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The influence of price on purchase decision with quality of service as intervening variable

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ABSTRACT

Changes to systems such as transactions and marketing are all driven by progress towards a more contemporary period. Along with the increasing and growing industrial world, competition in the business world is very tight. Industry players are increasingly facing the challenge of gaining the market share they want. This study uses quantitative research methods and aims to determine the effect of price changes on purchasing decisions, with service quality as an intervening variable. A case study at the XL AXIATA product distributor outlet PT. Cross Archipelago Access, Tebing Tinggi City. The results of the study can be concluded as follows in the first hypothesis, the price variable (X) has a positive and significant effect on service quality (Z); the second hypothesis is accepted, meaning that the price (X) has no significant effect on purchasing decisions (Y); and the third hypothesis is accepted, meaning that service quality (Z) has a positive and significant effect on purchasing decisions (Y). Path analysis shows that the direct effect of variable X on variable Y is 0.163. The indirect effect through the Z variable is 0.2114. Based on the calculation results, the direct effect on Y is greater than the indirect effect through Z.

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Introduction

Changes to systems like trade, transacting, and marketing are all encouraged by the progress toward a more contemporary period. In the past, we had to physically meet the vendor in order to make a purchase. An actual "transaction," or agreement between a buyer and a seller, could only take place if the two parties met face to face (Tugiso et al., 2016). Although there is a severe lack of accessibility amongst purchasers, this problem has been greatly alleviated by the advent of modern technology, particularly the internet. Increasing business, sales, and purchases may be facilitated by the use of technology in a number of ways; one of them is through the use of electronic commerce (e-commerce) to promote and purchase physical and digital items and services (Almilia, 2007).

Competition in the business world is very tight along with the increasing and developing industrial world. Industry players are increasingly facing the challenge of gaining the market share they want. On the other hand, consumers tend to be more sensitive to the value offered by each product. Competition in the increasingly open business world makes entrepreneurs look for the right strategy to market their products. Buying interest is obtained from a learning process and a thought process that forms a perception. The

following are the facts of buying through sales shown by PT. XL Axiata Tebing Tinggi in the last few months (Table 1).

Buchari (Alma, 2013) suggests that purchasing decisions are as follows: "The purchase decision is a consumer decision that is influenced by the financial economy, technology, politics, culture, product, price, location, promotion, physical evidence, people and process. Consumers' needs and desires for goods and services evolve from time to time and influence their behavior in purchasing products. Consumer behavior is the behavior that consumers display in searching for, purchasing, using, evaluating, and disposing of products and services that they expect will satisfy their needs.

Table 1. Sales Data by PT. XL Axiata Tebing Tinggi

Month 2021/2022	Number of Cards Sold
August	1,870 Pcs
September	2000 Pcs
October	1,430 Pcs
November	1,260 Pcs
December	1,560 Pcs
January	1.750 Pcs
February	1,669 Pcs

Source: PT. XL Axiata Tebing Tinggi

Buchari (Alma, 2011) price as the value of an item expressed in money. Price has two main roles in the decision-making process of buyers, namely the role of allocation and the role of information. In order for this goal to be achieved, every company must strive to have a marketing strategy that can increase sales both using promotion methods, prices, and products with different strategic characteristics from other competitors. Price is the value of money that must be paid by consumers to sellers for goods or services. services purchased. In other words, the price is the value of an item determined by the seller.

According to (Chandra, 2012) defines service quality as a measure of how well the level of service provided is able to meet customer expectations. From the opinion above, it can be concluded that the quality of service is a level of ability (ability) of the company in providing all the expectations of customers in meeting their needs. The quality of service or customer service can be divided into two criteria, namely the type of good service quality and poor service quality. The quality of this service is not something that is permanent or rigid, but flexible and can be changed. This change is of course in the form of improving the quality of service to be even better. In the process of changing the quality of service, several things are needed to support the process.

The quality of this service can be interpreted as the level of satisfaction of guests or consumers. While the level of guest satisfaction itself can be obtained from a comparison of the types of services that are actually received by consumers with the types of services expected by consumers. The type of good service quality is the type of service that is satisfactory and in accordance with the services expected by consumers. However, if this service can exceed consumer expectations, then this type of service quality can be categorized as very high quality or very satisfying service. While the type of poor service quality is the type of service that is far below the standard or not in accordance with the service expectations expected by consumers.

