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Avoidable Cost Concept on Reducing Production Costs of Refillable Drinking Water Industry SME

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Abstract

Production costs are related to the determination of selling prices, so they need to be controlled to control prices in the market. Production costs affect the level of profitability of the company. The purpose of this study is to exploit the extent to which avoidable costs can be reduced in determining production costs. By making some adjustments to production costs such as making efficiency, the production amount of the company's profitability can increase compared to the production costs that are still high. The research was conducted in several small industry-based refillable drinking water industries in the Moncong Loe Region. The analysis technique used is descriptive quantitative with cost accounting calculation method. The results showed that there is a possibility of avoiding some production costs of the refill drinking water industry. Because ineffective costs can be reduced. Based on the evaluation, the production costs applied so far are still high by the indirect raw material costs used. Indirect labor costs also exist but are still seen as costs for routine work. Thus, production costs can be controlled by avoiding some costs so that the selling price can be reduced.

Keywords: Avoidable Cost, Production Cost, Refillable Drinking Water Industry.

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Introduction

In contemporary business environments, the pursuit of efficiency and cost reduction is paramount for sustainable growth and competitive advantage. One prominent strategy employed by organizations to achieve this end is the concept of avoidable costs within the realm of production. The judicious identification and management of avoidable costs hold significant implications for enhancing operational efficiency and ultimately, achieving cost reduction objectives. At its core, the avoidable cost concept delineates costs that can be eliminated or reduced through specific managerial actions without impairing the overall production process or compromising quality standards. These costs, unlike unavoidable costs, are deemed discretionary and subject to managerial control. By discerning between avoidable and

unavoidable costs, organizations can devise targeted strategies to streamline operations, optimize resource allocation, and mitigate unnecessary expenditures. Consequently, the integration of avoidable cost principles into production cost analysis fosters a more nuanced understanding of cost structures and empowers decision-makers to enact judicious cost reduction measures. Within the context of production cost reduction, the identification and management of avoidable costs assume particular significance. Production processes invariably entail a multitude of cost components, ranging from direct material and labor costs to overhead expenses. Through empirical analysis and systematic evaluation, researchers have endeavored to delineate the intricate interplay between avoidable costs and production cost dynamics. Studies have elucidated the diverse typologies of avoidable costs across various industries, encompassing factors such as excess capacity utilization, inefficient resource allocation, and suboptimal process design. By dissecting the underlying determinants of avoidable costs, researchers have furnished insights into the operational inefficiencies and cost drivers endemic to production environments.

The phenomenon of avoidable costs encapsulates the dynamic interplay between managerial decision-making, resource utilization, and cost containment strategies within production settings. Notably, the phenomenon manifests in the form of divergent cost trajectories, wherein proactive interventions can yield discernible reductions in production costs while preserving operational efficacy. This phenomenon underscores the pivotal role of managerial agency in optimizing cost structures and engendering operational efficiency. Moreover, the prevalence of avoidable costs underscores the imperative for organizations to adopt a proactive stance towards cost management and resource optimization to remain competitive in today's volatile business landscape. A comprehensive review of extant literature reveals a burgeoning body of research dedicated to elucidating the nuances of avoidable costs and their implications for production cost reduction. Empirical studies have underscored the efficacy of various cost reduction strategies, including lean manufacturing techniques, activity-based costing methodologies, and process optimization initiatives, in mitigating avoidable costs and enhancing production efficiency. Furthermore, researchers have explored the nexus between avoidable costs and performance metrics such as profitability, productivity, and market competitiveness, thereby substantiating the substantive impact of avoidable cost management on organizational outcomes. A range of studies have explored the concept of avoidable costs in production cost reduction. Lessner (1991) and Wei-qua (2002) both emphasize the importance of accurate product costing and cost-oriented design in controlling costs. Matisková (2016) and Fadjarenie (2024) focus on specific strategies, such as optimizing cutting conditions and managing raw materials, to reduce production costs. Williams (2001) and Ahmadian (2012) highlight the role of early cost reduction efforts and effective supplier management in achieving cost savings. Murugan (2022) and Yamashina (2002) provide a broader perspective, discussing the application of cost control and reduction tools and the methodology of manufacturing cost deployment. These studies collectively underscore the significance of avoidable costs in production cost reduction and offer various strategies for achieving this goal.

