



ANALYSIS OF THE EFFECT OF PRODUCT QUALITY ON CONSUMER SATISFACTION AT CV CHARIS ABADI

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Abstract

This study aims to analyze the effect of product quality on customer satisfaction at CV Charis Abadi, a custom furniture company in Bandung. Product quality is measured through three main indicators: product durability, aesthetics, and conformity to specifications, while customer satisfaction is measured through satisfaction levels, repeat orders, and recommendations to others. The method used is descriptive quantitative with data collected through questionnaires from 33 customers. The results of the analysis indicate a very strong positive and significant relationship between product quality and customer satisfaction ($r = 0.881$, $p < 0.05$). Simple linear regression reveals that product quality contributes 77.7% to the variation in customer satisfaction. This means that the better the product quality perceived by customers, the higher their level of satisfaction. These findings emphasize the importance of improving product quality, especially in aspects of durability, aesthetics, and conformity to specifications, as a key strategy to maintain customer loyalty and encourage repeat purchases. This study also provides recommendations for companies to continue innovating in product design and quality to meet evolving market needs and expectations.

Keywords: Product Quality, Consumer Satisfaction, Custom Furniture, Loyalty, Bandung.

INTRODUCTION

The development of the property and tourism industries, as well as the increasing demand for modern housing in Indonesia, has driven the rapid growth of the custom furniture industry, which offers interior products tailored to specific consumer needs. Today's consumers consider not only product function but also aesthetics, long-term durability, and the suitability of detailed designs to the room's concept.(Afifi & Widodo, 2021)This situation requires custom furniture companies to be able to produce high-quality products with high precision, thus optimally meeting consumer expectations.

A product is considered high quality if it meets customer expectations in areas such as durability, accuracy, dependability, usability, and aesthetics.(Philip Kotler and Kevin Lane Keller, 2015). According to Garvin(Kotler, P., 2014)There are eight key aspects of product quality: functionality, visual appeal, dependability, fit, serviceability, and perceived quality. However, with the increasing customer desire for design customization, the most important key indicators in the context of custom furniture manufacturing are the dimensions of durability, beauty, and fit.

Product durability indicates how long a product can be used optimally without experiencing significant damage. Garvin(Kotler, P., 2014)emphasizes that durability

relates to a product's lifespan, resistance to intensive use, and resistance to environmental conditions. In the custom furniture industry, the use of high-quality raw materials such as blockboard and HPL is a crucial factor in producing strong and durable products. Customers tend to be more satisfied when the furniture they order is durable and functional without requiring frequent repairs quickly.

Aesthetics is a customer's subjective assessment of a product's visual appearance. According to Kotler and Armstrong (Kotler, P., 2014) Aesthetics encompasses beautiful design, harmonious color selection, attractive texture patterns, and neat finishing. In custom furniture, aesthetics are crucial because the product ordered must blend seamlessly with the customer's desired interior concept. Neat finishing, harmonious colors, and appropriate design details significantly contribute to customer satisfaction.

The term "conformance to specification" describes how well a product meets the agreed-upon design specifications. The extent to which a finished product conforms to the specified technical requirements is what conformance, according to (Garvin, 1987) Customer satisfaction in the custom furniture industry can decline when errors in sizing, shape design, or component placement make the product unsuitable for the buyer's space needs.

Customer satisfaction, on the other hand, is the final judgment made by buyers about a product after experiencing it, based on how well the product met their expectations. (Lotte et al., 2023) Oliver concluded that high customer satisfaction creates an emotional bond with the brand, increasing loyalty that includes repeat purchases and recommendations; especially when the consumer experience meets or exceeds their expectations. (Oliver, 1999) Overall customer satisfaction, willingness to repurchase, and willingness to refer are all markers of good customer service. (Tjiptono, 2000).

In the context of the custom furniture industry, such as CV. Charis Abadi, product quality is a key determinant of customer satisfaction. With a custom-made production system, accuracy in design specifications, sizing accuracy, material strength, and final finishing are crucial for the company's success in meeting customer expectations.

