

**ANALYSIS OF THE QUALITY OF CUSTOMER SATISFACTION IN
WORKSHOP Nasmoco ringroad SOLO**

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Abstract

Satisfaction is feeling happy or disappointed someone who emerged after comparing the performance (or outcome) products that are considered on the performance (or outcome) is expected. If the performance fails to meet expectations, consumers will not be satisfied. Tujuan study was to determine the effect of service factors either partially or simultaneously covering; tangible, reliability, responsiveness, empathy and assurance of customer satisfaction in the garage Nasmoco Ringroad Surakarta.

Survey research methods used in this study with the consumer population Nasmoco Ringroad Solo workshop. The sampling technique in the form of accidental sampling study of 100 samples of respondents through filling a questionnaire on differentiation, service and innovation on consumer purchasing decisions. While the data analysis to test the hypothesis used multiple linear regression, t test, F test, and the coefficient of determination R Square.

The results showed that: 1) Physical evidence of an effect on customer satisfaction, 2)reliability influence on satisfaction customer. 3) responsiveness affect the customer satisfaction customer, 4)collateral effect on satisfaction customer, 5) empathy effect on satisfaction customer. Simultaneous test results indicate that the independent variable is the quality of service (physical evidence, reliability, responsiveness, assurance and empathy) effecting simultaneously on customer satisfaction, Customer satisfaction of 45.3% can be explained by physical evidence, reliability, responsiveness, assurance and empathy, while the remaining 54.7% is explained by factors - other factors beyond the studied,

A. PRELIMINARY

One of the sales in the field of repair and maintenance services of motor vehicles or workshop, in order to have a good competitiveness of business creativity required in accordance with the market needs. For that we need management and market management is able to answer the competition. The business needs the support of all parties both from the company and its employees.

Workshop should provide value and satisfaction to customers through quality services in order to win the competition. Excellence workshop is determined by the quality of services provided, it can be identified through customer satisfaction. According Tjiptono (2012) in research Apriyani (2017), consumer satisfaction is the situation shown by consumers when they realize that their needs and wants as expected and met promptly. Meanwhile, according to Kotler and Keller (2012) in research Apriyani (2017), satisfaction is feeling happy or disappointed someone who emerged after comparing the performance (or outcome) products that are considered on the performance (or outcome) is expected.

Research Apriyani (2017) also revealed that the quality of services consisting of physical evidence, reliability, responsiveness, assurance and empathy together have a significant impact on customer satisfaction. The results also show that the variable responsiveness have the most powerful influence in comparison with other variables. It is also supported by the opinion of Simon (2016) in his research that the consumer demands in terms of services received, causing the company to act as much as possible to provide the best service for consumers / customers.

Providing services that satisfy customers is essential for service companies such as Shop Nasmoco Ringroad. This is because a customer satisfaction with the services received will not hesitate to promote through the word of mouth to others. Based on these descriptions, this study aims among other things determine the influence of factors such services; tangible, reliability, responsiveness, empathy and assurance of customer satisfaction in the garage Nasmoco Ringroad Surakarta.

