



QUALITY CONTROL OF ORIGINAL BAJAWA ARABICA COFFEE PRODUCTS (KOBBA) IN KUPANG CITY

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ABSTRACT

This study is entitled Quality Control of Original Bajawa Arabica Coffee Products (KOBBA). This study aims to (1) determine and explain the quality control of Bajawa Arabica coffee products in Kupang City. (2) Determine and explain the factors causing defects in Bajawa Arabica coffee products in Kupang City. The research variables used in this study are quality control, input (including raw materials, labor, machines, and quality standards), production processes, and output. The types and sources of data in this study are qualitative and quantitative data, data sources, primary data, and secondary data. The data collection techniques used by researchers are interviews, observations, questionnaires, and documentation. The data analysis techniques used are Pareto diagrams and fishbone diagrams. Pareto diagrams are used to discuss the level of dominant damage and types of damage that occur in Arabica coffee products, while fishbone diagrams are used to analyze the factors causing damage to Arabica coffee products. The results of this study indicate that quality control carried out on Bajawa Arabica coffee products has not been properly monitored so that there are still several types of defective/damaged products. The types of defects that occur in Arabica coffee products are burnt (as much as 14 kg) and broken (as much as 16 kg) with the number of product defects in January 2023-December 2023 being 30 kg. Based on the Pareto diagram, the priority of improvements that need to be made to reduce the amount of damage that occurs in the production process can be done on the most dominant type of damage, namely the type of broken defect with a percentage of 53%. The factors causing defects in coffee products are human factors and work methods. Therefore, the Company must make improvements to the production process such as paying attention to human/employee factors in order to pay more attention to the methods used properly.

Keywords: (a) Control, (b) Quality, (c) Product.

1. INTRODUCTION

Indonesia has a diversity and wealth of nature, culture, race, ethnicity, and culture of each. The wealth and diversity of culture, has a strong influence on the diversity of food and drinks in this country. Starting from food and drinks, even to flora and fauna adorn the country of Indonesia with its beauty. This is related to the history and variety of coffee types in Indonesia. Basically, the coffee that we know today is an adoption of the word koffie from Dutch. Coffee in Indonesia began because of the position of the Netherlands in 1696, which initially the Dutch brought Arabica coffee from Malabar, India, to the island of Java that year. The first coffee cultivation was carried out by the company in Kedawadung, an agricultural area near Batavia, but the initial cultivation of this coffee failed due to extreme weather and natural disasters. 3 years later they returned to bring coffee stems from cuttings from Malabar. And in 1706, coffee

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beans from plants on the island of Java achieved great success and became popular. This sales popularity is what then made the Dutch plant coffee beans on every island in Indonesia.

One of the famous coffees in Indonesia comes from the island of Flores, East Nusa Tenggara, with the name Bajawa coffee. Bajawa coffee is a superior coffee variety whose cultivation has been going on for centuries, precisely starting in the 19th century by the Dutch colonialists. Under the influence of the ideal highland climate and fertile soil, this coffee grows well in the area and become an important part of the local community's livelihood. The main variant of coffee produced is Arabica, Bajawa Arabica coffee beans are known for their rich flavor with touches of fruits, flowers, and chocolate, which are characteristics desired by coffee lovers. Coffee processing in Bajawa follows traditional methods that emphasize quality and authenticity of taste. After being selectively harvested by local farmers, the coffee beans are dried in the sun for several days to reduce the water content, then the coffee beans are processed through a dry method (natural process) or a wet method (washed process), depending on farmer preferences and market demand. Bajawa coffee has gained international recognition as one of the best quality coffees from Indonesia. Its unique taste, high quality, and well-maintained production process make this coffee a target for roasters around the world. This recognition has increased the popularity and price of Bajawa coffee in the international market.

In creating a product, an important thing that needs to be considered is controlling the quality of the product to be produced. Quality control is an approach taken by a company to improve its output, reduce production costs and increase its production. With the quality of the product produced, it is expected to have a positive impact by generating consumer interest in choosing various types of products offered by the company, and can provide satisfaction to consumers. Quality control is very important and needs to be realized so that the company can find out the occurrence of deviation processes in production activities.

Efforts in product quality control directly impact the quality of the products produced. Products that meet standards need to implement a proper quality control system, clear goals and stages, and provide innovation in preventing and solving problems faced by the company. This is important in paying attention to product quality. (Gasperz 2005;37).

One of the businesses in Kupang city that caught the author's attention was Bajawa Coffee Company (KOBBA) owned by Maria Magdalena Dhone. Since Established on September 24, 2018, Kopi Bajawa (KOBBA) is one of the businesses which operates in the field of Arabica coffee roasting production with 4 employees people. This business is located in the Jl Fatutuan 2A Liliba area, Oebobo District, Kota Kupang. This business produces Bajawa Arabica roasted coffee. For five years the business can estimate how much market demand there is so that the whole Market demand can be met. This business produces 5-30 kg of coffee per month. Ingredients Arabica coffee roasting standards use coffee beans sent directly from Bajawa Flores. Based on the explanation above, the following table is made.



