THE EFFECTS OF PRODUCT QUALITY AND SERVICE QUALITY ON LOENPIA NYONYA GIOK'S CONSUMERS SATISFACTION IN PTC

[1]Eduardo Sugiarto

Ciputra University Surabaya
INDONESIA

Email: Eduardo.sugiarto@ciputra.ac.id

ABSTRACT

The purpose of this research is to find out the effects of product quality and service quality of Loenpia Nyonya Giok's consumers satisfaction. There are two methods of data collection in this research. First, direct observation where the researcher observes events and conditions in research object. Second, documentation where the researcher collects questionnaire to 88 random respondents. Data processing method is statistical method where the researcher uses multiple linear regression analysis. Population of this research is consumer of Loenpia Nyonya Giok, while purposive sampling method is used to determine the sample size, which is 88 respondents. The research shows that based on the t-test, product quality has significant at 0.000 < 0.05, so the product quality affects Loenpia Nyonya Giok's customer satisfication. Next, the t-test shows that service quality is significant at of Loenpia Nyonya Giok's customer satisfaction showed significant result at 0.003 < 0.05, so service quality affects Loenpia Nyonya Giok's customer satisfication.
Keywords: Product Quality, Service Quality, Customer Satisfaction.

INTRODUCTION

Business is an activity where a company offers goods or services to meet consumer needs. Food business is one of business activities that everyone desperately needs, even supported by the growing number of culinary businesses in Surabaya. These have motivated all business entrepreneurs to innovate both in the form of products, packaging, and marketing ways. Innovation is required in business word from time to time, to enable the business to adjust with society developments as well as to meet consumer needs.

Product quality and service also influence the level of costumer's satisfaction in buying a product. Kotler and Armstrong (2014: 28-29) state that product and service quality, customer satisfaction, and corporate profitability are three things that are closely tied together. Product and service quality themselves have a very important role in achieving the level of customer's satisfaction in a business. According to Statistics of Surabaya Municipality, the number of culinary businesses in Surabaya has increased; therefore, many entrepreneurs are now competing to improve their product and service quality in order to survive in this increasingly fierce business competition.

Loenpia Nyonya Giok is a food and beverage business established in 2003 in Surabaya. This business focuses on snacks, with products such as spring rolls, risoles, croquettes, and solo sausages. Since its establishment, many similar products or even replacement products have constantly emerged. This business sells its products directly to its consumers and owns several

branches spread in Surabaya, which are in Kedungdoro street, Gwalk-Citraland, Royal Plaza Mall, Surabaya Wholesale Center, Pakuwon Trade Center, Pasar Atom Mall, and Ranch Market Galaxy Mall. Promotions are done through online and printed promotion as well as partnering with Go-Food and Go-Jek. In terms of product and service quality, *Loenpia Nyonya Giok* always tries to give the best for its consumers, with expectation for them to repurchase the products. The objectives of this are:

1. to find out how significant product quality influences customer's satisfaction for *Loenpia Nyonya Giok* in PTC.
2. to find out how significant service quality influences customer's satisfaction for *Loenpia Nyonya Giok* in PTC.
3. to find out how significant product and service quality simultaneously influence customer's satisfaction for *Loenpia Nyonya Giok* in PTC.

LITERATURE REVIEW

Some related literatures are used as references for this research. The first research is from Tronvoll (2012) on the model of consumer behavior from a service point of view. This research aimed to propose conceptual model derived from consumer complaints as a dynamic process in accorandce with the service, by examining general behavioral model from consumer complaints in relation to the perspective of service logic, in order to describe the dynamic concept of service. The results of this research were models in three categories of behavior in consumer's complaints, namely no complaining response, communication complaining responses, and action complaining responses.