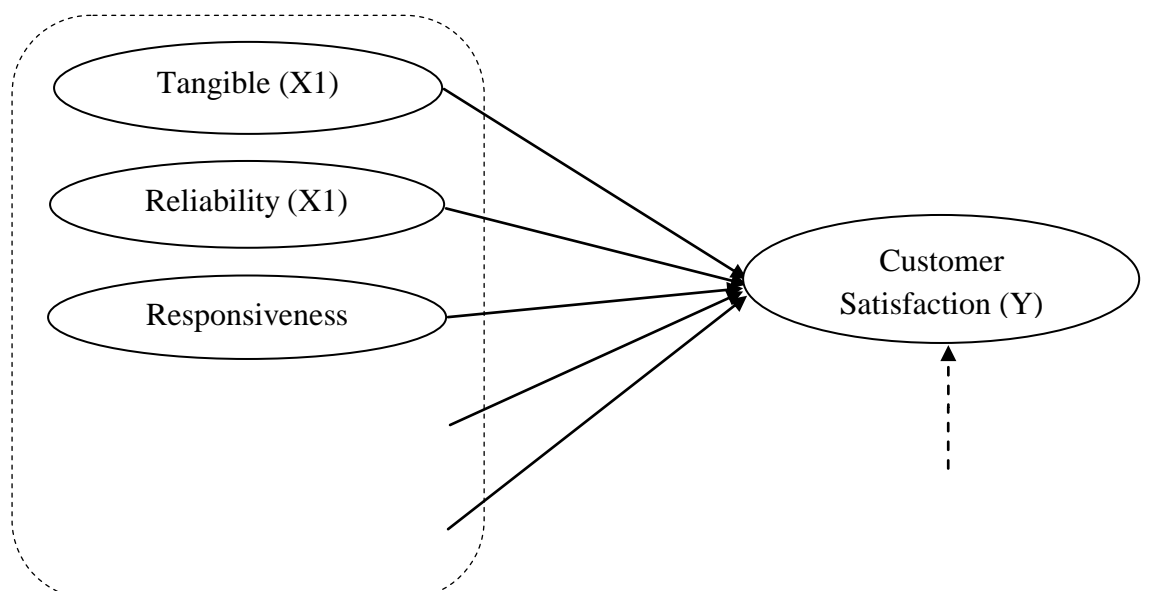
B. Hypotheses

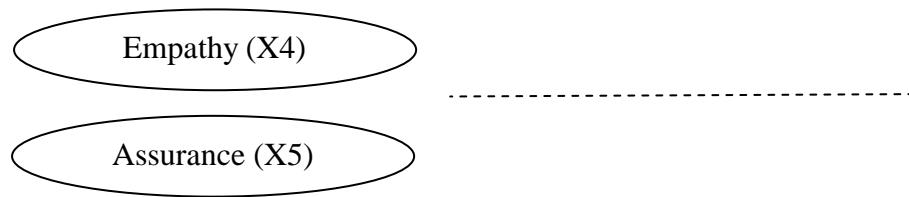
The hypothesis is a temporary answer to be proved kebenarannya (Sugiyono: 2009: 96) .Bentuk answer the problems that have been formulated above, it is necessary to develop the research hypothesis as follows:

- H1: Allegedly Tangible, Reliability, Responsiveness, Empathy and Assurance simultaneous and significant impact on customer satisfaction Nasmoco workshop Ringroad Solo.
- H2: Allegedly Tangible / physical evidence and significant partial effect on customer satisfaction Nasmoco workshop Ringroad Solo.
- H3: Allegedly Reliability / Reliability partial effect and significant impact on customer satisfaction Nasmoco workshop Ringroad Solo.
- H4: Allegedly Responsiveness / Response partial effect and significant impact on customer satisfaction Nasmoco workshop Ringroad Solo.
- H5: Allegedly Emphaty / Empathy partial effect and significant impact on customer satisfaction Nasmoco workshop Ringroad Solo.
- H6: Allegedly Assurance / Faith partial effect and significant impact on customer satisfaction Nasmoco workshop Ringroad Solo.

C. FRAMEWORK

To determine the effect of service quality on customer satisfaction in the garage Nasmoco Ringroad Solo using multiple linear regression analysis, t test, F test and the coefficient of determination (R²). Schematically the framework of this research can be described as follows:





Picture 1
Framework

D. RESEARCH METHODS

The method used in this study is a survey method, the method of data collection by taking a sample of the population and using questionnaires as the primary data collection instrument that is spread researcher. This study design was cross-sectional, ie research where data is only taken at one time or a certain period obtained from the respondents at the time of the research carried out.

