Jurnal Harmoni 1(1) (2022) XXXX
Print ISSN : XXXXX Online ISSN : XXXXXX

Implementation Of Standard Costs As A Support Of Production Cost Control Testing Samples Of Pt Goodyear Indonesia Laboratory

Meldi Handayani[1*], Rahmat Mulyana Dali[2], Rasiman[3],
[1,2,3] Universitas Ibn Khaldun Bogor, Indonesia

ABSTRACT

Standard costs are costs that should be incurred to make one unit of product specified at the beginning of the period. Standard costs become a benchmark for controlling a company's production costs. The purpose of this study is to analyze using standard costs as an effort to support production cost control. This study uses a descriptive type of research with a quantitative approach. This research focuses on controlling production costs by analyzing the actual costs. Documentation interviews and field observations are data collection techniques used. The results of the research on testing production samples at the PT Goodyear Indonesia Laboratory illustrate that the standards applied have not been able to control the cost of testing production samples. The cause of this is data failure in the sample compound which makes repeated sample tests, so that there is an increase and increase in the use of raw materials and an increase in electricity usage. Companies should review the manufacture of compounds in order to be more detailed and thorough so that the goods produced do not fail when testing samples.

Keywords: *Standar cost, Control, Sample*

***Corresponding author:** mheldyapple@gmail.com[1*], mulyana@uika-bogor.ac.id[2], rasiman@uika-bogor.ac.id[3].*
How to cite this article: Handayani M., Dali,M.R., & Rasiman. (2022). Implementation Of Standard Costs As A Support Of Production Cost Control Testing Samples Of Pt Goodyear Indonesia Laboratory. *Jurnal Harmoni*, *1*(1).
History of Article: Received: April 2022. Revision: April 2022. Published: Mei 2022.
DOI Prefix

Introduction

The development of the growing business world today requires organizations to have the choice to compete and have the option to adapt in the midst of the progress that is happening. Having a director who is able to handle his exhibition well is something that must be prepared and considered in responding to the development of the growing business world. Furthermore, producing goods or administration that is better than other organizations engaged in the same field is one way that must be done by a director. In the serious world of automotive, cost control should be seen as an important part of organizational maintenance. Without a special understanding, it is very difficult for an organization to enter into serious competition that cannot be denied. Buyers must be fulfilled, where customer loyalty will be created when the desires and assumptions can be recognized by the organization. However, again cost control must be kept under control to provide the best results for the organization. The best quality control is the right technique in understanding every longing and common assumption.

Standard cost controls defined on information hours are used during planning manufacturing interactions to provide an outline of standard costs and actual costs in recording raw material costs, direct labor costs and industrial facility overhead costs. Control is mandatory. A community is a hierarchical unit within an organization driven by a capable director. As a general rule, the performance of any obligation placed within the organization is to prepare inputs into results. If the contribution of a society's obligations is increased by its costs, the costs will be obtained, whereas if the results are multiplied by the costs, then the income from the obligation is obtained. All sources of information where liabilities can be estimated, but not all public liability outcomes can be estimated quantitatively, Mulyadi (2010).

Standard costs will work with executives in deciding, controlling the creation exercise and making improvement steps identified with manufacturing costs. The standard cost will result in the difference between the predetermined cost and the actual cost. The most appropriate approach to find and calculate the extent of deviations that occur in ongoing spending, what are the causes and results and what steps should be taken to beat them.

The object of this research is a laboratory at PT Goodyear Indonesia whose operational activity is to test compound samples to determine the feasibility data of the compound so that it can be used for tire manufacture. This company is the first tire company in Indonesia so it is not new to the public, besides that it has a very wide reach to various countries in the world. This review means deciding on a standard outlay job as a manufacturing cost control for testing lab tests.

The original copy of the diary that was submitted was the result of exploration with a word count of 6,000-7,000 words. Design paper size A4 with regular edges (top, bottom, left, right 1 inch or 2.5 cm). The starter content uncovers the basics of research, related investigations that have existed, contrasts from previous research that give rise to the oddities of exploration, the motivations behind composition, the desires to be achieved from composing, and the logical advantages of composing.