The second research is from Djekic, *et al.*, (2016) entitled *Cross-Cultural Consumer Perceptions of Service Quality in Restaurants*. This research aimed to present the results of research on analyzing consumers' perceptions towards restaurant service quality in four European cities, namely Serbia, United Kingdom, Greece and Portugal. This research was quantitative in nature with questionnaire as technique of data colletion. The questionnaire was distributed to 802 respondents, selected randomly in those four cities. The result reveals that service and food quality were the most influential factors with two other supporting factors, location and interior.

The third research is from Bujisic, Hutchinson and Parsa (2014) entitled *The Effects of Restaurant Quality Attributes on Customer Behavioral Intentions*, with aim to examine the relationship between restaurant quality and consumer behavior. This research used experimental design on two different restaurants, and the findings later revealed that type of restaurant influenced consumer behavior.

RESEARCH METHODS

This research used causality research design with quantitative approach. According to Sanusi (2011: 14), causal research design is a research designed to examine the possibility of causal relationships between variables. According to Cooper and Schindler in Indrawati (2015: 184), quantitative research approach attempts accurately measure behavior, opinions, and attitudes. The author chose causal research design since this research examined the effect of product quality and service (independent variables) on customer satisfaction's level (dependent variable) for *Loenpia Nyonya Giok*.

Sanusi (2011: 87) states that population is all components of an element with certain characteristics used to draw conclusions. Population of this research was all consumers of *Loenpia Nyonya Giok* who purchased the product at Pakuwon Trade Center Surabaya branch, with the average number of consumers as much as 720 people per month.

Indrawati (2015: 169) explains that non-probability sampling is a sampling technique that does not allow all population members to have an equal chance to be selected as research sample, and

Putra (2013: 69) describes purposive sampling as samples selected with a specific purpose that must be explained by researcher to his or her informants before conducting research. Purposive sampling technique was used in this study since the entire population had been recognized and was expected to add validity for the research results.

According to Sanusi (2011: 104), the data source is divided into two as follows:

1. primary data source, where the data are first noted and obtained by the researcher so its accuracy and validity are guaranteed. The author used questionnaire to gather data in this research.

2. Secondary data sources, where the data already exist and be obtained by other parties. Secondary data are usually take form of literature and related previous research articles.

The number of population for this research was 720, obtained from the average number of visitors per month, with a tolerance limit of 10% (0.1) and formulated as follows:

$$n = \frac{720}{1 + (720 (0.1^2))} = 87.8$$

Based on the above calculation, the sample size used in this research was 87.8, rounded up to 88.

FINDINGS AND DISCUSSIONS

1. Validity and Reliability Test

Utama and Mahadewi (2014: 140) explain a measurement scale as valid if the scale is used to measure what supposed to be measured. Validity test is used to find out whether the question on a questionnaire is able to uncover something that is measured by that questionnaire. Questions can be said as valid if *the Pearson correlation* sig is lesser than 0.05.

The followings are the results of validity test for product quality (X_1) and service quality (X_1) and customer satisfaction (Y). Results of data processing showed that the entire independent and dependent variables were *valid* since the sigs were lesser than <0.05.

Table 1. Validity Test

No.	Variable	Instrument	Sig. Level (*2-tailed*)	Conclusion
1.	Product quality	$X_{1.1}$	0.001	*Valid*
		$X_{1.2}$	0.003	*Valid*
		$X_{1.3}$	0.000	*Valid*
		$X_{1.4}$	0.000	*Valid*
		$X_{1.5}$	0.000	*Valid*
		$X_{1.6}$	0.038	*Valid*
		$X_{1.7}$	0.000	*Valid*
2.	Service quality	$X_{2.1}$	0.001	*Valid*
		$X_{2.2}$	0.000	*Valid*
		$X_{2.3}$	0.000	*Valid*
		$X_{2.4}$	0.000	*Valid*
		$X_{2.5}$	0.000	*Valid*
		$X_{2.6}$	0.000	*Valid*
		$X_{2.7}$	0.000	*Valid*
		$X_{2.8}$	0.017	*Valid*
		$X_{2.9}$	0.004	*Valid*
3.	Consumer satisfaction	$Y_{1.1}$	0.000	*Valid*
		$Y_{1.2}$	0.000	*Valid*

