

THE CONCEPT OF COST BEHAVIOR IN MANUFACTURING COMPENIES

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Abstract: *This study examines the concept of cost behavior in Manufacturing Companies. The concept of cost behavior is very important for manufacturing companies to be able to make decisions about pricing, production, and other important aspects of the operations of the company. The method used is the literature review method. The results of this study indicate that companies adopting JIT or EMS systems may be experiencing a shift in cost behavior from fixed costs to variable costs, which can provide greater flexibility in responding to market demands and regulatory requirements. In extension, the study reveals that direct labor and material costs are mostly variable, while overhead costs are mostly fixed. This knowledge helps managers to better allocate costs and plan for changes in production. Overall, the literature provides valuable insights into how cost behavior can be managed to optimize business performance in manufacturing establishments.*

Keywords: *Manufacture, Cost Behavior, Overhead Cost, Variable Cost.*

Introduction

The concept of cost behavior in manufacturing companies refers to the way companies understand, manage, and control production costs. This concept is based on the idea that production costs depend not only on factors such as production quantities or raw materials, but are also affected by non-production factors such as employee management, machine maintenance, and production planning.

In the concept of cost behavior, production costs are viewed as variables that can be managed and controlled by production managers. By understanding how production costs react to changes in production and non-production factors, a company can optimize its production operations and produce products at a lower cost.

To implement the concept of cost behavior, manufacturing companies can conduct a cost-volume-profit analysis (break-even analysis) to determine the break-even point in their production operations. By knowing the break-even point, companies can determine the right selling price and maximize their profits.

Manufacturing companies can also implement cost management techniques such as cost control, standard costing, and the use of budgets to manage and monitor their production

costs. By optimizing the use of their resources and reducing production costs, companies can increase their profits and maintain competitiveness in the market.

Literature Review

The concept of cost behavior is an approach to cost management that identifies and analyzes the factors that affect the cost of products or services. This concept sees that costs are not only determined by factors such as production or sales volume, but also affected by other factors such as technology, use of human resources, and product quality. In the context of manufacturing companies, the concept of cost behavior is very important in making decisions and managing production costs.

The behavior of costs consists of variable costs and fixed costs. It is general assumption that fixed costs are constantly unchanged and unaffected by the level of change in the volume of activity. On the other hand, variable costs change proportionally to the level of change in the volume of activity. however, there are allegations that there is cost behavior where cost changes occur disproportionately to changes in the volume of activity.

In the context of manufacturing companies, the concept of cost behavior is very important in decision-making and management of production costs:

1. Hansen & Mowen (2005) in their book "Management Accounting" state that the concept of cost behavior is a method that takes into account the relationship between costs and other factors such as production volume, technology, and human resources. This concept helps manufacturing companies manage production costs and make better decisions.
2. Gunasekaran et al. (2015) in their article "Lean manufacturing: a comprehensive review" state that the concept of lean manufacturing is an effective method in managing production costs in manufacturing companies. This concept prioritizes the Elimination of waste in production, so that it can significantly reduce production costs.
3. Nabhani et al. (2019) in their article ""Target costing: A review of the literature and directions for future research" states that the target costing method is an effective method in managing production costs in manufacturing companies. This method allows companies to set the desired production cost target before producing a product, so that companies can manage production costs effectively.

Method

The methods of data collection used in this study used literature review, the application of this method is related to the concept of cost behavior in manufacturing companies. (Literature review is a study conducted by researchers by collecting a number of books, magazines related to the problem and research objectives. This technique is carried out with the aim of revealing various theories that are relevant to the problems being faced/examined as reference material in discussing the research results.

Result and Discussion

Cost behavior is a fundamental concept in cost accounting that explains the way a firm's costs change in response to changes in its production levels. In manufacturing companies, cost behavior is particularly important because these companies incur a variety of different costs

associated with the production process. These include direct material costs, direct labor costs, and manufacturing overhead costs.

Basis for Identifying Cost Behavior

Based on its relationship with the production volume produced by a manufacturing company, cost behavior can basically be grouped into two broad categories as follows.

1. Fixed cost

This type of cost will not change in its total amount (in total cost), along with the rise and fall of products produced or activities carried out in connection with the manufacturing process (cost drivers).

