

**THE EFFECT OF THE QUALITY OF MOTORCYCLE MODIFICATION PRODUCTS FROM
REY CUSTOM MOTOSHOP ON CUSTOMER SATISFACTION AND LOYALTY**

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ABSTRACT

The title of this study is the effect of product quality at Rey Custom Motoshop motorcycle modification workshop. This study was conducted on customers who modified Prodjie lights on their motorcycles and used the services of Rey Custom Motoshop workshop located on Jalan Banongan Selatan, Gudang Village, Asembagus District, Situbondo Regency. This study used accidental sampling technique. The data were tested using validity tests, reliability tests, hypothesis tests, and research data analysis using descriptive analysis, multiple linear regression analysis, correlation coefficient analysis, and determination analysis.

Keywords: Product Quality; Satisfaction; Customer Loyalty.

INTRODUCTION

Customer satisfaction and loyalty are two essential elements in maintaining business sustainability and increasing competitiveness in the market. Customer satisfaction can be defined as the feeling of pleasure or disappointment that arises after comparing expectations with the actual performance of the product or service obtained by consumers. According to Rahmawati and Setiawan (2024) , customer satisfaction is an important factor that influences loyalty, where this relationship shows that when customers feel satisfied, they tend to remain loyal and repeatedly transact with the same company. However, according to Aprilia et al., (2023) , if consumers are not satisfied with the same company, they will stop transacting with that company and may even encourage other consumers not to transact with the company in question. Hermawati (2023) also mentions that customer satisfaction is the primary benchmark in service marketing strategies, where high satisfaction increases the likelihood of customers repurchasing the same product or service.

Linking satisfaction and loyalty, Muslimah, (2023) emphasizes the need to increase satisfaction through quality products and services so that customer loyalty can be optimally realized. Therefore, it can be concluded that increasing customer satisfaction is an effective strategy to strengthen consumer loyalty to the company. Customer loyalty itself is a strong commitment from customers to make repeat purchases of a product or service, even though there are situations and potential influences that can encourage changes in purchasing behavior. Rizki, (2020) in his research revealed that customer loyalty can be influenced by the quality of the products produced by the company. On the other hand, according to research by , marketing strategies that involve positive and innovative customer experiences can increase loyalty through customer satisfaction gained from interactions with the product or service. In this context, it is important to note that loyal customers not only make repeat purchases but also become brand ambassadors who spread positive experiences to others. Thus, it can be concluded that strong customer loyalty can be created through a combination of high satisfaction and innovative strategies implemented by the company.

Strong customer loyalty, characterized by a commitment to continue making repeat purchases and sharing positive experiences, has been extensively studied in previous literature. In a study by Mulyono & Syamsuri, (2021) , it is emphasized that product quality is a crucial variable that can influence customer loyalty. Another study conducted by Retno Intan et al., (2021) highlights that innovative marketing strategies focused on customer experience also play a role in enhancing loyalty through satisfaction arising from positive customer interactions with the product. A study conducted by Ahmadi, (2024) underscores the importance of a holistic approach that links experience with satisfaction as a mediator of loyalty so that producers can provide satisfactory services. In addition, Aulia, (2024) proves that service quality and product quality are a powerful combination in creating customer satisfaction, which will ultimately strengthen their loyalty.

Understanding the complexity of customer satisfaction and loyalty variables, these studies reinforce the premise that innovative strategies and good quality of a service or product have a significant impact on creating loyal customers. Using a critical analysis of several of these studies, there are key differences that can be used to differentiate this study. One of the most notable differences is that this study focuses more on the influence of product quality in the context of motorcycle modification workshops, which has not been the main focus of previous studies. Although previous studies have generally highlighted the influence of innovation and customer experience on loyalty, this study will explore in greater depth the specific product quality applied by Rey Custom Motoshop and its impact on customer satisfaction and loyalty. This unique perspective is expected to fill a gap in the literature regarding the relationship between product quality and loyalty in the motorcycle modification industry, contributing significantly to the understanding and application of effective business strategies to achieve optimal customer satisfaction and loyalty.

Previous research shows that when the products offered meet or even exceed customer expectations, satisfaction levels increase substantially, which then directly contributes to the formation of customer loyalty. In addition, product quality measures that include continuous innovation and adaptation can often generate positive potential in creating strong and lasting relationships between Rey Custom Motoshop motorcycle modification workshops and consumers. However, there is also the potential for a negative impact if the strategies implemented are not in line with market dynamics and evolving consumer expectations, which can reduce customer satisfaction and loyalty (Hidayat & Paramita, 2021) .

