

THE INFLUENCE OF THE PRODUCTION PROCESS AND QUALITY CONTROL ON THE QUALITY OF BANANA CHIP PRODUCTS AT ASKHA JAYA CHIP SHOP

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Abstract

Currently, the MSME area in the country is experiencing a quite challenging atmosphere amid the change of business areas that continue to become complex. In a tight economic competition like today, industry actors are required to sort out several options, one of which is prioritizing quality to achieve a wider market share, one of which is at the Askha Jaya Banana Chip Store. The challenge that takes place in the Askha Jaya Banana Chips business is that there is still a process of creating manual methods, and the packaging problems that exist are also still very limited is by using hands alias manual, so that there are still often errors or defective objects or bad objects that take place after the production process. Process means the methods, tactics, and mechanisms in which current resources, hardware, materials, and assets are thoroughly transformed to achieve results. Quality control is a mechanism and structured exercises / activities carried out to achieve, follow and work on the nature of goods and services in accordance with predetermined guidelines and can meet consumer loyalty. The purpose of this research is to recognize the influence of variables on the Askha Jaya Banana Chip Store. This research method uses quantitative descriptive research, with a sample of 35. Then the information is processed using SPSS version 22. The results of the research show that the production process and quality control together have a positive and significant effect on product quality at the Askha Jaya Banana Chip Store.

Keywords: Production Process, Quality Control, Product Quality

1. Introduction

At the time of the development of Indonesia's current economic value, Micro, Small and Medium Enterprises (MSMEs) have a strategic role, contributing to economic growth through employment and socialization of development results. Because MSMEs help the government's efforts to reduce unemployment in Indonesia, MSMEs are the main beneficiaries of the government's efforts to combat high unemployment in Indonesia.

Competition at all levels is a natural result of the rapid growth of free trade, resulting in increased competition from domestic, regional, and global competitors. In a highly competitive economy, industry players have many options to consider. One of the goals is to increase market share by focusing on quality.

UMKM Askha Jaya Keripik is one of the food/souvenir shops in Bandar Lampung City. Cassava chips MSMEs Ashka Jaya chips are produced every day with the best quality, with proper processing and halal to ensure product purity. With many competitors in the field of cassava chips in Bandar Lampung City, Ashka Jaya Chips MSMEs are determined to produce quality food products that are superior to their competitors. In addition, the quality of raw materials is decisive in achieving goals, providing good

results, satisfying consumer preferences and needs, maintaining product quality to meet expectations, and being sold with complete coverage and uniformity.

Table showing the quantity of defective banana chip products at Ashka Jaya Banana Chips store in 2022.

Table 1. Chip Production at Askha Jaya Banana Chip Shop in 2022

No	Month	Product	Total Good Products	Total Bad Products	Good Joints	Defective/bad percentage
1	January	2350	2200	150	93,6%	6,4%
2	February	1980	1900	80	95,9%	4,1%
3	March	2200	2150	50	97,7%	2,3%
4	April	2500	2450	50	98%	2%
5	May	2477	2320	152	93,6%	6,4%
6	June	1978	1878	100	94,95%	5,05%
7	July	1458	1403	55	96,2%	3,8%
8	August	1566	1500	66	95%	5%
9	September	1680	1600	80	95,2%	4,8%
10	October	2079	1890	189	90,9%	9,1%
11	November	2227	2154	73	96,7%	3,3%
12	December	2309	2229	80	96,5%	3,5%
	Sum	24.804	23.674	1.130	95,4%	4,6%
	Average	2.067	1.973	94		

Source: Askha Jaya Chip Shop, 2022

Based on the table above, it can be seen that in each production there are almost 5% of defective products produced, which is the maximum tolerance of the company to defective products.