In the pursuit of academic inquiry, objectivity serves as a cornerstone principle underpinning the validity and reliability of research findings. To uphold objectivity in the examination of avoidable costs and production cost reduction, researchers adopt rigorous methodological frameworks characterized by empirical rigor, analytical precision, and

theoretical coherence. By adhering to established research protocols, such as hypothesis testing, statistical analysis, and peer validation, researchers mitigate bias and ensure the impartiality of their investigations. Moreover, the dissemination of research findings through peer-reviewed publications facilitates scholarly discourse and engenders critical scrutiny, thereby fostering transparency and accountability in the research process. In summation, the elucidation of avoidable cost concepts within the domain of production cost reduction epitomizes a multifaceted inquiry encompassing theoretical, empirical, and managerial dimensions. Through a systematic synthesis of existing knowledge and empirical insights, researchers endeavor to unravel the intricacies of avoidable costs, delineate their impact on production cost dynamics, and furnish actionable insights for organizational decision-making. Consequently, the pursuit of academic rigor, methodological rigor, and objectivity serves as the linchpin of scholarly endeavors aimed at advancing our understanding of avoidable cost phenomena and their implications for production cost optimization.

Literature Review

Product classification is key to understanding consumer behavior. Product classification changes the way companies market their products, which can affect sales aspects such as pricing and distribution. So, a marketer really needs to understand product classification and its effect on business. Theoretically, this article explains the variety of product classifications and their benefits. So basically, the types of production processes are divided into two broad outlines namely:

1. Based on Process
   This system is based on a process that produces an output product classificaton.

- Continuous Process. Can also be called a production process that is continuous or continuous. For this production process, the system will usually arrange the equipment, or components needed in sequence according to the production activities carried out. Even the materials in this process have also undergone a standardization process beforehand. Usually, this activity is suitable for companies that have high demand or demand.
- Intermittent Process. Unlike the previous one, this time it is a production process that has production time with intermittent nature. Usually, this activity will only be carried out when there is demand for the product. So, this process usually does not require special standards when doing it. So, the arrangement of production equipment is also not sequential and more flexible.

2. Based on Purpose of Operation

This production system is much broader when compared to the previous type. So, the discussion will be divided based on the sub types themselves, namely:

- Assembly To Order (ATO). Manufacturers only make standardized designs, with operational modules that are also standardized. Later, usually the products produced are assembled based on consumer demand and modules. One of the industries like this is a car manufacturing company.
- Engineering To Order (ETO). The company produces custom goods, or according to customer orders. So, you could say that the company produces an item from the start of the

design to the results according to the request of the consumer. So, the system applied is also usually tailored to the needs of this process.

- Make To Order (MTO). The new manufacturer will work on the product after the previous order for the item has been received. So, the production system used will certainly be much different when compared to the others. Because the new work will be carried out after the ordered product has been decided by the consumer.
- Make To Stock (MTS). This system is made to complete its production only as goods just in case or for stock. So, you don't have to wait for orders from consumers first and the work process can already be done.

Avoidable costs are costs that can be eliminated or costs that will not arise if certain activities are not carried out. This happens if a department is closed, an operation is canceled, or a product is discontinued (Gorinson, Ray H, Noren, Brewer, Peter C., 2012). In other words, these are costs that can be avoided by eliminating certain operations. The benefit is that in times of financial difficulty or during an economic downturn, the company or business can adapt and maneuver quickly by eliminating avoidable costs. This entails downsizing product groups, improving efficiency, negotiating short-term leases for buildings, or short-term leases with suppliers. Suppose a company makes an effort to rationalize its products by eliminating unprofitable or low-margin brands from its portfolio of consumer staples. While fixed costs such as building rent, insurance, and certain administrative salaries still must be paid, there are significant avoidable costs associated with these products such as marketing and sales costs and research and development (R&D) costs from operating expenses. An example is the company General Electric (GE), which is re-evaluating its product offerings. GE is one of the largest companies in the world and has many product lines. It is known for its aircraft engine business, lighting products, kitchen appliances, and more. Airline manufacturer Boeing experienced a decline in demand for new airplanes as it experienced a decline in travel demand. So Boeing doesn't need airplane engines and eventually impacts the decline in revenue, which in 2019, was 33% from aviation revenue, 20% from healthcare, 18.6% from electricity, and 15% from renewable energy.