The population in this research is the consumer workshop Ringroad Nasmoco Solo. The sampling technique used in the study accidental sampling of 100 samples of respondents through filling a questionnaire on differentiation, service and innovation on consumer purchasing decisions. While the data analysis to test the hypothesis used, among others:

1. Multiple regression analysis

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e$$

Where:

Y = Customer Satisfaction

a = Constant

b₁, b₂, b₃, b₄, b₅ = Regression Coefficients

X₁ = Physical Evidence

X₂ = Reliability

X₃ = Response

X₄ = Security

X₅ = Empathy

e = error

2. Simultaneous Test (Test F)

3. Partial test (t test)

4. The coefficient of determination (R²)

E. RESULTS AND DISCUSSION

1. Respondents by gender

The composition of respondents by sex are presented in Table 4.1

table 1
Number of Respondents Gender

Gender	number of Respondents	Percentage
Man	69	69%
woman	31	37%
Total	100	100%

According to the table 1 is known that most respondents were male as many as 69 people (69%), while the female respondents as many as 31 people or 31%. This is because men are often more active than women.

2. Respondents by Age

Tabulation of the respondent's age can be seen as follows:

table 2
Number of Respondents by Age

Age	number of Respondents	Percentage
<18th	3	3%
19 - 30Th	38	38%
31 - 50th	59	59%
Total	100	100%

According to the table 2 can be seen for the age of the respondent that most are aged 31-50 years old is as much as 59%. This is because at that age usually someone has a level of attention to the car, so it is more often visited the workshop.

3. Descriptive analysis

Descriptive analysis is used to analyze the data by describing the data that has been collected as without meaning make conclusions or generalizations apply to the public. The following descriptive statistical result of research:

table 3
Descriptive Statistics Test Results

	N	Minimum	maximum	mean	Std. deviation
Physical evidence	100	10	20	16.00	2.383

reliability	100	7	15	12.00	1,557
Responsiveness	100	5	15	12.00	1,826
security	100	3	15	12.00	2,137
empathy	100	7	15	12.00	1,682
Customer Decisions	100	11	20	16.00	1.658
Valid N (listwise)	100				

The test results of descriptive statistics in Table 4.3 shows the value of physical evidence has a minimum value of 10, maximum of 20, the mean of 16.00 and Std Deviation 2.383. 7 reliability has a minimum value, maximum as big as 15, mean 12.00, and Std Deviation 1.557. Descriptive statistics responsiveness minimum value of 5, maximum of 15, mean 12.00 and Std Deviation descriptive 1,826. Statistik minimum guaranteed value of 3, maximum of 15, mean 12.00 and Std Deviation 2.137. Descriptive statistics of empathy minimum value of 7, maximum of 15, mean 12.00 and Std Deviation 1.682. Descriptive statistics customer decisions minimum value of 11, maximum of 20, mean 16.00 and Std Deviation 1.658.

4. Test Research Instruments

a. Validity test

table 4
Test Results Validation Studies

variables	grain	R Count	R Table	Information
Physical evidence	Item 1	.620	> 0.1966	valid
	Item 2	.851	> 0.1966	valid
	Item 3	0.315	> 0.1966	valid
	Item 4	.851	> 0.1966	valid
reliability	Item 1	.636	> 0.1966	valid
	Item 2	.589	> 0.1966	valid
	Item 3	0.626	> 0.1966	valid
Responsiveness	Item 1	0.728	> 0.1966	valid
	Item 2	.631	> 0.1966	valid
	Item 3	0.499	> 0.1966	valid
security	Item 1	.689	> 0.1966	valid
	Item 2	0.712	> 0.1966	valid
	Item 3	0.604	> 0.1966	valid
empathy	Item 1	.479	> 0.1966	valid
	Item 2	.598	> 0.1966	valid

Kep. Customer	Item 3	0.615	> 0.1966	valid
	Item 1	0.796	> 0.1966	valid
	Item 2	0.796	> 0.1966	valid
	Item 3	0.796	> 0.1966	valid
	Item 4	0,425	> 0.1966	valid
	Item 5	0,425	> 0.1966	valid

Based on the results of the validation test of physical evidence, reliability, responsiveness, assurance, empathy and customer decision shows total correlation > r table so that it can be concluded the data is valid to be used as query item.

