



QUALITY CONTROL OF KOMPIANG BREAD PRODUCTS AT TARZAN SHOP IN RUTENG, MANGGARAI REGENCY

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ABSTRACT

The problem in this study is how to control the quality of kompiang products and what factors cause defects in kompiang products at Tarzan Store. This study aims to determine the quality control of kompiang bread production and identify the factors that cause product defects. The data used are primary data and secondary data. The analysis method used in this study is the Pareto diagram and fishbone diagram. The next step is to find the factors that cause product defects and then compile them into improvement proposals. The results of the study indicate that the quality control of kompiang bread products at Tarzan Store is still not optimal, this is indicated by the presence of defective products. The most common types of defects are burnt bread as many as 105 pieces and bread with an inappropriate texture as many as 210 pieces. Product defects are caused by raw materials, humans, methods and machines.

Keywords: (a) Quality Control

1. INTRODUCTION

Competition in the industry, both services and manufacturing, is not only in terms of the company scale and its human resources but also in the quality of the products produced. Quality has now become a primary consideration for consumers in meeting their needs. Competition in the business world today is also growing rapidly, both in the domestic and international markets. Every business actor tries to improve the quality of their respective products, in an effort to realize consumer satisfaction to be able to enjoy the product. Improving product quality must be prioritized for every company because this is one way to win business competition. The expected criteria require companies to produce high-quality goods and services so that consumers can meet their needs.

Quality can be met when the company can produce products according to what customers expect or even exceed customer expectations. Companies that offer quality will create good relationships with customers. Good relationships that have been created in the long term will make the company understand the needs expected by customers. This kind of thing will provide positive benefits for the company.

In reality, there are often still discrepancies between the products produced and those expected, where the quality of the products produced does not meet standards, or in other words, the products produced are damaged or defective. This is due to deviations from various factors, both from raw materials, labor and facilities used in the production process. For this reason, it is also necessary to carry out control over production activities, which can be carried out before the production process, including preparation of materials, equipment, technical direction for workers in the production section. Control during the production process is carried out in

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accordance with production operational standards or provisions set by the company. In addition, control after production also needs to be considered, such as packaging, moving and storing products.

In its technical implementation, the making of kompiang bread is still done manually or the process of forming the bread using hands without a mold or machine. The production of kompiang bread is done every day.

The production data for Kompiang Bread at Tarzan Store from January 2023 to December 2023 can be seen in table 1.

Table 1
Kompiang Bread Production Data at Tarzan Shop in Ruteng Regency
Manggarai January 2023-December 2023

Month	Types of products	Amount Production	Price/piece (Rp)
January	Original Compiang	12,000 pieces	1,000
	Meat Compiang	8,000 pieces	7,000
February	Original Compiang	10,000 pieces	1,000
	Meat Compiang	7,500 pieces	7,000
March	Original Compiang	10,000 pieces	1,000
	Meat Compiang	7,000 pieces	7,000
April	Original Compiang	11,000 pieces	1,000
	Meat Compiang	6,800 pieces	7,000
May	Original Compiang	12,000 pieces	1,000
	Meat Compiang	5,000 pieces	7,000
June	Original Compiang	12,000 pieces	1,000
	Meat Compiang	4,500 pieces	7,000
July	Original Compiang	15,000 pieces	1,000
	Meat Compiang	5,000 pieces	7,000
August	Original Compiang	15,000 pieces	1,000
	Meat Compiang	5,500 pieces	7,000
September	Original Compiang	13,000 pieces	1,000
	Meat Compiang	6,000 pieces	7,000
October	Original Compiang	13,000 pieces	1,000
	Meat Compiang	5,000 pieces	7,000
November	Original Compiang	10,200 pieces	1,000
	Meat Compiang	4500 pieces	7,000
December	Original Compiang	18,000 pieces	1,000
	Meat Compiang	6000 pieces	7,000

Source: Tarzan Store, (2023)

Table 1 shows that the amount of kompiang bread production changes every month, kompiang bread will be made more than the usual production amount if there is more demand from consumers, kompiang bread is sold at the same price from time to time even though there is an increase in wheat flour, granulated sugar, or pork used for the filling of meat kompiang. This is because kompiang bread products are in great demand and are always sought after by consumers every day. The pork used in the kompiang filling is minced meat that has been processed.