Research Method

Object of research

As we may know that the object of research is something that becomes an important concern in a review, the object of exploration is also the goal in exploration to find solutions and answers to problems that occur. The object of research used by the author is the production cost used for testing samples on compounds in the laboratory of PT. Good Year Indonesia.

Research data

Types and Sources of Information

The type of information used in this exploration is subjective and quantitative information. According to Pratiwi (2013) in his diary, he revealed that quantitative information that deserves attention is information that is estimated on a mathematical scale. In this review quantitative information such as creation costs, costs in each activity taken in the creation cycle, creation measures, and standard costs. Subjective information is information that cannot be estimated on a mathematical scale. In this review there is subjective information such as organizational history, vision and mission, authoritative designs, and steps for implementing creations.

The source of information in a review is the subject from which the information can be obtained. According to Sugiyono, (2010) Variety of information when viewed from the source of information, variety of information can take advantage of essential and additional sources; a) Essential sources are sources that explicitly provide information to information gatherers or analysts. b) Optional sources are sources that do not directly provide information to information gatherers or scientists. 1) Main Information the information obtained from the field review uses all of the unique information gathering strategies. 2) Optional Information Information is collected by various information offices and distributed to the information client's local area.

Data Collection Techniques

A multi-information strategy should be possible with 3 procedures, to be specific: 1) Interview Is a question and answer technique with someone who is sent by the organization and then masters the field to be researched. 2) Observation Information is a variety of information by paying attention to and noting directly on the items to be considered. 3) Library Review Interaction in which the method of gathering information by considering books, diaries, or writings identified with the item to be examined.

Research Variables and Operational Definitions of Variables

Research Variables

According to Sugiyono (2010), Factor means the world in any structure determined by the scientist to concentrate so that data is obtained about it, then, at that point, the edges are drawn.

Operational Definition

Standard Fee : The standard expense here is the cost that is not set at the start that will be used as a benchmark for the cost of completing the creation interaction. Manufacturing Cost: Manufacturing costs are real costs incurred during the interaction of manufacture in the delivery of goods. Control: Here control is the capacity to achieve a pre-defined goal by comparing standard costs and creation costs (real costs).

Data Analysis Method

In this review the technical information executive that will be used is an interesting inspection strategy, while the investigation used to control production costs should be made possible by breaking down the information with the accompanying progress; 1) Guarantee of production cost norms in the organization which includes: Standard raw material costs, standard labor costs.
Standard processing plant overhead costs. 2) Estimated cost difference, including: Estimated difference in raw material costs, estimated difference in labor costs, estimated differences in manufacturing factory overhead costs. 3) Investigation of deviations from the original expenditure with the standard expenditure, including: Investigation of differences in raw materials, investigating differences in labor costs, investigating differences in manufacturing plant labor costs.

Results

Research Site Overview

Brief Company History

Goodyear Indonesia Tbk (GDYR) was established on January 26, 1917 under the name NV The Goodyear Tire and Elastic Organization Restricted and started its business activities in 1917. Goodyear's administrative center is located at Jln. Youth No. 27, Bogor 16161 on a land area of 172,000 m 2 . In view of the Organization's Affiliate Budget, the scope of GDYR's exercise is to participate in the tire business for engine vehicles, aircraft and other related parts, such as tire designations and tariffs. PT Goodyar Indonesia has around 1000 talented and experienced workers in assembly, executive, HR, money, deals and advertising. As an organization under the auspices of The Goodyear Tire Elastic Organization, PT Goodyear Indonesia receives full support from Goodyear, an innovative work center as well as Goodyear's design focus located in Japan, Europe, and America.

Laboratory Overview

The laboratory has 8 machines that are used for testing compound samples to determine the feasibility of the compound which can be used for further processing to become a quality tire. The machines consist of 4 MDR (Moving Die Rheometer) machines, 2 RPA (Rubber Process Analyzer) machines, and 2 MV (Money Viscosity) machines. The standard for testing sample testing every month is 6000 testing samples and every day the company operates 24 hours with a 3 shift system and in each shift there are 3 employees so that the total employees in the laboratory are 9 people.