**Table 1. Data on the Production Quantity of Bajawa Arabica Roasting Coffee (KOBBA)
January 2023 – December 2023**

Month	Amount		
	Products produced (kg)	Defective Product (kg)	Percentage of Damaged Products (%)
January	10	2	0.2%
February	12	2	0.16%
March	11	2	0.18%
April	14	2	0.14%
May	16	2	0.12%
June	30	4	0.13%
July	15	3	0.2%
August	17	3	0.17%
September	20	2	0.1%
October	18	2	0.11%
November	25	3	0.12%
December	30	3	0.1%
Total	218	30	1.73%

Data obtained: Bajawa Arabica Coffee, (2023)

From the table above, it shows that from January 2023 to December 2023 for one year, Bajawa Arabica coffee products experienced an increase in production even though some were defective/damaged. The total production of Bajawa Arabica coffee was 218 kg. The total defective products of Bajawa Arabica roasted coffee were 30 kg or around 1.73% of the total production for one year. Defective products in the production process are the main problem that must be overcome. Therefore, quality control is very important so that defective products can be controlled. The cause of defects is that at each time of frying, workers pay less attention / leave the coffee in the roaster for a long time so that when it is lifted there are some that are burnt. When lifted, the burnt ones are selected and separated from the good ones, so that all that is collected is 30 kg in one year. From the data obtained, the number of defective products is known as follows:

Table 2

No	Type Disabled	Number of Defective	Quality Standards	
			Good Quality	Poor Quality Good
1	Burnt	14 kg	Lighter in color (tending to light brown to dark brown), the taste which is balanced between sweet, sour and bitter.	The darker the color (tending towards dark brown to black), too bitter or too sour so not balanced.
2			Coffee beans that intact tend to maintain taste quality better because of the structure the coffee is still intact.	Broken coffee beans indicate that they have been damaged or have been processed incorrectly. which is not right.

Data Source: Bajawa Arabica Coffee, (2023)

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The table above shows that there are 2 types of defects in Bajawa Arabica coffee products, this occurs due to the lack of precision of the workforce which ultimately causes defects in the coffee, namely burnt so that it has a darker color (tends to be dark brown to black), and the taste is too bitter or too sour so that it is unbalanced. And broken coffee beans indicate that the coffee is damaged or processed incorrectly. The types of defects, namely burnt and broken, cause the number of Bajawa Arabica coffee products that do not comply with 30 kg and Bajawa Arabica coffee products that meet standards, namely 188 kg. Thus, Bajawa Arabica coffee products have not fully implemented good control, so it is necessary to carry out good product quality control starting from the procurement of raw materials, auxiliary materials, machines and equipment and humans, in order to minimize defects in Bajawa Arabica coffee products. Based on the background above, the author is motivated to conduct research with the title “Quality Control of Bajawa Arabica Coffee Products Original (KOBBA) In Kupang City”

Production Management

Production Management is an activity or effort carried out to achieving goals by using or coordinating the activities of other people others (Assauri 2004: 12). According to Heizer and Rander (2009: 4), operational management is a series of activities that produce value in the form of goods and services by changing input into output. coordination of various functions within an organization to achieve production goals set. In the modern era, information technology and automation are often used in production management to improve productivity and product quality.

Scope of Production Management

Production management includes quite extensive activities, concerning various management decisions, both short-term and long-term decisions that are determined in the field of production in a company. The application of the management process that includes various decisions in the fields of production preparation aims to ensure that the production process in the company can run as well as possible according to Agus Ahyari (1998:329)

Defective Product

Damaged products are products that have the form of finished products, but in conditions that do not meet the standards set by the company. These damaged products may be some that can be sold, but some that cannot be sold. Depending on the condition of the goods, whether the damage is still within normal limits or not. Damaged products that occur during the production process refer to products that are unacceptable to consumers and cannot be reworked.

Definition of Quality

According to Kotler and Armstrong (2015:253) product quality is a characteristic of a product or service that depends on its ability to meet stated or implied customer needs. According to Prawirosentono (2007:32): "A physical condition, nature and usefulness an item that can provide consumer satisfaction both physically and mentally psychological, according to the value of the money spent."



Control

Based on the opinion of Carter and Usry translated by Sirait Wibowo (2005:6), control is a systematic management effort to achieve a goal. Activities are continuously monitored to ensure that the results are within the desired limits. Based on the description above, it can be said that control is monitoring, checking and evaluation carried out by superiors or leaders in the organization on organizational components and existing resources to achieve previously set goals, continuously and sustainably so that all can function optimally so that organizational goals can be achieved effectively and efficiently.

