

Deep Quality Cost Report Analysis Defective Product Control (Case Study of Maesan Bondowoso Black Crow Cigarette Company)

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ABSTRACT

The importance of quality costs for cigarette companies is to find out the extent to which the quality control system implemented by the company functions, if the lower the quality costs indicate the better the products produced by the cigarette company. The research uses a qualitative descriptive analysis method. Descriptive analysis was used to describe the variables in the research, while qualitative analysis was carried out to produce findings in the form of descriptions of research subjects and objects based on facts in field data obtained in research at the Maesan Bondowoso Black Crow Cigarette Company. based on research results, the Black Crow Cigarette Company, located in Pakuniran Village, Maesan District, Bondowoso Regency, East Java, was founded in 2004 by Mr. Nawar H. Wasil. Basically, the company has implemented costs related to product quality, but the company has not specifically identified and categorized them. Therefore, the company should pay attention to costs that constitute quality and group these costs based on their classification.

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1. INTRODUCTION

The main text format consists of a Research on quality costs is still popular among students, especially when it is related to product quality. This is known as the key to consumer satisfaction because products that have good and superior quality will increase the level of customer satisfaction.

The importance of quality costs for cigarette companies is to find out the extent to which the quality control system implemented by the company functions, if

the lower the quality costs, the better the product produced by the cigarette company.

So far there are many kinds of research results regarding quality cost analysis in controlling defective products, there is research that has had a positive impact such as that conducted by [1] which states that effective quality costs can increase production efficiency and can help identify and reduce the causes defective product.

On the other hand, there are also research results that have a negative impact where strict quality control requires large investments in the form of training, new

systems and testing equipment. These initial costs can be a burden for companies, especially those with limited resources [2]

In every production process in an industry, it is inevitable that there will be defective products or products that do not meet the quality, forcing companies to incur additional costs in their efforts to avoid defective products and improve the quality produced. There are several cigarette products at the Maesan Bondowoso Black Crow Cigarette Company in 2021-2023 that are still required to be reprocessed.

Table 1.1 Cigarette Product Reports (2021-2023)

Year	Number of Products (Trunk)
2021	6.510
2022	2.770
2023	756

Wahyuningtias defective products that do not meet quality standards if they have to be reprocessed will certainly have an impact on increasing the cost of production in each process and this will have a negative impact on the level of competition. To prevent this from happening again, companies must be able to reduce the number of defective products to a minimum. The best way that companies can use to control the number of products that do not meet quality is by paying quality costs [3].

2. LITERATURE REVIEW

2.1 Understunding Costs

To run a business, resources are needed which must be sacrificed as replacement value to obtain profits. These resources are generally valued in monetary terms, and are often referred to as costs. According to Saputri [4], costs are "cash value or the equivalent of cash sacrificed to obtain goods or services that are expected to provide current or future benefits to the organization."

2.2 Cost Classification

Cost classification is a process of systematically grouping all existing cost elements into certain more concise groups to

provide more concise and important information.

According to Andrea [5] costs are classified into five categories, namely:

- 1) Expenditure Object
- 2) Main Functions in the Company
- 3) Relationship between costs and something financed
- 4) Cost Behavior in Relation to Changes in Activity Volume
- 5) Duration of Benefits

2.3 Cost Behavior

Adnyana, I Made [6] explains that cost behavior is a general term to describe possible activity input costs, namely fixed or variable in relation to changes in activity output.

2.4 Understanding Quality

According to Onata, Ivano;Mukaram, "there are five perspectives regarding quality, one of which is that quality is seen depending on the person who evaluates it, so that the product that best satisfies a person's preferences is the highest quality product." [7]

2.5 Quality Type

According to Supriyono, generally there are 2 qualities that are recognized Wijaya, namely:

2.5.1 Quality of design (quality of design)

Design quality is "a function of various product specifications. This means that the function of a product is the same, only the product design is different. "A product is said to meet design quality if the product meets the specifications of the product concerned physically or in performance only.

2.5.2 Quality of conformance

Conformity quality is "a measure of how a product meets various requirements or specifications.

