

Analysis of Target Costing Implementation in Efforts to Increase Production Cost Efficiency to Increase Profit Contribution (Case Study at Denyu Shoes Kediri)

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ABSTRACT

Denyu Shoes Kediri is a company engaged in manufacturing. This study aims to analyze that target costing can be used as a tool for production cost efficiency to increase profit contribution at Denyu Shoes Kediri. Target costing is defined as determining the expected cost of a product based on competitive prices, target costing is more systematically and effectively profitable when applied in optimal planning. This study is a quantitative descriptive study, where in the research process it requires data in the form of numbers or existing findings so that later it can be explained and concluded from the actual situation. With the target costing analysis, it shows that the production cost according to the company is IDR 148,140,000, while according to target costing it is IDR 127,760,000. These results show that by implementing target costing the company can make costs more efficient by 15.95% and increase profits by a difference of IDR 20,380,000 for 2023.

INTRODUCTION

In the midst of increasingly tight business competition, manufacturing companies are required to reduce the cost of products they spend during the production process in order to remain competitive and obtain optimal profits. In order for a company to compete in the market environment, the company is also required to be able to create good product innovation, and the price is lower or at least the same as the price offered by its competitors. Proper cost control in business will contribute to increasing the profits generated (Darmayasa et al., 2019). One important aspect of cost control is the application of the target costing method.

The target costing method is becoming increasingly relevant in today's business environment because it allows companies to set product selling prices based on competitive market prices while ensuring adequate profits. The concept of target costing itself is to help companies produce products at controlled costs, so that they can be sold at competitive prices in the market and still generate the desired profits. The most effective time to reduce costs is during design.

Cost efficiency is a very important goal for companies because it can affect their profitability, competitiveness, and operational continuity. Where one of the important elements in cost efficiency is management costs. Cost management This includes eliminating, measuring, controlling, and reducing costs in all aspects of a company's operations.

Profit contribution is one of the key indicators in a company's financial performance. In the context of implementing target costing, increasing the efficiency of production costs is expected to have a positive impact on the company's profit contribution. By identifying and

eliminating wasteful costs, companies can increase their profit margins without having to increase the selling price of their products.

The implementation of target costing has a significant impact on the efficiency of production costs and ultimately on the company's profit contribution. In practice, target costing encourages companies to prioritize cost control from the product planning and development stage. By setting the selling price first and then allocating acceptable production costs to achieve the desired profit target, target costing leads to increased efficiency in the use of resources.

Denyu Shoes is a home industry or small-scale company, and is commonly referred to as Micro, Small, and Medium Enterprises (MSMEs) located in Kediri City. In its business activities, Denyu Shoes produces several types of products, including: formal shoes, non-formal shoes, and sandals with cowhide raw materials. Denyu Shoes itself still uses traditional methods during the production process. In determining the selling price, Denyu Shoes still uses the traditional method, where all costs are totaled and added to the desired profit. Problems began to arise, where the desired profit of 30% was not met due to unstable raw material costs and competitive competition. On the other hand, management did not want to increase the selling price because it was in accordance with the market price.

The increasing price of commodities that move dynamically and the tight competition caused Denyu Shoes to be able to manage costs as efficiently as possible in order to continue to compete, both in terms of selling price and product quality. One method that can be used in determining a selling price that can compete in the market is the target costing method. Related to the description above, the writer is interested in conducting research with the aim of analyzing that target costing can be used as a tool for production cost efficiency to increase profit contribution at Denyu Shoes Kediri for the year 2023.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Production Costs

According to Mowen et al. (2017), production costs include raw material costs, direct labor costs, and factory overhead costs. According to Fista Agustina et al. (2022), production costs are costs used in the production process consisting of direct raw materials, direct labor, and factory overhead costs.

The components of production costs are generally categorized into three main parts, including: Direct Raw Material Costs (Costs incurred for materials that are directly used in the production process), Direct Labor Costs (Direct labor costs include wages paid to workers who are directly involved in the production process), and Factory Overhead Costs (Factory overhead costs include all production costs other than direct raw materials and direct labor. For example, in a food processing plant, the cost of electricity used to run factory machines is a factory overhead cost. Likewise, the depreciation cost of printing machines in a printing plant is an example of a factory overhead cost).

Production Cost Efficiency

According to Fista Agustina et al. (2022), production cost efficiency is the ability to use appropriate and effective resources in the production process, so that costs incurred can be minimized and production results can be obtained with good quality and quantity. In the production process, resources consist of direct materials, direct labor, and factory overhead.

Sari & Martadinata (2023) State that efficiency is a comparison of output to input by using existing resources properly in the target.

