



**APPLICATION OF KAIZEN COSTING
AS A TOOL OF EFFICIENCY IN COST OF PRODUCTION
AT PT. COCA COLA BOTTLING INDONESIA - CENTRAL SUMATRA, INDONESIA**

THESIS

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ABSTRACT

Kaizen Costing is concerned with reducing the costs of existing products and process. The objective of this research is to know how Kaizen Costing can be applied to reduce the increasing of rejected product in the production process that impact to cost of production and company profit.

The types of this research are descriptive and qualitative research with case study at PT.Coca-Cola Bottling Indonesia-Central Sumatera, Indonesia. The data used in this research are primary and secondary data. The primary data gathered directly through structured interview and observation. While the secondary data is taken indirectly through procedure, document and monthly report of the rejected product .The data analysis is conducted by comparing the existing theory and structure interview about the definition of rejected product and criteria of rejected product, finding the problem of increasing the rejected product and solution to overcome of this problem, and comparing the traditional costing and Kaizen Costing through the PDCA(Plan,Do,Check,Act) and SDCA(Standard,Do,Check,Act).

The result of the research shows that the company has doing an improvement about the rejected product but is not sustainable, so that the increasing of rejected product is occurred for each month in the production process. The company is implemented of Kaizen Costing begin from July 2010 to evaluate the decreasing of rejected product for the next month. Thus, the cost efficiency can be achieved from August 2010 until December 2010 by the company in implementing the Kaizen Costing method is Rp.86, 434,272.

Based on the results of the conclusion, the writer is provide the suggestions to company to implemented of Kaizen Costing in order to overcome and continuous improvement about the rejected product in the production process. Moreover, the company can be achieving the new standard and the number of rejected product can be decrease closed to zero.

Keywords: Kaizen Costing

CHAPTER 1

INTRODUCTION

1.1 Research Background

Increasing competition in the industrial world requires the company to make continuous improvement about the quality of product and services offered. There are many ways that can be done to win the competition in the field of business, for example the company is offering the product with higher quality or the lower price than others, shortening the production line, reducing engine trouble, shortening the travel time and free of defective product. If the manager is not able to manage the product very well, so the production cost will be increased. The increasing production cost is a problem for the company because it will be effect in reducing corporate profit.

The ultimate objective of manufacturing industries today is to increasing productivity through system of simplification, organizational potential and incremental improvements by using modern techniques like Kaizen. Most of the manufacturing industries are currently encountering a necessity to respond changing customer needs. According to Thessaloniki (2006) the improvement of product can be classified into Kaizen and Innovation. Kaizen signifies small improvements as result of ongoing efforts. Innovation involves a drastic improvement as a result of large investment of resources in new technology or equipment.

Kaizen can be used as cost to supporting information that can be impact on the behavior of management in continuous improvement. Yasuhiro (1991) stated cost of information system often used to support the strategic of cost reduction is Kaizen. According to Riwayadi (2006) Kaizen ensures continues improvement by supporting the cost reduction process in manufacturing phase. Kaizen system has specific cost improvement activities for each department and each accounting period. Kaizen Costing

activities include cost reduction activities requiring changes in the way a company manufactures existing products.

According to Imai (1994) when the problems occurs in the company such as producing non standard product, management must be find the problem, taking a solution to overcome the problems and changing the work procedures in order to remove the problem. In the application of Kaizen Costing, the manager must apply the PDCA (Plan, Do, Check, Act) or SDCA (Standardize, Do, Check, Act) cycle. Kaizen Costing is also translating into reducing non-value added cost. Controlling costs this reduction process is accomplished through the repetitive use two major sub-cycles (Hassen and Mowen, 2006):

1. Continuous improvement cycle

Hassen and Mowen (2006) described that continuous improvement cycle is defined by a plan-do-check-act sequence. Improvement refers to activities directed towards maintaining current technologies, managerial and operating standards and upholding such standards through training and discipline (Jagdeep and Harwinder, 2009)

2. The maintenance cycle

Hassen and Mowen (2006) examined that the maintenance cycle follows a traditional standard-do-check-act sequence. Karkoszka and Honorowicz (2009) stated that maintenance of the existing condition relying on the operations related to complying with current standard of the technology and management. Jagdeep and Harwinder (2009) defined that maintenance refers to activities directed towards to elevating current standards.

