

## The Influence of Human Resources, Service Process, and Physical Evidence on Customer Satisfaction at Neofit Gym Solo

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### ABSTRACT

This writing is to analyze the influence of human resources, service processes, and physical evidence on customer satisfaction at Neofit Gym Solo. The research method used is quantitative research using surveys and interviews, which is intended to provide an explanation. Survey research itself is research that takes samples from a population and uses a questionnaire as the main collection tool. sampling using purposive sampling method in which the sampling technique is carried out with certain considerations or criteria. The study involved 40 customers as respondents. The data were analyzed using a multiple linear regression model using the SPSS v23 application. The results of data compensation show that human resources have a significant effect on customer satisfaction at Neofit Gym Solo with a value of 0.000, service processes and physical evidence have a significant effect on customer satisfaction at Neofit Gym Solo with a significant value of 0.000.

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## 1. INTRODUCTION

The main problem as a service agency with many competitors is whether the services provided meet consumer expectations or not. Therefore, Neo Gym Solo is required to always maintain consumer trust by improving the quality of service processes, human resources and physical evidence so that customer satisfaction increases. The gym needs to carefully determine consumer needs as an effort to fulfill desires and increase satisfaction with the services and facilities provided. Establishing relationships and conducting research on them needs to be done so that the services provided are as expected.

The purpose of this study was to analyze evidence of the influence between human resources and customer satisfaction, provide evidence of the influence of service processes on customer satisfaction, provide evidence of the influence between physical evidence and customer satisfaction, provide evidence that there is an influence between human resources, service processes, physical evidence with customer satisfaction.

## 2. RESEARCH METHOD

### 2.1 Research variable

The independent variable is identical to the explanatory or independent variable or the previous variable. These variables are usually considered as independent variables, including human resources, service processes, and physical evidence. In this study the dependent variable is consumer satisfaction.

### 2.2 Operational Definition of Research

The operational definition of each variable in this study is as follows:

#### a. Human Resources

Human Resources is also the key that determines the development of the company. In essence, human resources are people who are trained in an organization as movers, thinkers and planners to achieve the goals of that organization.

#### b. Service Process

Service process is an event carried out by a person or an organization to provide satisfaction to customers by using various resources.

#### c. Physical Evidence

Physical evidence is the environment where services are delivered and where companies and customers interact, consisting of the appearance of buildings, views, facilities, fixtures, equipment, employee uniforms, signs, materials and other visible cues.

#### d. Service quality

Good service quality is very important and very influential, without proper service the product will be less attractive to consumers.

### 2.3 Data Types and Sources

This study uses secondary data with the type of time series data during the period 1980-2015. Secondary data is data that is not collected by the researcher himself, obtained from company brochures, magazines and literature.

### 2.4 Method of collecting data

#### a. Normality test

The Normality test is used to test whether the model in regression, the dependent variable and the independent variable both have a normal distribution or not. In this study the normality test used was the Kolmogorov Smirnov test with a significant value of 0.05. If the significant values ( $\alpha$ ) > 0.5 then the data is normally distributed, but if the significant values are <0.05 then the data is not normally distributed.

#### b. Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from one residual observation to another. The basis for making decisions on the heteroscedasticity test is through the Glejser test, that is, if sig.2-tailed > 0.05, then there is heteroscedasticity.

#### c. Multicollinearity Test

Multicollinearity test, which is a test conducted to find out that there is no multicollinearity among the independent variables, meaning that there is no relationship between the independent variables. Detect the absence of Multicollinearity, namely: if it has a VIF value less than 10, if it has a tolerance number close to 1

### 2.5 Multiple Linear Regression

The regression used in this study is multiple regression because it uses one dependent variable, namely customer satisfaction, and three independent variables, namely human resources, service processes, and physical evidence.

### 2.6 Estimated Coefficient of Determination (R<sup>2</sup>)

This test is carried out to calculate how much influence Human Resources, Service Processes, Physical Evidence have on Consumer Satisfaction. The higher the R<sup>2</sup> value means the better the prediction model of the proposed research model. The coefficient of determination test (R<sup>2</sup>) is carried out to determine and predict how big or important the contribution of the influence given by the independent variables jointly to the dependent variable. The value of the coefficient of determination

is between 0 and 1. If the value is close to 1, it means that the independent variable provides almost all the information needed to predict the dependent variable. However, if the value of R<sup>2</sup> is getting smaller, it means that the ability of the independent variables to explain the dependent variable is quite limited

## 2.7 Statistical Test

After testing the classical assumptions, the hypothesis is tested. If the model is free from deviations from classical assumptions, then hypothesis testing can be carried out. Hypothesis testing is done by testing the significance (significant effect) of the independent variable on the dependent variable, either partially or jointly, using the t-test (t-test) and F-test (F-test).

