

Research Article

Analysis of the Effect of Service Quality, Price, and Location on Customer Satisfaction at JJ Welding Workshop in Medan City

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Abstract: Competition in the business world today is increasingly fierce. This is also felt business people in the welding workshop services sector. The sampling method used is Incidental Sampling Method. The sample in this study was 34 people customers from the JJ Welding Workshop in Medan City and then an analysis was carried out on data obtained using quantitative data analysis. Analysis Quantitative includes: validity and reliability tests, classical assumption tests, regression analysis multiplex, hypothesis testing via t test and F test, and coefficient analysis determination. The results of this scientific research: Service Quality, Price and Location simultaneously have a positive and significant effect on customer satisfaction at the JJ Welding Workshop in Medan City.

Keywords: Customer Satisfaction; Location; Price.

1. Introduction

Competition in the business sector has grown more intense in the current globalization period. Since every company, including the welding services sector, strives to be the best in its field, the rise of new companies presents its own set of market obstacles.

Therefore, in order to win the competition, business actors must have successful plans. Enhancing service quality, figuring out the best price, picking the ideal location, and being able to come up with fresh ideas to provide value for clients are some of the most important things that business owners need to work on. Since every customer wants to obtain the greatest service and outcomes that satisfy their expectations, ensuring customer satisfaction is essential to winning commercial competitions.

Located at Jl. Blok Gading, Kp. Lalang, Kec. Sunggal, Kabupaten Deli Serdang, North Sumatra Province, JJ Welding Workshop is one of the welding service providers that was founded in 2010. Because of its roadside position, JJ Welding Workshop has a lot of potential. Six regular employees now work for what started off as a one-person business.

Because its costs are reasonable, JJ Welding Workshop has a better chance of winning the competition. This is consistent with Kotler's (2007) assertion that solid customer relationships form the cornerstone of a well-developed marketing orientation. Marketers need to interact with consumers, educate them, get involved, and perhaps even walk them through the process.

Businesses in the welding service industry must be more creative in generating service value due to the market's growing competition and consumers' growing sensitivity when selecting welding services. To put it another way, JJ Welding Workshop needs to be able to provide novel items or services that are noticeably superior to those provided by rivals.

In order to survive and win the competition, JJ Welding Workshop is compelled by this circumstance to look for original and inventive solutions. In order to create the required advancements and enhancements that should increase consumer contentment following

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transactions at JJ Welding Workshop, the company must comprehend the elements that affect customer satisfaction given the heightened level of competition.

The following table displays JJ Welding Workshop's sales information for the previous three years:

Table 1. Sales Revenue Data of JJ Welding Workshop (2021–2023)

Month	2021	2022	2023	2024
January	5.000.000	15.000.000	10.000.000	8.500.000
February	7.000.000	12.550.000	13.000.000	10.000.000
March	11.000.000	20.000.000	9.500.000	8.000.000
April	7.000.000	13.750.000	11.000.000	7.500.000
May	4.500.000	12.000.000	8.500.000	9.000.000
June	10.000.000	14.550.000	15.000.000	8.000.000
July	13.000.000	9.000.000	14.000.000	12.000.000
August	8.500.000	7.000.000	12.300.000	10.500.000
September	6.500.000	11.750.000	11.000.000	8.750.000
October	15.000.000	14.000.000	8.000.000	7.000.000
November	5.550.000	12.500.000	16.500.000	-
December	10.500.000	10.500.000	9.000.000	-
Total	103.550.000	152.600.000	137,800,000	89.250.000

Source: JJ Welding Workshop

The aforementioned table indicates that JJ Welding Workshop's annual revenue tends to fluctuate; in 2021, revenue was IDR 103,550,000, lower than in 2022, when it reached IDR 152,600,000. However, in 2023, revenue declined to IDR 137,800,000, and another decline in revenue is anticipated for 2024. This is concerning because it suggests a decline in customer satisfaction. Additionally, a preliminary survey of 20 customers revealed their opinions about JJ Welding Workshop's pricing, location, and level of service quality.

Table 2. Preliminary Survey Description at JJ Welding Workshop

No	Statement	Agree	%	Disagree	%
Service Quality.					
1	JJ Welding Workshop's work results match the customers' expectations.	12	60%	8	40%
2	JJ Welding Workshop always maintains cleanliness, both in the workshop and at the customer's location.	11	55%	9	45%
Price					
1	JJ Welding Workshop offers a variety of services at affordable prices.	8	40%	12	60%
2	JJ Welding Workshop The prices at JJ Welding Workshop are relatively cheaper than other workshops.	4	20%	16	80%
Location					

1	Access to JJ Welding Workshop is very easy to find because there are clear road signs.	3	15%	17	85%
2	JJ Welding Workshop keeps their promise to complete the work within the agreed time.	4	20%	16	80%

Source: JJ Welding Workshop

According to the above data, most consumers selected "Agree" when asked about the level of service quality, demonstrating that they are happy with JJ Welding Workshop's offerings. This is due to the fact that JJ Welding Workshop's workmanship has been able to satisfy customers, and the staff constantly keeps the workshop and the customer's location clean, guaranteeing that customers are satisfied with the services they receive.

