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The Implementation of Total Quality Management with Fishbone Method in PT. Kaliaren Jaya Plywood

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Abstract

The problem in this study is the Expansion of Total Quality Management with the Fishbone Method at PT. Kaliaren Jaya Plywood. Implementation of Total Quality Management by using the Fishbone method at PT. Kaliaren Jaya Plywood, obstacles faced in implementing Total Quality Management by using the Fishbone method at PT. Kaliaren Jaya Plywood, the efforts made in overcoming barriers in the Implementation of Total Quality Management by using the Fishbone method at PT. Kaliaren Jaya Plywood. The study results are: In the application of Total Quality Management using the Fishbone method at PT. Kaliaren Jaya Plywood has been very well such that production is the main thing in implementing company activities. Quality is the primary concern of both the product and its management. Continuous improvement to improve company performance. The obstacles encountered from the implementation of Total Quality Management by using the Fishbone method at PT. Kaliaren Jaya Plywood, namely: Lack of attention from production equipment which is still inadequate. Then the placement of production materials is still not following operational standards that have been previously determined. The effort felt by PT. Kaliaren Jaya Plywood is thought because the implementation of Total Quality Management is beneficial in the performance of company activities, especially for: Production must be further optimized so that the company becomes more advanced so that it can extend business cooperation with other companies. The company can optimize the performance of all departments to provide the best quality and increase the company's competitiveness. The research method used is qualitative. Whereby interviewing the president, director, head of the production, and employees. The research results using the fishbone method show that the implementation of total quality management is the main thing for companies and employees.

Keywords: Total Quality Management, Fishbone Method.
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I. Introduction

According to the Ministry of Forestry of the Republic of Indonesia, the current growth of Indonesia's plywood industry places Indonesia at the bottom of China, Japan, Malaysia, and even Vietnam. The number of plywood factories still operating in 2013 was 150 companies with a production capacity of 12,396,815 m3 per year or an average of 82,645 m3 per company. This number means a decrease compared to 2000, which amounted to 102 companies with a production capacity of 9,806,505 m3 or an average of 96,142 m3 per company. Meanwhile, in 2013 102 companies were operating in the veneer industry with a production capacity of 3,095,795 m3 per year.

Table 1. Production Data of PT. Kaliaren Jaya Plywood

Bulan	2018			2019		
	Lembar	Cacat	Persentase	Lembar	Cacat	Persentase
Januari	27.092	7.217	0,26 %	23.504	4.470	0,19 %
Februari	20.530	6.812	0,33 %	21.157	4.916	0,23 %
Maret	21.302	4.913	0,23 %	26.151	6.461	0,24 %
April	23.997	6.190	0,25 %	21.622	6.613	0,30 %
Mei	23.043	5.291	0,22 %	14.751	3.132	0,21 %
Juni	9.517	2.039	0,21 %	6.024	1.750	0,29 %
Juli	29.551	6.215	0,21 %	25.609	4.034	0,15 %
Agustus	29.304	6.703	0,22 %	25.333	6.491	0,25 %
September	25.049	3.759	0,15 %	25.648	6.212	0,24 %
Oktober	31.187	5.468	0,17 %	26.745	6.534	0,24 %
November	28.244	6.186	0,22 %	24.453	5.680	0,23 %
Desember	26.783	7.021	0,26 %	23.564	5.556	0,23 %
Jumlah	295.599	67.814	2,3 %	238.952	61.849	0,25 %

Source: PT. Kaliaren Jaya Plywood, 2020

Judging from the table data above, the researcher can conclude that the production results from PT. Kaliaren Jaya Plywood is not suitable because of the 2018 production data, which is 295,599. The production of 67,814 pieces of rejecting can be determined, which is around 2.3% when compared to the exhibition in 2019, namely as many as 238,852 and the production of leaving 61,849 pieces can be determined; which is about 0.25%, so the output has decreased by 0.02%, it can be said to have reduced production which is not good. Formulation of the problem are 1). How to implement Total Quality Management using Fishbone method at PT. Kaliaren Jaya Plywood?; 2). What are the obstacles faced in implementing Total Quality Management using the Fishbone method at PT. Kaliaren Jaya Plywood?; and 3). What efforts are being made to overcome the barriers in applying Total Quality Management using the Fishbone method at PT. Kaliaren Jaya Plywood?. And Research purposes are: 1). Implementation of Total Quality Management using the Fishbone method at PT. Kaliaren Jaya