b. test Reliability

Reliability testing of the physical evidence, reliability, responsiveness, assurance and empathy for the customer's decision is done by testing each - each variable with the following results:

table 5
Reliability Test Results Research

variables	<i>Cronbach Alpha</i>	Criteria	Information
Physical evidence	0.744	> 0.6	reliable
reliability	0.708	> 0.6	reliable
Responsiveness	0.715	> 0.6	reliable
security	0.752	> 0.6	reliable
empathy	.652	> 0.6	reliable
Kep. Customer	.771	> 0.6	reliable

Based on the reliability test results indicate that the value of Cronbach Alpha variable physical evidence, reliability, responsiveness, assurance, empathy and customer decisions is greater than 0.6, then the statements in the questionnaire that stored by the respondent was reliable and good for use as a measurement in the collection data.

5. Classic assumption test

a. Normality test

Here normality test results of the study:

table 6
Normality Test Results

variables	<i>Kolmogorv Smirnov</i>	Standard
Physical evidence reliability Responsiveness security empathy	.200	> 0,050

Test for normality in this study demonstrate the significant value of $0.200 > 0.05$, the study concluded the data were normally distributed. The following results were strengthened by the graph below:

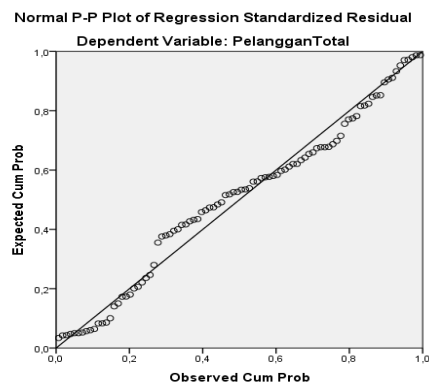


Figure 1: Graph Test P Plots

Plots P normality test results above indicate the point - the point followed and approached the diagonal line so that it can be concluded regression model to meet the assumptions of normality,

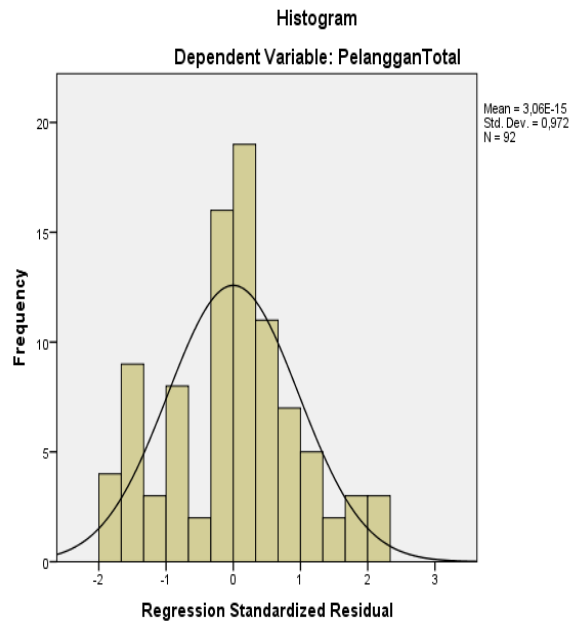


Figure 2: Graph Histogram Normality Test

b. test Multicollinearity

The following Table Summary of multicollinearity test:

table 7
The test results Multicollinearity

variables	<i>tolerance</i>	Standard	VIF	Standard	Information
Physical evidence	0,927	> 0.1	1,079	<10	Not Happen Multicollinearity
reliability	0,745	> 0.1	1,343	<10	Not Happen Multicollinearity
Responsive ness	0,806	> 0.1	1,240	<10	Not Happen Multicollinearity
security	0.847	> 0.1	1,181	<10	Not Happen Multicollinearity
empathy	0.951	> 0.1	1,051	<10	Not Happen Multicollinearity