Regarding cost, JJ Welding Workshop charges more for exterior and interior fabrication than its rival, out of the two welding shops along Jl. Blok Gading. For instance, the competitor's workshop charges IDR 4,000,000 for the highly difficult manufacture of an iron gate that is 2 meters high and 1 meter wide, while JJ Welding Workshop charges IDR 5,000,000. Both the materials and the fabrication services are included in these costs.

The majority of customers said they "disagree" with the placement. Despite the fact that the access roads are in good shape, many patrons believe that the location is hard to discover because of the numerous branches and curving roads, as well as the absence of obvious directional signs. Furthermore, JJ Welding Workshop occasionally goes over the intended completion time. This circumstance draws attention to a serious problem with JJ Welding Workshop's location, which could eventually impede customer pleasure and have a detrimental effect on future customer loyalty.

From the explanation above regarding service quality, pricing, and location, it can be concluded that while the service quality is good, it comes at a higher price compared to competitors. Although the higher price can still meet customer expectations, the difficult-to-access location makes customers reluctant to return to JJ Welding Workshop.

Based on these findings and issues identified by the researcher, the researcher is interested in conducting a study entitled: "Analysis of the Effect of Service Quality, Price, and Location on Customer Satisfaction at JJ Welding Workshop in Medan City."

2. Theoretical Review

2.1. Customer Satisfaction

Customer satisfaction is a measure of how satisfied a customer is with the service or product they receive. Satisfaction occurs when customer expectations are in line with the service provided. According to Tjiptono (2015), customer satisfaction is the feeling of pleasure or disappointment that arises after comparing perceived performance (outcomes) of a product with their expectations.

2.2. Service Quality

As stated by Tjiptono and Chandra (2016), service quality is the degree of excellence that is expected and the control over that level of excellence to meet customer desires.

2.3. Price

According to Tjiptono (2022), price is the only element of the marketing mix that generates revenue for the company.

2.4. Location

According to Tjiptono (2020), location refers to various marketing activities that aim to facilitate and simplify the distribution or delivery of goods and services from producers to consumers.

3. Research Method

3.1. Multiple Linear Regression

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

The influence between two or more independent variables and one dependent variable is explained by Priyatno (2019). The multiple linear regression equation is as follows:

Explanation:

Y	= Customer Satisfaction
X ₁	= Service Quality
X ₂	= Price
X ₃	= Location
a	= Constant
b ₁ , b ₂ , b ₃	= Regression coefficients for the independent variables
e	= Error term

4. Results and Discussion

4.1. Results

4.1.2. Multiple Linear Regression Test

Multiple linear regression is the analytical method employed in this investigation. The data meet the criteria for performing a multiple linear regression analysis since they are normally distributed and show no evidence of multicollinearity or heteroscedasticity, according to the traditional assumption tests.

The following table displays the findings of the multiple linear regression analysis on how location, pricing, and service quality affect customer satisfaction.:

Table 3. Multiple Linear Regression Results.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	-1.375	3.618	
	X1.Total	.347	.170	.470
	X2.Total	.127	.172	.135
	X3.Total	.184	.133	.268

Source: Processed data using SPSS version 25.0 (2025)

Based on Table 1 above, the results of the multiple linear regression test can be summarized as follows:

The regression equation is:

$$Y = -1.375 + 0.347X_1 + 0.127X_2 + 0.184X_3$$

The regression analysis results are:

- Customer satisfaction (Y) falls by -1.375 if the variables of location (X₃), price (X₂), and service quality (X₁) are all zero.
- Customer satisfaction (Y) will rise by 0.347 for every unit increase in service quality (X₁).
- Customer satisfaction (Y) will rise by 0.127 if pricing (X₂) increases by one unit.

If there is an increase in location (X₃) by 1 unit, customer satisfaction (Y) will increase by 0.184.

Hypothesis Testing

To confirm the research findings based on the researcher's hypotheses or initial assumptions about a specific occurrence, hypothesis testing is carried out.

T-Test (Partial Test): At a 5% significance level, the partial test is used to examine the data and test each hypothesis separately.

The following are the selection criteria for hypothesis testing:

If t-calculated >, then H_a is accepted and H₀ is refused. The Sig. t < α or t-table

If t-calculated is less than t-table or Sig. $t > \alpha$, then H_a is rejected and H_0 is approved.

Tabel 4. Uji Parsial
Coefficients^a

Model		t	Sig.
1	(Constant)	-.380	.707
	X1.Total	2.040	.050
	X2.Total	.737	.467
	X3.Total	1.384	.177

a. Dependent Variable: kepuasan pelanggan

Source: Processed data using SPSS version 25.0 (2025)

Based on Table 2 above, the following conclusions can be drawn:

1) The Impact of Customer Satisfaction on Service Quality

The findings show that when t-calculated (-2.040) $>$ t-table (1.697) or Sig. t (0.050) $< \alpha$ (0.05), H_a is accepted and H_0 is denied. This indicates that at JJ Welding Workshop in Medan City, customer satisfaction is positively and significantly impacted by service quality. H_1 in this study is therefore supported.