According to Joesron & Fathorrazi (2016), the Assessment of Production Cost Efficiency can be seen with the following formula:

$$A = \frac{TCx}{TCy} \times 100 \%$$

Description:

A = Efficiency

TCx = Total cost before analysis

TCy = Total cost after analysis

In the Cobb Douglas production function, the value of parameter A, which also indicates the technological parameter, is used to determine the efficiency of a company. A higher value of A can be considered a more efficient company, and vice versa.

Target Costing

According to Mowen et al. (2017), target costing is a cost management method used to determine the selling price of a product by considering production costs and desired profits, as well as taking into account market prices that are acceptable to consumers. One important aspect of target costing is the focus on product design.

Companies must ensure that the products they design can be produced at a cost that is in accordance with the target costing that has been set. Therefore, product design must consider the production cost aspect from the start. Target costing also involves collaboration between various departments in the company, including design, production, and marketing, to ensure that target costs can be achieved without significantly sacrificing quality or consumer satisfaction. According to Mowen et al. (2017), the target costing analysis formula is as follows:

$$\text{Target Cost} = \text{Product Selling Price} - \text{Company's Expected Profit}$$

Value Engineering

According to Sari & Martadinata (2023), Value engineering is also known as value engineering, is a very important stage in the process of implementing target costs. This stage helps companies in product planning to reduce or redesign production process costs, such as by replacing components that affect high costs. According to Suryani (2021), Planning to find out whether parts of a product can be reduced in cost without reducing the function or quality of the product is known as value engineering.

Target costing uses value engineering to lower product costs through trade-off analysis, including:

1. Different types and levels of product functionality

This refers to the different features and levels of quality offered by the product. Product functionality includes aspects such as performance, durability, and additional features that might be added to increase the product's value to consumers. Value engineering will analyze

whether all of these features are necessary or whether any features can be reduced or eliminated without significantly reducing the product's value to consumers.

2. Total product cost

This includes all costs associated with manufacturing the product, including overhead, raw materials, and labor. The goal of target costing is to ensure that the total cost of manufacturing the product is below or equal to the target price set, so that the company can achieve its desired profit margin.

Profit

According to Marisa et al. (2023), profit is a financial gain obtained by an entity, such as a company or individual, as a result of business activities or investments after deducting all costs associated with obtaining the income. Profit can also be considered as the end result of a business process that reflects the profitability and financial performance of an entity in a certain period of time. According to Sodikin (2015), to find out the profit can be formulated as follows:

$$\text{Profit} = \text{Sales} - \text{Cost}$$

METHODS

The analysis techniques used in this study are as follows:

1. Classify and calculate the costs that occur in the company.
2. Determine the efficient cost target based on the selling price set and the profit target desired by the company.

$$\text{Target Cost} = \text{Product Selling Price} - \text{Company's Expected Profit}$$

3. Conduct engineering value on the analyzed product by working around or redesigning it to reduce the cost of the production process such as finding cheaper alternative materials but having the same or better characteristics.
4. Calculate the level of production cost efficiency.

$$A = \frac{\text{TCx}}{\text{TCy}} \times 100 \%$$

Description:

A = Efficiency

TCx = Total cost before analysis

TCy = Total cost after analysis

5. Compare the profits obtained between before and after cost efficiency is carried out with the target costing approach.

RESULTS

Selling Price and Sales Volume

The following data relates to the total production and sales volume of Denyu Shoes in 2023:

Table 1. Sales Volume of Loafers and Casual Shoes

Month	Casual	Pantofel	Total	Days
January	30	50	80	16
February	30	50	80	16
March	30	50	80	16
April	30	50	80	16
May	30	50	80	16
June	40	60	100	20
July	40	50	90	18
August	30	50	80	16
September	30	50	80	16
October	30	50	80	16
November	30	50	80	16
December	40	50	90	18
Total	390	610	1000	200

Source: Data Denyu Shoes

It is known that sales of loafer and casual shoes during 2023 were 390 units and 610 units with a total of 1000 units.

Cost of Raw Materials

The following is a list of raw material costs incurred for each pair:

Table 2. Raw Material Costs for Pantofel Shoes per Product

Description	Total
Cowhide	Rp 60,000
Faux Leather	
Insole	Rp 8,000
Outsole	Rp 31,000
Sponge	Rp 5,000
Glue	Rp 6,400
Thread	Rp 2,000
Total	Rp 112,400

Source: Data Denyu Shoes

Table 3. Casual Shoes Raw Material Costs per Product

Description	Total
Cowhide	Rp 30,000
Faux Leather	Rp 21,000
Insole	Rp 8,000
Outsole	Rp 24,000

Description	Total
Sponge	Rp 5,000
Glue	Rp 6,400
Thread	Rp 2,000
Total	Rp 96,400

Source: Data Denyu Shoes

Cost of Direct Labor

The salary of production employees is calculated for every 5 or per day. Thus the direct labor cost for each pair is Rp 24,000 (Rp 120,000: 5 units per day).