Avoidable costs and unavoidable costs both have similarities and differences (Wang, X. Henry and Yang, Bill Z., 2001), Anthony and Govindarajan, 2004), Bromwich, M., 1990). Although avoidable and unavoidable expenses sound the same, they are slightly different. While companies can easily avoid the former, the opposite is true for the latter. If businesses feel an expense is pointless or of no use, they can eliminate it. Hence, it is necessary in the short term. Hence, unavoidable expenses are necessary in the long term. In contrast, the first factor affects the level of output while the second factor does not.

Purpose	Avoidable Cost	Unavoidable Cost
Mean	Avoidable	Unavoidable
Purpose	Eliminates costs.	Maintaining long-term
Time Period	Short term	Long term
Effect	Amount of production output	No effect
Sub Division	Fixed costs and generally variable co sts.	Sunk costs included
Others	Costs can be controlled	Difficult to control

Avoidable costs are costs that would not have been incurred if a certain activity had not

been performed. Avoidable costs are costs that can be eliminated if a decision is made to change the course of a project or business. For example, a manufacturer with multiple product lines can discontinue one of its product lines, thereby eliminating associated costs such as labor and materials. Avoidable costs mainly refer to variable costs that can be removed from business operations, unlike most fixed costs, which must be paid regardless of the company's activity level. There are some instances where fixed costs can be avoidable costs that fall under variable costs and not fixed costs. Companies can look for methods to reduce or eliminate costs often analyzing avoidable costs related to underperforming or unprofitable product lines.

Fixed cost classifications such as overhead costs, generally cannot be prevented because they must be incurred whether the company sells one unit or one thousand units. If there is a line of business that utilizes a factory to make goods and the line of business is discontinued, the factory may cease to be leased or may be sold. Variable costs are not completely avoidable over a short period of time. This is because the company may still be under contract with workers for direct labor or with suppliers for direct materials. For example, the Procter & Gamble (PG) company in 2016 made efforts to rationalize its products, eliminating unprofitable or low-margin brands from its portfolio of consumer staples. While fixed cost items, such as rent, utilities, insurance, and certain administrative salaries still must be paid with the consequent reduction in product quantities, there are significant avoidable costs associated with these products, such as marketing and sales costs and research and development (R&D) costs, that P&G can exclude from its operations.

Avoidable costs also occurred in the General Electric company that re-evaluated its product offerings. The company has many product lines, and it is best known for its aircraft engine business, lighting products, kitchen appliances, and more. During the economic crisis in early 2020, which impacted the travel sector, General Electric's most profitable business, its aircraft engine business was hit hard. Airline manufacturers, such as Boeing, saw a decline in demand for new aircraft as airplane companies experienced a drastic drop in travel demand. As such, Boeing did not need aircraft engines, which impacted General Electric. In 2019, 33% of General Electric's revenue came from aviation, 20% from healthcare, 18.6% from power, and 15% from renewable energy. General Electric decided to sell its 130-year-old consumer lighting business to Savant Systems. The company previously sold its commercial lighting business in 2018. This allowed GE to focus on its most profitable divisions while letting go of underperforming divisions to free up capital by cutting costs and reducing debt. When deciding to sell these businesses, General Electric shifted all costs associated with the division to avoidable costs. So in an industry where price competition lowers profit margins, companies seek to identify as many avoidable costs as possible to increase profits, simplifying the business to focus on core goods and services.

Imputed cost is a cost that expresses the purchase price or value of a property measured by its value in use. These costs do not involve actual cash expenditures and are also not recorded in the company's books, especially in individual companies. Sunk costs are costs that in certain situations cannot be recovered. Expenditures that have been made in the past, all of which cannot be recovered. For example, in the decision to replace old assets with new ones, the value of old assets or the book value after depreciation of old assets is a sunk cost and is not relevant to be considered in the replacement (Wang, X. Henry and Yang, Bill Z. (2001), Anthony and Govindarajan (2004), Bromwich, M. (1990), Hutzel, Laura (2000), Lepădatu, Gheorghe (2022)

Opportunity Cost can be utilized in a decision has been made to implement one of the alternatives, then the benefits of other alternatives will be out of hand. The benefits that are released due to the rejection of other options are called Opportunity Cost or opportunity cost of the choices that have been made. This can be illustrated by the following two alternatives:

Sales	Rp250.000.000
Cost of goods sold	-Rp150.000.000
Gross profit	Rp100.000.000
Operating costs :	
Building and Equipment Rental Costs	7.500.000
Employee Salary Cost	5.580.000
General and Administration Fees	2.650.000
Inventory Cost	6.100.000
Marketing Costs	1.350.000
Maintenance Cost	4.250.000
Other Operating Costs	1.650.000
Total operating expenses	29.080.000
Net profit	Rp 70.920.000
Reduced Opportunity Cost, namely:	
Salary Expenses that he did not receive;	
Interest income on deposits that he can receive, if the store is sold a nd the proceeds are deposited with the bank.	
Analisis Opportunity Cost :	
Net profit (Current business)	Rp 70.920.000
Reduced:	
Declined Prime Revenue	Rp 50.000.000
Savings Interest Income From Income Saved	Rp 12.000.000
Total Opportunity Cost	Rp 62.000.000
Disadvantages of turning down other businesses	Rp 8.920.000

Cost is cash or the equivalent value of cash sacrificed to obtain goods or services that will come to the organization (Hansen &; Mowen, 2013). According to Murshidi (2010). Cost is a sacrifice that can reduce cash or other assets to achieve goals, both now and in the future. Costs can be classified into several parts, including production costs. The definition of production costs according to Soemarso (1996, 295): is the cost charged in the production process during a period. These costs consist in the initial process plus the cost of the plant. Included in the costs charged to inventory in end-of-period processing. According to Mulyadi (1999, 8) is the sacrifice of economic resources, measured in units of money, that has occurred for a specific purpose. While the definition of production costs according to Mas'ud Machfoedz (1989, 109): is a cost used to assess inventory listed in financial statements and the amount is relatively greater than other types of costs that always occur repeatedly in the same pattern routinely. According to L. Gayle Rayburn (1995,27) "Production costs include the direct material, direct labor, and factory overhead incurred to produce a good or service". Production costs are the largest cost expenditure for manufacturing companies; therefore management must control production costs and optimize their utilization racially and systematically so that production costs become racial and effective. Standard costs according to Mulyadi (2009), are costs determined in advance, which is the amount of costs that should be incurred to make a unit of product or to finance certain activities, under the assumption of economic conditions, efficiency, and other factors. Quality costs are costs incurred to achieve quality standards and also become incurred due to low quality products (Carter, 2009). Quality costs can be grouped into 4 groups,

namely prevention costs, assessment costs, internal failure costs, and external failure costs. Quality improvement will have a positive impact on the business through du events, namely: impact on production costs and impact on revenue.

The more costs that can be avoided, the greater the probability of the company to make changes in the event of an economic downturn or other unforeseen circumstances. The use of this strategy can provide several benefits, including:

1. Reduce expenses and increase profitability: As mentioned earlier, avoidable fixed costs and avoidable variable costs can have a significant impact on a company's bottom line. By reducing these costs, businesses can increase their profitability and competitiveness.
2. Improve risk management: Avoidable costs are also a significant financial risk for the company if not managed properly. By understanding where these costs arise, businesses can make informed decisions about how to reduce or eliminate them. This information is also important for risk management purposes.
3. Improve financial planning and decision making: Companies often analyze avoidable costs as part of their financial planning and decision-making process. By understanding where these costs arise, businesses can make informed decisions about how to reduce or eliminate them.
4. Improve organizational performance: Avoidable cost strategies can also help improve organizational performance by providing a framework for making decisions about where to allocate resources.
5. Importance during economic crisis: In times of economic crisis, businesses must be extra careful in spending costs. Avoidable cost strategies can help businesses identify and mitigate unnecessary costs so that they can remain profitable during these challenging times.

Avoidable costs are variable costs that are calculated together with unavoidable costs that are fixed costs. When calculating the total cost of production of an enterprise. The calculation of total costs for a particular production process is usually seen from the type of fixed costs and which are variable; determine the level of activity or volume of production; Calculate the total variable costs at a certain level of activity or volume of production (usually in the form of costs per unit); Calculate the total fixed costs; and Add total fixed costs to total variable costs to get total costs It should be noted that variable costs often change with changes in activity levels or production volumes, while fixed costs remain constant. As a result, the total cost of production will also change along with changes in these factors. Some examples of costs that can be avoided by calculating them are as in one example of a widget manufacturer company that wants to calculate the total cost of production. The company has a fixed cost of Rp5,000, meaning that this cost will still be incurred even if the factory is not operating. The company has a variable cost of Rp 400 for every 1,000 tons of widgets produced. For production this time, amounted to 3,000 tons of widgets. The calculation of the total cost is as follows:

a.	Total variable costs: Rp 400 x 3 =	Rp	1,200
b.	Total fixed costs:	Rp	5.000
c.	Total Cost:	Rp	6.200

In this example, the total cost that the company can avoid is $1,200. In other words, this is

the amount that the company could save if it didn't produce widgets at all out of its total overall cost.

