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Analysis Of Relevant Costs In Making Decisions To Buy Or Maintain Fixed Assets At Gemol Bakery

Jamilatul Hasanah[1], Nuril Shofiyah[2], Surya Andhika Putra[3], Mochamad Reza Adiyanto[4]
[1,2,3,4]Management Department, Universitas Trunojoyo Madura

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Abstract

Economic growth and the economy of the business world in the era of globalization require all companies to obtain maximum profits. The purpose of this research is to analyze relevant costs in making decisions to buy or maintain fixed assets at Gemol Bakery. In this study the authors used descriptive qualitative research methods. The results of the study when viewed from the analysis of relevant costs are Gemol Bakery must replace old fixed assets with new ones. Gemol Bakery should apply relevant cost analysis in making decisions at its store, especially in making decisions to buy or maintain fixed assets.

✉ Authors
(*) Mochamad Reza Adiyanto

Email:
reza.adiyanto@trunojoyo.ac.id

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Introduction

Economic and business growth in the era of globalization requires every business actor to achieve maximum profit. For this reason, a company must be able to compete in economic development and be more careful in considering every opportunity that brings more profit. Cost calculation is very important for every business. In industrial manufacturing companies that use fixed assets as a means of production, the costs that arise from day to day will increase, including the cost of equipment maintenance, fuel, and engine replacement on equipment that has exceeded its useful life or replacement of new equipment. This can increase production and the machines used remain in perfect condition to be able to produce very high quality products. This can affect the company's revenue, so every company must have a strategy to minimize losses.

Companies often set goals to increase profits in order to maintain their existence and develop their business. By using the costing method, we can measure the amount of revenue that will be achieved if the company chooses an alternative choice which choice can generate large profits for the company. In this case, the company faces many decisions. The role of a manager in a company is very important because the existence of a manager is a driving force for his employees and is one of the keys to the success of a company. Therefore, in order for a company to compete in the market, management must make the most appropriate decisions by carrying out its management functions to the best of its ability.

Decision making is not an easy thing, because it involves the future that the company will face which is often filled with uncertainty. Decision making always involves the future so that future data relevant to the decision from the data is available. In this case the company is faced with uncertainty regarding the future of the company. The company management must be able to predict the conditions of the efforts that will be carried out in the future which are full of uncertainty. To reduce uncertainty, information is needed. The information available in the company comes in various forms, making it difficult to choose the type of information that is most suitable for making decisions. To help businesses make the right decision in choosing the best alternative among the available options, it is necessary to calculate costs using various costing methods. One of them relates to the costs incurred. Relevant costs are costs that will arise in the future and vary according to different decision alternatives (Sodikin, 2015: 27). The criteria of "will occur" and "distinguishability" must be met so that a cost can be considered a relevant cost. Because of these two criteria, relevant costs must be considered in making decisions. It is the responsibility of a manager to evaluate relevant accounting information so that the company can choose the right alternative and obtain high profits. The purpose of this study was to determine and analyze the relevant costs in making decisions to buy or maintain fixed assets at Gemol Bakery.

Accounting Concepts

Kieso (2016: 2) argues that accounting is the process of determining, recording and communicating the economic condition of a company to interested parties. Furthermore, according to Kartikahadi et al (2016: 3), accounting is defined as an information system that is suitable for many different interested parties.

From the above understanding, it can be concluded that accounting is a measuring tool that provides information generally in money regarding an economic entity that is useful for internal and external parties of the company in making decisions.

Management Accounting

Rudianto (2013: 9) explains that management accounting is an accounting system whose resulting information is intended for the internal departments of the organization, such as financial managers, exporter product managers, marketing directors, etc. to meet the needs of the organization's internal decisions. In this context, financial information includes all financial and non-financial information needed to interpret the impact of economic events or the consequences of business decisions. Furthermore, according to Hansen and Mowen (2013: 7), management accounting is the process of identifying, collecting, measuring, classifying and reporting information that is useful for internal users in planning, controlling and decision making. And according to Siregar, et al (2013: 1) also argue that management accounting is the process of identifying, measuring, collecting, preparing, analyzing, interpreting and communicating economic events determined by management. Used to carry out planning, control and decision making. Working on, achieving and evaluating performance in the organization. The main users of management accounting information are managers, those responsible for planning activities, implementing plans, directing and controlling organizational activities or operating according to plans.