		$Y_{1.3}$	0.009	*Valid*
		$Y_{1.4}$	0.000	*Valid*
		$Y_{1.5}$	0.000	*Valid*
		$Y_{1.6}$	0.000	*Valid*
		$Y_{1.7}$	0.001	*Valid*
		$Y_{1.8}$	0.001	*Valid*

Table 2. Reliability Test

Variable	*Cronbach's Alpha*
Product quality (X_1)	0.706
Service quality (X_2)	0.810
Consumer's satisfaction (Y)	0.812

Reliability test is a measuring tool that is used consistently and can give the same information results when used repeatedly (Ghozali, 2013: 42). In this research, reliability test was done by using Cronbach's alpha. The results showed that Cronbach's alpha value for each variable was greater than 0.6 so that it is concluded that the results of SPSS is reliable (Ghozali & Priest, 2013: 42).

2. Classic Assumption Test

Table 3. Normality Test

One-Sample Kolmogorov-Smirnov Normality Test		
Unstandardized Residual		
N		*88*
Normal Parameters a,b	*Mean*	*0.0000000*
Std. Deviation		*2.07911878*
Most Extreme Differences	*Absolute*	*0.098*
	Positive	*0.084*
	Negative	*-0.098*
Test Statistic		*0.098*
Asymp. Sig. (2-tailed)		*0.036c*
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Normality test was done to find out whether the regression model had normal distribution or not. This test used *Kolmogorov-Smirnov* and the result was 0.036.

Table 4. Heteroscedasticity Test

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.074	1.148		-1.807	0.074
	x1total	0.125	0.052	0.299	2.412	0.018

x2total	0.035	0.046	0.094	0.758	0.451

Heteroscedasticity test was performed to indicate that the presence or absence of residual variants was different from that of another observation, by using spearman correlation with SPSS system. The result showed that there was no heteroscedasticity since the result obtained was greater than 0.05.

Table 5. Linearity Test (X_1)

ANOVA Table

			Sum of Squares	Df	Mean Square	F	Sig.
ytotal * x1total	*Between Groups*	*(Combined)*	333.183	13	25.629	4.531	0.000
		Linearity	289.806	1	289.806	51.240	0.000
		Deviation from Linearity	43.377	12	3.615	0.639	0.802
	Within Groups		418.533	74	5.656		
	Total		751.716	87			

Table 6. Linearity Test (X_2)

ANOVA Table

			Sum of Squares	Df	Mean Square	F	Sig.
ytotal * x2total	*Between Groups*	*(Combined)*	398.549	14	28.468	5.884	0.000
		Linearity	302.173	1	302.173	62.459	0.000
		Deviation from Linearity	96.377	13	7.414	1.532	0.126
	Within Groups		353.167	73	4.838		
	Total		751.716	87			

Linearity test was performed to state that the relationship between one dependent variable and the independent variable was linear. In SPSS processing results, it was shown that X1 to Y had a linearity of 0.000 and devitation from linearity was 0.802. For the results of X2 to Y, the linearity was 0.000 and devitation from linearity was 0.126. It is concluded that X1 and X2 are linear to Y.

Table 7. Multicolinearity Test

Coefficients^a

		Collinearity Statistics	
Model		Tolerance	VIF
1	x1total	0.668	1.498
	x2total	0.668	1.498

a. Dependent Variable: ytotal

Multicollinearity test aimed to test whether there is a relationship between independent variables. The test used Variance Inflation Factor (VIF), and the results of SPSS showed X1 was 1.498 and X2 was 1.498, and the results of X_1 and X_2 were not greater than 10. Thus it is concluded that there is no multicolinearity.