Factory Overhead

The following is a list of the factory overhead costs incurred for each partner:

Table 4. Factory Overhead Costs per Product

Description	Total
Nails	Rp 500
Accessories	Rp 6,000
Electric	Rp 4,000
Packaging	Rp 5,000
BTKTL	Rp 6,000
Total	Rp 21,500

Source: Data Denyu Shoes

Non-Production Costs

Costs incurred by the company other than production costs are called non-production costs. Non-production costs incurred by Denyu Shoes are administrative costs of Rp 300,000 per month or Rp 2,000 per product (Rp 300,000: 30 days: 5 units).

Total Cost Per Product

The list of total costs per product for loafers and casual shoes incurred during 2023 is as follows:

Table 5. Total Cost Per Product

Cost Type	Loafers	Casual Shoes
Raw Material Cost	Rp 112,400	Rp 96,400
Direct Labor Cost	Rp 24,000	Rp 24,000
Factory Overhead Cost	Rp 21,500	Rp 21,500
Non-Production Cost	Rp 2,000	Rp 2,000
Total Cost	Rp 159,900	Rp 143,900

Source: Data Denyu Shoes

Based on the table, it is known that the total cost required to make one product of pantofel shoes is Rp 159,900 and casual shoes are Rp 143,900. This, if added to the percentage of profit desired by the company of 30%, will be seen as Rp 207,870 for pantofel shoes and Rp 187,070 for casual shoes. Thus, the price has exceeded the target price set by Denyu Shoes, which is Rp 200,000 for pantofel shoes and Rp 180,000 for casual shoes.

DISCUSSION

Classifying and Calculating Ongoing Costs

Based on the findings of production and non-production costs that take place at Denyu Shoes Kediri. Researchers will classify and calculate the products of loafers and casual shoes during 2023, the classification and calculations of researchers are as follows:

1. Production costs

List of production costs incurred during 2023, as follows:

Table 6. Production Costs

Cost Type	Total
Raw Material Cost	Rp 102,640,000
Direct Labor Cost	Rp 24,000,000
Factory Overhead Cost	Rp 21,500,000
Total Cost	Rp 148,140,000

Source: Processed Primary Data, 2024

2. Non-production costs

It is known that non-production costs at Denyu Shoes are in the form of administrative costs of IDR 2,000 per product. The sales volume of loafers and casual shoes in 2023 is 1000 units, so the total non-production costs in 2023 are IDR 2,000,000 (IDR 2,000 x 1000 units).

3. Profit and loss

The calculation of profit and loss for loafer and casual shoe products at Denyu Shoes in 2023 will be explained in the following table.

Table 7. Denyu Shoes Profit and Loss Report

DENYU SHOES Profit and Loss Report 31 December 2023	
Sales	Rp 187,800,000
Cost of Goods Sold	<u>Rp 148,140,000</u>
Gross profit on sales	Rp 39,660,000
Non-production costs	<u>Rp 2,000,000</u>
Net profit	Rp 37,660,000

Source: Processed Primary Data, 2024

Determining Target Costs

The following are the steps that must be taken to achieve the objectives of implementing this target costing method:

1. Determine the selling price of the target product based on market price analysis.

It is known that the price set by Denyu Shoes for loafers and casual shoes is IDR 200,000 and IDR 180,000. This is in accordance with the market price and can be seen in the discussion of price comparisons between competitors presented in the background.

- Determine the target profit per unit of production expected by the company.

It is known that the target profit desired by Denyu Shoes is 30%.

- Calculate the amount of target costing required.

Thus, target costing can be calculated using the following formula:

Target Cost (Pantofel Shoes) = Product Selling Price – Company's Expected Profit

= Rp 200,000 – (30% x Rp 200,000)

= Rp 200,000 – Rp 60,000

= Rp 140,000

Target Cost (Casual Shoes) = Product Selling Price – Company's Expected Profit

= Rp 180,000 – (30% x Rp 180,000)

= Rp 180,000 – Rp 54,000

= Rp 126,000

The calculation shows the need for efficiency or cost reduction so that the profit target can be met. It can be seen that the previous calculation of the cost of goods manufactured of Rp159,900 for pantofel shoes and Rp143,900 for casual shoes can be said to be wasteful or less than optimal control of production costs at Denyu Shoes.