From the above understanding, it can be concluded that management accounting is the process of supplying relevant information to managers and the workforce, both financial and non-financial information, for decision making, allocating resources, and monitoring, evaluating, and rewarding performance.

Cost Accounting

Cost accounting is an integral part of financial accounting. Cost accounting is a field of accounting that aims to track, record, and analyze the costs associated with the production of an organization's goods and services.

According to Rayburn (2013: 1), cost accounting is an activity that aims to identify, measure, analyze and report all elements of the business budget. According to Bastian and Nurlela (2013: 2), cost accounting is a field of science that concentrates on learning about methods of recording, measuring and reporting budget information used during the company's production process. According to Datar, Foster and Horngren (2013: 3), cost accounting is a field of science that focuses on how to provide budget information needs and their utilization by the finance and management of the company. According to Kholmi and Yuningsih (2013: 4), cost accounting is a series of processes consisting of tracking, recording, allocating and reporting information about various company production budgets after going through analysis. Siregar et al (2014: 10) define cost accounting as the process of measuring, analyzing, calculating and reporting costs, profits and performance for the internal interests of the company. Meanwhile, Mulyadi (2015: 7) explains cost accounting is the process of recording, classifying, summarizing and presenting costs, production and sales of a product or service in a certain way and how to interpret it.

It can be concluded that, cost accounting is the determination of the cost of a product by carrying out a process of recording, classifying, and presenting cost transactions systematically and presenting cost information in the form of a cost report which functions as an information tool for a leader in order to make decisions, plan, and control and evaluate company activities.

Definition of Cost

According to Mulyadi (2015: 2), cost is a sacrifice of economic resources, measured in units of money, which has occurred or is likely to occur for a specific purpose. Wiratna Sujarweni (2015: 1), cost has two definitions, namely broadly and narrowly. Broadly speaking, costs are sacrifices of economic resources in units of money to obtain assets. Narrowly, costs are sacrifices of economic resources in units of money to obtain goods or services. According to Kautsar and Mochammad Farid (2016: 1), costs are cash or cash equivalent values sacrificed to obtain goods or services that are expected to provide current or future benefits to the organization. Salman and Kautsar (2013: 20) define costs as exchange rates, costs incurred to ensure benefits are obtained. Mulyadi (2014: 8) argues that cost is a sacrifice of economic resources measured in monetary units, which has occurred or may occur for a specific purpose. Meanwhile, according to Siregar et al (2014: 23), costs are sacrifices of economic resources to obtain goods or services that are expected to bring current or future benefits. The term cost in accounting is defined as a sacrifice to obtain goods or services, these sacrifices can be measured in cash, transferred assets, services provided, etc. This is reinforced by the perspective (Salman, Kautsar and Farid, 2016: 28) which states that costs are money or cash equivalents sacrificed to obtain goods or services that are expected to provide current or future benefits to the organization. And according to Carter (2013: 30), he defines cost as an exchange rate, an expenditure or sacrifice made to ensure the acquisition of benefits. In financial accounting, an expenditure or sacrifice at the date of purchase that results in the depreciation of cash or other assets that occur now or in the future.