One marketing concept is "repeat orders," which describes customers who buy from the same vendor repeatedly because they were satisfied with the service they received the first time. Consumers demonstrate brand loyalty through actions such as reordering or repeat purchases when they have a positive experience with a product or service. (Philip Kotler and Kevin Lane Keller, 2015)

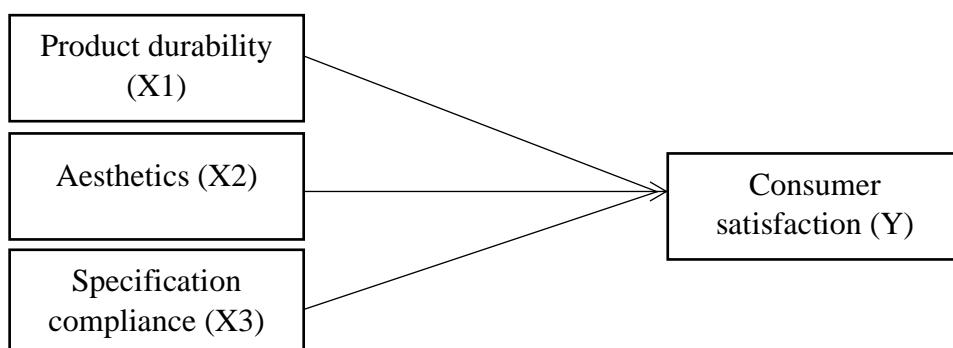
Experts agree that recommendations originate from an informal marketing strategy known as word-of-mouth (WOM). Key factors influencing the success of recommendations include consumer satisfaction, trust in the recommender, and societal standards. According to research, (Marie, 2024) The most successful type of advertising is when satisfied consumers willingly tell others about their positive experiences with a product or service. At the same time, according to (Pato, 2010), consumers who not only repurchase but also recommend goods without incentives show high levels of satisfaction and loyalty.

CV. Charis Abadi is a custom furniture company located in Bandung with a workshop in Ciwidey. This company produces various types of custom interiors such as kitchen sets, wardrobes, cabinets, wall backwalls, and other interior products, produced using blockboard and High Pressure Laminate (HPL) as raw materials. The

company was founded in 2014 and is still operating today. The number of permanent employees at CV. Charis Abadi is 10 people. This company focuses on producing standard/custom furniture for apartments, hotels, cafes, housing, and other similar residential areas.

There is strong evidence from a number of industries that product quality is directly correlated with consumer satisfaction. In the cosmetics sector, Mutmainah et al. (2025) showed that product quality consistency influences consumer satisfaction.(Hidayatullah & Himmah, 2024)The level of client satisfaction is greatly influenced by the accuracy of the size, quality of materials, and finishing results at CV Meubele Berkah Tangerang in the furniture sector.

This study aims to examine the relationship between consumer satisfaction and product quality at CV Charis Abadi using the following metrics: product aesthetics, product suitability to needs, and product durability.



METHODS

Spanning three months, from March to May 2025, this study was conducted at the location of CV Charis Abadi. Using product quality (X) as an indicator of product durability, aesthetics, and conformity to specifications, and customer satisfaction (Y) as an indicator of satisfaction level, repeat orders, and recommendations to others, this study used a descriptive quantitative method to examine the research object. This study aims to objectively determine the influence of the factors studied by analyzing numerical data collected from respondents. Standardized instruments, such as questionnaires, were used to collect data, which were then analyzed statistically to draw findings that can be applied to a wider population.

Researchers focus on an entire topic or items with certain qualities, called a population, to study it and draw conclusions. In contrast, a sample is a randomly selected portion of a larger population that is then used to draw conclusions about the whole.

Several CV Charis Abadi customers who purchased furniture during the research period served as the population and sample. Specifically, customers who had made purchases during the research period were selected using a purposive sampling approach. Based on available data and respondents' willingness to complete the questionnaire, a sample of 30 was selected.

This study used primary data, including information collected directly from the company's research department and questionnaires completed by participants.

Responses from CV Charis Abadi customers to the research instrument served as the primary data source.

Anwar Sanusi (2017) stated that the author used a Likert-scale questionnaire to collect data for this study. This questionnaire is based on the respondents' overall attitudes toward statements that indicate the topic or variable being studied. One way to collect information is through a questionnaire, which consists of a series of questions or statements written and given to respondents (Sugiyono, 2017). At least thirty customers of CV Charis Abadi were surveyed using Google Forms to collect data for this study.

RESULTS

Based on the results of the analysis of 30 statement items, consisting of 15 items for variable X (Product Quality) and 15 items for variable Y (Consumer Satisfaction), it was found that all item-total correlation values were above the r-table of 0.349 (with $N = 33$ and a significance level of $\alpha = 0.05$).

In more detail:

- Items in variable X (items 1–15) show correlation values ranging from 0.4826 to 0.7339, all of which meet the construct validity criteria.
- Items in variable Y (items 16–30) show even higher correlation values, namely between 0.6049 and 0.7776, which indicates that all items in the Consumer Satisfaction variable have very good validity.