Given the issues outlined above, the researcher is interested in conducting a study titled: "The Influence of Product Quality at Rey Custom Motoshop Motorcycle Modification Workshop on Customer Satisfaction and Loyalty."

Problem Statement

Based on the background described above, the problem can be formulated as follows:

1. Does the quality level of Prodjie lighting products affect customer satisfaction at Rey Custom Motoshop motorcycle modification workshops?
2. Does the quality of Prodjie lighting products influence customer loyalty at Rey Custom Motoshop motorcycle modification workshop?
3. Is there an effect of the quality level of Prodjie lighting products on customer satisfaction and loyalty at Rey Custom Motoshop motorcycle modification workshop?

Research Objectives

Based on the above problem formulation, the objectives to be achieved from this research are as follows:

1. To determine the effect of the quality of products at Rey Custom Motoshop motorcycle modification workshop on customer satisfaction levels.
2. To determine the effect of the quality of products at Rey Custom Motoshop motorcycle modification workshop on customer loyalty.
3. To determine the effect of the quality of products from Rey Custom Motoshop motorcycle modification workshop on customer satisfaction and loyalty.

RESEARCH METHODS

Research Location and Time

Research Location: The research was conducted at Rey Custom Motoshop, located on Jln. Banongan Selatan, Gudang Village, Asembagus District, Situbondo Regency, East Java, Indonesia. This location was chosen because it is the location of Rey Custom Motoshop's motorcycle modification workshop and the place where mechanics perform modifications and interact with customers.
Research Period: The research took place from March to April 2025. It included data collection, questionnaire distribution, observation, and data analysis.

1. Population

The population is the generalizable domain consisting of objects or subjects with specific qualities and characteristics defined by the researcher for study and subsequent conclusion-drawing (Sucianingsih, 2022) . The population in this study is all customers of Rey Custom Motoshop motorcycle modification workshop.

2. Sample

This study uses *accidental sampling*, which is a technique of taking samples by chance, meaning that anyone who happens to meet the researcher can be used as a sample, if the person who happens to be met is considered suitable as a data source (Sari, 2024) . So, the sample size is 50 respondents. The researcher believes that the absolute sample size is more important than the actual population size. A sample size of 50 respondents meets the requirements for a valid sample.

3. Data Analysis Techniques

Before the data is analyzed, the data collected in the study must first be processed and then organized into tables for analysis purposes. The techniques used in processing the data are as follows:

- a) Editing, in this case, the author edits the data obtained from the data collectors and then edits the data obtained.
- b) Coding, which is a step of identifying data into categories contained in the questionnaire. The questionnaire was designed to facilitate data analysis. The data was analyzed using a 1-5 Likert scale with the criteria Very Agree (5), Agree (4), Disagree (3), Strongly Disagree (2), and Very Strongly Disagree (1). In analyzing the data, there is a closed-ended questionnaire, so the scores in the questions use the Likert scale (Ningtiyas et al., 2021) . The answer scores can be seen in the following table:

Table 1. Table of Likert scale instruments

Option Description	Score
Strongly Agree	5
Agree	4
Somewhat Disagree	3
Disagree	2
Strongly disagree	1

To measure the predetermined research variables, a measurement scale was used to measure the opinions and perceptions of an individual or group of people about social phenomena. In this study, the researcher specifically applied this scale, which is hereinafter referred to as the research variable.

- c) Tabulation, which is the final process after editing and coding, involves creating tables and then entering the final results into the tables. Even though these research steps have been carried out, if the data in the analysis results is irrelevant, the conclusions obtained cannot be justified.