Method

This research uses quantitative research methods. Quantitative research methods can be interpreted as research methods based on the philosophy of positivism, used to examine certain populations or samples, data collection using research instruments, data analysis is quantitative/statistical, with the aim of testing predetermined hypotheses (Sugiyono, 2014)

Data collection technique

Data collection in this study was carried out by distributing questionnaires (questionnaires) to respondents. Questionnaire is a data collection technique which is done by giving a set of questions or written statements to respondents to be answered (Sugiyono, 2014). Questionnaires are an efficient data collection technique if the researcher knows with certainty the variables to be measured and knows what to expect from the respondents. The questionnaire distributed contains questions about Price,Purchase Decision and Service Quality, and the questionnaire was distributed to the XL AXIATA Product Distributor outlet PT.Acses Lintas Nusantara Kota Tebing Tinggi.

Analysis method
Simple regression analysis according to (Ghozali, 2011) is based on a causal or functional relationship between one independent variable and the dependent variable. This regression coefficient aims to determine whether the independent variables contained in the regression equation individually affect the value of the dependent variable. Simple linear regression analysis serves to examine the causal relationship between the causal factors and the effect variables. Which is formulated in the form of an equation as follows: **Y = a + Bx**

Data analysis technique
Data analysis is a desire to group, make a sequence, manipulate and abbreviate data so that it is easy to read and understand. In other words, data analysis activities are raw data that has been collected and needs to be categorized or divided into several categories or groups, abbreviated in such a way that the data can answer the problem according to the research objectives and can test hypotheses (Silaen, Sofar, 2013).

Results and Discussions

The data obtained were then tested using the classical assumption test in order to get good results. After the classical assumption test is carried out then the data is analyzed using simple linear regression analysis techniques and performs hypothesis testing to see the effect of the dependent variable on the independent variable and determines the coefficient of determination to see how much the independent variable contributes to the dependent variable and performs path analysis test.

Classical Assumption Test of Equation I
Before testing the hypothesis in this study, a classical assumption test will be carried out first. The classical assumption test consists of normality test, multicollinearity test and heteroscedasticity test.

Normality test
Normality test aims to test whether in the regression model, the confounding or residual variables have a normal distribution (Ghozali, 2016). Testing the normality of the data can be done using two methods, graphs and statistics. The normality test of the graph method uses a normal probability plot, while the statistical method normality test uses the one sample Kolmogorov Smirnov Test.

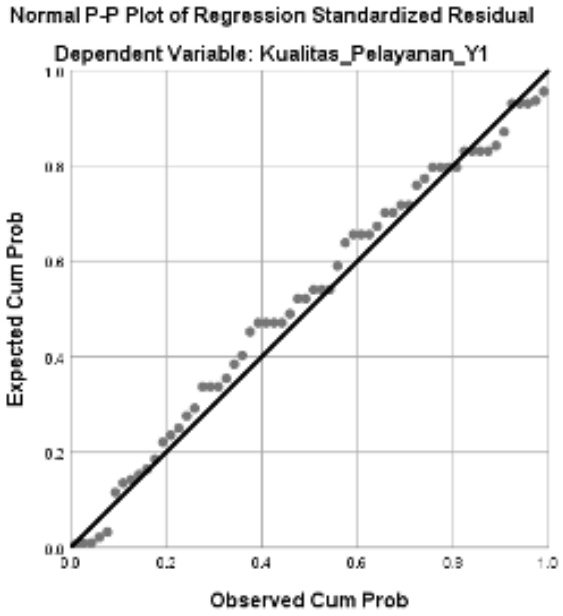

Figure 1. Normal P Plot

Data that is normally distributed will form a straight diagonal line and plotting residual data will be compared with a diagonal line, if the distribution of residual data is normal, the line that describes the actual data will follow the diagonal line (Ghozali, 2016).

Multicollinearity Test

The multicollinearity test aims to determine whether there is a correlation between the independent variables in the regression model. The multicollinearity test in this study is seen from the tolerance value or variance inflation factor (VIF) (Table 2).

It is known that the tolerance value of Price (X) is 1,000, all of which are greater than 0.10 while the VIF value of Price (X) is 1,000, all of which are less than 10. Based on the results of the above calculation, it can be seen that the tolerance value all independent variables are greater than 0.10 and the VIF value of all independent variables is also smaller than 5 so that there is no correlation symptom in the independent variables. So it can be concluded that there is no symptom of multicollinearity between independent variables in the regression model.

