

## **Activity Based Costing: An Apposite Cost Optimization Technique for Corporate Sector. A Contemporary Study on Ruchi Spices industry**

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### ***Abstract***

*The era of LPG a number of MNC are trying to grab the subcontinent market by penetrating at lower cost. So we have no other ways except to curtail our cost to compete with the global giant. It will be feasible to reduce the overhead cost as most of the cases overhead comprise 60%-70% of the total cost. A survey report reveals that 18%business using ABC, 20%considering adoption,15%reject the idea,47%did not consider in USA. where as in UK 49% already adopted the ABC. In Canada more than 30% adopted ABC among the business interviewed. In Saudi 33.33% had adopted, 7.7%considering, 23% rejected, 35.9% never considered. In News land about 20% organization had already used. In India many companies have started adopting among them Philips, Bharat forge, Greaves, Matrix India Pvt ltd, WS industries, Menon and Menon etc.*

*ABC can become quite elaborate. For example, it is often beneficial to employ a two-stage allocation process whereby overhead costs are allocated to intermediate cost pools in the first stage, and then allocated from these intermediate cost pools to products in the second stage. ABC focuses on activities. A key assumption in activity-based costing is that overhead costs are caused by a variety of activities, and that different products utilize these activities in a non-homogeneous fashion. Usually, costing the activity is an intermediate step in the allocation of overhead costs to products, in order to obtain more accurate product cost information. Sometimes, however, the activity itself is the cost object of interest.*

## INTRODUCTION

ABC is based on George Staubus' Activity Costing and Input-Output Accounting. The concepts of ABC were developed in the manufacturing sector of the United States during the 1970s and 1980s. In 1984 two respected accounting professors, Dr. Robert Kaplan and Dr. Robin Cooper of the Harvard Business School developed the activity based costing.

“Activity-based costing is a methodology that measures the cost and performance of activities, resources, and cost objects. Resources are assigned to activities, then activities are assigned to cost objects based on their use. Activity-based costing recognizes the casual relationship of cost drivers to activities.”

ABC is a decision-making tool. It allows organizations to improve business performance through increased efficiency and reduction of costs. It identifies the key activities performed in all stages of delivering the product or service to the customer. It is these activities that consume the resources and these same activities that create products. Recognizing this relationship is the cornerstone of ABC. It allocates cost (or resources) to activities based on the consumption of resources (i.e., resource cost assignment).

ABC can be defined by the following equation:

$$C/A = HD + M + E + S$$

Where,

C/A = Estimated cost per activity

H = Number of labor hours required to perform the activity one time

D = Wages per labor hour,

M = Material costs required to perform the activity one time,

E = Equipment costs to perform the activity one time,

S = Subcontracting costs to perform the activity one time.

## LITERATURE REVIEW

This study will draw most of its basis from a similar study conducted in India in 2005 by Manoj Anand, **B. S. Sahay and Subhaisish Saha** using empirical data through survey of 53 CEOs of India. The sample size of this survey was 500 companies in private sector and 75 PSUs. This research tested hypothesis whether companies adopting ABC actually performed better than those that did not adopt ABC. The findings of this research suggest that companies that adopt Activity Based Costing generate accurate results of cost and information for planning.

**Cooper (1988a)** illustrated the need for activity-based costing systems. Consistent with this research, Cooper (1988b) found that the firms facing a high level of competition and having a diverse product mix are more likely to benefit from precise cost information and introduction of activity-based cost systems, with an added caution that the activity-based costing system introduction initiative itself should be cost effective.

**Kaplan (1988)** observed that many companies used single cost systems to meet three diverse needs, namely, inventory valuation and financial reporting, product/ service/customer costing and providing 'operational feedback to frontline employees' in the plant. However, he apprehended that, in a complex manufacturing environment with 'product and process diversities' and 'concern for excellence', the single cost system might not suffice for all the three needs.

Studies have shown that where diversity exists between products, volume alone is not adequate for overhead costing. These studies show that overhead costing based on volume will systematically over cost high-volume products and under cost low volume products. In order to overcome these problems some companies use Activity Based Costing. ABC involves a two-stage allocation process, as described earlier, with the first stage again assigning overhead costs to cost pools. However, more pools are used under this approach, and they are defined differently. Rather than being defined as departments, the pools represent activities, such as set-ups required, purchase orders issued, and number of inspections completed.

In the second stage, costs are assigned to jobs according to the number of these activities required in their completion.

The current economic climate meant that the service organizations feel the need to know, control and manage their costs effectively. Hence, the importance of investing in programs aimed at reducing production costs. Expenses that with some care, could often be easily prevented or at least reduced, often turn out to link the final cost of products and/or services. In general, the cost controls in service organizations have some points in common with those practiced in the industry. Such issues are production order contribution margin and balance point, and can be applied in many service organizations

### **OBJECTIVE OF RESARCH**

- 1 To know the relationship of cost drivers to activities.
2. Reduction of cost after implementation of ABC in the system.
3. Increased level of efficiency through activity base costing.
4. Overall performance of the business.

### **SCOPE OF THE STUDY**

This study will cover large and midsized companies and will exclude small companies. This study will be restricted to companies whose head offices and business planning departments are located in the state of Odisha. Prominence will be placed on companies based in Bhubaneswar region. One of the limitations of this study will be that since it will be a survey based research the beliefs of the respondents will not necessarily capture the true action that eventually takes place in future. One of reasons for such a dichotomy can be technological limitations in adoption of new costing system in any company. It will be a perception based survey and the results will be empirically tested using appropriate statistical tests.

