based Costing.

Keywords: Activity-based costing, Traditional costing, Cost drivers, Products, Services, Application, Organizations

1.0 Introduction

There is a growing hope among organizations to understand their costs and the conduct of element that drive these costs. Yet there is disarray over how to go about understanding costs and how to identify competing cost measurement methodologies - activity-based costing, standard costing, throughput accounting, project accounting, target costing etc., SMA (2006). The outcome is that managers and employees are confused by mixed content about which costing technique is the correct one. Upon closer inspection, the various costing methodologies do not necessarily compete: they can coexist, be reconciled and blended. The need for accurate cost information is critical to any purposeful business. Regrettably, most companies are still using the same traditional cost accounting systems that were developed decades ago; hence this costing system does not accurately reflect the contribution of indirect cost to individual services (Terungwa 2012). For the last two decades, ABC was introduced to enhance proper cost accumulation.

ABC is a costing technique designed to address the short comings of traditional costing method by allocating overhead costs directly to cost drivers/objects.

Gilford (2006) is of the opinion that, ABC is an essential aspect of accurate, more reliable cost information to produce true costs in representing financial data. ABC systems use activity analysis to analyze and apportion costs based on what is actually happening within an enterprise, whereas traditional costing techniques examine overhead costs in terms of resources provided. Applying ABC can reveal storming accuracy about a business even to those who previously thought they knew the business best (Barrett2007). ABC, pioneered by Robin Cooper, Robert Kaplan and H. Thomas Johnson is a costing methodology used to mark out overhead costs directly to cost objects, that is, products, processes, services, or customers and help managers to

make the right decisions regarding product mix and competitive strategies (Cooper, 1988a, 1988b, 1990; Cooper and Kaplan, 1988 in Ray 2012). ABC can forcefully alter how managers determine the mix of their product line, price their products, identify the location for sourcing components, and assess new technology. Activity-based costing is a method that is steadily used to improve the accuracy of product cost information. Traditional costing systems allocate overhead costs arbitrarily, primarily based on direct labor hours. However, direct labor hours often do not adequately represent the percentage of indirect resources consumed by a certain cost object in a certain period, Ray (2012), as a result, product cost distortion occurs.

Moreover, ABC is a costing system that has recently gained popularity based on a simple idea: that in an enterprise, overhead expenses are generated by a number of activities needed to perform manufacturing and business processes successfully. Since activities consume resources and products demand activities, the cost of products is related to the cost of resources (Cooper, 1988a, b; 1989a, b in Shil and Das 2012). In many cases, the ABC implementation has contributed substantially to a more efficient use of resources, and therefore, has led to an impressive cost savings. Costs were kept in-line through the removal of non-value-added activities and process improvement. *ABC*, which is able to reliably trace overhead expenses, disregards capital cost (Shil and Das 2012).

This paper, which is a literature survey type, is aimed at digging into the importance of ABC system that emerge to replace the traditional costing system in business organizations, so as to bring to the fore the advantages business organizations could drive from implementing ABC as they are trying to minimize costs and maximize profits. The rest of the presentation is in six sections. Section 2 covers the meaning of ABC. Section 3 discusses importance of ABC in Service industries. Section 4 is specifically on the Importance of applying ABC. Section 5 is on

the Reasons for cost allocation in an organization. Section 6 deals with the role of accountants in the process of ABC implementation. Section 7 conclude and pass recommendations.

2.0 Concept definition

Activity-based costing has attracted high levels of interest from both academic and practitioners since its emergence in the late 1980's. It was developed as an approach to address problems associated with traditional cost management systems, which failed to accurately determine actual production and service costs or provide useful information for operating decisions. With these deficiencies managers can be exposed to making decisions based on inaccurate data. The conventional or traditional accounting system allocates the manufacturing overhead costs to the products either plant wide overhead rate or on two-stage allocation system (Krishnan 2006). The former allocates cost on a single activity base for the entire factory but the latter assigns manufacturing overhead cost based on departmental activities. The higher exposures to the problems of the traditional costing system are those companies with multiple products or services. The aim of the ABC system lies in describing the relationship among an indirect resource and the activity that causes it. ABC is an accounting tool that has established a breakthrough role in the world of costing –applicable in retail or manufacturing business from sole proprietorships to large corporation (Gilford 2006). However, now even the service sectors adopt ABC cost management, acknowledging the importance of cost information for survival in the increased competitive environment (Krishnan 2006).

2.1 What is Activity-based costing?

Cooper and Kaplan (1991) in Chea (2011) defined ABC method as an approach to solve the problems of traditional cost management systems; that is, the conventional cost accounting systems are often unable to identify correctly the true costs of processes. Consequently,

management and quality professionals are unable to make sound decisions or make decisions based on the misrepresented data (Chea 2011).

ABC systems are designed and implemented on the premise that products consume activities, activities consume resources and resources consume costs. ABC being a costing method developed by Cooper and Kaplan is a system that will reduce the level of arbitrary cost allocations associated with “traditional” costing systems and result in more accurate product cost (Baird et al., 2004 in Krishnan 2006). Many authors have advocated the benefits of ABC, and a number of studies have provided empirical evidence to support those benefits (Krishnan 2006).

