Effect of Price, Product Quality, and Service Quality on Customer Satisfaction on Online Product Purchases

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Abstract. Research has the purpose of analyzing the factors that influence price, product quality, service quality to the satisfaction of online shopping. Research uses a causal method which means that analysis is based on the cause and effect of an event, and every event obtains certainty and necessity in its existence. The results of this study can prove the effect of independent variables influencing dependent. In the t-test the price, product quality, and service quality hypothesis are acceptable. Thus the direction of the positive regression coefficient means that the price, product quality, and service quality. Therefore the most dominant variable is X3 (service quality). Furthermore the F test results are determined by the magnitude of the contribution of the price variable (X1), product quality (X2) and service quality (X3) to customer satisfaction (Y) indicated by the coefficient of determination (Adjusted R Square) of 0.134 or 1.34%. Meaning the magnitude of influence independent variables are price (X1), product quality (X2) and service quality (X3) on customer satisfaction (Y), and the magnitude of the effect of the independent variable on the dependent variable in this study is 1.34% while the rest is not influenced by other variables outside research.

1. The first section in your paper

Nowadays online shopping has become a trend among the community and teenagers and has also become one of the activities of internet users in Indonesia [1], [2]. In an online shopping system is a system that uses a commercial transaction system using electronic media, the internet and the media takes place, by using internet media the way of marketing will be faster, ranging from development, marketing, sales, shipping and services to products and services between businesses and businesses, business with customers or customers with customers [3], [4]. In the development of online shopping in Indonesia, it can also be viewed regarding the potential for online shopping in 2012 to reach several trillion [5]. The statement was supported by an increase in the number of online shopping. The phenomenon above shows that online shopping is very high and can be a business opportunity that is quite beneficial for the community. Online business is not only favored by young women and mothers, but now boys are also fond of shopping online [6].

Seeing this condition, many people or among teenage girls use online businesses to achieve substantial profits, in addition to being able to benefit quite a large number of consumers' behavior can understand online shopping in Indonesia. Consumer behavior in online shopping in Indonesia has characteristics that are unique because consumers in Indonesia are still confused when they have to press the "buy now" button directly [7]–[9]. In shopping online, transactions can be done within 24 hours and
can reach the global environment in Indonesia [10]–[13]. But in online shopping some problems include such as in the not timely delivery, products that are not by the original image, the product is damaged, the product is not sent, the product information is wrong. Also, many frauds are using online stores in Indonesia. Recorded online store 202 proved fraud [4], [10], [14], [15]. With these risks, many buyers are afraid to shop online.

The online store environment has the difference with other stores. In the online store does not provide employees who serve because of online stores only market via the internet, and those who value good and quality products are only customers because customers have two senses. Namely, the visual senses (photos, pictures, writing, and the background) and the listener's senses (talking via telephone, music in an online store) and using the transfer payment method or by prepayment, then the customer waits for several days of delivery begins [16], [17].

In Indonesia, online sellers can make online shops a place to sell in several ways. The first way, sellers can create their website by designing websites into online stores that install their trading products (lazada.com, olx.com, tokobagus.com). The second way, the seller can register the site that provides a forum for buying and selling goods online and making an online store to find customers or publish the online store. So this system is like a Mall (Berniaga.com, kaskus.com) [18]. The third way, sellers can create their account to open online shopping forums or online stores through social media such as (Facebook, BBM) and sellers can market products that will be sold / their merchandise to their friends and surrounding teenagers (facebook.com, twitter.com). Also, consumers are very observant in choosing products, quality ingredients, and affordable prices for consumers, thus consumers will not leave the product [9]. By selecting products that are of high quality and rates that are affordable to the public, consumers can have a sense of satisfaction to shop online. From the explanation above, it can be interpreted that the quality of the product is very much needed in making sales to convince customers of quality products sold.