Based on the definition previously stated, there are 4 (four) main elements, namely:

a. Cost is the sacrifice of economic resources
b. Measured in units of money
c. That have occurred or potentially will occur
d. The sacrifice is for a specific purpose

Cost Classification

1. Classification of Costs According to Their Behavior in Relation to Changes in the Volume of Activities.
   a. Variable cost
      Variable costs are costs whose total amount changes in proportion to changes in the volume of activities. Examples of variable costs are raw material costs, direct labor costs.
   b. Semi variable cost
      Semivariable costs are costs that change not proportional to changes in the volume of activity. Semivariable costs contain elements of fixed costs and variable costs.
   c. Fixed cost Fixed costs are costs whose total amount remains fixed within a certain range of activity volumes. An example of a fixed cost is salary costs.
2. Classification of Costs on the Basis of Length of Time of Benefit.
   On the basis of the period of benefit, costs can be divided into two:
   a. Capital expenditures.
      Capital expenditures are costs that have benefits for more than one accounting period. These capital expenditures when incurred are charged as cost of assets, and are expensed in the years that enjoy the benefits by depreciation, amortization or depletion.
   b. Revenue expenditures.
      Revenue expenditures are costs that only have benefits in the accounting period in which they are incurred. When incurred, these revenue expenditures are charged as costs and matched with the revenue earned from the expenditure.

      Cost classification is needed to develop cost data that can assist management in achieving company goals. This cost classification is based on the relationship of costs to: the object of expenditure; the main functions of the company, namely production costs, marketing costs, and administrative & general costs: something that is financed, namely direct costs and indirect costs; the volume of activity, namely variable costs, semivariable costs, semifixed costs, and fixed costs; and the period of benefit, namely capital expenditure and revenue expenditure.

Relevant Cost

According to Kledo (2022), relevant cost is a term used primarily in managerial accounting that describes the change in cost from a particular decision. Businesses use relevant cost to determine whether one decision is more cost-effective than another.

According to Investree (2022), relevant cost can be interpreted as future costs in various alternatives for making management decisions. Some companies also often refer to relevant costs as differential costs, which are costs that vary. Sodikin (2015: 133) relevant costs are costs that will occur in the future and differ among the various alternatives being considered in a decision. Two criteria: (1) will occur, and (2) different, are a unity that must be met so that costs can be called relevant costs.

For example, suppose a company is considering whether to buy an ABATA or BATASA brand photocopier. Whether to buy ABATA or BATASA, the company will have to hire an operator with a monthly salary of Rp.30,000. Since the amount of salary paid is the same, the salary cost in this case is not a relevant cost. If in this case, the operator salary for the ABATA machine is Rp.30,000 but for the BATASA machine it is only Rp.25,000 per month, the operator salary is a relevant cost. The difference in operator salary of Rp.5,000 is called differential cost. Differential cost is the difference in relevant costs between two or more alternatives.

Hanse and Mowen (2015: 70), relevant costs are future costs that are different for each alternative. All decisions relate to the future so only future costs can be relevant to the decision.

Based on the above understanding, it can be concluded that relevant costs are future costs that can be avoided (avoidable costs) because of choosing other alternatives in decision making. All costs incurred within the company are avoidable costs except sunk costs and future costs that are not different among the various alternatives available. But it should be noted that costs that are considered relevant for certain decision-making situations, may not be relevant for other decisions (different costs for different purposes).

Sunk costs are costs that have been incurred in the past and cannot be avoided by managers regardless of the alternative that will be taken. The tendency to include sunk costs in the decision-making framework occurs particularly with respect to the book value of old fixed assets. What is important is how to treat the book value of these assets so that it contributes to future decisions and becomes a relevant factor, for example selling the old assets.

Relevant costs are also called cost concepts that can be used in making certain decisions related to the alternative to be chosen. Included in the category of relevant costs are differential costs, additional costs, opportunity costs, avoidable costs, and controllable costs. The basic concept is different costs for different purposes.

The concept of Relevant Cost for decision making

In making decisions in the field of costs, relevance must be considered. As in the short-term decision-making process a manager is faced with limited time, so the ability to only consider relevant matters is very absolute. In connection with these conditions, relevant costs are known.

Decision making using the concept of relevant costs is generally used for tactical level decisions as an elaboration of strategic decisions from top management. Understanding the concept of relevant cost is especially useful in the application of alternative decision selection from various available alternatives.