ABC systems assign costs to activities based on their consumption of resources, and then activity costs are assigned to products or services in proportion to a selected measure of their individual workloads (Sprow, 1992 and Anderson, 1993 in Gupta and Galloway 2003). One famous advantage of ABC is the allocation of indirect costs to better illustrate expenses that may be imperative to an organization. According to Hill (1995) cited in Terungwa (2012), ABC is concerned with the cost of activities within a company and their relationships to the manufacturer of specific products rather than to functional base. The basic technique of ABC is to analyze the indirect costs within a company and to discover the activities that cause those costs (Terungwa 2012). Such activities are called cost-drivers and can be used to apply overheads to specific products

Activity based costing is established on actual performance, consumption and expense cost taken out from the organization’s existing accounting data and combined with the knowledge of those directly involved in the distribution of goods and services. However, the cost is designated to activities based on the resources they use for processing. The technique also provides insights into the starting place of costs and also the probable outcome of different decisions by the

process managers (Rasiah, 2011). Apart from providing the information required for this process, it also actualizes operation discovery.

According to a study conducted by (Cooper 1990 in Rasiah 2011), activities were grouped into three: unit level activities, refers to activities that must be carried out for each unit of a product manufactured. The second group of activity is batch level activities. Batch level activities refer to those activities that are performed for each batch of units. The cost of batch activities vary with the number of batches and not the number of units manufactured because batches can contain different number of units. The third group of activity is product-level activities. Once product-level activities are performed, it will benefit all units of a particular product. Cost incurred to carry out the group of activities mentioned above varies in response to changes in some measure of the activity called the “cost driver”. This means cost of the three groups of activities can all be changed by changing the amount of the activity’s cost driver.

Rasiah (2011) asserted that, under ABC, there is no change in the short-run because these costs are correlated with supplying the capacity essential to carry out the manufacturing operations, marketing operations, or administration. They consist of facility-level costs such as depreciation, property taxes and insurance on the facilities.

2.2 Cost drivers

Cost drivers are used to identify the way activities are consumed by products/services. The cost driver is an outcome, associated to an activity, which results in resource consumption. For each activity there should be an appropriate cost driver. A model based on the ABC system can include three kinds of cost drivers: transaction drivers, duration drivers and intensity or direct charging drivers (Lima, 2012). Transaction drivers are the number of setups, the number of order forms, etc. They are used when the units consume the same resources of the activity. It is the less

costly driver but also the less accurate, since it assumes that the same quantity of resources is used every time an activity is performed.

Duration drivers represent the time that is necessary to perform an activity. They are, for example, the time needed to prepare an order; the time spent inspecting products or the labour hours. These drivers are more accurate but make it more expensive to implement the system. Nevertheless, these drivers are not always accurate nor the most suitable. For example, in the case of the cost per hour in processing a new order, the duration driver assumes that the hours spent introducing the new order have the same cost, ignoring the possible need for specialized personnel or more expensive equipment for some new orders. Thus, intensity or direct charging drivers are more suitable and, it is safe to say, more accurate than the previous ones. In practice, the determination of the number of cost drivers is important for the system's design (Babad and Balachandran, 1993 cited in Lima, 2012). In fact, highly accurate attribution of indirect costs requires a great number of cost drivers. More precisely, the minimum number of cost drivers necessary for an ABC system depends greatly on the desired level of accuracy. Once define the minimum number of cost drivers for a specific system, the adequate cost drivers can then be selected (Lima, 2012).

2.3 Stages of Activity-based costing implementation

However, the following steps should be followed while implementing ABC technique: 1) Identify & Classify activities. (2) Estimate cost for whole activity. (3) Compute a cost driver rate, and (4) Apply activity costs using cost drivers (Anderson 1995). But Krumwiede, (1998) expanded the Anderson (1995) model to ten stages in order to create a better understanding on the different process of ABC implementation by adopters and non-adopters.

Each stage of ABC implementation has been affected by different factors. For example, Anderson (1995) found competition was equally important in motivating adaptations of ABC and the opinions of external expert influenced the choice of ABC and the identification of cost system problems. Krumwiede (1998) found firm size influenced the decision of ABC adoption; larger firms were more likely to adopt ABC than smaller firms. Arnaboldi and Lapsley (2005) found that external consultants were important in the design and implementation stages and the existence of competitive environments influenced the use of ABC information.

3.0 Activity based costing in Service industries

ABC as a system originated from manufacturing settings and the bulk of literature on the technique stresses it's important to manufacturing organizations. But, it must be appreciated that substantial and emerging economic activities occur in service sector. ABC is an important tool for decision-making process to service organizations for both financial and non-financial issues especially in the areas of budgeting and performance evaluation. According to Adams (1996) cited in Krishnan (2006) the application of ABC system in hospital helps managers to better assess operational efficiency, establishes more meaningful comparisons of financial performance with other hospitals, and optimizes the mix of service offered to patients.