Table 8. Autocorrelation Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.707[a]	0.500	0.488	2.10344	2.146

a. *Predictors: (Constant), x2total, x1total*
b. Dependent Variable: ytotal

Autocorrelation test aimed to determine whether multiple linear regression model had correlation between residual observations. This test used Durbin Watson test and the auto correlation did not happen if dU < dW <4-dU met. After processing the data in SPSS software, it was seen that Durbin Watson was 2,146 and when calculated using aforementioned condition, then 1.6999 < 2146 < 2.3001 or the autocorrelation did not happen.

3. Multiple Linear Regression Analysis

Table 9. Multiple Linear Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.686	0.244		2.809	0.006
	x1rata	0.524	0.093	0.530	5.608	0.000
	x2rata	0.268	0.086	0.294	3.113	0.003

a. *Dependent Variable: yrata*

Based on the data (Y = 0.686 + 0.524 X1 + 0.268 X2 + e) it is concluded that the regression coefficient value of product quality variable equal to 0.524 is positive value with sig value 0.000, so it can be said that product quality variable has effect on consumer satisfaction. The greater the product quality, the greater the consumers' satisfaction towards the product. Later, the coefficient of service quality is 0.268 which has positive value with sig 0.003. Hence, it can be said that service quality variable has effect on consumer satisfaction. The better the service the quality, the greater the consumers' satisfaction.

T-test was performed to compare whether there was a partial relation to the two independent variables being similar or different. Based on SPSS test results, the result of X1 sig value was 0.000 and the X2 sig value was 0.003. It is concluded that the relationship between independent variables has partial effect.

4. F Test

Table 10. F Test

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	7.006	2	3.503	57.120	0.000[b]
	Residual	5.213	85	0.061		
	Total	12.219	87			

a. Dependent Variable: yrata
b. Predictors: (Constant), x2rata, x1rata

F test was used to test the effect of independent variables on the dependent variable simultaneously. Data processing result from SPSS showed the sig. value was 0.000, thus it can be concluded that independent variables have simultaneous effect on dependent variable.

5. Correlation Coefficient Test (R) and Determination (R2)

Table 11. Correlation Test (R) and Determination (R^2)

Model Summary

Model	R	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*
1	0.757[a]	0.573	0.563	0.24764

a. Predictors: (Constant), x2rata, x1rata

According to Susetyo (2010: 115), correlation coefficient is a number that indicates the high level of relationship between two or more variables. Multiple linear correlation only limits its discussion on the relationship between two variables. Correlation coefficient (R) is the level of relationship closeness between independent variables with dependent variables with value from 0 to 1. In this research, the R value was 0.757 so it can be said that independent variables are tied up with dependent variable. According to Sugiyono (2011: 153), coefficient determination (R2) measures how capable a model explains variation of dependent variable with coefficient value from 0 to 1. The result showed that the value was 0.573 which means that the independent variables, namely product quality (X_1) and service quality (X_2) have percentage of 57.3%, while the other 42.7% is explained by other variables which are not discussed in this research.

Discussions

Based on t-test done in SPSS, the effect of product quality (X_1) on consumer satisfaction (Y) was 0.000, lesser than 0.05. According to Kotler and Armstrong (2012: 283), product quality is the ability of a product to demonstrate its functions and benefits to consumers, including its overall durability, reliability, accuracy, ease of operation and reparation. Based on the data and theory it can be concluded that the product quality (X_1) has partial effect on consumers' satisfaction (Y) for *Loenpia Nyonya Giok*'s product (in PTC).

Next, the effect of service quality (X_2) of consumer's satisfaction (Y) was 0.003 or lesser than 0.05. According to Khan and Fasih (2014), service quality influences consumer's satisfaction. If the service provided by a company is very good, consumer's satisfaction will arise. On the other hand, if the service receivedis poor, consumers will find other company with service that meet their expectation. Based on the data and theory, it can be concluded that service quality (X_2) has partial effect on consumers' satisfaction (Y) for *Loenpia Nyonya Giok*'s product (in PTC).