Research Method

The method of analysis is quantitatively descriptive by calculating costs that can be avoided. The research method used in this study aims to calculate production costs (through the COGS level) by increasing costs that can be avoided. The types of data used are fixed costs and variable costs that are required for classification. Data - data collected by the author which is then processed and analyzed in accordance with the author's purpose, the data and information sourced from primary datata which is directly data and information related to the company, such as a brief history of the company, the location of the company's activities in this writing in the Muzzle Loe area. The author in collecting data is other data that is financial statements. From literature materials in the form of notes during lectures, reference books, articles from various mass media and other sources obtained are used as references that are closely related to the problems to be discussed. Technical analysis is descriptively quantitative according to cost accounting to rationalize many of its products by eliminating unprofitable or low-margin ones from its portfolio of consumer staples. Among them there are fixed costs such as building rent, insurance, and certain administrative salaries still to be paid, there are significant avoidable costs associated with such products such as marketing and sales costs and research and development costs. Avoidable or avoided is a cost that is fixed and is borne by a certain part or costs that will not continue. Unvoidable cost, on the other hand, is a cost that is jointly borne by an organization or a cost that is formulated as a facility or service that is enjoyed jointly based on certain expenses by the allocation method. An example of a series of businesses selling many types of products. The business owns a restaurant. Management is considering closing the restaurant as its operations continue to lose money. The calculation of profit loss in thousands of rupiah looks as follows:

In Thousands of Rupiah

	Sum	Trade	Agriculture	Restaurant
Sales	5.000	4.000	400	600
Variable Expenses	3.390	2.800	200	390
Contribution Margin	1.610	1.200	200	210
Fixed production				
(avoidable and Unavoidable)	1.110	750	50	310
Operating profit (loss)	500	450	150	- 100

Avoidable costs consist of wages for employees of each department, Rp 100,000 in the restaurant section, Rp 20,000 in the agricultural products section and Rp 250,000 in the general merchandise section. If the restaurant is closed, then the manager will use the vacated room as: a). Add general merchandise or b). Increase the yield of agricultural products. Adding general merchandise will not require additional labor, but increasing the yield of agricultural products will require Rp 25,000. The manager estimated that sales of general merchandise would increase by Rp 300,000 and agricultural products by Rp 200,000, -. What decision will be taken by the manager assuming there is no use of vacant space for other alternatives, but if the income

of other alternatives is also known, the best decision is to continue the restaurant.

Avoidable cost by Gorinson, Ray H, Noren, Brewer, Peter C. (2012) includes total cost. Total cost is the sum of costs incurred by the company; Thus, it includes both fixed and variable overhead costs. Sunk cost is a type of cost that cannot be recovered by the company, for example, marketing costs, salaries, installing new software, and others. Steps to calculate the average avoidable cost, that is, calculate the total cost of the company including fixed and variable costs. Next determine whether the company has incurred sunk costs that cannot be recovered. These costs are largely variable because the company can cease their usefulness. For example, if a firm feels its workers are not producing enough output, then wage payments can be stopped or diverted, because the firm has flexibility by Gorinson, Ray H, Noren, Brewer, Peter C. (2012) the average avoidable cost can be formulated by:

Avoidable cost = Total Cost – Sunk Cost

Result and Discussion

Avoidable costs are elements of costs that are not incurred or eliminated because other alternatives are chosen. These costs are relevant costs that must be considered in decision making. And this avoidable cost occurs if a company is closed, operations are canceled, or products are discontinued. Cost strategy is in the best interest of all companies so that most costs can be avoided. Businesses must frequently conduct a company's cost analysis and determine how to transfer unavoidable costs to avoidable costs. Wang, X. Henry and Yang, Bill Z.(2001), Anthony and Govindarajan (2004), Lepădatu, Gheorghe.(2022). In times of financial hardship or during economic downturns, the company or business can waste avoidable costs. This entails streamlining product groups, increased efficiency, negotiating short-term leases for buildings, or short-term leases with suppliers.