Plywood; 2). Obstacles encountered in the performance of Total Quality Management using the Fishbone method At PT. Kaliaren Jaya Plywood; 3). Efforts were made to overcome barriers in applying Total Quality Management using the Fishbone method at PT. Kaliaren Jaya Plywood.

II. Literature Review

According to Ishikawa in Nasution (2015:17), Total Quality Management is the combination of all management functions, all parts of a company and everyone into a holistic philosophy built on the concepts of quality, teamwork, and productivity, customer satisfaction. Total Quality Management is an approach in running a business that tries to maximize the organization's competitiveness through continuous improvement of products, services, people, processes, and the environment (Tjiptono, 2003:4). According to Vincent Gasperz (2001:5), Total Quality Management is defined as a way of continuously improving performance (Continuous Performance Improvement) at every level of operation or process, in every functional area.

A measure of the good and bad of an object, grade, level, degree, or quality (Qadratilah, 2011:341). Quality is a structured process to improve the output produced. Quality is not a magical object or something complicated, and quality is based on common sense. Integrated quality management is managed with an approach that is continuously focused on improving quality so that its products comply with quality standards and the quality of the people served in implementing public service tasks and community development (Hadari, 2005:46). According to Ishikawa in M.N. Nasution (2001), quality management combines all management functions, all parts of a company and everyone into a holistic philosophy built on the concept of quality, teamwork, productivity, and customer satisfaction.

By applying a fishbone diagram where a company or industry that is experiencing a "problem" and "cause" will be quickly appropriately resolved, and the problems in it will be solved in this diagram, everything will be more explicit about the possible "cause" and looking for the "root" of the real problem (Gaspersz and Fontana, 2011).

III. Methodology

This type of research used is qualitative research. This study examines the efforts made in overcoming obstacles in the Analysis of the Application of Total Quality Management Using the Fishbone Method at PT. Kaliaren Jaya Plywood determines the quality results of the sample products used are production data, namely company data in 2018-2019. The data is about production data.

Data collection methods used in data collection are through interviews, company data, and direct observation of the quality of the product. The data analysis method used in this research is the descriptive analysis method. Data analysis used qualitative analysis using the Fish Bone method to assess and get good results.

Fishbone Diagram, this tool was first developed by Kaoru Ishikawa in 1950 by Japanese quality experts. This diagram is used to find potential causes and problems in the manufacturing process. According to Nasution (2005) the Cause-and-Effect Diagram is a structured approach that allows more detailed analysis to be carried out in finding the causes of a problem, non-conformances, and gaps that occur. Cause and effect diagrams are used to identify and analyze a process or situation and find possible causes for an issue or problem that arises. According to Heizer and Render (2015), the sources of quality problems found based on the 5M and 1E principles, namely:

a. Manpower (labor), related to deficiencies in knowledge, fundamental skills related to mental and physical, fatigue, stress, indifference, etc.
b. Machines (Machinery and equipment), relating to the absence of a preventive maintenance system for production machines, including other facilities and equipment, not following task specifications, not calibrated, too complicated, too hot, etc.
c. Methods (work methods), related to the absence of correct, unclear, unknown, unstandardized, unsuitable, etc., work procedures and methods.
d. Materials (raw materials and auxiliary materials), quality specifications, and supporting raw materials already exist in an industry so that later there will be no obstacles during the production process and handling of raw materials and auxiliary materials, etc.
e. Environment, relating to the place and time of work, ignores aspects of cleanliness, health, work safety, a conducive work environment, lack of lighting, poor ventilation, excessive noise, etc.
f. Measurement is an activity of determining numbers for an object systematically.