The results of F test performed with SPSS showed that the value was 0.000 or lesser than 0.05, so it can be concluded that product quality (X_1) and service quality (X_2) as independent variables have simultanoues effects on consumer satisfaction (Y). These results are consistent with past research conducted by Djekic, *et al.,* (2016), entitled *Cross-Cultural Consumer*

Perceptions of Service Quality in Restaurants that proves that service quality and food quality are main factors that affect consumers' satisfaction.

Table 12. Research Implications

Variable	Before Research	After Research
Product quality	1. Inconsistent product quality 2. Innovation that did not meet consumers' taste preference	1. Measuring materials to avoid difference in taste 2. Doing innovation based on consumers' requests
Service quality	1. Unfriendly service to consumers 2. Employees did not introduce products to consumers 3. Employees' physical appearance were not neat	1. Motivating employees to work at their best 2. Giving knowledge and information of sold product to make them able to share it with consumers 3. Giving uniform to employees to give professional impression

CONCLUSIONS AND SUGGESTIONS

Based on the research results, it can be concluded that produt quality has partially positive effect on consumers' satisfaction for the product of *Loenpia Nyonya Giok* (in PTC). Since the sig value was 0.000 or lesser than 0.05, the first hypothesis of this research was accepted. Next, service quality also has partially positive effect on consumers' satisfaction for the product. Result of significance test or t-test can be seen that service quality partially have positive effect to customer satisfaction in Loenpia Nyonya Giok (PTC). Since the sig value was 0.003 or lesser than 0.05, it can be concluded that the second hypothesis of this research was also accepted. Lastly, product quality and service quality have simultaneously positive effects on consumers' satisfaction for the product of *Loenpia Nyonya Giok* (in PTC), as seen from the sig value of 0.000 or lesser than 0.05. Therefore, it can also be concluded that the third hypothesis of this research was accepted as well.

For Loenpia Nyonya Giok, in order to improve and maintain the quality of its existing products, the company needs to add more varied menu by considering consumers' tastes, improve service quality to make consumers satisfied with the services provided, and pay attention to the employees' appearance to maintain the company standard of neatness and cleanliness.

REFERENCES

Ghozali, and Imam. 2013. Aplikasi Analisis Multivariate Dengan Program SPSS Edisi Ketujuh. Semarang: Penerbit Universitas Diponegoro

Indrawati. 2015. *Metode Penelitian Manajemen* and *Bisnis: Konvergensi Teknologi Komunikasi* and *Informasi.* Bandung: PT. Refika Aditama

Kotler, P., and Armstrong, G. 2012. *Prinsip-prinsip Pemasaran. Edisi 13.* Jakarta: Erlangga
_____, G. 2014. *Principles of marketing (15th Edition).* New Jersey: Pearson

Putra, Nusa. 2013. Metode Penelitian Kualitatif Manajemen. Jakarta: PT. Raja Grafindo Perkasa 52

Sanusi, Anwar. 2011. *Metode Penelitian Bisnis.* Jakarta: Penerbit Salemba Empat

Sugiyono, 2011. Metode Penelitian Kuantitatif, Kualitatif, and R&D Edisi 14. Bandung: Alfabeta

_____, 2011. Metode Penelitian Kuantitatif, Kualitatif, and R&D Edisi 14. Bandung: Alfabeta

Susetyo Budi, 2010. Statistika Untuk Analisis Data Penelitian. Bandung: PT Refika Aditama

Utama, I. G., and Mahadewi, N. M. (2012). *Metode Penelitian pariwisata & Perhotelan.* Yogyakarta: Penerbit Andi.

Utami, W. Christina. 2012. *Manajemen Ritel: Strategi* and *Implementasi Ritel Modern Edisi 2. Jakarta: Salemba Empat*