

Lectures Note

COST ACCOUNTING

Chapter 10. Target Costing and Kaizen Costing (Part -2)

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Chapter X (Continuing)

Standard Costing, Target Costing and Kaizen Costing (Part -2)

After studying this chapter, you should be able to:

1. *Explain the difference between budget, standard cost and target cost*
2. *Determine the standard cost variances*
3. *Explain the method of target costing*
4. *Explain about kaizen costing and the differences with standard costing*
5. *Journalize the transactions needed*

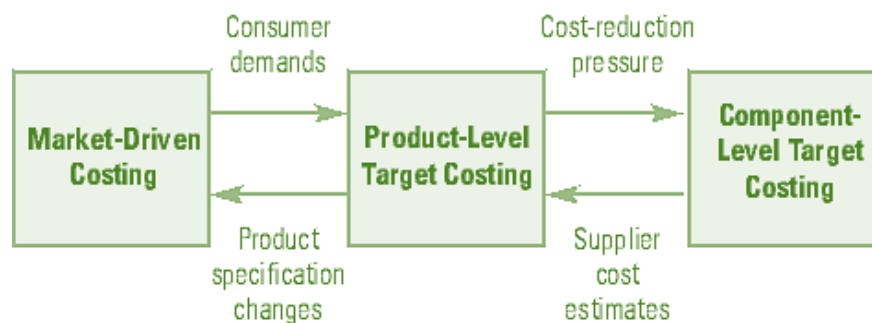
Study objectives of this chapter will give you the concepts and implementations of standard cost, target cost and kaizen cost

A. TARGET COSTING

1. Target costing is a method of determining the cost of product or service base on the price (target price) that costumers are willing to pay (*Hansen & Mowen, Cost Management, accounting & control, 1997:597*)
2. Standards serve as benchmarks that measure incremental progress toward meeting the target cost objectives.

3. Target cost represents **market-driven standards**: Competitive market price less desired mark-up allowable cost.
4. Standards cost represent **engineering-driven standards**: summation of engineering-driven standard cost desired mark-up = desired market price.
5. Target costing represents a cost planning method that emphasizes the control of design specifications and manufacturing techniques.
6. Target cost are market driven and come from **external sources**, such as customer, while standard cost are predetermined cost from an internal analysis of manufacturing processes.
7. Target costing is applied in the developing and design stages and standard costing is applied in the production stage.
8. Managers use *value engineering* to realize their target cost by further comparisons of target cost with achieved costs. The basic idea of value engineering is that products and services have functions to perform and the amount of their value is measured by the ratio of these functions to their cost.

Three Main Elements of the Target Costing Process



Target Costing Methods:

The traditional cost-plus pricing method has a limitation. The formula is:

$$P_i = C_i + r C_i$$

P_i = unit sales price of product I

C_i = unit cost of products I

R = mark-up as a percentage of C_i of product I

As shown on the formula above, the price of products is determined by cost. If the costs are reduced, it automatically will reduce the price of product. The price of product will highly be determined by market, especially for competitive products. Thus, if the company can reduce the cost of products, it should not reduce the price, but will increase the margin of products. It means that the company can operate efficiently. Using the target costing method will help the company to be more competitive.

1. Additive Method

$$TC_i = C_{i1} + C_{i2} + \dots + C_{in}$$

TC_i = target cost of product i.

C_{i1} = cost of component 1 of product i.

C_{i2} = cost of component 2 of product i.

C_{in} = cost of component n of product i.

2. Deductive Method

$$TC_i = P_i - M_i$$

TC_i = target cost of product i.

P_i = unit sale price of product i.

M_i = unit profit of product i.

Companies that have applied concept of target costing:

- a. For automotive industry: Toyota Motor Company (. 30 years ago), Ford, Mercedes, Nissan and Daihatsu
- b. For electronic industry: Matsushita, Panasonic, and Sharp
- c. For PC industry: Apple, Compaq, and Toshiba

Implementing Target Pricing and Target Costing



Developing target prices and target costs requires the following four steps:

Step 1: Develop a product that satisfies the needs of potential customer. Astel Computer develops “Provable Product” low end PC which is sold to individuals and small organizations.

Step 2: Choose a **target price** based on customers’ perceived value for the product and the prices competitors charge. Astel expects its competitors to lower the prices of PC’s that compete against provalue by 15%. Astel must respond by reducing Provalue’s price 20% (from \$ 1.000 per unit to \$ 800 per unit). Annual sales will increase from 150,000 to 200,000 units.

Step 3: Derive a **target cost** by subtracting the desired profit margin from target price. Astel wants a 10% target operating income on sales revenue.

Target sales revenue: $\$ 800 \times 200,000 = \$ 160$ millions.

Target operating income: $10\% \times \$ 160 \text{ millions} = \$ 16$ millions.

Target operating income per unit: $\$ 16 \text{ millions} / 200,000 = \$ 80$ per unit.