Multikolinearitas test results above shows that the value of tolerance of physical evidence 0.927 greater than 0.1 and VIF physical evidence amounted to 1.079 smaller than 10 means a variable physical evidence in this study did not happen multikolinearitas. For keandalannilai variable tolerance test result greater than 0.1 0,745 and 1,343 VIF reliability of less than 10 means the reliability of variables in

this study did not happen multikolinearitas. Responsiveness to variable tolerance value of 0,806 is greater than 0.1 and VIF amounted to 1,240 smaller than 10 means that the variable does not happen multikolinearitas responsiveness. To guarantee variable tolerance value of 0.847 is greater than 0.1 and VIF amounted to 1,181 smaller than 10 means that the variable does not happen multikolinearitas guarantee.

c. test Heteroskedastisitas

The following test results heteroskedastisitas research:

table 8
Test Results Heteroskedastisitas

variables	<i>P Value</i>	Standard	Information
Physical evidence	0.768	> 0.05	Non Heteroskedastisitas
reliability	.684	> 0.05	Non Heteroskedastisitas
Responsiveness	0,363	> 0.05	Non Heteroskedastisitas
security	0,559	> 0.05	Non Heteroskedastisitas
empathy	.851	> 0.05	Non Heteroskedastisitas

Heteroskedastisitas test results showed a P value of 0.768 Value of physical evidence is greater dai 0.05 means heteroskedastisitas free physical evidence variable. Value P Value reliability amounted to 0.684 greater than 0.05 means that the variable-free reliability of heteroskedastisitas. Valuedaya response to the P value of 0.363 is greater than 0.05 means that the variable responsiveness heteroskedastisitas free. Value P Value bail of 0,559 is greater than 0.05 means that the variable-free guarantee of heteroskedastisitas. For a P value of 0.851 empathy Value greater than 0.05 means that empathy variable heteroskedastisitas free.

d. autocorrelation test

Autocorrelation test is used to determine whether or not irregularities classi autocorrelation assumption that correlation exists

between residual on an observation by other observations in the regression model. Here are the results of research autocorrelation test:

table 9
Autocorrelation Test Results

	Residual unstandardized
Test Value ^a	-, 20 456
Cases <Test Value	50
Cases > = Test Value	50
total Cases	100
Number of Runs	57
Z	1.206
Asymp. Sig. (2-tailed)	, 228

Based on the test results by using the Run Test autocorrelation, obtained significance value of $0.228 > 0.05$, so it can be concluded that this study does not happen autocorrelation.

6. Multiple Linear Regression Test

a. Regression Model

The following table multiple linear regression test results of the study:

table 10
Regression Model Research

	B
1 (Constant)	2,332
Physical evidence	, 070
reliability	-, 362
Responsiveness	, 149
security	, 786
empathy	, 806

$$Y = 2,332 + 0,070X_1 - 0,362X_2 + 0,149X_3 + 0,786X_4 + 0,806X_5$$

b. Simultaneous Test (Test F)

The test results simultaneously (test F) are described as shown in the following table.

table 11
Eligibility Test Results Model

F Count	F Table	significance	Standard	Keetrangan
17.386	> 2.31	0,000	<0.05	Eligible Models Used

c. Partial test (t test)

The results of the partial test (t test) can be described as presented in the following table.

table 4.12
T test results Research

variables	t Count	t Table	significance	Standard	informatio n
Physical evidence	0.661	<1.985	.218	> 0.05	Rejected
reliability	-2.000	> -1.985	0,010	<0.05	Be accepted
Responsiveness	1,005	<1.985	.480	> 0.05	Rejected
security	6.359	> 1.985	0.288	> 0.05	Be accepted
empathy	5,438	> 1.985	0,046	<0.05	Be accepted