Conducting Value Engineering

The following table shows the presentation before and after implementing target costing:

Table 8. Cost Efficiency After Value Engineering

Description	Company Costs		Target costing	
	Loafers	Casual	Loafers	Casual
Raw Material Costs				
Cowhide	Rp 60.000	Rp 30.000	Rp 56.000	Rp 28.000
Imitation Leather		Rp 22.000		Rp 20.000
Insole	Rp 8.000	Rp 8.000	Rp 4.000	Rp 4.000
Outsole	Rp 32,000	Rp 24,000	Rp 25,000	Rp 19,000
Sponge	Rp 5,000	Rp 5,000	Rp 5,000	Rp 5,000
Glue	Rp 6,400	Rp 6,400	Rp 5,200	Rp 5,200
Thread	Rp 1,000	Rp 1,000	Rp 1,000	Rp 1,000
Total	Rp 112,400	Rp 96,400	Rp 96,200	Rp 82,200
Direct Labor Cost	Rp 24,000	Rp 24,000	Rp 24,000	Rp 24,000
Factory Overhead Costs				
Nails	Rp 500	Rp 500	Rp 500	Rp 500

Description	Company Costs		Target costing	
	Loafers	Casual	Loafers	Casual
Accessories	Rp 6,000	Rp 6,000	Rp 6,000	Rp 6,000
Electricity	Rp 4,000	Rp 4,000	Rp 600	Rp 600
Packaging	Rp 5,000	Rp 5,000	Rp 3,000	Rp 3,000
Indirect Labor Costs	Rp 6,000	Rp 6,000	Rp 6,000	Rp 6,000
Total	Rp 21,500	Rp 21,500	Rp 16,100	Rp 16,100
Production cost	Rp 157,900	Rp 141,900	Rp 136,300	Rp 122,300
Non-Production Cost				
Administration	Rp 2,000	Rp 2,000	Rp 2,000	Rp 2,000
Total	Rp 2,000	Rp 2,000	Rp 2,000	Rp 2,000
Total Cost	Rp 159,900	Rp 143,900	Rp 138,300	Rp 124,300

Source: Processed Primary Data, 2024

Table 9. Production Cost After Value Engineering

Cost Type	Production Cost Before Value Engineering	Production Cost After Value Engineering	Cost Efficiency
Raw Material Cost	Rp 102,640,000	Rp 87,660,000	Rp 14,980,000
Direct Labor Cost	Rp 24,000,000	Rp 24,000,000	Rp 0
Factory Overhead Cost	Rp 21,500,000	Rp 16,100,000	Rp 5,400,000
Total Cost	Rp 148,140,000	Rp 127,760,000	Rp 20,380,000

Source: Processed Primary Data, 2024

Calculating the Level of Production Cost Efficiency

After conducting value engineering, the next step is to measure the level of production cost efficiency.

$$A = \frac{TCx}{TCy} \times 100 \%$$

$$A = \frac{\text{Rp } 148,140,000}{\text{Rp } 127,760,000} \times 100\%$$

Description:

A = Efficiency

TCx = Total cost before analysis

TCy = Total cost after analysis

From the calculation results, it can be seen that the efficiency level reaches 115.95%, compared to the company's assumption of 100%. Thus, there is a difference of 15.95% between the company's calculations and the results after value engineering. This confirms that the use of target costing is more effective than the method currently applied by the company.

Comparing Profits Obtained Before and After Cost Efficiency with the Target Costing Approach

The following is a comparative table of profits and losses during 2023:

Table 10. Comparison of Profit and Loss Before and After Target Costing Denyu Shoes

Denyu Shoes Income Statement				
Period 2023				
	Before Target costing		After Target costing	
Sales	Rp	187,800,000	Rp	187,800,000
Cost of Goods	<u>Rp</u>	<u>148,140,000</u>	<u>Rp</u>	<u>127,760,000</u>
Manufactured				
Gross Profit on Sales	Rp	39,660,000	Rp	60,040,000
Non-Production Costs	<u>Rp</u>	<u>2,000,000</u>	<u>Rp</u>	<u>2,000,000</u>
Net Profit	Rp	37,660,000	Rp	58,040,000

Source: Processed Primary Data, 2024

By using target costing, Denyu Shoes managed to reduce production costs by Rp 20,380,000. Before implementing target costing, costs during 2023 reached Rp 148,140,000. However, after this implementation, production costs were successfully reduced to Rp 127,760,000. The target costing approach allows the company to achieve a profit target of 30% of their sales more efficiently.

CONCLUSION

Based on the results of the analysis and discussion, it can be concluded that the application of target costing can be used as a tool for production cost efficiency to increase profit contribution. Introduction to target costing can reduce production costs by 15.95% from the previous production cost of Rp 148,140,000 to Rp 127,760,000. This shows that the target costing method is able to increase the company's profit by Rp 20,380,000 so that the company's profit can be achieved.

SUGGESTIONS

From the research results, the author suggests the following:

1. Denyu Shoes should consider implementing target costing. This is because it can control the use of raw materials and other costs that are considered less efficient.
2. The researcher suggests that Denyu Shoes should look for options to get cheaper raw material prices.

3. In calculating the cost group of sponges, threads, and accessories, it would be better for Denyu Shoes to calculate in detail so that the costs known are truly the costs incurred.
4. In marketing activities, Denyu Shoes Kediri should dare to take steps in marketing online.

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