Table 2. Multicollinearity Test Results

Coefficientsa			
Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Price_X	1,000	1,000
a. Dependent Variable: Quality_Service_Y1			

Source: Data processed from attachment (2021)

Heteroscedasticity Test

The heteroscedasticity test aims to test whether from the regression model there is an inequality of variance from the residuals of one observation to another observation. A good regression model is one with homoscedasticity or no heteroscedasticity. This is observed from the significance probability above the 5% confidence level (Ghozali, 2016).

Table 3. Heteroscedasticity Test Results

Coefficientsa			
Model		t	Sig.
1	(Constant)	-.761	.450
	Price_X	2.180	.133
a. Dependent Variable: Abs_RES			

Source: Data processed from attachment (2021)

Based on the above test, the significance value of Price (X) is greater than 0.05 (5%) which is 0.450, so there is no indication of heteroscedasticity.

Simple Linear Regression Analysis

Simple linear regression test explains the magnitude of the role of the Price variable (X) on the Service Quality variable (Z).

Table 4. Simple Linear Regression Results

Coefficientsa			
Model		Unstandardized Coefficients	
		B	Std. Error
1	(Constant)	10,657	1971
	Price_X	.366	.120
a. Dependent Variable: Quality_Service_Y1			

Source: Data processed from attachment (2021)

Based on these results, the multiple linear regression equation has the formulation: Z = a + b X + , so that the equation is obtained: Z = 10.657 + 0.366 X +

Determination Test

The coefficient of determination is used to see how much the independent variable contributes to the dependent variable. The greater the value of the coefficient of determination, the better the ability of the independent variable to explain the dependent variable. If the determination (R2) is getting bigger (closer to 1), it can be said that the influence of the variable Price (X) is big against Service Quality variable (Z).

Table 5. Determination Test

Model Summaryb			
Model	R	R Square	Adjusted R Square
1	.371a	.138	.123
a. Predictors: (Constant), Price_X			
b. Dependent Variable: Quality_Service_Y1			

Source: Data processed from attachment (2021)

Based on table 4.4, it can be seen that the adjusted R square value is 0.123 or 12.3%. This shows if variable Price (X) can explain the Service Quality variable (Z) by 12.3%, the remaining 87.7% (100% - 12.3%) is explained by other variables outside this research model.

Classical Assumption Test Equation II

Before testing the hypothesis in this study, a classical assumption test will be carried out first. The classical assumption test consists of normality test, multicollinearity test and heteroscedasticity test.

Normality test

Normality test aims to test whether in the regression model, the confounding or residual variables have a normal distribution (Ghozali, 2016). Testing the normality of the data can be done using two methods, graphs and statistics. The normality test of the graph method uses a normal probability plot, while the statistical method normality test uses the one sample Kolmogorov Smirnov Test.

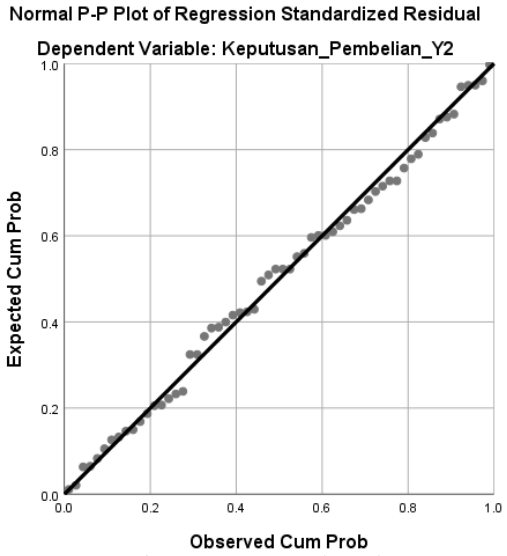

Figure 2. Normal P Plot

Data that is normally distributed will form a straight diagonal line and plotting residual data will be compared with a diagonal line, if the distribution of residual data is normal, the line that describes the actual data will follow the diagonal line (Ghozali, 2016).

Multicollinearity Test

The multicollinearity test aims to determine whether there is a correlation between the independent variables in the regression model. The multicollinearity test in this study is seen from the tolerance value or variance inflation factor (VIF).