To determine the level of achievement of respondents, the following formula is used:

$$TCR = \frac{\text{Rata - rata Skor} \times 100}{\text{Skor Maksimum}}$$

Where TCR = Respondent Achievement Level

Table 2. Respondent Achievement Level Table

No	Achievement Presentation	Criteria
1	85% - 100%	Very Good
2	66% - 84%	Good
3	51% - 65%	Fair
4	36% - 50%	Poor
5	35% - 0%	Not Good

RESULTS AND DISCUSSION

TCR Product Quality Against Satisfaction

There are four indicators of product quality on customer satisfaction: performance, durability, reliability, and overall performance. Based on these four indicators after processing the TCR, the following table can be concluded:

Table 3. Product Quality TCR Table

Indicator	Achievement	Category
Performance	82%	Good
Durability	83%	Good
Reliability	83%	Good
Overall Performance	84%	Good
Average	83%	Good

Based on the data in the table above, it can be seen that the average percentage achievement rate for the product quality indicator in terms of customer satisfaction, as seen from the responses, is 83%. This shows that the product quality of Rey Custom Motoshop motorcycle modification workshop, when viewed from each indicator, can be categorized as good.

TCR Product Quality Against Customer Loyalty

There are three indicators of product quality in relation to customer satisfaction: repeat purchases, brand loyalty, and recommendations. Based on these three indicators, after processing the TCR, the following table can be concluded:

Table 4. TCR Product Quality and Customer Loyalty

No	Indicator	Percentage (%)	Category
1	Repeat purchases	83	Good
2	Brand Loyalty	84	Good
3	Recommendation	82	Good
4	Average	83	Good

Based on the data in the table above, it can be seen that the average achievement rate of the customer loyalty indicator is 83%, which indicates that customer loyalty at Rey Custom Motoshop motorcycle modification workshop, as assessed by each indicator, is in the good category.

Validity test

The validity test is used to measure the validity of a questionnaire. A questionnaire is considered valid if the questions in the questionnaire are able to reveal what the questionnaire is intended to measure (Arjanto, 2022) . The validity test is analyzed by comparing the calculated r value with the table r value (df = n-k). If the calculated r is greater than the table r, it is considered valid, and if the calculated r is less than the table r, it is considered invalid. The r value (table)with significance $\alpha = 0.05$ and $df = N-2$, $df = 50-2 = 48$ is 0.279, the results of which are then presented in the table below:

Table 5. Product Quality Validity Test Table

Question No.	Calculated r	r-Table 5%	Description
P1	0.696	0.279	Valid
P2	0.727	0.279	Valid
P3	0.736	0.279	Valid
P4	0.644	0.279	Valid
P5	0.617	0.279	Valid
P6	0.732	0.279	Valid
P7	0.711	0.279	Valid
P8	0.733	0.279	Valid
P9	0.571	0.279	Valid
P10	0.706	0.279	Valid
P11	0.725	0.279	Valid
P12	0.652	0.279	Valid
P13	0.652	0.279	Valid
P14	0.763	0.279	Valid
P15	0.506	0.279	Valid
P16	0.626	0.279	Valid

Table 6. Table of validity test for satisfaction

Question No.	Calculated r	r-Table 5%	Description
P1	0.702	0.279	Valid
P2	0.762	0.279	Valid
P3	0.634	0.279	Valid
P4	0.671	0.279	Valid
P5	0.578	0.279	Valid
P6	0.756	0.279	Valid
P7	0.681	0.279	Valid
P8	0.761	0.279	Valid
P9	0.555	0.279	Valid
P10	0.723	0.279	Valid

P11	0.722	0.279	Valid
P12	0.649	0.279	Valid
P13	0.684	0.279	Valid
P14	0.806	0.279	Valid
P15	0.615	0.279	Valid
P16	0.651	0.279	Valid

Table 7. Customer loyalty validity test table

Question No.	Calculated r	r-Table 5%	Description
P1	0.825	0.279	Valid
P2	0.836	0.279	Valid
P3	0.737	0.279	Valid
P4	0.835	0.279	Valid
P5	0.766	0.279	Valid
P6	0.707	0.279	Valid
P7	0.814	0.279	Valid
P8	0.785	0.279	Valid
P9	0.879	0.279	Valid

Each correlation result can be consulted with 50 respondents at a significance level of 5%. $r_{table} = 0.279$, so it can be seen that if $r_{calculated}$ is less than r_{table} , then the question is invalid, but if $r_{calculated}$ is greater than r_{table} , then the question can be considered valid. Based on the validity test results in the table (product quality, satisfaction, and customer loyalty validity test), all data are declared valid.

Reliability Test

A reliability test is a tool used to assess whether a questionnaire is an indicator of a variable or construct. A questionnaire is considered reliable if a person's answers to the questions are consistent or stable over time (). A questionnaire is considered reliable if the Cronbach's Alpha (α) value is greater than 0.6 .