The problem of Ashka Jaya banana chips in the process of making its products still exists, because the packaging problems that exist are only limited to manual or bad or often defective products. In addition, even after the processing step is completed, the food made remains unstable and can be sold as a defective or defective product. Given that products are constantly changing, it is important to consider the right packaging and storage methods. It is very important to consider the age of the material. Increase the nutrient content of food and maintain it. Therefore, processed products such as banana chips must be packaged in a well-designed and attractive way in order to increase consumer attractiveness, increase selling value, and meet consumption needs (Tanaiyo, 2014).

The purpose of this study was to determine the impact of creative interaction on the product characteristics of cassava chip shops in Asuka Jaya, and to determine whether value management affects product quality at cassava chip shops located in Askha Jaya. To find out the influence of production methods as well as product manufacturing cycles and quality control at cassava chip shops in Ashka Jaya.

2. Theoretical Background

According (Wahyuni et al., 2017) to Production management is a management related to the production of a product, as a result if extended to management services becomes a relationship between management activities and operational management. According to

(Martono, n.d.) Production management is essential to support the vision and mission of the organization, which includes handling contributions to results as labor and products.

Process means the ways, tactics, and mechanisms in which current resources, hardware, materials, and assets are thoroughly transformed to obtain results. Meanwhile, production itself is a movement to form or create value from the usefulness of a good or service (Herawati & Mulyani, n.d.-a). According to I Wayan Edi Arsawan, et al in the Introduction to Business Textbook (2021), production processing is a way, method, and technique in completing or increasing the use value of a good or service by utilizing various available resources.

According to Nasution (2015), Quality is emphasized through two perspectives, management marketing management. Basically, qualities management means one way to continuously improve performance at every level of perception or processing, at every active period in a company, using human labor and capital that has been prepared. According to quality control is a mechanism and structured exercises / activities carried out to achieve, follow and work on the nature of goods and services in accordance with predetermined guidelines and can meet consumer loyalty (Rusdiana et al., 2014) (Harahap et al., 2018).