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Defective products in the production process are a major problem that must be addressed, therefore quality control is very important so that defects can be minimized. From the data obtained, it is known that the number of defective products in December 2023 is as follows:

Table 2
Number of Defective Products at Tarzan Store in December 2023

Month	Types of products Disabled	Number of Defective Products	Clarification of kompiang standards	
			Fulfil Standard	Not Up to Standard
December	Burnt	105	Color brownish yellow	Brown Concentrated
	Inappropriate textures	210	Own the texture that congested	Own the texture that hollow
		315		

Source: Tarzan Store, (2023)

Based on the problems described above, it can be seen that quality is a very important factor for the success of a company. The production found has significant defects so that it cannot be sold or eaten. These defects can involve problems such as non-compliance with quality standards, serious damage, or other problems that result in the product being unusable. Companies need to carry out quality control on the production process to maintain the quality of the products produced. Thus, researchers are interested in conducting research entitled "Quality Control of Kompiang Tarzan Shop Bread Products in Ruteng, Manggarai Regency".

Production Management

In carrying out every production activity, the company needs to use management. One of them is production management which plays a role in the implementation of production activities. Production management plays a role in creating and adding value to goods and services. To organize this activity, decisions need to be made related to efforts to achieve goals so that the goods and services produced are in accordance with what is planned. Thus, production management involves decision making related to the production process to achieve organizational or company goals.

Production process

According to Assauri (1980:65), states that the process is a way, method and technique of how the existing sources of labor and materials are actually changed to obtain a result. In addition, he also provides an understanding of production, namely the activity of creating or adding to the usefulness of goods or services.



Production Process Control

The production process is a form of activity that is most important in the implementation of production in a company. This is because the production process is the way, method or technique of how the activity of adding benefits or creating benefits is carried out. The smoothness of the production process is greatly influenced by the production system that has been prepared before the company carries out the production process. In addition, for the sake of the smoothness of the production process, production process control is also needed which will control all important components in a company. Product Quality Schiffman and Kanuk (2007) argue that product quality is a company's ability to provide an identity or characteristic to each of its products so that consumers can recognize the product, where the product has a quality that meets consumer expectations.

2. RESEARCH METHODS

The type of research used in this study is qualitative descriptive research, namely a problem formulation that guides research to explore or photograph the situation to be studied broadly and deeply. Data collection techniques include interviews, observations and questionnaires. The purpose of this study is to understand quality control in the production of kompiang bread and to analyze the causes of defects in kompiang bread products at the Tarzan Store. Based on this objective, the researcher uses a descriptive qualitative method and after that a fishbone diagram and a Pareto diagram are made.

3. RESEARCH RESULTS AND DISCUSSION

Quality Control Using Pareto Diagram

Pareto diagram is made to identify and sort product damage data from the lowest to the highest level of damage. With this diagram Tarzan Store can find out the highest or most dominant type of product damage so that the company can focus on the steps to be taken in an effort to solve the problem. Before determining the percentage of observations for each observer variable.

In December 2023 Tarzan Store produced kompiang as much as 24,000 Kompiang units with a total number based on the type of defect of 315 Kompiang units as shown in the table below.

Table 3
Percentage of Kompiang Defects at Tarzan Store December 2023

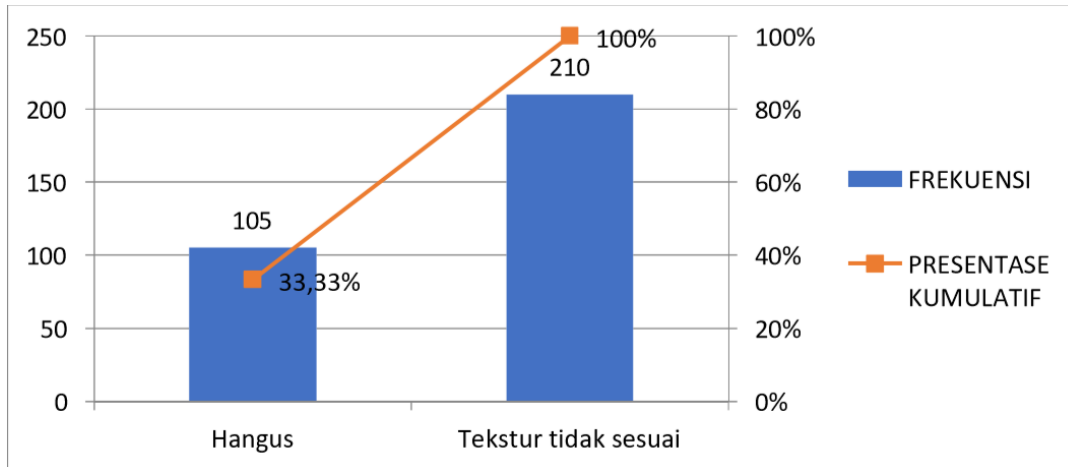
No	Types of Disabilities	Amount	Cumulative	Percentage
1	Burnt	105	105	0.4%
2	Texture does not match	210	315	0.9%

Source: Primary data processed by researchers, (2024)



The table above shows the types of product damage and the results of the pareto diagram calculation of the kompiang product at the Tarzan Store, it can be seen that the product damage that often occurs is burnt kompiang. After making the calculation, it will then be proven through a pareto diagram to determine the most dominant level of damage as seen in the following diagram.