The important aspect should be improved in the business area such as quality, cost and delivery. Quality is improving the quality of product and process quality in the

factory, Cost is the improvement of inefficiencies in terms of production cost, and delivery is an improvement in terms of delay in delivery of product (Mulyadi, 2006).

The improvement of cost aspect is doing by controlling the production costs in order to reduce cost of inefficiency. One method that can be used is Kaizen Costing, which is cost used to reduce the production cost and improve the product quality. Kaizen Costing is concerned with reducing the costs of existing product and process (Hansen and Women, 2006). So based on the explanation, it can be concluded that Kaizen Costing is a method of cost reduction during the manufacturing cycle, the improvement will make the production process more better and reduce inefficiency the cost of production.

PT. Coca-Cola Bottling Indonesia, Central Sumatra is a company running in the manufacturing area. The product is produced in the form of beverage bottles that preferred by consumers. Based on the field observation at PT. CCBI-Central Sumatera, Indonesia, the writer found non standard product or rejected product in the production process such as brix, foreign matter, filling height and carbonation. Therefore, this product is not feasible to be used and marketed. Meanwhile, the company required to improving the quality of product by doing the continuous improvement in the production process, including the ability to minimize the production cost. Many strategies that can be done in the company to implementing continuous improvement to achieve the competitive advantage, one of which is strategic cost reduction. Strategic cost reduction is a cost reduction effort that includes the whole value chain and long term include the product life cycle, (Hassen and Mowen, 2006).

The rejected product is quite a complicated problem, because it will lead to increasing the production cost. If the number of rejected products can be reduced, the cost of production will be reduced. Based on the issues contained at PT. CCBI-Central

Sumatera, Indonesia, the writer would like to do the study related to **Application of Kaizen Costing as a tool of efficiency in cost of production at PT. Coca Cola Bottling Indonesia - Central Sumatra, Indonesia.**

1.2 Problem definition

Based on the problem background, the problems that will discuss in this study are:

1. What is a definition of rejected product and criteria of rejected product?
2. How to identify about the problem of rejected product during the production process at PT Coca-Cola Bottling Indonesia-Central, Sumatera?
3. How to find the solution of problems about the increasing of rejected product in the production process at PT Coca-Cola Bottling Indonesia, Central, and Sumatera?
4. How to compare the existing method that used at PT CCBI-Central, Sumatera to calculate the cost of production about the rejected product with Kaizen Costing method?
5. How is change the production costs after implementing of Kaizen Costing at PT. CCBI-Central Sumatera?

1.3 Objectives of the Research

The purposes of the research are:

1. To describe the definition of rejected product and criteria of rejected product
2. To analyze the problem of rejected product in the production process at PT.CCBI-Central Sumatera
3. To analyze the solution about the problem of increasing of rejected product in the production

4. To analyze the comparison of the existing method and application of kaizen costing to overcome the problem of rejected product in order to reducing and improving the quality of product in the production process at PT CCBI –Central Sumatera.
5. To know about the changes of efficiency in production costs after implementation of kaizen costing method at PT CCBI – Central Sumatera

1.4 Benefit of the Research

This study is expected to be useful for:

1. Writer. This study can be useful to more about Kaizen Costing theories and implementation in the company
2. Company. This study can be used as information to evaluation and comparison for the company management in implementing of Kaizen Costing in order to reduce cost of production in the production process
3. Another party. It is hoped that this study can be a reference to increase knowledge, especially to evaluating and comparing the implementation of Kaizen Costing and their impact in the production cost.