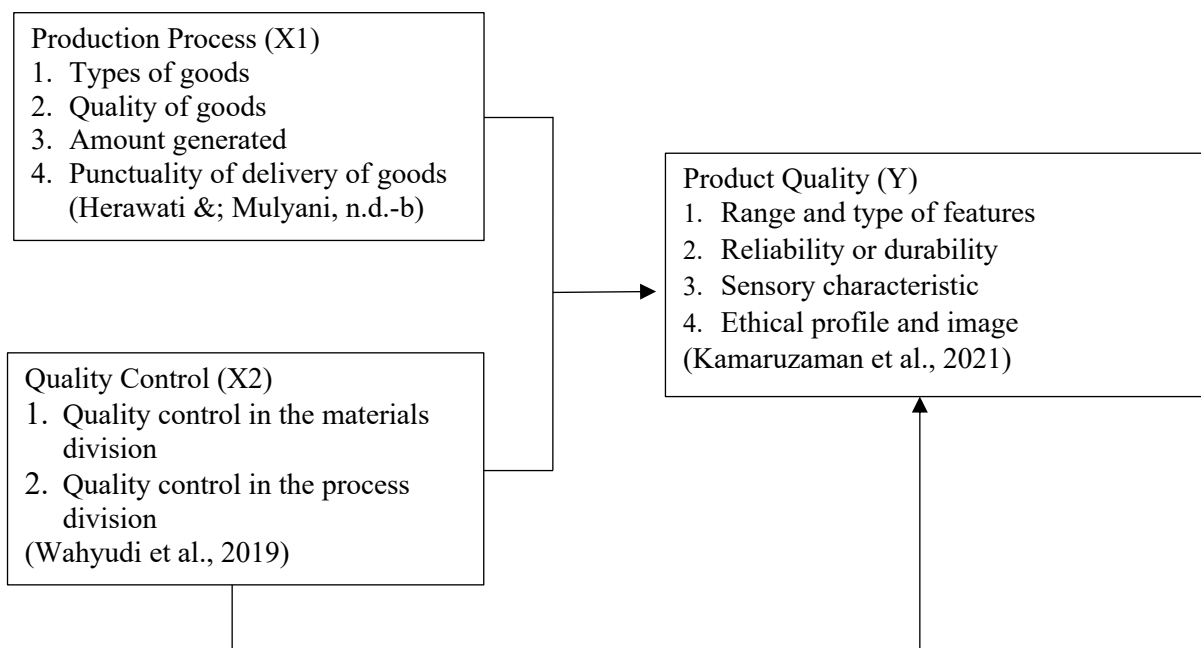


Figure 1. Thinking Framework

3. Methods

The type of research used by the author in this study is descriptive research with the use of quantitative approaches, or it can be said that the data will be processed after going through the data collection process so that conclusions can be drawn. This means that the data studied by researchers will be emphasized more in the data displayed in the form of numbers juxtaposed with research methods that occur between the variables studied in this study.

Population is the total number of things that exist in the object under study that there are living things in the object, phenomena, events, behavior and so on, which can be done research which will later be obtained data for research. (Mamik et al., 2015). The

population in this study consisted of the total employees at the Askha Jaya Chip Shop which amounted to 83 people.

According to, Sample (Suharsimi, 2010) _be some or a small part of a population to be studied, the sampling method in this study is by saturated sampling techniques, saturated sampling is the taking of existing sources. This technique is used if the population in the study amounted to less than 100 people (Sugiyono, 2013). The sample in this study is employees in the production department, which amounts to 35 people.

The data that has been obtained will be analyzed in several forms of presentation, as follows:

3.1 Validity Test

By conducting a validity test, researchers can assess whether a research instrument has sufficient quality to measure the concept. To determine the validity value of an item, look for a correlation between the number of items and the score of the item in question.

3.2 Quantitative Descriptive Analysis

Descriptive statistics are used in analyzing and presenting quantitative data and assessing the quality of descriptive in research samples from a company. By using descriptive statistics, it can be known the mean value, standard deviation, value, maximum, minimum, sum, range, kurtosis and skewness (Ghozali, 2011).

3.3 Test the hypothesis

Hypothesis testing is used in looking for an influence between variables in this study or seeing the relationship between the variables tested.

From the review of literature theory that has been described above, it can be known the hypotheses that can be proposed in this study, namely:

H1: There is an influence of Production Process on Product Quality at the Askha Jaya Chips store.

H2: There is an influence of Quality Control on Product Quality at the Askha Jaya Chips store.

H3: There is an influence between the Production Process and Quality Control on Product Quality at the Askha Jaya Chips store.

3.4 Multiple Linear Regression Test

Multiple regression can be used if there is one dependent variable and two or more independent variables in the study. The established analysis model used is multiple linear regression analysis.

4. Results and Discussion

Keripik Askha Jaya was founded or started operating in 2011 by a young man named Aswal. The first action is to start by servei at the Lampung chip center located in the PU alley area in the city of Bandar Lampung, by seeking luck by depositing some products sold at stalls or shops by those along the road. Until now, Keripik Pisang Askha Jaya outlet already has 4 outlet branches in Bandar Lampung.

4.1 Results of Respondents' Descriptive Analysis

Table 2. Gender of Respondent

Jenis Kelamin	Jumlah	Persentase
Laki Laki	21	60%
Perempuan	14	40%
Total	35	100%

Source: Processing Researcher Data, 2023

Based on the data, it can be seen that of the 35 respondents, 14 (40%) are women and the remaining 21 (60%) are men. In this case, it can be said that most of the respondents studied in this study were men.

Table 3. Age of Respondents

Age	Sum	Percentage
20 – 24 Years	16	46%
25 – 29 Years	14	40%
>30 Years	5	14%
Total	35	100%

Source: Processing Researcher Data, 2023

Based on the age table above, an estimated 46% of participants were aged 20 to 24; 40% among the ages of 25-29 know; 14% are over 30 years old. The number of participants in the study was roughly the same, but the majority were between the ages of 20 and 24.