Figure 1
Pareto Diagram Percentage at Tarzan Store December 2023
PARETO DIAGRAM OF TYPES OF COMPIANG PRODUCTION DEFECTS AT THE TARZAN SHOP



Source: Data processed by researchers, (2024)

Based on the results of the Pareto diagram calculation, it can be seen that the most dominant defect in the Kompiang product is 105 burnt kompiang with a percentage of damage of 33% caused by employee negligence in the production process. In addition to being burnt, it can cause an inappropriate texture so that it can be seen in the diagram above, the inappropriate texture is 210 pieces with a percentage of 67% and burnt which is the lowest damage compared to the inappropriate texture caused by negligence of workers when mixing the dough. So that both types of defects are a priority for repair.

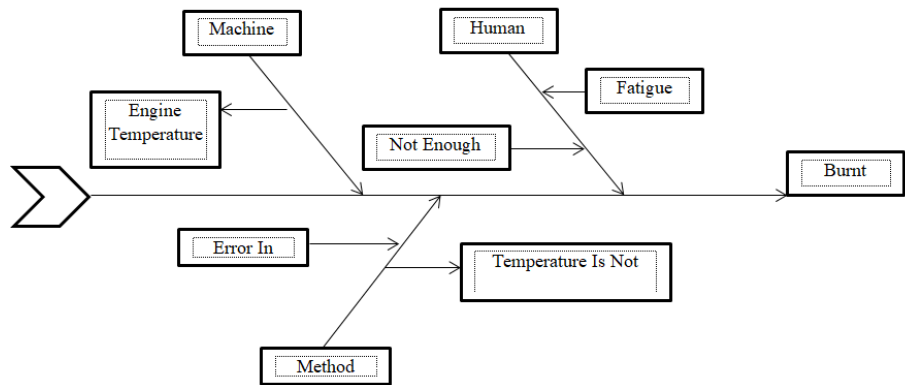
Quality Control Using Pareto Diagram and Fishbone

Diagram To analyze and identify the root cause of product quality problems, the author uses a cause-and-effect diagram tool or commonly called a fishbone diagram. This cause-and-effect diagram can make it easier for the author to analyze the factors that are the root cause of the defective kompiang product problem at the Tarzan Store.

Based on the results of observations, the factors causing defects at Tarzan Store are mostly caused by the methods, machines/equipment used and also the workforce during the production process.



Figure 2
Cause and Effect Diagram for types of defects in lost products



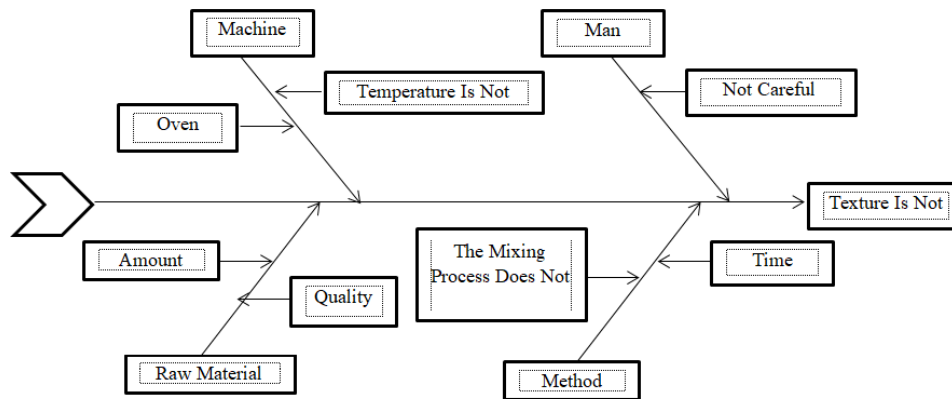
Source: Data processed by researchers, (2024)

From figure 2 above, it can be seen that the kompiang became burnt due to several factors, namely:

- 1) Human
Employees who experience fatigue during kompiang production can cause them to be less careful, especially when baking, resulting in the kompiang burning.
- 2) Machine
The stone oven used for baking cannot have its temperature controlled so the kompiang can burn.
- 3) Method
When baking, you must always pay attention to the kompiang in the oven because the temperature is also unstable, otherwise it will burn



Figure 3
Cause and Effect Diagram for product defects: Inappropriate Texture



Source: data processed by researchers, (2024)

Based on Figure 3 above, it can be seen that the kompiang with an unsuitable texture is caused by the following factors:

- 1) Human
When weighing the ingredients, the employee was not careful in weighing the ingredients, so the composition was not appropriate and resulted in an inappropriate texture.
- 2) Machine
Preheating the oven before it is hot enough can result in an unsuitable texture.
- 3) Method
A suboptimal mixing process that takes too long can result in the texture of the kompiang being unsuitable.
- 4) Raw materials
The quality of yeast that is not properly sealed after use can affect the use of yeast in subsequent production or using too much yeast can create an unsuitable texture.