## 2.8 Conceptual Framework

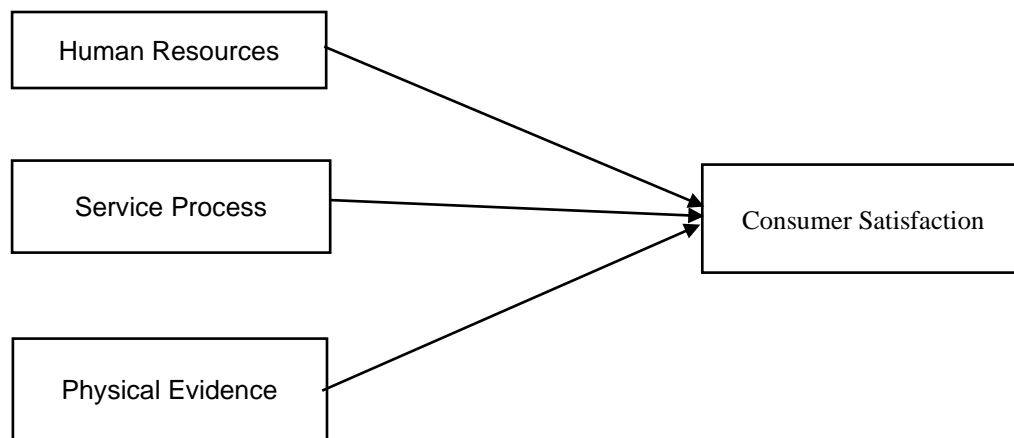


Image 1. Conceptual framework

## 2.9 Hypothesis

Starting from the problems raised and the research objectives and literature review regarding the research above, the money hypothesis is proposed as follows:

- Human Resources has a significant effect on consumer satisfaction.
- Service process has a significant effect on customer satisfaction.
- Physical Evidence has a significant effect on consumer satisfaction.
- Human Resources, Service Processes, and Physical Evidence together influence customer satisfaction.

## 3. RESULTS AND DISCUSSIONS

### 3.1 Data analysis

Data analysis was performed using multiple regression analysis using the SPSS v23 program. To get the best estimate, the secondary data must first be tested on the classical assumptions, namely: multicollinearity test, heteroscedasticity test, autocorrelation test and normality test.

### 3.2 Classic Assumption Test

#### a. Multicollinearity Test

The multicollinearity test was carried out to determine whether there is a correlation between the independent variables and the dependent variable in one research model.

Table 1. Multicollinearity Test

Variabel	Tolerance	VIF
Human Resources	0,993	1,107
Service Process	0,993	1,107
Physical Evidence	0,987	1,104

Source: Output Results of SPSS v23 for 2023

Based on the multicollinearity test between human resource variables (Total\_X1), service process (Total\_X2) and physical evidence (Total\_X3) multicollinearity does not occur, in other words

there is no correlation. This can be seen from the VIF < 10.00 and the tolerance value > 0.10, namely: the value of the human resource variable (Total\_X1) shows a VIF result of 1.107 < 10.00 and a tolerance value of 0.993 > 0.10. The value of the service process variable (Total\_X2) shows a result of 1.107 < 10.00 and a tolerance value of 0.993 > 0.10. The value of the physical evidence variable (Total\_X3) shows a VIF result of 1.104 < 10.00 and a tolerance value of 0.987 > 0.10.

b. Heteroscedasticity Test

In this writing, the heteroscedasticity test uses the Glejser test. And if the result is more than 0.05 then there is no heteroscedasticity.

**Table 2.** White heteroskedasticity test results

Variable	Sig	Information
X1	0,990	Free of Heteroscedasticity
X2	0,227	Free of Heteroscedasticity
X3	0,692	Free of Heteroscedasticity

Source: Output Results of SPSS v23 for 2023

c. Normality test

Normality test in the regression model is used to test the residual values resulting from the regression normally distributed or not.

**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		40
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	1.09689922
Most Extreme Differences	Absolute	.087
	Positive	.047
	Negative	-.087
Test Statistic		.087
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>

**Figure 2.** Normality test results

d. Autocorrelation Test

Autocorrelation in the regression model means that there is a correlation between sample members sorted by correlation time. To determine the existence of autocorrelation in a regression model, it is carried out by testing the Durbin Watson test value (DW Test) as follows:

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.211 <sup>a</sup>	.044	-.035	1.142	2.136

a. Predictors: (Constant), Total\_X3, Total\_X2, Total\_X1

b. Dependent Variable: Total\_Y

**3.3 Regression Equation Model**

The analysis was carried out to test the proposed hypothesis using multiple linear regression, namely to determine whether there is a relationship between the variables human resources (X1), service process (X2), and physical evidence (X3) on customer satisfaction (Y).

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	15.682	4.945		3.171	.003
Total_X1	-.002	.155	-.002	-.012	.990
Total_X2	.192	.156	.201	1.228	.227
Total_X3	-.047	.117	-.065	-.399	.692

a. Dependent Variable: Total\_Y

### 3.4 Estimated Coefficient of Determination (R<sup>2</sup>)

The coefficient of determination or Adjusted R Square is 0.351 or 35.1%. This value indicates that human resources (X1), service process (X2), and physical evidence (X3) have a positive and significant effect of 35.1% on customer satisfaction. Meanwhile, 64.9% is influenced by other variables outside the research, for example price level, distance from home.