Table 6. Multicollinearity Test Results

Coefficientsa			
Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Price_X	.862	1,160
	Quality_Service_Y1	.862	1,160
a. Dependent Variable: Purchase_Decision_Y2			

Source: Data processed from attachment (2021)

The tolerance value for Price (X) is 0.862, Service Quality (Z) is 0.862, all of which are greater than 0.10, while the VIF value for Price (X) is 1.160 and Service Quality (Z) is 1.160, all of which are smaller than 10. Based on the calculation results above, it can be seen that the tolerance value of all independent variables is greater than 0.10 and the VIF value of all independent variables is also smaller than 5 so that there is no correlation symptom in the independent variables. So it can be concluded that there is no symptom of multicollinearity between independent variables in the regression model.

Heteroscedasticity Test

The heteroscedasticity test aims to test whether from the regression model there is an inequality of variance from the residuals of one observation to another observation. A good regression model is one with homoscedasticity or no heteroscedasticity. This is observed from the significance probability above the 5% confidence level (Ghozali, 2016).

Table 7. Heteroscedasticity Test Results

Coefficients a			
Model		t	Sig.
1	(Constant)	2,691	.009
	Price_X	.460	.647
	Quality_Service_Y1	-2,186	.233
a. Dependent Variable: Abs_RES			

Source: Data processed from attachment (2021)

Based on the above test, the significance value of Price (X) is greater than 0.05 (5%) which is 0.647, the test of the significance value of Service Quality (Z) is greater than 0.05 (5%) which is 0.233, then there is no indication of heteroscedasticity.

Multiple Linear Regression Analysis

Multiple linear regression testing explains the magnitude of the role of Price (X) and Service Quality (Y1) on Purchase Decisions (Y2).

Table 8. Multiple Linear Regression Results

Coefficients a			
Model		Unstandardized Coefficients	
		B	Std. Error
1	(Constant)	6.833	1,614
	Price_X	.130	.087
	Quality_Service_Y1	.461	.088
a. Dependent Variable: Purchase_Decision_Y2			

Source: Data processed from attachment (2021)

Based on these results, the multiple linear regression equation has the formulation: Y = a + b1X + Z + , so that the equation is obtained: Y2 = 6.833 + 0.130 X + -0.461 Z +

Determination Test

The coefficient of determination is used to see how much the independent variable contributes to the dependent variable. The greater the value of the coefficient of determination, the better the ability of the independent variable to explain the dependent variable. If the determination (R2) is getting bigger (closer to 1), it can be said that the influence of the variable X is large onService quality(Z).

Table 9. Test of Determination

Model Summaryb			
Model	R	R Square	Adjusted R Square
1	.649a	.421	.400
a. Predictors: (Constant), Quality_Service_Y1, Price_X			
b. Dependent Variable: Purchase_Decision_Y2			

Source: Data processed from attachment (2021)

It can be seen that the adjusted R square value is 0.400 or 40.0%. This shows that Service Quality (Y1) and Price (X) can explain Purchase Decisions (Y2) by 40.0%, the remaining 60.0% (100% - 40.0%) is explained by other variables outside the research model. this.

Hypothesis testing

t-test (Partial) Equation I

The t statistic test is also known as the individual significance test. This test shows how far the influence of the independent variable partially on the dependent variable. In this study, partial hypothesis testing was carried out on each independent variable as shown in Table 10:

Table 10. Partial Test (t)

Coefficients a					
Model		t	Sig.	Collinearity Statistics	
				Tolerance	VIF
1	(Constant)	5.408	.000		
	Price_X	3.044	.004	1,000	1,000
a. Dependent Variable: Quality_Service_Y1					

Source: Data processed from attachment (2021)

Hypothesis test of the effect of the price variable (X) on the service quality variable (Z).

The tcount value is 3.044. With = 5%, ttable (5%; nk = 58), the ttable value is 1.671. From the description it can be seen that tcount (3.044) > ttable (1.671), as well as the significance value of 0.04 <0.05, it can be concluded that the first hypothesis is accepted, meaning that the variable Price(X) has a positive and significant effecton Service Quality (Z).

t-test (Partial) Equation II

The t statistic test is also known as the individual significance test. This test shows how far the influence of the independent variable partially on the dependent variable. In this study, partial hypothesis testing was carried out on each independent variable as shown in Table 11.