Avoidable costs in companies generally include variable costs of the company in general. Then the policy fixed cost. This cost according to Gorinson, Ray H, Noren, Brewer, Peter C. (2012) is caused by annual decisions made by management for programs such as advertising, research, public relations, management development programs and others. The characteristic of this fixed cost is that it can be adjusted from time to time. Costs are inevitably elements of costs that remain whether a particular alternative is chosen. These costs are irrelevant so in decision making can be ignored. Inevitable costs in companies generally include sunk costs, future costs that do not differ among the various alternatives available, and fixed costs that have been determined, which are fixed costs associated with investing in facilities, equipment, and the underlying organizational structure in a company. Examples are depreciation of buildings and equipment, building taxes, insurance, salaries of top management and operational employees.

Knowledge of the Gallon Refillable Drinking Water Depot Business is very important so that what is run can provide maximum profit. What are the costs that must be incurred and how much income can be generated to make targets and estimate the benefits that will be obtained. In general, the refillable drinking water depot business consists of three groups, namely ordinary refillable water businesses, namely drinking water that is sold without a brand or using its own brand and is not yet well-known. Refillable water business with RO (reverse osmosis) technology that produces ready-to-drink water with better quality than ordinary refillable drinking water. Branded mineral water business, which is a business that only sells water that

has been processed by the factory, so business owners do not need to buy equipment to do the processing process themselves. Factors that need to be considered, such as initial capital to buy refillable drinking water business packages, empty gallons, and other equipment. Then the description of the calculation will be:

1.	Refillable water machine package	1	@	Rp.	25.000.000	Rp.	25.000.000
2.	Empty gallons	75	@	Rp.	25.000	Rp.	1.875.000
3.	Other equipment	1	@	Rp.	500.000	Rp.	500.000
4.	Second motor for employees	1	@	Rp.	5.000.000	Rp.	5.000.000
Total Investment						**Rp.**	**32.375.000**

Operating costs are costs that must be incurred every month and are usually relatively fixed in size. For the calculation of selling refillable water, operational costs include electricity costs, raw water, employee salaries, and others with the following examples.

Salary Cost	2	Rp.	1.200.000	Rp.	2.400.000
Monthly Rental Fee	1	Rp.	250.000	Rp.	250.000
Gallon Cap and Tissue Cost	1	Rp.	190.000	Rp.	190.000
Cost of raw water	2	Rp.	200.000	Rp.	400.000
Cost of Electricity 500 watts	1	Rp.	75.000	Rp.	75.000
Gallon Delivery Fuel Cost	1	Rp.	80.000	Rp.	80.000
Depreciation Cost		Rp.		Rp.	539.583
Total cost		Rp.		Rp.	**3.934.583**

After calculating the capital required, the next step is to calculate the estimated gross income per month, that is, the total revenue before deducting operating expenses. For that, you must set a target of how many gallons of refillable water should be able to sell for a month. Assuming an average selling price of Rp 5,000 per gallon and a minimum sale of 75 gallons per month, the income to be obtained is:

Water refill sales	75	30	Rp	5.000	Rp. 11.250.000
Revenue in a month = IDR 11,250,000					

As in any other business, profit is calculated from total revenue per month minus operating expenses per month. In the example above, the profit per month obtained is:

Monthly Income:					
Water refill sales	75	30	Rp.	5.000	Rp. 11.250.000
Monthly Operating Costs of Refillable Water Business:					
Salary Cost	2		Rp.	1.200.000	Rp. 2.400.000
Monthly Rental Fee	1		Rp.	250.000	Rp. 250.000
Gallon Cap and Tissue Cost	1		Rp.	190.000	Rp. 190.000
Cost of raw water	2		Rp.	200.000	Rp. 400.000
Cost of Electricity 500 watts	1		Rp.	75.000	Rp. 75.000
Gallon Delivery Fuel Cost	1		Rp.	80.000	Rp. 80.000
Depreciation Cost					Rp. 539.583
Total cost					**Rp. 3.934.583**
Net Profit					**Rp. 7.315.417**

Before enjoying profits, you must calculate the **break event point** (BEP) or the time it takes until the capital returns. Using the example above, BEP will be achieved after 4 months calculated in the following way.