### 3.5 Statistical Test

#### a. F-statistics test

To test Human Resources, Service Process, and the involvement of Physical Evidence together have an influence on consumer satisfaction variables. The F test is presented as follows:

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.176	3	.725	.556	.647 <sup>b</sup>
	Residual	46.924	36	1.303		
	Total	49.100	39			

a. Dependent Variable: Total\_Y

b. Predictors: (Constant), Total\_X3, Total\_X2, Total\_X1

Based on the output table above, it can be seen that the Fcount value is 0.556. This value will be compared with the Ftable value.  $Df_1 = k - 1 = 3$  and  $Df_2 = n - k = 61$ , it is known that the Ftable value is 2.75. From the above values, it is known that the Fcount value is  $12.417 > Ftable 2.75$  so that  $H_0$  is rejected and  $H_1$  is accepted, meaning that there is a significant simultaneous effect of Human Resources (X1), Service Process (X2), and Physical Evidence (X3) on Satisfaction Consumer (Y).

#### b. T-Statistics Test:

In order to find out the relationship between the independent variables having a real influence or not on the dependent variable, a hypothesis test was carried out. The partial form of hypothesis testing is as follows:

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	15.682	4.945		3.171	.003
Total_X1	-.002	.155	-.002	-.012	.990
Total_X2	.192	.156	.201	1.228	.227
Total_X3	-.047	.117	-.065	-.399	.692

a. Dependent Variable: Total\_Y

The hypothesis that will be tested in this study is how much influence a variable has, namely the Effect of Human Resources, Service Processes, and Physical Evidence on Consumer Satisfaction. But before that, you have to read the tcount value first. Ttable is obtained from the level of confidence with a significant level  $\alpha = 0.05$ , where the t distribution table with a two-party test  $\alpha/2 = 0.05/2 = 0.025$  and  $df = n - 2 = 40 - 2 = 38$ . Then the value of Ttable is 1.304. Testing each variable is as follows:

- 1) The partial influence of human resources on customer satisfaction based on the SPSS software output as shown in the table obtained the tcount value of the X1 variable of 0.012. Because the value of tcount.  $5.018 > ttable 1.999$  then it was decided that  $H_1$  was accepted and  $H_0$  was rejected. With a significance value of  $0.000 < 0.05$ . So based on the research it can be concluded that human resources have a significant effect on customer satisfaction.
- 2) The effect of the partial service process on customer satisfaction based on the SPSS software output as shown in the table obtained the tcount value of variable X2 of 0.201. Because the value of tcount.

2.003 > t table 1.999 then it was decided that H1 was accepted and Ho was rejected. With a significance value of 0.000 < 0.05. So based on research it can be concluded that the service process has a significant effect on customer satisfaction.

3) The partial effect of physical evidence on consumer satisfaction based on the SPSS software output as shown in the table obtained the tcount value of variable X3 of 0.065. Because the value of tcount

2.141 > ttable 1.999 then it was decided that H1 was accepted and Ho was rejected. With a significance value of 0.000 < 0.05. So based on the research it can be concluded that physical evidence has a significant effect on consumer satisfaction.

### 3.6 Discussion

#### a. Multiple Linear Test

Based on multiple linear tests, the results obtained are  $Y = 0.002X_1 + 0.201X_2 + 0.065X_3$ , which means that variable X has a positive influence on variable Y.

#### b. Partial Hypothesis Test (T test)

Based on partial hypothesis testing (T test) the following results are obtained:

- 1) Human Resources partially has a significant effect on customer satisfaction because the tcount value is 5.018 > ttable 1.999 with a significance value of 0.000. So it was decided that H1 was accepted and Ho was rejected.
- 2) The service process partially has a significant effect on customer satisfaction because the tcount value is 2.003 > ttable 1.999 with a significance value of 0.04. Then it can be decided that H1 is accepted and Ho is rejected.
- 3) Physical Evidence partially has a significant effect on consumer satisfaction because the tcount value is 2.141 > ttable 1.999 with a significance value of 0.042 so it can be decided that H1 is accepted Ho is rejected.

#### c. Simultaneous Hypothesis Test (F test)

Based on the F test, the calculated results of the Fcount were 12.537 and the Ftable value was 2.75. So that Fcount is 12.537 > Ftable 2.75, it is decided that Ho is rejected and H1 is accepted. Thus simultaneously the variables of human resources, service processes and physical evidence affect customer satisfaction at Neofit Gym.

## 4. CONCLUSION

Based on the results of the discussion and data processing above, it is concluded that simultaneously the variables of human resources, service processes and physical evidence affect customer satisfaction at Neofit Gym.

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