Making tactical decisions consists of selecting alternatives with a limited view.

1. Recognize and define the problem
2. Identify alternatives as possible solutions to the problem, eliminating alternatives to unclear possibilities.
3. Identify the costs and benefits associated with each alternative. Classify costs and benefits as relevant or irrelevant by eliminating irrelevant costs using judgment.
4. Comparing relevant costs and benefits for each alternative, and linking each alternative to all strategic objectives within the company and paying attention to other important qualitative factors.

Relevant cost application for tactical decision making

Decision making is choosing one of the various alternative actions available. This selection usually uses the basis of certain measures, whether portability or cost savings. One of the manager's main tasks is to make decisions based on relevant accounting information.

According to Sodikin, 2015 specific decisions taken by managers include:

1. Reject or accept special orders
2. Add or drop departments or products
3. Purchase from outside or produce in-house
4. Process after split-off point or sell directly
5. Choosing a product

RESEARCH METHODS

Quantitative data is data in the form of numbers or numbers. In accordance with its form, quantitative data can be processed or analyzed using mathematical or statistical calculation techniques. Quantitative data in this study are production cost data at Gemol Bakery.

Qualitative data is data in the form of words, not in the form of numbers. Qualitative data is obtained through various kinds of interviews, document analysis, or observation. Qualitative data that will be taken in this study such as interviews regarding the decision-making process of buying or retaining fixed assets at Gemol Bakery.

Primary data is a research data source obtained directly from the original source.

Secondary data is a research data source obtained by researchers indirectly through intermediary media.

In this study, data sources were obtained from primary data, where the data was obtained directly from interviews with parties in the Gemol bakery, namely administrative and financial staff appointed by the store.

The author uses several data collection techniques as follows:

Initial Research, A study where this is done to obtain an overview of the object of research so that it can find out and determine the problems faced.

Field Search, The things to do are as follows:

a. identify all cost data and other information relevant to either the alternative of buying or retaining the company's fixed assets.

b. Categorize the relevant costs for each alternative of buying or keeping a vehicle.

Manage and analyze cost data and information in accordance with the concept of relevant cost.

Draw conclusions and provide suggestions from the results of the analysis that has been done.

Data Analysis Method, The data analysis method used in this research is descriptive analysis method. This method is a method that aims to describe, compare, provide a description of the company, and explain the data and then analyze it so that it can make conclusions according to the information and data that already exists.

This research also uses relevant cost analysis. That is an analysis that separates the costs and revenues that are relevant to the costs and revenues that are not relevant to some alternative decisions to be taken by the store. Cost analysis based on different costs for different purposes which will produce precise and accurate data that can be used as the basis for making decisions to buy or maintain fixed assets at the store.

RESULT

Research Results

Fixed Assets

The purpose of this study was to analyze relevant costs in making decisions to buy or maintain fixed assets at Gemol Bakery. This shop has several fixed assets, namely bread making machines. The fixed assets owned by the store are as follows:

1. Mixer
2. Oven
3. Bread Proofer Machine
4. A baking sheet
5. Scales

Of all the fixed assets owned by the store, which will be the object of research is the main tool/machine in the production process, namely the mixer. The store obtained a mixer by spending Rp. 40,000,000 with a service life capacity of 10 years. Counting from the year of purchase, namely 2020 until now in 2023, it means that the machine has reached the useful life of use for 3 years. With an average production amount of ready mix can reach 400m3 / month so that it can get revenue of Rp. 24,520,000 / month. Thus the store earns an income of Rp. 294,240,000 / year.