4.2 Data Analysis Results

Table 4. Validity Test Results

Variable	Indicators	Calculate	Sig	Rtable	Information
Production Process (X1)	X1.1	.852**	.000	0,249	Valid
	X1.2	.750**	.000	0,249	Valid
	X1.3	.751**	.000	0,249	Valid
	X1.4	.851**	.000	0,249	Valid
	X1.5	.814**	.000	0,249	Valid
	X1.6	.734**	.000	0,249	Valid
Quality Control (X2)	X2.1	.803**	.000	0,249	Valid
	X2.2	.693**	.000	0,249	Valid
	X2.3	.611**	.000	0,249	Valid
	X2.4	.462**	.000	0,249	Valid
	X2.5	.548**	.000	0,249	Valid
	X2.6	.801**	.000	0,249	Valid
Product Quality (Y)	Y1.1	.620**	.000	0,249	Valid
	Y1.2	.648**	.000	0,249	Valid
	Y1.3	.839**	.000	0,249	Valid
	Y1.4	.617**	.000	0,249	Valid
	Y1.5	.696**	.000	0,249	Valid
	Y1.6	.654**	.000	0,249	Valid

	Y1.7	.659**	.000	0,249	Valid
	Y1.8	.780**	.000	0,249	Valid

Source: SPSS22, 2023

Based on the table above, the overall value of r count (Corrected Item Total Correlation) > rtable (0.249) and the significant level of each variable < 0.05 can be said if all statement items in the questionnaire on the existing variables are said to be valid which can be used in measuring aids in this study.

Table 4. Reliability Test

Variabel	Cronbach's Alpha	Nilai Kritis	Keterangan
Proses Produksi (X1)	,878	> 0,60	Reliabel
Pengendalian Kualitas (X2)	,743	> 0,60	Reliabel
Kualitas Produk (Y)	,835	> 0,60	Reliabel

Source: SPSS Data Processing 22, 2023

Cronbach's alpha value obtained in each variant is >0.60 which shows that the institutions in the study have good reliability. As determined by the validity and reliability tests used for variables X1, X2 and Y, it can be said that all questionnaire items in the study can be used as institutions in this study.

Table 6. Multiple Linear Regression Tests

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.104	2.542		.434	.667
	Proses Produksi	.624	.129	.514	4.843	.000
	Pengendalian Kualitas	.665	.152	.465	4.378	.000

a. Dependent Variable: Kualitas Produk

Source: SPSS Data Processing 22, 2023

The regression equation that can be formulated is:

$$Y = 1.104 + 0.624X1 + 0.665X2 + e$$

The explanation of the equation is:

- 1) Constanta's value of 1.104 shows that if Variables X1 and X2 get a score of 0, then Product Quality gets a score of 1.104.
- 2) The Production Process variable (X1) has a positive influence on the quality of the product (Y) and has a regression coefficient of 0.624, which can be said that every increase per unit X1 can affect the Y level of 0.624 units.
- 3) Variable Quality of Raw Materials (X2) has a positive influence on product quality (Y) and has a regression coefficient of 0.665, which can be said that every increase per unit X2 can affect the Y level of 0.665 units.

Table 7. Coefficient Determinacy

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.891 ^a	.794	.781	1.761

a. Predictors: (Constant), Pengendalian Kualitas, Proses Produksi

According to the calculation of the determinant efficiency, it can be seen that the Adjusted R Square value obtained is 0.781 or 78.1%. In this case, it means that 78.1% of product quality is influenced by production process variables and quality control, while the remaining 21% is influenced by other variables that are not studied by the author.

Table 8. F Test

ANOVA ^a						
Type		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	383.162	2	191.581	61.776	.000b
	Residuals	99.238	32	3.101		
	Total	482.400	34			

a. Dependent Variable: Product Quality

b. Predictors: (Constant), Quality Control, Production Process

Based on the table, the value of the f-test is 61,776 which has a significance level of 0.000. The calculated F value = 61,776 > than the table F = 2.17, and the significance of 0.000 < 0.1. So, the variables of the production process and quality control simultaneously have an influence on product quality at the Askha Jaya chip shop.