As shown in the table above that partial individual service factors, namely: 1) Physical evidence known t 0.661 < t table 1.985. Thus the first hypothesis (H1) is rejected, thereby concluded that the physical evidence does not affect the partial and significant impact on customer satisfaction Nasmoco workshop Ringroad Solo. 2) Reliability is known -2.000 t > t table 1.985. Thus the second hypothesis (H2) is received, so it was concluded that the negative effect partially reliability and significant impact on customer satisfaction Nasmoco workshop Ringroad Solo. 3) Responsiveness 1,005 known t < t table 1.985. Thus the third hypothesis (H3) is rejected, thereby concluded that the responsiveness is not partial and significant effect on customer satisfaction Nasmoco workshop Ringroad Solo. 4) Empathy is known t count 5,438 > t table 1.985. Thus the fourth hypothesis (H4) is received, so it concluded that empathy is partially affected and significant impact on customer satisfaction Nasmoco workshop Ringroad Solo. 5) Security unknown 6.359 t > t table 1.985. Thus the fifth hypothesis (H5) is received, so it concluded that the guarantee

partial effect and significant impact on customer satisfaction Nasmoco workshop Ringroad Solo.

d. coefficient of Determination

The coefficient of determination is used as a measurement of how much the ability of all the independent variables in explaining the variance of the dependent variable. The following test results the coefficient of determination in the research:

table 13
Coefficient Determination Test Results

Model	Adjusted R Square	Information
1	.453	Influential 45.3%, 54.7% influence of other variables

The test results above shows the determination coefficient R² perhitunga results obtained in multiple regression analysis and coefficient of determination obtained by the value Adjustes R Square of 0.453. This shows that the variance on variablesatisfaction customers of 45.3% can be explained by physical evidence, reliability, responsiveness, assurance and empathy, while the remaining 54.7% is explained by factors - other factors beyond the studied

The results of the research hypothesis is one that states the physical evidence does not affect the customer's decision is supported by evidence empiris. Hasil research shows that the value of $t > t$ table, so that the physical evidence does not affect the decision this pelanggan. Hal can be interpreted that the general condition of the physical evidence room Nasmoco workshop Ringroad Solo still not enough influence customer decisions. This means Nasmoco Ringroad Solo workshop services with facilities and equipment available are not sufficient so that the facility inimasih not entice customers to come to the workshop. The results of this study are relevant denganhasil previous study conducted by Ningratri(2017, pp. 50-56)which states that the physical evidence did not influence the decision. This result is the fact that improving the physical evidence alone is not going to support significantly to the improvement of decision

The results of this study are not relevant to the results of research conducted by Wijayanti and Sumekar (2009) which states that physical evidence of an effect on the decision pelanggan. Karakteristik physical evidence led to the potential customer can not judge a service before mengonsumsinya. Ini cause consumers perceived risk in purchasing decisions increasingly besar. Oleh because the physical evidence is one way to reduce the level of service organizations consumer perceptions of the risk of errors.

Results of testing the hypothesis 2 which states affect the reliability of the customer's decision is supported by evidence empiris. Hasil research shows that the value of $t > t$ table, so it can be concluded that the reliability influence on customer decisions. This shows that the reliability of the workshop indicated with reliability in the form of open on time, able to be trusted without making a mistake and gave the waiter quickly and precisely in serving the customer will be considered in shaping the customer's decision. The results are consistent with research Hardiyati(2010) decisions that affect the reliability of the information submitted pelanggan. Kehandalan an employee, the speed of service will determine the impact of the increase in a decision.

These results are also relevant to the opinion of Tjiptono (2008) which states that affect the decision patrons. This reliability because reliability is a matter which significantly influences customer satisfaction to use the products or services offered. This means better reliability, the higher the level of decision-making customers.

Results of testing the hypothesis 3 which states responsiveness pelanggan. Penelitian influence the decision shows that the value of $t < t$ table, so it can be concluded that the responsiveness does not affect the customer's decision. This means that the high and low responsiveness in which the company will not affect the customer's decision. This indicates that the responsiveness of the company to be responsive in serving the customer complaints, is ready to provide necessary services in the event

customers, and are always open to criticism and suggestions do not influence the consumer decision in determining the choice.