From the data on the acquisition price, length of service life, and residual value of the Mixer machine, it can obtain the calculation of annual depreciation and book value of the machine. The following is the calculation of depreciation and book value:

Mixer Machine

Depreciation = $\frac{\text{machine acquisition price - Residual value}}{\text{Length of service life}}$

= $\frac{\text{Rp. 40,000,000 – 10,000,000}}{10}$

= IDR 3,000,000 / year

Book value = acquisition cost of the machine - accumulated depreciation

= Rp.40,000,000 - (Rp.3,000,000 x 3)
= Rp.40,000,000 - Rp.9,000,000
= Rp.31,000,000

2. Operating cost of Mixer machine

a. electricity cost	= Rp. 180,000,000./3 years
b. maintenance cost	= Rp. 32,400,000/3 years
c. interest cost	= Rp. 72,000,000/3 years
d. cost of sales	= Rp. 108,000,000/3 years
Total Operating Cost	= Rp. 392,400,000/3 years

3. Non-production Costs/Machine Maintenance Costs

a. service fee	= Rp. 400,000/month
b. lubricant cost	= Rp. 250,000/month
c. cleaning fee	= Rp. 200,000/month
Total non-production cost	= Rp. 30,600,000/3 years

DISCUSSION

Based on the information that has been obtained and the results of research conducted on the Mixer machine. The focus of this research is to apply the concept of relevant cost in making decisions to buy or maintain fixed assets at Gemol Bakery. To assist the store in making the right decision to choose the best alternative action among the available alternatives, cost calculations are needed using various cost methods. One of them in this study is relevant cost.

1. Cost comparison of old machine and new machine

a. Old machine

Acquisition price	: Rp.40,000,000
Service life / economic life	: 5 years
Sales/year	: 73.240.000
Maintenance cost/year	: Rp. 10,200,000
Variable operating costs/year	: 130,800,000/year
Cost of spare parts	: Rp. 3,000,000
Current selling value	: Rp. 30,000,000
Book Value	: Rp. 31,000,000

b. New machine

New machine price	: Rp. 60,000,000
Service life / economic life	: 10 years
Sales/year	: Rp. 73,240,000
Maintenance cost/year	: Rp. 12,000,000
Cost of spare parts	: -
Selling value after 10 years	: -
Book value	: -

It can be seen that the store will experience a loss if it sells the old machine, because it can be calculated:
Selling price - Book Value = profit/loss
Rp.30,000,000 - Rp.31,000,000 = Rp.1,000,000/loss

Another way to find out whether the company should buy or keep the fixed assets of the shop, by considering that the book value of the old machine of Rp.9,000,000 is a sunk cost or irrelevant sunk cost. Because it is irrelevant, this cost must be excluded or eliminated (unavoidable cost).

If the old machine is sold, the store will suffer a loss of Rp.1,000,000. However, the store has earned revenue from sales for 3 years of Rp. 882,720,000. And the total variable costs of operating the old machine for 3 years amounted to Rp. 392,400,000. and the new machine for 3 years amounted to Rp. 36,000,000.

2. Relevant cost analysis of total revenue and costs over 3 years

Net profit for 5 years if keeping the old machine	= Rp. 490,320,000
Net profit for 5 years if buying a new machine	= Rp. 846,720,000
Differential cost	= Rp. 356,400,000

Costs relevant to total revenue and costs for 3 years there is a difference in the value of differential costs in making decisions to buy a new machine or keep the old machine of Rp.356,400,000. With the change in costs in this alternative, namely an increase in company profits, it will be more profitable for the store to replace the old machine with a new one, even though the store must experience a loss of Rp.1,000,000 due to depreciation on the sale of the old machine. Because by choosing the alternative to buy a new machine, the store will get a net profit which can later cover the losses experienced by the company due to the sale of the old machine.

CONCLUSION

From the results of research and discussion in the previous chapter, conclusions can be obtained which can later help Gemol Bakery in facing various kinds of decision making, especially in the application of relevant costs for decision making to buy or maintain fixed assets, namely:

1. The results of research that applies relevant cost analysis can help stores in making decisions between maintaining old machines or buying new machines.
2. The results of the study when viewed from the profit, then the store should replace fixed assets, namely the old Mixer machine with a new machine.Because by buying a new machine the store can get a profit that is much greater than the loss that the store will get if it sells the old machine.

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