2.6 Quality Cost Definition

Quality costs are costs associated with creating, identifying, repairing and preventing defective products. In other words, quality costs are incurred to improve product quality or achieve predetermined standards

2.7 Elements and Categories of Quality Costs

The types of quality costs can be grouped into several categories, namely as follows:

a. Prevention costs

These are costs incurred to prevent product damage resulting from these costs including costs associated with designing, implementing and maintaining a quality system.

b. Detection or assessment costs

These are costs incurred to determine whether products and services comply with quality requirements.

c. Internal failure costs

These are costs that occur due to non-compliance with requirements and are detected before the goods or services are sent to external parties (customers). Internal failure costs are measured by calculating product damage before it leaves the factory.

d. External failure costs

These are costs incurred because a product or service fails to meet known requirements after the product is delivered to the customer.

2.8 Measuring the Cost of Quality

Quality costs can be classified as visible costs or hidden costs. Observable quality costs are costs that are recorded in the organization's accounting records, while hidden quality costs are opportunistic costs that occur due to inappropriate quality, and usually opportunistic costs will not be presented in accounting records.

2.9 Quality Cost Reporting

The main objective of quality cost reporting itself is to improve and enable management planning, control and decision making in running the company, especially those related to product quality improvement programs.

Table 2.2 Illustration of the Cost of Quality report

Black Crow Cigarette Company Quality Cost Report For the Year Ended March 31, 2021			
	Quality Cost		% of sale
Prevention Costs:			
Quality training	xx.xxx		
Machine rehabilitation	xx.xxx	xxx.xxx	x
Appraisal Fee:			
Inspection of materials	xx.xxx		
Product assessment	xx.xxx		
Process assessment	xx.xxx	xx.xxxx	
Internal Failure Costs:			
Remaining ingredients	xx.xxx		
Rework	x.xxxx	xx.xxx	x
External Failure Costs:			
Customer Complaints	xx.xxx		
Guarantee	xx.xxx		
Repair	xx.xxx	xx.xxx	x
Total Quality Cost		xxx.xxx	x%

Source: [1]

2.10 Trend Analysis

By expressing quality costs as a percentage of sales so overall quality program trends can be assessed. The first

year is stated as the start of the quality improvement program.

2.11 Defective Products

Mulyadi [8], stated that a defective product is a product that does not meet

predetermined quality standards, but by incurring rework costs to repair it, the product can economically be refined into a good finished product.

2.12 Accounting for the Cost of Defective Goods

Defective goods can be caused by customer actions, such as changing specifications after production has begun or having to produce within very tight tolerances

3. METHODS

The data analysis method used in this research is qualitative descriptive analysis.

Descriptive analysis is used to describe variables in research, while qualitative analysis is carried out to produce findings in the form of descriptions of research subjects and objects based on facts contained in field data obtained in research, thereby producing solutions to problems previously investigated by describing the condition of the subject or object. study. The data sources used in this research are primary data and secondary data obtained directly from the company in the form of quality cost reports and data on the number of defective products available.

4. RESULTS AND DISCUSSION

4.1 Quality Cost Analysis

Based on interviews and data obtained from the company, Black Crow Cigarette have not implemented separate (specific) quality costs. However, the company has paid attention to costs related to quality, but recording is still included in reporting production costs or sales costs. Thus, of course, recording and reporting of quality costs and control of defective products is still not done separately.

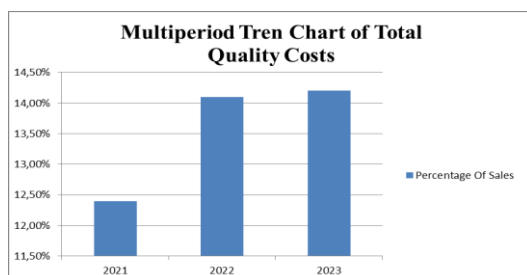
4.2 Quality Cost Reporting

Black Crow Company, Maesan Bondowoso After all quality costs at the Panji Situbondo Sugar Factory have been identified, next Measurements are made for each quality cost classification and then rearranged into a separate quality cost report to simplify analysis. The initial step in this effort is to identify and measure the magnitude of quality costs. Meanwhile, the purpose of measuring quality costs is to identify how much the company spends to obtain quality products. Measurement of cost elements can be classified into costs quality is identified, which is then measured in each quality cost component.