CHAPTER 5

CONCLUSIONS

5.1 Conclusion

After doing research, collecting data, conducted interviews and observation about the implementation of kaizen costing that is applied to the PT. Coca-Cola Bottling Indonesia-Central, Sumatera, we can concluded that several things, which are:

1. The rejected product is one of factor that causes of increase the production cost at PT CCBI-Central, Sumatera, so it can be reduce the company's profit. Based on the existing theory, Rejected product is defined as products that do not meet the quality standard, packaging and taste, so it is not good for used or marketed..
2. The problem that occurs in the production process which is led to increasing the rejected product. The criteria of rejected product are brix, foreign matter, filling height, carbonation and no crown. In addition, machine, human, method, material is also the factor increasing the rejected product in outside of the production process. So that, the company must be found the factor that cause of increasing of rejected product in order to avoid inefficiency cost of production.
3. The company has found the factor that cause of increasing the rejected product in the production process. After that, the company is doing implementation of continuous improvement to maintain the quality product, avoid and reduce the increasing of rejected product that influences to the company's profit
4. Increasing of rejected product that occurs in the production process is the trigger for the application of kaizen costing method. The implementation of kaizen costing is begin in July 2010 will impact on the reduction of rejected product for the next month. It can be shown from the comparison of rejected product between the

traditional method and Kaizen Costing method, such as in August 2010, the company can be reduced of rejected product as many as 0.05% with the total of reduction 1,304 bottles. In September is also decrease of 0.41% with a total of reduction 9,666 bottles. In October 2010, the company is lowered of rejected product as many as 0.04% with a total reduction 941 bottles, and in November 2010 the declining of rejected product of 0.07% with the reduction of rejected product as many as 1,459 bottles.

5. The implementation of kaizen costing method is influence the change the production costs. The changes of production cost per unit in August 2010 is reduced to 8,656 can be reduced to 8,652 with the efficiency cost of production is Rp.10, 484,640. Besides that, in September 2010, the cost per unit can be reduced is 6,305 to 6,278 with the efficiency cost of production that can be achieved Rp.63, 002,448. In October 2010, cost per unit of 4,421 can be lowered to 4,419 with the efficiency of cost production that can be achieved to Rp. 5,003,184, and In November 2010, the cost per unit is 5,367 can be reduced to 5,363 with the efficiency of production cost achieved to Rp.7,944,000. So the efficiency that can be achieved by the company to implementing of Kaizen Costing method is Rp.86, 434,272

5.2 Implication of research

The results of this study is expected to provide suggestion to the production area at PT CCBI-Central, Sumatera to avoid and reduce the increasing of rejected product in the production process by using the kaizen costing method through two major sub cycles are PDCA (Plan, Do, Check, Act) and SDCA (Standardize, Do, Check, Act). This cycle helps the company to find the problem that occurs in the production process and doing the continuous improvement to avoid the increasing of rejected product. So that, the company

can be achieve the efficiency of production cost. The writer hopes that this research can be used as guidance for the next research to further develop of discussion.

5.3 Limitation of research

In this study of research is a very short period for 6 months. Data and Information are obtained about the rejected product conduct by the interview structured to supervisor, manager, and employee. However, after the writer is conducting the interview structured directly at PT CCBI-Central Sumatera, The writer is only conducted through interview to supervisor and manager, because the employees have not knowledge and experience about the rejected product in the production process. In addition, the limitation of data is collected because the data cannot be used to the public and confidential. So that, the writer has a limitation to analyzing the data more widely used the kaizen costing method.

5.4 Suggestion

Based on the results of the conclusion, the writer is provide the suggestions to company to implementation of Kaizen Costing to reduce the rejected product through continuous improvement in the production process in order to order to achieve the new standard and the number of rejected product can be decrease closed to zero. Furthermore, the company is able to create a quality of product based on the customer desire.

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