Understanding Quality Control

According to Ahyari (2002:239), quality control is an activity (company management) to maintain and direct the quality of the company's products and services so that they can be maintained as planned. Statistical quality control according to Chase, Aquilano and Jacobs (2001:291) is a different technique designed to evaluate quality in terms of conformity to specifications.

2. RESEARCH METHODS

This type of research is qualitative in nature and will be analyzed descriptively and comparatively, the research was conducted on original Bajawa Arabica coffee products (kobba) in Kupang city. The object of this research is the quality control of Bajawa Arabica Coffee products. The research instrument is a questionnaire that will be given to respondents, with data sources in this study using primary and secondary data obtained directly from the field. Data Collection Techniques used in this study are questionnaire techniques, observation, interviews, and documentation. The data obtained in this study need to be analyzed further in order to draw the right conclusions. For this reason, the data is systematically processed using the SSPS tool. With the testing model used fishbone diagram and pareto diagram.

3. RESEARCH RESULTS & DISCUSSION

Research Results

Quality Control Analysis of Original Bajawa Arabica Coffee (KOBBA). Quality control is one of the important factors of an industrial company. Therefore, in general, quality control can be described as an activity to ensure whether the policy in terms of quality (standard) can be reflected in the final result (output). In other words, quality control is an effort to maintain the quality of the goods produced, so that they are in accordance with the product specifications that have been determined based on the policies of the business leadership. In terms of quality control, all activities that occur in a business are always supervised properly, starting from input in the form of raw materials, labor, and equipment as well as quality standards, to output in the form of final production results. Business leaders carry out control on every production activity so that quality is maintained properly.



Production Raw Materials

Raw materials are all components of the basic materials used in the production process to produce the final product. If the raw materials used are of good quality or meet the standards, then the resulting product will also have good quality. Coffee beans used as raw materials are purchased directly from coffee farmers in Bajawa with a purchase amount of 15-30 kg which are ordered every month continuously. The process of making raw materials into finished goods is greatly influenced by the equipment used in the production process which can affect the quality of the products produced. As a form of industrial business, Kopi Arabica Bajawa Original (KOBBA) produces coffee beans to be marketed to consumers. In this case, the company's production process in managing raw materials assisted by manpower and equipment to produce quality coffee beans that can be sold to consumers.

For more details, the author will explain the process of making coffee beans produced by KOBBA:

1) Roasting process

Prepared coffee beans are put into a roasting machine with fire. while the roasting tool is being rotated until the coffee is cooked to its maturity. according to existing standards. Then it is lifted and poured into basin, and let it sit for ± 1 hour, let the coffee cool. after roasting The coffee is cooled and then immediately packaged.

2) Packaging process

After the coffee has cooled, the next process is that the coffee is ready to be packaged. Then the coffee will be packed in plastic packaging with a net weight of 250 grams, then weighed to ensure the weight of the coffee added is correct with the weight of the coffee stated on the packaging (250 grams) then sealed with a tool packaging sealer/plastic press tool.

3) Marketing

The coffee production results are marketed to consumers domiciled in Kupang City. The selling price of coffee products in one package (250 grams) Arabica coffee Rp. 37,000/package. Coffee products are marketed by delivering products directly to various minimarkets, for people whose orders Many can be delivered directly to your home, while other consumers You can also buy the product directly at Kopi Arabica Bajawa Original (KOBBA).

During 12 months of production, defects were found in Arabica coffee beans such as burnt product defects and broken product defects. Table 4.5 shows the highest number of defective products, namely 16 kg of broken products and 14 kg of burnt products. To make it easier to see more clearly the damage that occurs according to the table, the next step is to create a histogram. The damaged product data is made into a bar graph that is divided based on the type of damage.



4. CONCLUSION

Based on the data that has been analyzed along with the discussion that has been described in the previous chapter, the author draws the following conclusions:

- 1) Based on production data obtained from Original Arabica Coffee Beans (KOBBA), it is known that the amount of Arabica coffee bean production in 2023 is 218 kg, with damage to Arabica coffee bean production of 30 kg.
- 2) The types of damage that often occur in the production of Original Arabica Coffee Beans (KOBBA) are the less good burnt defects (as much as 14 kg) and broken coffee beans (as much as 16 kg).
- 3) Based on the Pareto diagram, the priority of improvements that need to be made to Original Bajawa Arabica Coffee (KOBBA) to suppress or reduce the amount of damage that occurs in production can be done on the most dominant type of damage, namely the type of defect in broken coffee with a percentage of 53%.
- 4) From the analysis of the cause and effect diagram, the factors causing the damage can be identified. or damage in production which comes from human/employee factors and method.

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