2. Method
Research has the aim to analyze the factors that influence price, product quality, service quality to the satisfaction of online shopping with research areas in Sidoarjo regency. Research uses a causal method which means that research is based on the cause and effect of an event, and every event obtains certainty and necessity in its existence. The results of this study can prove the effect of independent variables influencing dependent. The dependent variable is the variable satisfaction in doing online shopping for personal use products on the online store. Furthermore, customer satisfaction (Y). Whereas for the independent variable consists of price (X1), product quality (X2), service quality (X3). Data collection was carried out with surveys and interviews, while the number of respondents used was 100 respondents aged 17-50 years. The process of processing and analyzing data uses a statistical hypothesis test approach [19], [20].

3. Result And Discussion
3.1. Validity Test
Validity test results are said to be valid if the correlation coefficient is> 0.1 and significant (<0.05). If the validity value is greater than 0.3, then the question can be said to be valid. Based on the calculation, the results shown in table 1 are obtained.

| No | Indicators          | R (Average) | Desc. |
|----|---------------------|-------------|-------|
| 1  | Price               | 0.3408      | Valid |
| 2  | Product Quality     | 0.5375      | Valid |
| 3  | Service Quality     | 0.315       | Valid |
| 4  | Satisfaction (Y)    | 0.4237      | Valid |
From the table above it can be said that the results of the calculation of each variable have a correlation coefficient greater than 0.1 and a significant probability of less than 0.05 so that it can be said that the measuring instrument used in this study is valid.

3.2. Reliability Test
The reliability test results show that all variables have a reasonably large Alpha coefficient that is above 0.5 so that it can be said that all measuring concepts of each variable from the questionnaire are reliable which means that the poll used in this study is a reliable questionnaire. Results can be shown in table 2.

| No | Indicators              | Alpha | Desc. |
|----|-------------------------|-------|-------|
| 1  | Price (X1)              | 0.557 | Valid |
| 2  | Product Quality (X2)    | 0.744 | Valid |
| 3  | Service Quality (X3)    | 0.529 | Valid |
| 4  | Satisfaction (Y)        | 0.614 | Valid |

3.3. Multiple Regression Analysis
Regression analysis used in the study is multiple regression with three independent variables and one dependent variable. This independent variable consists of price (X1), product quality (X2), and service quality (X3), while the dependent variable is customer satisfaction with online stores in Sidoarjo (Y). The output that has been distributed by the respondent can be seen from the multiple linear regression analysis using the SPSS data processing application program. With the calculation of the software, the regression equation results.

\[ Y = a + 0.204X1 + 0.198X2 + 0.275X3 + e \]  
………………………..(1)

A constant of 8.19 can mean that if there is no independent variable examined, the value of Y is only 8.19. The B1 coefficient value in this regression equation shows that the variable price influences purchase satisfaction by 20.4% or a positive effect which means that if the price is affordable and cheaper than other online products, giving discounts and giving discounts, then customer satisfaction will increase by 20.4%. The coefficient value B2 in this regression equation shows that the product quality variable affects customer satisfaction by 19.8% or positively influences which means if the product quality is attractive, the design is not outdated, to consumers, then customer satisfaction will increase by 19.8%. The B3 coefficient value in this regression equation shows that service quality variables affect customer satisfaction by 27.5% or positively influence which means that if the service and facilities are online stores, then customer satisfaction will increase by 27.5%.

3.4. Hypothesis testing
3.4.1. Partial Test.
The t-test is used to determine the effect of partially independent variables (price, product quality, service quality) on the dependent variable (customer satisfaction). The following will explain the testing of each variable partially. Partial Test is carried out for each independent variable by comparing the SPSS t count with t table; if t counts> t table, then Ho is rejected, meaning that the variable has a significant influence on the research model.
Table 3. T test results with SPSS

| Model | B     | Std. Error | Beta | t    | Sig. | VIF |
|-------|-------|------------|------|------|------|-----|
| t (Constant) | .819  | .664       |      | 1.234 | .220 |     |
| X1    | .246  | .116       | .204 | 2.121 | .036 | .949 | 1.054 |
| X2    | .372  | .177       | .198 | 2.095 | .039 | .981 | 1.020 |
| X3    | .338  | .118       | .275 | 2.854 | .005 | .941 | 1.063 |

By using a considerable limitation of 0.05, t table is 1.9850. This means t count> t table, which means Ho is rejected and Ha is accepted. Thus, the first hypothesis can be taken. The direction of the regression coefficient has a positive effect says that the price has a positive influence on customer satisfaction online stores.