## **RESEARCH METHODOLOGY**

The data for the study has been derived from primary as well as secondary sources. The primary data has been collected through a structured questionnaire.

The secondary data has been collected from different sources like books, newspapers, magazines, internet and journals etc. in our research we use both quantitative as well as a qualitative method of analysis.

In our study quantitative method refers to the survey we implemented in the form of questionnaires, which are directed at individual persons.

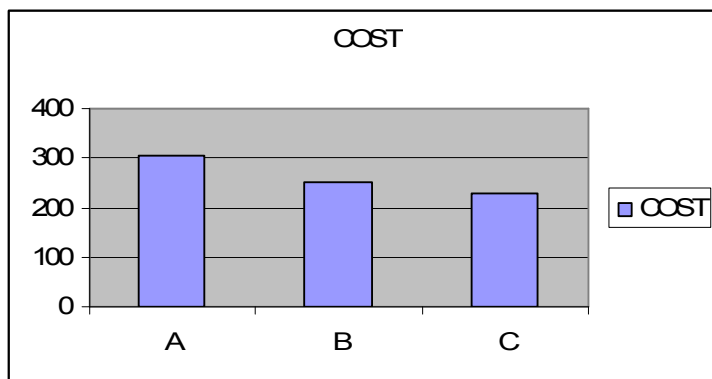
We also opted for qualitative approach, in defining the determinants of investment behavior and factors which may affect their financial decision. The collected data are analyzed through different statistical tools like pie chart, bar diagram, histogram, line diagram and tables etc.

## **RESEARCH DATA ANALYSIS**

- Output of the three products PQR are 20000, 40000, and 60000
- Direct material approximately. Rs 50, 40, 32 respectively.
- Direct lab our 60, 80, 96
- Lab our hours 6,8,10
- Machine hours per unit 8,8,14
- Purchase questions are 1200, 1800, 2000.
- No of machine setups 240,260,300.

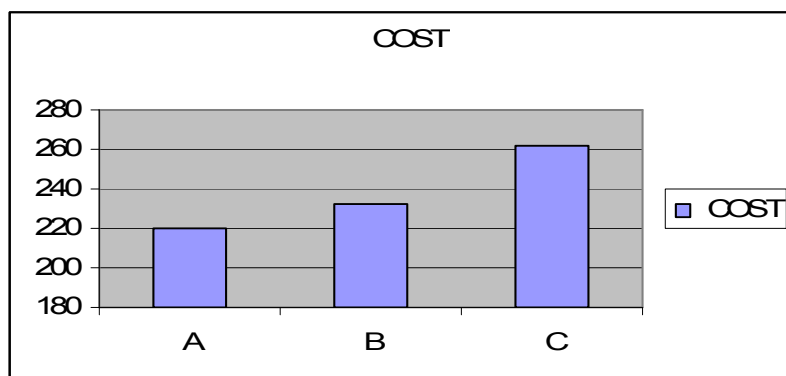
**As per ABC, costing method**

Product	P	Q	R
Cost	305.20	252.66	229.84



By calculation Product Cost as per Traditional costing method

Product	P	Q	R
Cost	220	232	262



**FINDINGS OF THE RESEARCH**

1. Under traditional method, product Z appears quite costly as compared to activity base costing.
2. This lower cost may lead the huge amount of sales of product Z in the market.
3. This system is more accurate reliable and logical than previous.
4. It is good to avoid the under and over costing
5. It is judicious for pricing of a product.
6. It will enhance the operational as well as managerial efficiency of the organization.

7. It ultimately fulfils the main objectives of the organization, which is to earn a maximum amount of revenue for the investors and other stakeholders.

## **SUGGESTION**

Management should stick in the activity base costing system .it will be more helpful to them to reduce the per unit production cost and to enhance the profitability as well as performance of the organisation of the organisation.

## **CONCLUSION**

The purpose of this research was to determine how military organizations use ABC information to improve performance. The study examined and analyzed the experiences of Ruchi Spices industries that had implemented and used ABC models.

Although the ABC models provided some insights into possible areas for improvement, the results show little evidence that the organizations consistently used the models and acted on the ABC information to improve performance. The failure stems largely from a lack of preparation necessary to effectively use the models to initiate performance improvements. Based on the results, a few conclusions and recommendations may be made.

The ABC system is more appropriate to those organizations that have high product diversity or heterogeneous products. In the retail sector, by identifying various activities and their cost drivers in functional areas; cost control can be undertaken for each activity. It will help in joint problem solving, information-sharing, diversified customer supplier network and cost price leadership. It also helps to improve decision-making at operating and strategic levels. Though, at the initial stage, they will face some difficulties to convince their employees and incur huge investment in training, in the long run the organization will be benefited in various ways.

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### **Annexure (Questionnaire)**

A structured open ended questionnaire was prepared to ask and draw a perfect conclusion.

1. Should ABC systems be used as replacements for traditional cost systems or as separate systems for management decision purposes?
2. What's wrong with traditional standard cost variance analysis? How could some of these problems be reduced without using ABC?
3. After implementation of the technique overall performance of the business?
4. How far ABC is efficient than conventional costing?
5. How does activity-based variance analysis differ from traditional standard cost variance analysis? Does it solve the behavioral problems associated with the traditional variance analysis?
6. What are major problems faced by managers in migrating from Traditional Costing System to ABC System?
7. How these problems can be overcome and what alternative approaches are adopted by management to resolve them?
8. How far it is cost effective?