Production Process

Sample Preparation: All samples prepared came from the banbury department (mixer) which had been cut into several parts according to the applicable SOP sequence which was then brought to the laboratory department for testing to determine whether the sample was good or not for further processing. The sample sent is a compound that has been processed with various mixtures of raw materials such as nolo (natural rubber), carbon black, and pigment (powder formula).

Sample Printing: The sample that has been received is then printed into a circle using a dumble cutter according to the size on the testing machine. Plastic Installation: Usually before doing the test, the operator will install the plastic used as the raw material for testing the sample. Each 1 MDR machine uses 2 plastic films (top and bottom), and for MV and RPA machines each uses 1 nylon plastic. Sample Booking: After everything is confirmed to have been completed, the operator then makes a sample booking according to the sample id received. Usually the sample id that will be booked on the IMS (Instument Monitoring System) is in the form of run number, skid number, and sample number.

Testing: Each compound sample has data and a different normal test period from the average test period, which is usually 3 minutes per 1 compound sample. Release/Disposition: Compound samples that have been tested will do an automatic release if the resulting data is ok and there are no deviations. On the other hand, if there is data that deviates from the results of the test data, it will be analyzed by the operator about the feasibility of using the compound and then the disposition will be carried out. After that, the compound can be used immediately or re-mixed if the results are not good.

Raw Material Costing

In the laboratory department there are 2 raw materials used, namely plastic film and nylon plastic. The total cost of standard use of raw materials in this period is:

Table 1
Total Raw Material Cost May 2021 Periode

No	Raw material	Standard Quantity		Raw Material Price (Rp)	Total Raw Material Cost (Rp)		Total Difference
		Standard	Actual		Standard	Actual	
1	Plastic film	8 Units	10 Units	Rp1.600.000	Rp12.800.000	Rp16.000.000	(Rp3.200.000)
2	Nylon plastic	2 Units	1,5 Units	Rp1.850.000	Rp3.700.000	Rp2.775.000	Rp925.000
TOTAL					Rp16.500.000	Rp18.775.000	(Rp2.275.000)

Source: Primary data from PT Goodyear Indonesia laboratory (May 2021)

Based on the details of the data table, it can be seen that there is a difference in the cost of raw materials with a total difference of Rp. 2,275,000. The formula used in calculating the cost of raw materials is; Raw material cost = Raw Material Price x Raw Material Quantity = (Price of Plastic Film x Quantity) + (Price of Plaik nylon x Quantity)

Determination of Labor Costs

There is no difference in labor costs because the company PT Goodyear Indonesia itself refers to the PKBXX (Joint Work Agreement) for the 2019-2021 period. The hours of work are 7.5 hours of work a day or 45 hours of work per week with the rate at wages following the UMR/hour, which is 22,911 in the city of Bogor with the provisions that excess working hours will be paid overtime in accordance with the applicable PKB provisions. The details are as follows:

Table 2
Labor costs May 2021 Periode

Hourly wage rate (government)	Working hours	Number of working days	Total Labor Cost
Rp22.911	7.5 hours	26 days	Rp4.467.645

Source: PT Goodyear Indonesia laboratory primary data (May 2021)

Application of Factory Overhead Cost

The following is the application of factory overhead costs for the period of May 2021 both on standard BOP and actual BOP.