The results of this study are not relevant to the results of previous studies that dilakukan by Gultom et al (2014) which concluded that the effect on keputusan. Hal responsiveness is because employees always provide information to determine and deliver improved responsiveness due keputusan. Ini is a matter which significantly influences customer satisfaction to use the products or services offered. This means that the better implementation of responsiveness dimension, the higher the satisfaction of consumers, so it will automatically increase the customer's decision.

4 Hypothesis testing results show that the value of $t > t$ table, so it can be concluded that guarantees affect the customer's decision. This means that the higher the company guarantees it will be the higher the customer's decision. It is shown that by having a friendly and courteous service, the employee is clear in providing information, always keep the equipment bengkel. Dengan Thus, the results of this study support previous studies, including one conducted by Pratito (2012, pp. 55-65) argued that the guarantee variable affect the customer's decision. This means that the higher the assurance of the company will also increase the customer's decision.

The results of this study are relevant to the results of previous studies conducted by Gultom (2014) which states that guarantee positive effect on keputusan. Ini because employees have good communication, has a high ability and have a level of loyalty that determine and give effect to the increased satisfaction.

5 Hypothesis testing results show that $t > t$ table, so it can be concluded that empathy influence the decision of the higher pelanggan. Artinya empathy, the higher the customer's decision. This shows that with more employees put the interests of customers, serving and appreciate every customer without discrimination and give full attention to customers will give a better impression on the workshop thus increasing customer's

decision. Thus, the results of this study support previous studies, one conducted by Gultom(2014, pp. 21-33) which states that affect the decision patrons.This empathy because that employee serve with sincerity and take the time so that it can determine and give effect to the increase in customer satisfaction.

This is in accordance with the opinion Tjiptono (2008)who expressed empathy is a matter which significantly influences customer satisfaction to use the products or services offered. Thus a good empathy will increase the customer's decision.

F. COVER

1. Conclusion

This study aims to determine the analysis of service quality on customer satisfaction in the garage Nasmoco Ringroad Solo.Populasi in this research is that consumers Nasmoco Ringroad Solo Workshop, and a sample of 100 respondents. This study using multiple linear regression analysis. Simultaneous test results indicate that the independent variable is the quality of service (physical evidence, reliability, responsiveness, assurance and empathy) effect together with the dependent variable, namely the satisfaction of this research pelanggan.Artinya fit for use.

Results of testing the hypothesis 1 (a), which states the physical evidence of an effect on customer satisfaction is not supported by this empiris.Hal evidence can be interpreted that the general condition of the physical evidence Nasmoco Ringroad Solo workshop room still was not enough satisfaction influence hypothesis testing pelanggan.Hasil 2 (two) stating the reliability influence on customer satisfaction is supported by empirical evidence. This shows that the reliability of the workshop indicated with reliability in the form of open on time, able to be trusted without making a mistake and gave the waiter quickly and precisely in serving the customer will be considered in the form of customer satisfaction. The results of hypothesis testing three (3) which states affect

the responsiveness of customer satisfaction is not supported by empirical evidence. This indicates that the responsiveness of the company to be responsive in serving the customer complaints, is ready to provide necessary services in the event customers, and are always open to criticism and suggestions no effect on consumer satisfaction in determining pilihan. Hasil fourth hypothesis which states guarantee an effect on customer satisfaction is supported with this empiris. Hal evidence indicated that by having a friendly and courteous service, the employee is clear in providing information, always maintain hygiene hypothesis testing equipment bengkel. Hasil 5 which states empathy effect on customer satisfaction is supported by empirical evidence. This shows that with more employees put the interests of customers,

2. Suggestion

- a. For further research is expected to increase the population of the study so that the results can represent all the car workshop in Solo.
- b. Further research is expected to add variables such as product research, price, promisi and others, in order to increase the coefficient of determination.
- c. Ringroad Nasmoco for workshop management is expected to improve the systems and procedures in providing services to customers. A real effort to do to provide any form of convenience for the customer, convenience, and increase trust so that customers can be satisfied by using a service provided by the workshop Nasmoco Ringroad, and automatically will increase customer satisfaction to come back to the garage.

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