Table 1. Validity Test

Variables	Indicator	R Count	R Table	Information
Product Quality	X1	0.626	0.349	VALID
	X2	0.586	0.349	VALID
	X3	0.722	0.349	VALID
	X4	0.633	0.349	VALID
	X5	0.541	0.349	VALID
	X6	0.667	0.349	VALID
	X7	0.731	0.349	VALID
	X8	0.733	0.349	VALID
	X9	0.482	0.349	VALID
	X10	0.722	0.349	VALID
	X11	0.568	0.349	VALID
	X12	0.511	0.349	VALID
	X13	0.544	0.349	VALID
	X14	0.639	0.349	VALID
	X15	0.504	0.349	VALID
Customer Satisfaction	Y16	0.656	0.349	VALID
	Y17	0.641	0.349	VALID
	Y18	0.689	0.349	VALID
	Y19	0.631	0.349	VALID
	Y20	0.638	0.349	VALID
	Y21	0.604	0.349	VALID
	Y22	0.777	0.349	VALID
	Y23	0.666	0.349	VALID

	Y24	0.762	0.349	VALID
	Y25	0.744	0.349	VALID
	Y26	0.723	0.349	VALID
	Y27	0.65	0.349	VALID
	Y28	0.72	0.349	VALID
	Y29	0.694	0.349	VALID
	Y30	0.75	0.349	VALID

It can be said that the statement items in this questionnaire are all valid and suitable for use as metrics in this investigation.

Reliability Test

The purpose of reliability testing is to determine how consistently a research instrument measures a variable. In this study, reliability testing was conducted using SPSS software and the Cronbach's Alpha method. Instrument reliability increases as the alpha value increases. The following reasons are used in reliability evaluation:

Table 2. Reliability Test

Variables	Reliable Limits	Chronbach's Alpha
Product Quality (X)	15	0.883
Consumer Satisfaction (Y)	15	0.92

Both X and Y, according to the reliability study, have a Cronbach's Alpha value of more than 0.8, which indicates that this research instrument is very reliable and suitable for use in collecting data.

Classical Normality Assumption Test

Total_X, which measures product quality, and Total_Y, which measures customer satisfaction, are two variables that will be examined in a normality test to see if their values follow a normal distribution. The findings were analyzed using the Kolmogorov-Smirnov and Shapiro-Wilk tests from the SPSS Explore procedure.

Table 3. Normality Test

Variables	Kolmogorov-Smirnov Sig.	Shapiro-Walk Sig.
Product Quality (X)	0.200*	0.02
Consumer Satisfaction (Y)	0.200*	0.073

Note: The * sign on the Kolmogorov-Smirnov value indicates that the value is the lower limit of the actual significance (Lilliefors Correction)

Based on the results of the normality test, the data for the Consumer Satisfaction variable (Y) is normally distributed, while the data for the Product Quality variable (X) is not statistically normally distributed based on the Shapiro-Wilk test.

The research data, particularly the variables Product Quality (X) and Consumer Satisfaction (Y), can be better understood using descriptive statistics. The following data was uncovered through the analysis:

Table 4. Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Standard Deviation
Product Quality	33	48	75	57.58	6.39
Customer Satisfaction	33	38	75	52.85	8.41

Product Quality (X) has a value range from 48.00 to 75.00 with a standard deviation of 6.39, as shown in the table above. The average value (mean) is 57.58. This indicates that there is little fluctuation in the data and most respondents have a high opinion of product quality.

Meanwhile, Y represents the average customer satisfaction, with a range of 38.00 to 75.00 and a standard deviation of 8.41. This indicates that, similar to product quality, customer satisfaction is generally high but has a wider range of values. Therefore, both factors have very high average values, indicating that buyers have a good impression of product quality and are generally satisfied.

Heteroscedasticity Test

By performing a regression on the independent variable (X_total) and testing for heteroscedasticity using the Glejser technique, we can obtain the absolute value of the residuals. The table below shows that the X_total variable has a significance value (p-value) of 0.516 (>0.05). This rules out the possibility of heteroscedasticity in the regression analysis.

The basic assumption of homoscedasticity, namely that the residual variance is constant, has been met by the regression model.

Table 5. Heteroscedasticity Test (Glejser Method)

Variables	Coefficient	Std. Error	t-count	Sig. (p-value)
Constant	5,636	3,801	1,483	0.148
X_total	-0.043	0,0066	-0,657	0.516

Thus, it can be concluded that the regression model has fulfilled the classical assumptions regarding homoscedasticity, namely that the residual variance is constant.