Table 3
Factory Overhead Cost May 2021 Periode

Information	Factory Overhead Cost	Difference

	Standard	Actual	Factory Overhead Cost
Auxiliary material costs	Rp3.732.539,50	Rp3.732.539,50	-
Electricity and water	Rp296.752.875,00	Rp302.850.600,00	(Rp6.097.725,00)
Phone and Adm	Rp7.237.875,00	Rp7.237.875,00	-
Repair of machinery, equipment and buildings	Rp50.472.695,00	Rp52.600.580,00	(Rp2.127.885,00)
Depreciation of machinery, equipment, and buildings	Rp20.035.709,30	Rp20.035.709,30	-
Total Factory Overhead Biaya	Rp378.231.693,8	Rp386.457.303,8	(Rp8.225.610,00)
Total Factory Overhead Cost Difference			(Rp8.225.610,00)

Source: Primary data from PT Goodyear Indonesia laboratory (May 2021)

As we know in the data above, the actual BOP costs have increased due to the increasing use of electricity and water as well as repairing damaged machines so that it is necessary to purchase new spare parts for the machine so that the actual BOP cost becomes Rp. 386,457,303.8 (Three Hundred and Eight). Twenty Six Million Four Hundred Fifty Seven Thousand Three Hundred Three Rupiah Point Eight).

Summary of Analysis Results

After finishing calculating the cost of the product, the next part of the summary of the analysis results is detailed as follows:

Table 4.
Summary of the results of the analysis of the difference between standard costs and the actual cost of laboratory sample testing

Information	Production Sample Testing Fee		Analisis Selisih	
	Standard Fee	Actual Cost	(Rp)	L/R
Raw Material Cost				
Plastic Film	Rp12.800.000	Rp16.000.000,00	(Rp3.200.000,00)	R
Nylon Plastic	Rp3.640.000	Rp2.775.000,00	Rp925.000,00	L
Total			(Rp2.275.000,00)	R
Direct labor costs				

Lab Department	Rp4.169.806,58	Rp4.169.806,58	0	-
Total			0	-
Factory Overhead Cost				
Auxiliary Material Cost	Rp3.732.539,50	Rp3.732.539,50	0	-
Electricity and Water	Rp296.752.875,00	Rp302.850.600,00	(Rp6.097.725,00)	R
Phone and Adm	Rp7.237.875,00	Rp7.237.875,00	0	-
Machinery, Equipment, and Building Repair Costs	Rp50.472.695,00	Rp52.600.580,00	(Rp2.127.885,00)	R
Depreciation of Machinery, Equipment, and Buildings	Rp20.035.709,30	Rp20.035.709,30	0	-
Total BOP	Rp378.231.693,8	Rp386.457.303,8		
Total			(Rp8.225.610,00)	R
Total Selisih Keseluruhan L/R			(Rp10.515.610)	R

By observing the data above, we can see that there has been a difference. This occurs due to several lasti, both internal and external, including: 1) In the period in May 2021, there was an adverse difference of Rp. 10,515,610 caused by the increase in the use of raw materials, and the increase in electricity and repair costs in factory overhead costs. 2) The cost of raw materials increases the use of lastic film due to the large number of samples that fail when testing so that retesting is required and there is a reduction in the use of lastic nylon due to more skids when the mixer department makes compound products. 3) The direct labor cost is still relatively stable, there is no increase or decrease in working hours. 4) In factory overhead costs, there is an increase in electricity and water costs due to internal lasti, namely due to excessive sample testing due to the large number of failed sample testing results and an increase in machine repair costs which require the purchase of new spare parts to support production continuity. As for the other factory overhead costs, it is safe and stable.

Conclusion

In light of the results of the examinations and discussions that have been carried out by the creators at the PT Great Year Indonesia Lab regarding the utilization of standard fees as an aid to controlling the costs of making test tests, it is very well to see that the end of this exploration is: 1) In determining the standard cost in PT Great Year Indonesia, using a financial plan based on experience and available data which may be evaluated in the next timeframe, therefore, all things considered, the measure is still in the air to isolate the cost of raw material costs, costs labor, and overhead costs. 2) Due to the large number of samples that failed in the test results, requiring retesting, the use of plastic films increased. However, the use of elastic nylon raw materials is minimal due to the process control department which makes more skids on the compound compared to making new compounds.3) In direct labor costs, there is an increase due to the company having to provide overtime to its employees in order to maximize the production process. 4) Meanwhile, factory overhead costs at the point of electricity

financing and repairs also increased due to the increase in sample testing and the need to purchase new spare parts due to damage to one of the testing machines in the laboratory.

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