Table 9. t Test

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.104	2.542		.434	.667
	Proses Produksi	.624	.129	.514	4.843	.000
	Pengendalian Kualitas	.665	.152	.465	4.378	.000

a. Dependent Variable: Kualitas Produk

According to the table it can be seen that the influence of the dependent variable on the independent variable is in the form of:

- 1) The production process gets a significance score of 0.000 < 0.1 then t count of 4.843 > t table 0.669, therefore the production process has a positive and significant relationship with Product Quality at the Askha Jaya Banana Chips store.
- 2) Quality Control gets a significance score of 0.000 < 0.1 and t count of 4.378 > ttable 0.669, so that Quality Control has a positive and significant relationship with Product Quality at the Askha Jaya Banana Chips store.

4.3 Discussion

- 1) Linear regression analysis shows that the value of Sig. X1 $.000 < .005$, and according to the regression equation produces the variable X1 has a regression coefficient value of 0.514. which means, every increase in the value of X1 can increase the value of Y .0.514 units. What will happen is that the linear regression analysis also conveys an illustration of the results of the T Test (Sig. X1 as much as $.000 < .005$) then it can be said if the first hypothesis can be accepted. The results of the research that has been carried out can be said to be in line with the research of Novianty Novianty, H.W (2019) the impact of Products Processes and Quality Iian Controllers on the Quality of Baby Blanket Saku Print Products at Pt. Dialog Garmino primere. With the results of the production process affecting product quality with a regression value of 0.794.
- 2) Linear regression analysis shows that the value of Sig. X2 is $.000 < .005$, and according to the regression equation produces the variable X2 has a regression coefficient value of 0.465. which means, every increase in the value of X2 can increase the value of Y 0.465 units. What will happen is that the linear regression analysis also conveys an illustration of the T Test (with Sig. X1 $.000 < .005$) then it can be said that if the second hypothesis is acceptable. The results of the research that has been carried out can be said to be in line with the research of Novianty, H.W (2019) The Effect of Prodctsi Processes and Quality Iian Controllers on the Qualityof Baby Blanket Saku Print Products at Pt. Dialog Garmino primere. With the results of quality control affects product quality with a regression value of 0.154.
- 3) Linear regression analysis shows that X1 and X2 have a total influence on Y. In the F-Test table, it can be found that the score sig = 0.000, which means sig < 0.05 . Independent variables (X1 and X2) together have a positive and significant influence on product quality. Or it can be said The Production Process and Quality Control together have a positive influence on Product Quality The results of the research that has been carried out can be said to be in line with the research of Novianty, H.W (2019) The Effect of Prodctsi Processes and Quality Control on the Quality of Baby Blanket Products Saku Print at Pt. Dialog Garmino primere. With the results of quality control affects product quality with a regression value of 0.844.

5. Conclusion

The conclusion contains a brief summary of the research results and a discussion that answers the research objectives. From the results of research that has been conducted or researched by the author, the conclusions that can be given are:

- 1) The production process at a certain level has a very positive effect on the quality of goods at the Askha Jaya Banana Chip Shop.
- 2) The Production Process and Quality Control Together have a positive effect on Product Quality at the Askha Jaya Banana Chips store.
- 3) Based on multiple line regression tests, the Production Process has a greater influence than the Quality Control variable on the Product Quality variable.

Suggestions that can be given by the author from the results of research that has been done are as follows:

- 1) Ashka Jaya Banana Chips shop owners are expected to maintain consistency in the production process to be carried out uniformly, quality control activities are improved, and product quality is improved.

- 2) As well as for those who want to conduct further research, it is expected to be able to add aspects that are not studied in this study, especially in operational management aspects, and are expected to be able to add more sources or correspondence for better results.

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