Table 4.1 Black Crow Cigarette Company Total Quality Cost Multi-Period Trend Report

Year	Quality Cost	Product sale	Cost as Percentage (%) from sales
2021	xxx.xxx	x.xxx.xxx	12,4%
2022	xxx.xxx	x.xxx.xxx	14,1%
2023	xxx.xxx	x.xxx.xxx	14,2%

Source: [1]



Picture 4.1 Multiperiod Trend Chart of Total Quality Costs

Source: Data processed, 2024

Based on the table above, it can be seen that quality costs experience fluctuations. The same high percentage of quality costs occurred in 2022 and 2023, namely 3.1% because QC costs and internal failure costs were quite high, while a low percentage of quality costs occurred in 2021, namely 2.56%.

To simplify the analysis, you can use trends for each quality cost category expressed as a percentage of sales.

A one-period quality cost trend report is used to show capabilities related to quality performance in the most recent year. so that management can easily obtain additional information and insight by looking at the comparison of this year's quality performance by comparing the actual quality costs in the previous year. The vehicle for this comparison is a quality cost report for one period, namely one year used.

The advantage of a one-period quality trend cost report is that it will allow

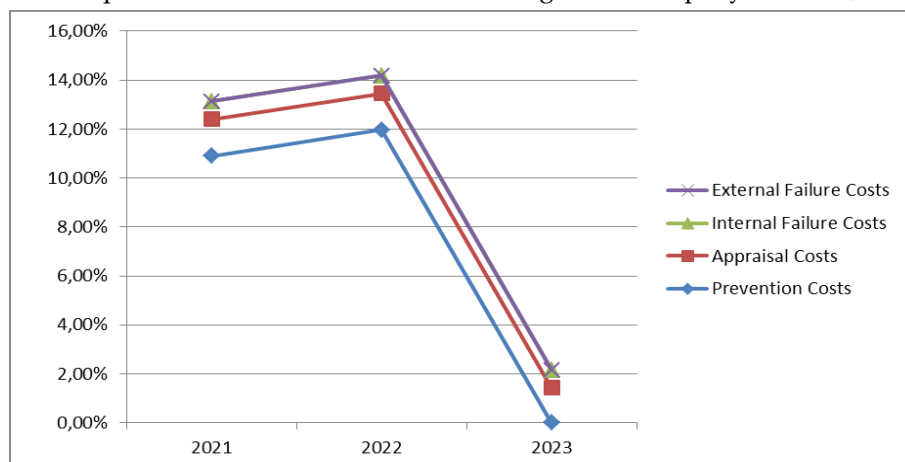
managers to see short-term trends in the company's quality improvement program and can produce more detailed information regarding areas that generate more profits. The weakness of the quality cost trend report for one period is that this report only assesses short-term trends (for 1 year) so that the reduction in quality costs in that period may not necessarily be maintained in the next period. Below is a table of percentages of quality cost categories on sales.

Table 4.2 Black Crow Cigarette Company Individual Quality Costs Multi-Period Trend Report

Year	Prevention Costs (%)	Appraisal Costs (%)	Internal Failure Costs (%)	External Failure Costs (%)
2021	5,95%	1,49%	0,74%	0%
2022	5,90%	1,48%	0,74%	0%
2023	5,74%	1,43%	0,72%	0%

Source: Data processed, 2024

Picture 4.2 Multiperiod Trend Chart of Black Crow Cigarette Company's Total Quality Costs



Source: Data processed, 2024

Based on the diagram above, it shows that the Bondowoso Black Crow cigarette company has tried to make every effort to maintain and improve product quality. This can be seen from the data above that in 2023 the percentage of quality costs will be lower overall starting from prevention costs of 5,74%, costs QC 1,43%, internal failure costs 0,72% when compared in 2021 are higher, namely prevention costs 5,95%, appraisal costs 1,49%, internal failure costs 0,74%.

The overall emphasis on quality costs is indeed unstable due to efforts to

Minimize the occurrence of defective products or products that do not meet quality standards. The increase and decrease in quality costs occurs because companies make efforts to minimize the presence of defective products, namely by incurring assessment costs, namely QC costs. In 2021, companies will begin to pay attention to product quality, namely by assessing products before the production process and after so that the percentage of assessment costs becomes 1.49%. This emphasis on quality costs is carried out in the hope of reducing defective products.