Table 8. Reliability Table

Variable	Cronbach's Alpha	Description
Product Quality	0.921 > 0.6	Reliable
Satisfaction	0.924 > 0.6	Reliable
Customer Loyalty	0.926 > 0.6	Reliable

The results of the reliability of the research instruments above show that the three variables above are reliable because the overall *Cronbach's alpha* has exceeded the requirement where a variable is considered valid if it exceeds 0.6.

Multiple Linear Regression Analysis Results

Multiple linear regression analysis is a linear relationship between two or more independent variables and a dependent variable. Regression analysis is used to measure the strength of the relationship between two or more variables, as well as to show the direction of the relationship between the dependent variable and the independent variables (Nugraha et al., 2021) .

Table 9. Correlation Test Table

Model Summary					
Model	R	R Square	Adjusted R-Square	Standard Error of the Estimate	
1	.795 ^a	.633	.617	5.952	

a. Predictors: (Constant), Satisfaction, Loyalty

Based on the results of Pearson's double *product moment* correlation calculation, supported by the SPSS program above, the calculated r value is 0.795. Thus, there is an influence of customer satisfaction and loyalty on product quality of 0.795, which is a perfect correlation level.

The magnitude of the influence of customer satisfaction and loyalty is indicated by an R square value of 0.633. This shows that the percentage of influence of the independent variables (customer satisfaction and loyalty) on product quality is 63%, while the remaining 37% is influenced by other factors.

T-TEST

Statistical testing essentially shows the extent to which an independent variable or explanatory variable individually influences the dependent variable . This test is used to examine or analyze the influence of the independent variable (X), product quality, on each dependent variable, namely satisfaction (Y₍₁₎) and customer loyalty (Y₍₂₎) (Ningsih et al., 2021) .

Testing criteria:

- a. Ho: $\beta = 0$ means there is no effect of the independent variable (product quality) on the dependent variables (customer satisfaction and loyalty)
- b. Ha: $\beta \neq 0$, meaning there is an effect of the independent variable (product quality) on the dependent variables (customer satisfaction and loyalty)

Hypothesis acceptance criteria:

- 1. Ho is accepted or Ha is rejected if the significance level $\alpha > 0.05$
- 2. Ho is rejected or Ha is accepted if the significance level $\alpha < 0.05$
- 3. With a significance level of 5% ($\alpha = 0.05$)

Table 10. t-Test Table Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Standard Error	Beta			
(Constant)	21.225	7.540			2,815	.001
SATISFACTION	,043	,088	,043		5,489	,001
LOYALTY	1,133	,126	,794		8,978	.001

a. Dependent Variable: Product Quality

From the table, it can be seen that the probability of satisfaction is 5.489 with t_{table} of 2.011, so t_{calculated} > t_(table) (5.489 > 2.011) with a significance of 0.001 < 0.05, indicating that the proposed alternative hypothesis (H1) is accepted, meaning that satisfaction affects product quality.

From the table, we can see that the probability value for loyalty is 8.978 with a t_{table} value of 2.011, so t_{calculated} > t_(table) (8.978 > 2.011) with a significance of 0.001 < 0.05 indicates that the proposed alternative hypothesis (H2) is accepted, meaning that customer loyalty affects product quality.

CONCLUSIONS

There is a significant effect of product quality (X) on customer satisfaction (Y1), as shown in the table in the satisfaction test. From this table, it can be seen that the probability value of the calculated T of 2.011 for the satisfaction variable is 0.001 < 0.05, indicating that the proposed alternative hypothesis (H1) is accepted, meaning that satisfaction is influenced by product quality. There is an influence of product quality (X) on customer loyalty (Y2). The probability value of the calculated T for the customer loyalty variable is 0.001 < 0.05, indicating that hypothesis H2 is accepted. Recommendations For the owner of Rey Custom Motoshop, They can improve the Rey Custom Motoshop motorcycle modification workshop by providing customer satisfaction through

the quality of the products offered, thereby making customers loyal to the workshop. For researchers, Conduct more extensive and in-depth research to obtain a specific picture of the influence of the quality of products from the Rey Custom Motoshop motorcycle modification workshop on customer satisfaction and loyalty. Researchers can also develop or add several relevant variables.

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