Analysis of Banana Chips Product Quality Control Using the Statistical Quality Control (SQC) Method at the Shavira Banana Chips UMKM, Jember Regency

Maidah Humairoh
Study Program Of Agroindustry Management
Majoring of Agribusiness Management

ABSTRACT

Banana chips, as an agro-industrial product that relies on banana fruit as the main raw material, requires very strict quality control. Shavira Banana Chips MSME has used statistical quality control (SQC) methods to monitor the excellence of their products. Using this statistical technique, the company can analyze observation data to identify and reduce the risk of product defects. Analysis through the P control map showed that production was running normally, as evidenced by the absence of data that exceeded the UCL or LCL. However, a more in-depth analysis shows that there are variations in the level of defects in some product variables. For example, the thickness of the banana chips had a defect rate of 30%, the shape reached 33%, and the color was 37%. The Pareto diagram revealed that dissimilar colors were the main cause of defects, contributing up to 37% of the total product defects. To identify the factors causing these defects in more detail, an analysis was conducted using a fishbone diagram. The results showed that a lack of worker expertise, inconsistent banana quality, limited tools, and inconsistencies in the overall production process contributed to the high defect rate. Lack of worker skills affects the quality variation and inconsistency of results, while uneven banana quality affects the final texture and flavor of the chips. In addition, limited tools such as thermometers and timers hinder proper control of frying temperature and time. Inconsistencies throughout the production process also play an important role in increasing the product defect rate.

***Key words** : Quality Control, Product Quality, Banana Chips, SQC*