Pearson Correlation Test

To determine how product quality (X) and customer satisfaction (Y) are related, researchers used the Pearson correlation test. After running the data through SPSS, the following conclusions were obtained:

Table 6. Pearson Correlation Test

Variables	Product Quality	Customer Satisfaction
Product Quality	1	0.881
Sig. (2-tailed)	-	0
N	33	33
Customer Satisfaction	0.881	1
Sig. (2-tailed)	0	-
N	33	33

With a Pearson correlation of 0.881, we can see that product quality significantly impacts customer satisfaction. Customers are more likely to be satisfied with a product if they perceive its quality to be high.

There is a statistically significant relationship between the two variables as the significance value (Sig. 2-tailed) is 0.000, which is significantly lower than the alpha value (0.05). As a result, we can say that product quality and consumer satisfaction are highly related.

Hypothesis Testing

Simple Linear Regression Test

To find out how much influence product quality (X) has on customer satisfaction (Y), then a simple linear regression test was conducted. After running the data through SPSS, the following output was produced:

Table 7. Simple Linear Regression Test

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1,757,084	1	1,757,084	107,827	-
Residual	505,159	31	16,259	-	-
Total	2262.242	32	-	-	-

a. Dependent Variable: Consumer Satisfaction. b. Predictors: (Constant), Product Quality

This regression model is simultaneously significant, implying that product quality and customer satisfaction are significantly influenced by each other, according to the calculated F value of 107.827 and a significance level of $p = 0.000 (<0.05)$.

Regression Coefficient Test

By comparing the two variables under consideration in regression analysis, the Regression Coefficient attempts to ascertain the nature and magnitude of the relationship between the two.

Table 8. Regression Coefficients

Model	Variables	B	Std. Error	Beta	t	Sig.
1	(Constant)	-13,933	6,496	-	-2.154	0.039
	TOTAL_X	1,160	0,112	0.881	10,384	0

The following is a basic linear regression equation derived from the data in the table:

$$Y = -13.933 + 1.160X$$

Assuming all other factors remain the same, this translates to a 1,160 point increase in customer satisfaction (Y) for every one unit increase in product quality (X).

Product quality partially influences customer satisfaction, which is indicated by a significance value of $0.000 < 0.05$ for variable X.

R² Test (Coefficient of Determination)

In a regression model, the R² test is used to determine the extent to which the independent variable (X) influences the dependent variable (Y) on the dependent variable (Y) in a regression model.

Table 9. Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.881	0.777	0.769	4.03676

While other variables accounted for 22.3% of the variance in customer satisfaction, product quality explained 77.7% of the variance with an R Squared value of 0.777, indicating a very strong influence in the range of 0.76-1.00.

Hypothesis Testing

H_0 : The relationship between product quality and customer satisfaction is not statistically significant.

H_1 (Opposite Theory): Product quality has a substantial impact on customer satisfaction.

Basis of Decision Making:

The significance value (Sig.) in the t-test for variable X is compared with $\alpha = 0.05$:

- If $\text{Sig.} < 0.05 \rightarrow H_0$ is rejected, H_1 is accepted.
- If $\text{Sig.} \geq 0.05 \rightarrow H_0$ is accepted, H_1 is rejected.

Results:

The significance value for the Product Quality variable (X) is $0.000 < 0.05$. Therefore, H_0 rejected and H_1 accepted.

Interpretation:

This means that product quality significantly influences consumer satisfaction. Therefore, the research hypothesis is accepted."

Conclusion :

Findings from basic linear regression analysis indicate that product quality has a positive and substantial impact on customer satisfaction.

The positive regression coefficient value of 1.160 and the coefficient of determination ($R^2 = 0.777$) indicate this; both imply that product quality accounts for 77.7% of the variance in consumer satisfaction, with a significance level of 0.000.

In other words, Customer satisfaction is directly proportional to how highly they rate product quality. The importance of improving product quality to achieve maximum customer satisfaction is supported by these results.

CONCLUSION

In accordance with the findings of the linear regression analysis, the reviewed literature shows that product quality significantly impacts consumer satisfaction. Furthermore, it's reasonable to assume that higher-quality products will inspire brand loyalty among buyers, which will generate more revenue for the business.

In addition, the author also summarizes several suggestions for consumers, including: 1. For companies, it is hoped that they can improve their products and fulfill other aspects related to material quality, aesthetics, suitability and other things that support consumer satisfaction. As well as to maintain loyalty and increase repeat orders, companies are expected to be more innovative in product design and adapt it to developments in market trends and preferences. 2. For consumers, it is hoped that they will be more careful and thorough in choosing products, especially in paying attention to durability, aesthetics, and suitability of specifications to suit their needs and expectations and provide feedback to the company in the form of criticism and suggestions, in order to help the company improve product quality continuously.

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