Target cost per unit: Target price – target operating income per unit

$$\$ 800 - \$ 80 = \$ 720 \text{ per unit}$$

If total current operating costs are \$ 135 millions, current operating cost per unit: $\$ 135 \text{ millions} / 150,000 = \$ 900$ per unit, so, target cost is less than

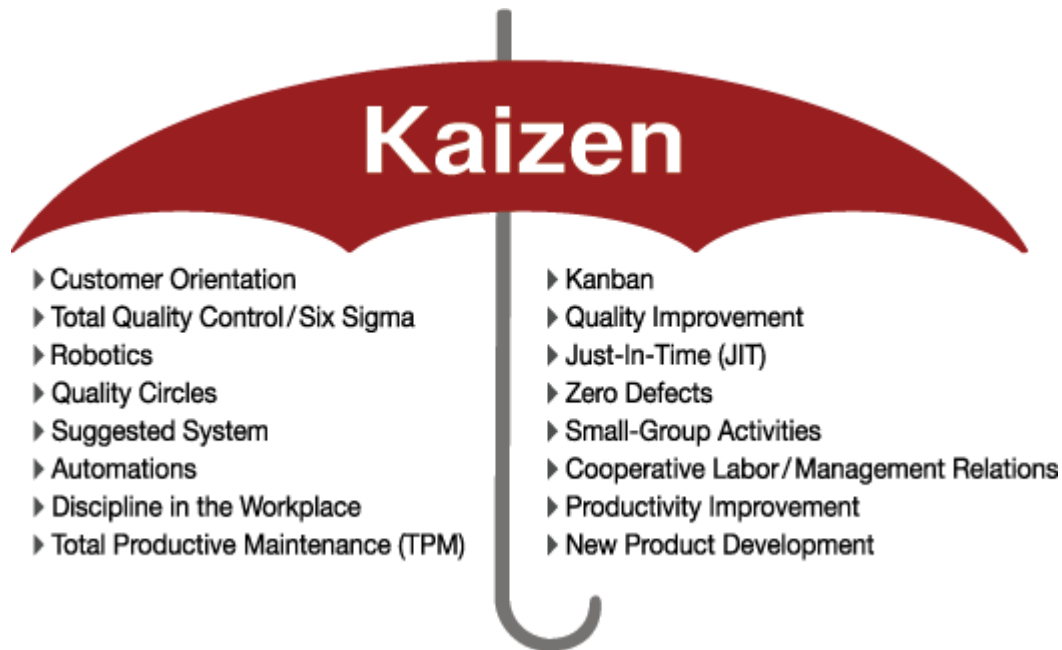
existing product cost. **The goal is** to find ways to reduce the cost per unit by \$ 180 (\$ 900 - \$ 720). This can be achieved through value engineering.

Step 4: Perform **value engineering** to achieve target cost. Value engineering is a systematic evaluation of all aspects of R & D, design of products and processes, production, marketing, distribution, and customer service, with the objective of reducing costs while satisfying customer needs. Design change from a frill PC to no-frill PC is an example.

B. KAIZEN COSTING



- Kaizen costing ensures continuous improvement by supporting the cost reduction process in the manufacturing phase. Target costing is effective in managing costs in the new product design and development stage.
- Used with target costing, kaizen costing helps reduce costs **throughout** the entire product design-development-manufacturing cycle.



Standard Costing	Kaizen Costing
Standard Costing Concepts <ul style="list-style-type: none"> ✚ Cost control system concept. ✚ Assume current manufacturing conditions. ✚ Meet cost performance standards. 	Kaizen Costing Concepts <ul style="list-style-type: none"> ✚ Cost reduction system concept. ✚ Assume continuous improvement in manufacturing. ✚ Achieve cost production targets.
Standard Cost Techniques <ul style="list-style-type: none"> ✚ Standards are set annually or semi annually. ✚ Cost variance analysis involves standard costs and actual costs. ✚ Investigate and respond when standard are not met. 	Kaizen Costing Techniques <ul style="list-style-type: none"> ✚ Cost reduction targets are set and applied monthly. ✚ Continuous improvement (Kaizen) is implemented during the year to attain target profit or to reduce the gap between target profit and estimated profit. ✚ Cost variance analysis involves target kaizen costs and actual cost reduction amounts. ✚ Investigate and respond when target kaizen amounts are not attained.

Quiz 30 Minutes

The company has a normal capacity of 5,000 direct labor hours or 10,000 units of products. Standard variable overhead costs are \$ 3,000 per hour and standard fixed overhead costs are \$ 2,000 per hour. To produce 1 unit of product is required 0.5 direct labor hours. For a year, units produced are 9,000 units with 4,500 direct labor hours. Actual overhead costs are \$ 26 million.

Required: Prepare the entries to record overhead costs using 4 variances.

Homework – Individual Assignment

PT Happy New Year manufactures the products using standard costing. Standard cost per unit of products based on 1,000 direct labor hours or 2,000 units are:

Raw materials 3 kg @ Rp 100, direct labor 0,5 hours @ Rp 500, fixed overhead cost 0.5 hours @ Rp 200 and variable overhead cost 0,5 hours @ Rp 400. Units completed and transferred to warehouse 1,900 units and no work in process. Raw materials purchased 7,000 kg at a price of Rp 110 per unit and raw material usage of 5,800 kg. Direct labor paid Rp 539,000 for 1,100 hours. Actual overhead costs are Rp 500,000 (40% variable).

Required:

Prepare all entries needed assuming 1) raw material price variances recognized at the time of purchase and usage. 2) FIFO method is used, 3) Two-variance analysis of factory overhead is used, and 4) all variances are closed to cost or goods sold.

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