Proposed Corrective Action

Table 4
Proposed Corrective Action for Scorched Defects

	Factor Reason	Proposed Corrective Action
Manu who	Not enough Be thorough Fatigue	Give repeated warnings to employees who always make mistakes and create a work schedule so that it does not drain their energy and does not become exhausted.
Machine	Engine temperature	If the kompiang is going to be baked, employees must ensure how long to heat the oven so that it is not too hot.
Method with	Temperature is not stable Error in the roasting	Employees should pay more attention to oven temperature Don't let it get too hot and when the kompiang is being grilled, employees must be more careful to ensure the kompiang is cooked properly to the point of neglect.

Source: Data Processed by Researchers

Table 5
Proposed Corrective Action for Defects Due to Unsuitable Texture

	Causative factor	Proposed Corrective Action
Man	Not careful	Giving a warning to employees who are always negligent in their work resulting in losses.
Machine	Oven Uneven Temperature	Make sure the oven is hot and evenly heated.
Method	Time Mixing Process Not Optimal	Employees should not be negligent eliminating the mixing process that takes too long.
Material Baku	Amount Yeast Yeast Quality	Pay attention to the amount of yeast used, pour according to the recipe and check the yeast when you want to use it. When the yeast has been used, cover and store back well to maintain the quality of the yeast.

Source: Data Processed by Researchers, (2024)



Table 6
Proposed Corrective Action for Defects Due to Unsuitable Texture

	Causative factor	Proposed Corrective Action
Man	Not careful	Giving a warning to employees who are always negligent in their work resulting in losses.
Machine	Oven Uneven Temperature	Make sure the oven is hot and evenly heated.
Method	Time Mixing Process Not Optimal	Employees should not be negligent eliminating the mixing process that takes too long.
Material Baku	Amount Yeast Yeast Quality	Pay attention to the amount of yeast used, pour according to the recipe and check the yeast when you want to use it. When the yeast has been used, cover and store. back well for maintain the quality of the yeast.

Source: Data Processed by Researchers, (2024)

Table 7
Weighting of repair proposals based on the size of the costs and the urgency of the repairs

sulan/Recommendations for Improvement	Cost	Urge	Amount
Giving a re-warning-repeat to employees who always make mistakes	3	3	6
Create a work schedule so that it doesn't drain their energy and doesn't make them tired.	3	3	6
Make sure how long time to preheat the oven so it is not too hot.	3	3	6
Employees should not be negligent in letting the mixing process take too long.	3	3	6
Perform a yeast check when want to use	2	3	5

Source: Data Processed by Researchers, (2024)

Information:

- | | | |
|---|--------------------|-------------------------|
| 1 | Value 1 for cost | Huge cost |
| 2 | Score 2 for cost | Medium cost |
| 3 | Score 3 for cost | Low cost/no cost (Free) |
| 4 | Value 1 for urgent | Not urgent |
| 5 | Value 2 for urgent | Intermediate |
| 6 | Value 3 for urgent | Very urgent |

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Table 8
The order of corrective actions is based on the number of weighted values

Suggestions/Recommendations for Improvement	Amount
Provide direction to employees and always supervise employees	6
Create work schedules and provide work instructions	6
Provide clear directions on how long to preheat the oven	6
Conduct training and provide direction to employees	6
Select the raw materials you want to use and adjust them to your needs.	5

Source: Data processed by researchers, (2024)

4. CONCLUSION

From all the damages, Tarzan Store needs to improve product quality by focusing on improvements to the highest to the lowest types of defects in production activities, and researchers propose improvements so that the company can continue to maintain the quality of the products produced according to existing standards. The company should provide stricter direction and supervision to employees so that they are more careful in carrying out production activities. The leadership needs to instruct Tarzan Store workers to be disciplined, careful and more focused in production activities. The company must pay attention to the raw materials used for the production process so as not to hinder the production process from taking place until it becomes finished goods. Tarzan Store should be able to conduct employee development training. By improving employee skills, it is hoped that product quality can be better maintained. Employees need to pay more attention to the mixing process and the baking process so that there is no damage to the product whose texture is not appropriate and burnt. For further researchers who take the same problem, they need to pay attention to other factors that can affect the quality of Kompiang products.

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