If we look at the results of the data obtained, it can be said that almost the majority The costs incurred by the Panji Situbondo Sugar Factory are appraisal costs. The appraisal costs consist of material checking costs and there are product checking costs in the process of making finished goods. Table 4.2 shows that the costs incurred most by the black crow cigarette company are appraisal costs.

4.3 The Role of Quality Cost Reports in Controlling Defective Products

Quality costs at the Black Crow Company, Maesan Bondowoso, have not been planned and controlled separately (specifically). Control of defective products carried out by the black crow company is by rework. Rework at the Black Crow Company, Maesan Bondowoso, is often referred to as reprocessing, namely the process of correcting defective goods. Defective products that occur due to internal failure can be due to employee carelessness, or machine wear and tear. Meanwhile, the defective products referred to in the research occur because the products in the inventory warehouse do not meet the SNI SNI, 0612:1989 quality standards or can also be said to be products that experience shrinkage. Thus, companies are required to carry out reprocessing and retesting.

After classifying costs that are classified as quality costs, information is obtained that the total quality cost varies with the percentage of sales. The value of the change in the percentage of quality costs tends to decrease, while the percentage of sales increases. Thus, the decrease in the percentage of total quality costs to sales shows that the black crow company is still not successful and must pay attention to preventing the possibility of defective products and this means that the quality of the products produced will be better. So that the output from the production carried out already has the product quality desired by the customer.

The black crow cigarette company can be said to be successful because so far there have been no consumers or customers who complain or return goods because they are

damaged or defective, that there are no quality costs incurred on external failure costs. This is because the Black Crow cigarette company is very careful in checking before sending goods to all its customers.

Reducing quality costs as well as reducing defective products is highly expected by company, so that it will produce superior quality, or at least almost zero defects and perfect quality achieved. To produce products that meet the company's expectations, the company must continue to pay attention and bear the costs of quality, especially prevention costs and assessment costs.

Table 4.3 Cigarette Product Reports (2021-2023)

Year	Number of Products (Trunk)
2021	6.510
2022	2.770
2023	756

Source: Data processed, 2024

If we look at the number of defective products or products that still need to be reprocessed. In the table above, it can be stated that the Black Crow Mesan Bondowoso company has been successful and able to reduce defective products or products that are less than high quality by emphasizing quality costs which are slightly higher than the previous year even though sales levels have decreased.

From the results of the quality cost report, the overall increase in quality costs starts from prevention costs, assessment costs, and internal failure costs have proven that the Black Crow Mesan Bondowoso company has paid attention to product quality and defective products by reducing quality costs provided that the quality produced is also good and defective products are decreasing. This can prove that the Black Crow Mesan Bondowoso company has shown that it is serious about quality costs by improving its quality, which of course also means that costs will become less and less over time.

Determination of quality costs in the analysis shows that the Black Crow Mesan

Bondowoso company has actually incurred costs related to product quality control and control of defective products that occur, but the reporting has not been carried out specifically. Elements of recording quality costs are still included in the sales cost report/production cost report.

Quality costs that are not identified separately result in the company not paying attention obtain adequate information to carry out evaluations and improvements in Total Quality Management efforts. Therefore, determining quality costs as the first step in reporting quality costs is very necessary for companies if they want to improve the quality of their products while simultaneously reducing quality costs provided that sales will also increase.

5. CONCLUSIONS

Basically the costs related to product quality have been carried out by the Maesan Bondowoso Black Crow Cigarette Company, however the company has not specifically identified and grouped them, so the reporting of quality costs is of course not

carried out separately and is still included in other cost reporting.

In quality cost reports and trend analysis it can be said that total quality changes in each period. This shows that the Maesan Bondowoso Black Crow Cigarette Company has paid attention to the quality of the products it produces.

RECOMMENDATIONS

1. Maesan Bondowoso Black Crow Cigarette Company should pay attention to quality costs and group these costs based on their classification
2. It would be better if the Maesan Bondowoso Black Crow Cigarette Company also uses quality cost reports because information regarding quality costs is really needed by management to control the quality of the products produced.
3. Companies should also implement quality cost reports so they can plan and control product quality so that companies can make decisions easily and precisely.

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