Table 11. Partial Test (t)

Coefficients a					
Model		t	Sig.	Collinearity Statistics	
				Tolerance	VIF
1	(Constant)	4.234	.000		
	Price_X	1,500	.139	.862	1,160
	Quality_Service_Y1	5.254	.000	.862	1,160
a. Dependent Variable: Purchase_Decision_Y2					

Source: Data processed from attachment (2021)

Price Effect Hypothesis Test(X)to the Purchase Decision (Y).

The tcount value is 1,500. With = 5%, ttable (5%; nk = 58), the ttable value is 1,671. From this description it can be seen that tcount (1,500) < ttable (1,671), and the significance value is 0.139 > 0.05. then it can be concluded that the second hypothesis is rejected, meaning thatPrice(X) no positive and significant effect to the Purchase Decision (Y2).

Hypothesis Testing the influence of Service Quality (Z) on Purchase Decisions (Y)

The tcount value is 5.254. With = 5%, ttable (5%; nk = 58), the ttable value is 1.671. From the description it can be seen that tcount (5.254) > ttable (1.671), and the significance value is 0.00 < 0 0.05, it can be concluded that the third hypothesis is accepted, meaning thatService Quality (Y1) take effect positive andsignificantto the Purchase Decision (Y2).

Path Analysis

In order to prove that whether a variable is capable of being a variable that mediates the relationship between the independent variable and the dependent variable, the direct and indirect effects of the independent variable on the dependent variable will be calculated. To carry out calculations directly and indirectly, it is carried out from the following standardized coefficients of regression equations I and II (Table 13).

Table 13. Value of Standardized Coeffients Equation I

Coefficients a				
Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	10,657	1971	
	Price_X	.366	.120	.371
a. Dependent Variable: Quality_Service_Y1				

Source: Data processed from attachment 4 (2020)

Table 14. Value of Standardized Coeffients Equation II

Coefficients a				
Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	6.833	1,614	
	Price_X	.130	.087	.163
	Quality_Service_Y1	.461	.088	.570
a. Dependent Variable: Purchase_Decision_Y2				

Source: Data processed from attachment 4 (2020)

Furthermore, the standardized coefficients beta values will be included in the path analysis image (Figure 3).

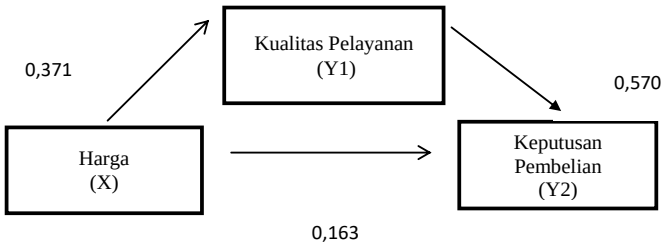

Figure 3. Path Analysis

The path analysis image shows the direct effect of variable X on variable Y2 of 0.163. Meanwhile, the indirect effect through the Y1 variable is 0.371 x 0.570 = 0.2114. From the calculation results obtained, the direct effect through the X variable is smaller than the indirect effect on the Y2 variable.

Conclusions

Based on the results of research and discussion, some conclusions can be drawn as follows Obtained tcount value of 3.044 With = 5%, ttable (5%; nk = 58) obtained ttable value of 1.671 From the description it can be seen that tcount (3.044) > ttable (1.671), as well as the significance value of 0.00 <0.05, it can be concluded that the first hypothesis is accepted, meaning that the variable Price(X) has a positive and significant effecton Service Quality (Z). The tcount value is 1,500. With = 5%, ttable (5%; nk = 58), the ttable value is 1,671. From this description it can be seen that tcount (1,500) < ttable (1,671), and the significance value is 0.139 > 0.05. then it can be concluded that the second hypothesis is accepted, meaningPrice (X) no significant effectto the Purchase Decision (Y). The tcount value is 5.254. With = 5%, ttable (5%; nk = 58), the ttable value is 1.671. From the description it can be seen that tcount (5.254) > ttable (1.671), and the significance value is 0.00 < 0 0.05, it can be concluded that the third hypothesis is accepted, meaning thatService Quality (Z)take effectpositive andsignificantto the Purchase Decision (Y). Path analysis shows the direct effect of variable X on variable Y2 of 0.163. While the indirect effect through the Y1 variable is 0.371 x 0.570 = 0.2114. From the calculation results obtained, the indirect effect through the z variable is smaller than the direct effect on the Y variable.

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