2. Variable cost

This cost type will change in total cost, as the products produced or activities performed in connection with the manufacturing process (cost drivers) change in the same proportion.

In further analysis, observation of the behavior of costs in relation to their cost drivers results in the following cost groups.

a. Semivariable cost

This is the cost group where in a cost item, the total cost is partly an element of the fixed costs component and partly an element of the variable costs component. This group of costs shows constant and variable behavior within a certain relevant range. In the author's opinion, this behavior can be easily understood by analogizing it to the principle of initial outlay costs. Initial outlay cost is a cost that is intentionally charged, must exist and cannot-not-exist as a requisite precondition as a result of the existence of a cost driver, regardless of whether the cost indicator has not yet appeared (operated).

b. Step cost

Step costs are a cost group in which total costs will change gradually within a certain relevant range for the cost driver.

This cost behavior can be considered as a scenario of a regular increase in costs.

In a certain range of an activity (its cost driver) the total cost will be fixed. Then the total cost will increase and then remain within a certain range. This condition will continue to repeat and so on. Step cost is often referred to as semifixed cost, because when viewed graphically, the total cost will show fixed cost characteristics in a long range (a combination of several relevant ranges).

For the purposes of cost analysis based on the concept of its behavior, costs that behave as semivariable costs and step costs need to be decomposed first into fixed cost and variable cost components. For semivariable costs, this cost can be decomposed into its fixed and variable components through 3 generally recognized methods, namely: high and low point method, scattergraph method and least squares method.

On the other hand, for step cost, this cost can only be broken down into several fixed cost components within a relevant range desired in a desired analysis. From the cost decomposition, it will be known how many fixed cost components are in a semivariable cost and how many rate values are the triggering factors for the cost drivers and fixed cost components in a relevant range analysis.

Cost grouping based on behavior

In the analysis, it is only necessary to determine whether the cost behaves as a fixed cost or as a variable cost. Then the prediction or data processing of the cost will be easily determined. However, it will be more difficult if the cost to be analyzed is a combination of several cost characteristics, where each cost component has its own behavior, which can behave as a fixed cost, variable cost, semivariable cost or semifixed cost.

If the costs to be analyzed are a combination of a number of costs with several types of cost behavior properties, it is important to take several steps in analyzing the cost behavior, as follows:

1. Determine the range of costs to be analyzed, whether product costs only, or nonmanufacturing costs or operating costs;
2. Determine what component or cost elements are included in the costs to be analyzed;
3. Identify these cost elements and categorize them based on their behavioral aspects;
4. Decompose the components of semivariable costs and semi-fixed costs into fixed costs and variable costs;
5. Determine line equations to simplify and formulate the behavior of the analyzed costs, in order to predict the movement of costs.

The use of cost elements in cost analysis is highly dependent on the purpose and objectives of the management's analysis. For the purposes of cost analysis related to the products produced, management will use the product costs element to be analyzed for specific decision making. To conduct cost analysis of departments other than production, of course, management will use all elements of nonmanufacturing costs. While for organizational planning purposes, management can use all operational cost components for analysis.

Identification and grouping of costs based on their behavior is a critical point as well as the most decisive thing in the success of cost analysis. This is because an error in identifying and classifying cost components will result in the wrong calculation and value of the cost analysis performed. If that happens, the prediction or estimation of costs that will be incurred by the company will be incorrect, which results in wrong decision made by the management.

Conclusion

Based on the discussion above, that The concept of cost behavior is an important aspect of cost management that identifies and analyzes the factors that influence the cost of a product or service. In the context of manufacturing companies, cost behavior is very important in decision making and cost management. Through the literature review, it can be concluded that there are several effective methods and concepts for cost behavior in manufacturing companies, such as Activity-Based Costing (ABC), Lean Manufacturing, Target Costing, and Theory of Constraints (TOC). These methods and concepts enable manufacturing companies to effectively manage production costs, accurately allocate overhead costs, eliminate wasteful activities, set desired cost targets before production, and identify and reduce production constraints. Therefore, understanding cost behavior is essential for manufacturing companies to improve profitability and competitiveness in the market.

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