The results of the t-test for variable X1 (price) obtained t value = 2.121 with a significant level of 2.121. By using a considerable limitation of 0.05, t table is 1.9850. This means t count> t table, which means Ho is rejected and Ha is accepted. Thus, the first hypothesis can be taken. The direction of the regression coefficient has a positive effect says that the price has a positive influence on customer satisfaction online stores.

The results of the t-test variable X2 (product quality) obtained t value = 2.095 with a significant level of 2.095. By using a considerable limitation of 0.05, t table is 1.9850. This means t count> t table, which means Ho is rejected and Ha is accepted. Thus, the second hypothesis can be taken. The direction of positive regression coefficient means that product quality has a significant positive influence on customer satisfaction. In other words, it can be concluded that the quality of the product is attractive, the design is not outdated, which can satisfy the customer.

The results of the t-test variable X3 (service quality) obtained t value = 2.854 with a significant level of 2.854. By using a significant limitation of 0.05, t table is 1.9850. This means t count> t table, which means Ho is rejected and Ha is accepted. Thus, the third hypothesis can be accepted. The direction of positive regression coefficient indicates that service quality has a significant positive influence on customer satisfaction. In other words, it can be concluded that good service quality, which can satisfy customers.

3.4.2. Simultaneous Test.

Tests are carried out with several stages including:

- **Hypothesis Formulation**
  Ho: b1 = b2 = b3 = 0 Price variables, product quality and service quality simultaneous have no significant effect on customer satisfaction. Ho: b1 ≠ b2 ≠ b3 ≠ 0 Price variables, product quality and service quality simultaneously have a significant effect on customer satisfaction. Critical value by determining the level of significance (α) of 5%. F table = F (number of free vars: number of var; α) F table = F (3; 4; 0.05).

- **Comparison of F counts with F table**
  Calculate value F with table F. Test results are calculated F shows the value of 6.361 (significant p = 0.000). To calculate F = table (2.557_6.361) or sig F _ 5% (0.000_0.05).

- **Result**
  Simultaneously price variables (X1), product quality (X2), and service quality (X3) have a significant effect on customer satisfaction (Y) variables. Thus the first hypothesis which predicts that simultaneously price variables (X1), product quality (X2), and service quality (X3) have a significant effect on customer satisfaction (Y) proven to be true.

4. Conclusion

This study aims to determine the variable price, product quality, and service quality to customer satisfaction at the online store in Sidoarjo. From the results of processing and data analysis, it can be concluded that the results of multiple regression tests show that all independent variables (price, product quality, and service quality) on the online store have a positive effect on customer satisfaction. The biggest positive influence on customer satisfaction in online stores is the quality of service with a
coefficient of 0.275, then followed by a price with a coefficient of 0.204, while the lowest effect is product quality with a coefficient of 0.198.

The results of the t-test for variable X1 (price) obtained the value of t count = 2.121 with a significant level of 0.036. By using the 0.05 significance limit, t table is 1.9850. The results of the t-test variable X2 (product quality) obtained the value of t count = 2.095 with a significance level of 0.039, acquired t table 1.9850. The results of the t-test variable X3 (service quality) obtained the value of t count = 2.854 with a significance level of 0.05. Thus the hypothesis of price, product quality and service quality can be accepted. Therefore the direction of the positive regression coefficient means that the price, product quality, and service quality. Therefore the most dominant variable is X3 (service quality).

F test results are determined by the magnitude of the contribution of the price variable (X1), product quality (X2) and service quality (X3) to customer satisfaction (Y) indicated by the coefficient of determination (Adjusted R Square) of 0.134 or 1.34%. Meaning the magnitude of the variable influence free namely price (X1), product quality (X2) and service quality (X3) to customer satisfaction (Y), and the magnitude of the effect of independent variables on the dependent variable in this study is 1.34% while other variables outside the research do not influence the rest.

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