Fixed Costs		
Salary Cost	Rp.	2.400.000
Monthly Rental Fee	Rp.	250.000
Depreciation Cost	Rp.	539.583
Total Fixed Costs	Rp.	3.189.583
Variable Costs		
Gallon Cap and Tissue Cost	Rp.	190.000
Cost of raw water	Rp.	400.000
Cost of Electricity 500 watts	Rp.	75.000
Gallon Delivery Fuel Cost	Rp.	80.000
Total Variable Costs	Rp.	745.000
Production capacity	Rp.	2.250
Variable Cost Per Gallon	Rp.	331
Total Fixed Costs	Rp.	3.189.583
Selling Price	Rp.	5.000
Variable Cost Per Gallon	Rp.	331
Break Even Point		9.63
Production Capacity Per Month		2.250
Return on Investment Period Per Month		4

If capital and operational costs are limited, you can make savings, for example by choosing a refillable water machine package that is more economical and running your own business without employees. That way, the calculation of selling refill water above will produce a faster BEP. Furthermore, the following production cost report shows production costs classified as avoidable costs and unavoidable costs, so that they can be reduced to the cost of goods produced.

Production Cost Report		**Value**	**Information**
Gallon Cap and Tissue Cost	Rp.	190.000	Unavoidable
Cost of raw water	Rp.	400.000	Unavoidable
Cost of Electricity 500 watts	Rp.	75.000	Unavoidable
Gallon Delivery Fuel Cost	Rp.	80.000	Avoidable
Depreciation Cost	Rp.	539.583	Avoidable
Total Production Cost	Rp.	1.284.583	
Production Capacity Optimum Capacity		**2.250**	
Variable Cost Per Gallon	Rp.	**571**	

Based on the production cost report, it shows a unit production cost of Rp 571, -. The cost per unit can still be avoided some costs that can reduce the cost of goods produced, by eliminating avoidable costs among them. The production cost report shows gallon delivery fuel costs and depreciation costs are considered sunk costs, so they can be avoided. The reason is because depreciation costs are shared locations with residential homes while gallon delivery fuel costs can be waived if the buyer picks up directly.

Production Cost Report After Reduction	
Gallon Cap and Tissue Cost	Rp. 190.000
Cost of raw water	Rp. 400.000
Cost of Electricity 500 watts	Rp. 75.000

Gallon Delivery Fuel Cost	Rp	-
Depreciation Cost	Rp	-
Total Production Cost		Rp. 665.000
Production Capacity Optimum Capacity		**2.250**
Variable Cost Per Gallon		**Rp. 296**

After reducing the cost of goods produced, the following production cost report shows an increased gross profit of IDR 619,583, which is before the reduction of IDR 9,965,417, then after the reduction the gross profit of IDR 10,585,000. The cost per unit can basically still be avoided in order to reduce selling prices or increase production capacity.

Profit and Loss Statement Before Avoidable Cost Reduction

Monthly Income:		
Sales of water refills	Rp.	11.250.000
Production cost		
Gallon Cap and Tissue Cost	Rp.	190.000
Cost of raw water	Rp.	400.000
Cost of Electricity 500 watts	Rp.	75.000
Gallon Delivery Fuel Cost	Rp.	80.000
Depreciation Cost	Rp.	539.583
Total Production Cost	Rp.	**1.284.583**
Gross Profit	Rp.	**9.965.417**
Operating Costs		
Salary Cost	Rp.	2.400.000
Monthly Rental Fee	Rp.	250.000
Total Operating Costs	Rp.	**2.650.000**
Net Profit	Rp.	**7.315.417**

Profit and Loss Statement After Avoidable Cost Reduction

Monthly Income:		
Sales of water refills	Rp.	11.250.000
Production cost		
Gallon Cap and Tissue Cost	Rp.	190.000
Cost of raw water	Rp.	400.000
Cost of Electricity 500 watts	Rp.	75.000
Total Production Cost	Rp.	**665.000**
Gross Profit	Rp.	**10.585.000**
Operating Costs	Rp.	**-**
Salary Cost	Rp.	2.400.000
Monthly Rental Fee	Rp.	250.000
Gallon Delivery Fuel Cost	Rp.	80.000
Depreciation Cost	Rp.	539.583
Total Operating Costs	Rp.	**3.269.583**
Net Profit	Rp.	**7.315.417**

Thus, the implementation of avoidable costs in the calculation of the cost of goods produced can basically reduce production costs and reduce selling prices, if production capacity is constant. So, the cost of refillable drinking water can compete fairly, and can even be recommended to subcontract production as long as demand increases. It is a lesson for the SME business of refillable drinking water to pay attention to the emergence of costs that will not arise if certain activities or decisions are not taken. The occurrence of these costs is known as discretionary costs, controlled costs, or variable costs. Variable costs can be used to indicate costs that vary with activity levels, such as direct labor and direct materials. So to decide to close a certain production line, then automatically the cost of absorbing inventory that should be generated by the production line will be an avoidable cost.