Chea (2011) states that, it is important to note that ABC principles apply to all types of business. He further noted that, service companies face the same changing environment that has necessitated modifications in cost management practices in manufacturing companies in order for them to remain competitive.

4.0 Importance of applying activity-based costing (ABC)

The application of ABC in organizations helps managers to better evaluate operational performance and efficiency, establishes more meaningful comparability of financial performance with other businesses, and thereby optimizes the mix of products/service offered to customers.

ABC also helps in reducing the quantity of activities by increasing the performance efficiency of other remaining activities and help in maintaining production and revenues and lessening the demand for indirect resources. Otherwise, it can reduce the excess capacity available in the next budgeting cycle. The application of ABC system in business organizations helps managers to better assess operational efficiency, establishes more meaningful comparisons of their financial performance and that of others, and optimizes the mix of service offered to their customers.

However, Atkinson 2001 cited by Al-Refa'ee 2012 identified the following as benefits of implementing the activity based cost system:

1. Determining the cost based on activities increases the number of cost complexes that the additional costs are added, instead of collecting the company's additional costs in one compound as a whole, or collecting them in complexes, costs are gathered on the basis of activities. As a result, several compounds are created according to the number of driving costs that can be identified.
2. ABC system helps reduce costs by reducing time and effort required for the activity, in addition to eliminating unnecessary (useless) activities, and choosing low-cost activities.
3. ABC provides an accounting system with data acquisition, accurate and detailed information for the purposes of identifying and quantifying the relationship between cost and its causes is affordable with low cost.

4. ABC reduces uncertainty and lack of trust; it also provides reliability in information when making important decisions in the field of pricing, production strategy, profitability of the consumer and the product, cost management, continuous improvement that achieves development.

5.0 Reasons for cost allocation in an organization

1. To obtain desired motivation: -Cost allocations are sometimes made to influence management behavior and thus promote goal correlation and managerial effort.
2. To compute income and asset valuations: -Costs are allocated to products and projects to measure inventory costs and cost of goods sold. These allocations frequently service financial accounting purposes. However, the resulting costs are also often used by managers in planning, performance evaluation and to motivate managers, as described above.
3. To justify costs or obtain reimbursement: -Sometimes prices are based directly on costs, or it may be necessary to justify an accepted bid. For example, government contracts often specify a price that includes reimbursement for costs plus some profit margin. In these instances, cost allocations become substitutes for the usual working of the marketplace in setting prices.

6.0 The role of management accountants in the process of ABC implementation

There has been a vital academic and professional argument on the changing function of accountants, especially management accountants now days. Management accountants can execute an important function in the design of an ABC system. Based on their professional and technical expertise, they can assist in identifying what is appropriate for analysis and explain the likely causes of an existing cost system's deficiencies. In addition, based on their detailed

knowledge of the information in their company's costing information systems, they are uniquely qualified to evaluate the level of aggregate cost appropriate to the ABC costing system. They can use their intellect of costing techniques to recommend appropriate process for the assignment of costs to activities and cost objects. Finally, they will be able to use their understanding of the information and cost relationships to support the system if implemented. An objective of this process should be to ensure that there is backing for the system at all levels of an organization. This includes having a top-level manager to champion the initiative, as well as acceptance by lower-level managers.

7.0 Conclusion

Activity-based costing is used in a number of ways to support organization excellence. It provides information for strategic decisions, such as product mix and sourcing decisions. ABC allows product designers to understand the impact of different designs on cost and flexibility and modify their designs accordingly. ABC supports the continuous improvement process by allowing management to gain new insights into activity performance through focusing attention on the sources of demand for activities and by permitting management to create behavioral incentive to improve one or more aspects of manufacturing. It is a tool for managing complexity in manufacturing. It also provides activity-based information to help managers understand and eliminate complexity. It is also a communication medium between production and marketing and product design that helps minimize product changes which create unnecessary complexity.

However, ABC is not only appropriate for use in manufacturing industries, but is also important to service organizations such as financial institutions, the healthcare industry, and government organizations. In fact, some banking and financial institutions have been applying the concept for years under other names (Chea 2011). One of them is unit costing, which is used to calculate the

cost of banking services by determining the cost and consumption of each unit of output of functions required to deliver the service.

7.2 Recommendations

The study encourages service firms/organizations to adopt applying ABC system, because the system plays significant role in improving and developing their activities which involve huge amount of overhead expenses. Consequently, the effective cost system will assist this kind of companies to determine the actual position for its activities and actual cost. On the other hand it is very important to use effective cost system in such companies because the decision making process needs the accurate details and the ABC system participates to achieve this process (Alnajjar and Siam, 2011).

Awareness campaign and seminars should be organized by relevant Practitioners, Academicians and Government agencies to educate business owners and managers on the benefit of implementing Activity based Costing.

The researcher recommends empirical studies to be conducted in relation to impact assessment on implementation ABC system to various service and non-service businesses.

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