IV. Results and Discussion

4.1. Men Power

Researchers make observations or go directly to the field to dig up the data researchers need about Man Power (Workforce); researchers conduct interviews with the principal director, head of the production, and employees. Researchers conducted interviews with the chief director as follows: "*The workforce here is quite good. I am the main director. Always monitoring every day and evaluating every week so that I know the production results are in good or bad condition so that if I find out that the production results are bad enough, I will immediately provide a rotation policy and buy better raw materials*". The conclusion that researchers can draw is that the workforce of PT. Kaliaren Jaya Plywood is quite good.

4.2. Machines

Researchers make observations or go directly to the field to dig up the data that researchers need about machines (machinery and equipment). Researchers conduct

interviews with the principal director, head of the production, and employees. Researchers conducted interviews with the prominent director as follows: "*This company always carries out maintenance or rejuvenation so that production aids such as printing machines, cutting machines, production materials (sengon wood) can be fulfilled and fulfilled*." Researchers can conclude that the Machines (Machinery and Equipment) of PT. Kaliaren Jaya Plywood is quite good.

4.3. Methods

Researchers make observations or go directly to the field to dig up the data that researchers need regarding methods (work methods); researchers conduct interviews with the principal director, head of the production, and employees.
Researchers conducted interviews with the principal director as follows: "*I always monitor the SOP here so that all workers can work safely and the results will be more improved, and of higher quality, I hope the employees can understand and understand the importance of implementing SOPs in the work environment*." The conclusion that researchers can draw is that the methods (work methods) at PT. Kaliaren Jaya Plywood is quite good.

4.4. Materials

Researchers make observations or go directly to the field to dig up the data researchers need regarding, Materials (Raw Materials); researchers conduct interviews with the principal director, head of the production, and employees.
Researchers conducted interviews with the principal director as follows: "*I always fulfill the raw materials here so that there are no production delays, which results in decreased customer satisfaction. With this, I always see and monitor the stock of materials in the warehouse*". The conclusion that researchers can draw is that the materials at PT. Kaliaren Jaya Plywood is quite good.

4.5. Environment

Researchers make observations or go directly to the field to dig up the data that researchers need regarding the environment; researchers conduct interviews with the principal director, head of the production, and employees. Researchers conducted interviews with the chief director as follows: "*This company was founded by considering the environmental situation and conditions, in my opinion in Kaliaren it is right because the environment here is still beautiful, the citizens are polite and can leave themselves, and I admit that here it is quite comfortable, access can be affordable*." The conclusion that can be drawn is that PT. Kaliaren Jaya Plywood has not all implemented a total quality management system. This application is very influential in all production fields, which will make the production process safer and even better in the future.

V. Conclusion and Recommendation

5.1. Conclusion

In implementing Total Quality Management using the Fishbone method at PT. Kaliaren Jaya Plywood where: Production is the main thing in the implementation of the activities of a company, quality is the primary concern of both the product and its management, and Continuous improvement to improve company performance. The obstacles encountered from the implementation of Total Quality Management using the Fishbone method at PT. Kaliaren Jaya Plywood, namely: Lack of attention from

production equipment that is still not good, placement of production materials is still not following predetermined operational standards, and production is still experiencing bottlenecks in terms of production materials that are not suitable or production equipment that is often damaged. The efforts made by PT. Kaliaren Jaya Plywood in implementing Total Quality Management are very helpful in carrying out company activities, especially for: Monitoring and evaluating employees every day, Extra care for production machines, Checking raw materials so that there are no bottlenecks in the production process, and Arrangement of raw materials so that it is easy to carry out the production process.

5.2. Recommendation

Production capacity should be increased again for the implementation of Total Quality Management in the company, which can provide more benefits for the company, Maximizing machining technology to be more effective in production, Adding production tools to make the production process faster, Perform maintenance on production machines that have been damaged, and Adding better production materials in the future.

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