2) Price's Effect on Customer Satisfaction

The findings indicate that when t-calculated (0.737) $<$ t-table (1.697) or Sig. t (0.467) $> \alpha$ (0.05), H_a is rejected and H_0 is accepted. This suggests that at JJ Welding Workshop in Medan City, price has no discernible and favorable impact on client satisfaction. H_2 is therefore not supported in this study.

Location's Effect on Customer Satisfaction The findings show that when t-calculated (1.384) $<$ t-table (1.697) or Sig. t (0.177) $> \alpha$ (0.05), H_a is rejected and H_0 is approved. This suggests that at JJ Welding Workshop in Medan City, location has no discernible and favorable impact on client satisfaction. H_3 is therefore not supported in this study.

Simultaneous Test, or F-Test The results of the simultaneous test of location, pricing, and service quality are displayed in the following table:

Tabel 5. Uji Simultan ANOVA

Model		F	Sig.
1	Regression	21.335	.000 ^b
	Residual		
	Total		

a. Dependent Variable: Customer Satisfaction

b. Predictors: (Constant), X1 Service Quality, X2 Price, X3 Location

Source: processed results from SPSS version 25.0 (2025)

If a regression model's significance value (Sig.) is less than 0.05, it is deemed fit. Given that the Sig. value in Table 4.18 above is $0.00 < 0.05$, it can be said that at Bengkel Las JJ in Medan City, Service Quality, Price, and Location all significantly and favorably affect Customer Satisfaction at the same time.

4.1.3. Coefficient of Determination (R^2)

The following presents the results of the determination test between service quality, price, and location on customer satisfaction, as shown in the table below:

Table 6. Coefficient of Determination
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.825 ^a	.681	.649	1.46855

a. Dependent Variable: Customer Satisfaction

b. Predictors: (Constant), X1 Service Quality, X2 Price, X3 Location

Source: processed results from SPSS version 25.0 (2025)

The coefficient of determination (R^2) value, as determined by the R^2 test findings in Table 4.19 above, is 0.825, indicating a very strong correlation between the factors of location, price, and service quality on customer satisfaction at Bengkel Las JJ. Price, location, and service quality account for 64.9% of customer satisfaction, with characteristics outside the study's independent variables accounting for the remaining 35.1%, according to the Adjusted R Square value of 0.649.

5. Discussion

5.1. The Impact of Customer Satisfaction at Bengkel Las JJ in Medan City on Service Quality

According to the study's findings, if $t\text{-count } 2.040 > t\text{-table } 1.697$ or $\text{Sig. } t \ 0.050 < \alpha \ 0.05$, H_a is accepted and H_0 is rejected; otherwise, H_a is rejected and H_0 is accepted. This indicates that at Bengkel Las JJ in Medan City, customer satisfaction is positively and significantly impacted by service quality to some extent. Experts Tjiptono and Chandra (2016) explain that service quality is the expected degree of perfection and control over that level of excellence to satisfy client demands, and this is consistent with their definition.

5.2. Price's Impact on Medan City's Bengkel Las JJ Customers' Satisfaction

$\text{Sig. } t \ 0.467 > \alpha \ 0.05$ or $t\text{-count } 0.737 < t\text{-table } 1.697$ indicate that H_a is rejected and H_0 is accepted, according to the study's findings. This indicates that, at least in part, price at Bengkel Las JJ in Medan City has no discernible and favorable impact on customer satisfaction. This is in line with the explanation provided by experts Kotler and Keller (2016), who describe pricing as the value that customers trade for a good or service. The seller may establish the price evenly or negotiate with the buyer to determine the value.

5.3. The Impact of Bengkel Las JJ's Location on Customer Satisfaction in Medan City

$\text{Sig. } t \ 0.177 > \alpha \ 0.05$ or $t\text{-count } 1.384 < t\text{-table } 1.697$ indicate that H_a is rejected and H_0 is accepted, according to the study's findings. This indicates that, in part, customer satisfaction at Bengkel Las JJ in Medan City is not positively and significantly impacted by location. This comes after expert Tjiptono (2017) explained that location has to do with where a business should have its headquarters and conduct business. Consequently, a company's location is crucial since it impacts its competitive position and decides its existence.

5.4. Customer Satisfaction at Bengkel Las JJ in Medan City: The Impact of Price, Location, and Service Quality

According to the study's findings, which indicate a $\text{Sig. value of } 0.00 < 0.05$, Bengkel Las JJ in Medan City's customer satisfaction is positively and significantly impacted by price, location, and service quality all at the same time. This is corroborated by Tjiptono's (2015) explanation, which states that customer satisfaction is the emotion a person experiences after evaluating a product's perceived performance (outcome) against their expectations.

6. Conclusions

The following conclusions are drawn from the research findings and discussion: At Bengkel Las JJ in Medan City, customer satisfaction is significantly and favorably impacted by service quality. Customer satisfaction at Bengkel Las JJ in Medan City is not significantly and favorably impacted by price. Customer satisfaction at Bengkel Las JJ in Medan City is not significantly and favorably impacted by location. At Bengkel Las JJ in Medan City, client happiness is positively and significantly impacted by service quality, price, and location all at once.

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