Conclusion

These avoidable costs often arise because of choices made by management in production alternatives. Avoidable costs can be compared to unavoidable costs, that is, costs that cannot be separated from the production decisions made. These costs are sometimes referred to as fixed costs because they do not depend on the level of activity or production. Unavoidable costs usually appear in the form of factory rental costs, office space rent, but although the terms avoidable costs and variable costs are often used synonymously, avoidable fixed costs can also exist. Types of costs that can be avoided in fixed costs include advertising costs, direct labor, material costs, packaging, research and development costs, and other types of production costs. These costs can be controlled or reduced by management through various decision-making processes. These costs are considered avoidable because they are not necessary to achieve any goal or objectives. Then to outsource certain tasks to vendors rather than doing the work themselves, can be avoided because companies can choose to complete internally and avoid outsourced costs.

Avoidable costs can have a significant impact on profitability and business sustainability. When a company incurs avoidable costs, it reduces its net profit and lowers its profitability. In the short term, this can have a negative impact on a company's cash flow, making it harder to cover expenses and reinvest in the business. In the long run, avoidable costs can hinder a company's ability to remain competitive and grow. One of the main ways avoidable costs impact business profitability is by reducing the resources available to invest in other areas of the business, suppose a company spends too much on avoidable expenses such as unnecessary travel or excessive overtime. In this case, the company may not have enough resources to invest in new product development or marketing initiatives. This can limit a company's ability to increase revenue and market share, ultimately impacting its profitability.

Another way that avoidable costs impact business profitability is by eroding a company's margins. When a company incurs avoidable costs, it increases its cost of goods sold, thereby reducing its gross profit margin. This can make it difficult for a company to price its products competitively, as it may need to charge higher prices to maintain desired profit margins. This can reduce sales volume and revenue, which ultimately impacts the company's profitability. In addition to impacting profitability, avoidable costs can also have an impact on a company's financial health. When a company incurs avoidable expenses, it can increase its debt load, reduce its liquidity, or lower its creditworthiness. This can make it harder for companies to obtain financing or attract investors, thereby limiting the company's ability to invest in growth and innovation. To reduce the avoidable impact of costs on profitability, companies need to identify and address these costs proactively. This requires a thorough analysis of a company's budget and spending habits as well as a willingness to make tough decisions and prioritize spending. Reducing avoidable costs can include streamlining operations, optimizing supply chain management, and leveraging technology to automate tasks and reduce labor costs. (Mark V. Van Boening and Nathaniel T. Wilcox) 1996). To be able to determine which costs are avoidable and which are not, it can be identified as follows.

1. Analyzing Cost Structure- Determining Which Costs Are Avoidable and Which Are Not. The first step in identifying avoidable costs is analyzing the company's cost structure. This involves grouping costs into the categories of labor, rent, utilities, inventory, and

marketing. By understanding the different types of costs, businesses can begin to identify areas where they may be overspending or wasting resources.

2. Assessing Business Value – Determining Which Costs Are Avoidable and Which Are Not. The next step is to assess the value of each cost to the business. Some expenses, such as salaries and equipment, are essential to a company's day-to-day operations, while others, such as excessive office allowances, may be avoidable. The business must evaluate each expense and determine if the business should operate effectively.
3. Consider Alternatives- Determining Which Costs Are Avoidable and Which Are Not. Another way to determine if an expense can be avoided is to consider alternatives. For example, if a business spends a lot of money on marketing, it can explore cheaper marketing channels, such as social media or email marketing. By exploring different options, businesses can identify ways to reduce costs while still achieving their goals.
4. Look for Redundancy- Determining Which Costs Are Avoidable and Which Are Not. Redundancies in processes and systems can lead to avoidable costs. For example, if a company uses multiple software applications that perform similar functions, it can consolidate its software and reduce its licensing costs. Companies must identify redundancies and streamline their processes to reduce costs.
5. Measuring ROI- Determining Which Costs Are Avoidable and Which Are Not. Measuring the return on investment (ROI) for each cost is another way to determine if those costs could have been avoided. If a business spends money on a particular initiative or project, it should evaluate the ROI to decide if the investment is worth the payoff. If the ROI is low or negative, those expenses may be avoidable.
6. Comparing with Competitors- Determining Which Costs Are Avoidable and Which Are Not. Comparing with competitors is another effective way to identify avoidable costs. By comparing the costs, they incure.

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