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INFLUENCE OF BATAKO PRODUCTS QUALITY ON CONSUMER DECISIONS IN BROTHER BUILDING UNIPESSOAL.LDA (Case Study In Brother Building Unipessoal LDA, Dili Timor Leste)

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ABSTRACT

Product quality is the first part that is very important to be decided by consumers. The product offered must be of good quality. Because consumers expect quality products, they use products that really benefit them, Consumer decision is like approaching to solve problems in human activities to buy something to complete wants and needs that consist of knowledge of important goods, information seeking, evaluation of alternative buyers, buyers' decisions and post-purchase behavior. Data used in the research to obtain questionnaire data from the selected respondents. The data was subjected to regression analysis, correlation analysis and classical assumption testing. Ofthe search results were subjected to multiple linear regression as follows: **Y= 2.775 + 0.854X.**From SPSS 23 calculations obtained Tsura9.482 which shows Tsura greater than Ttabela with value (9.482 > 1.703). The probability also shows the number 0.05. That the second hypothesis is also accepted. Product quality provides a positive and significant effect on consumer decision. The last one isThe coefficient of determination (R2) is 0.763 or 76.3% of the percentage which means the model is well developed. The results of this research are obtained because all independent variables have a positive and significant influence on the dependent variable and the remaining 23.7% are obtained from variables that we do not finish.

INTRODUCTION

The task of considering the development that can be achieved, to achieve by various means, in order to achieve full freedom for the people of Timor-Leste (Cai & Niu, 2023; Kong et al., 2021). What happens is that development in all areas, it can achieve sustainable economic growth. Thus, the economy of Timor-Leste is currently relatively small, and the income of the people is very concerned with the one that can be understood that the state of Timor-Leste was recently established at the beginning of the millennium (restoration of independence on May 20, 2002). Defining developed as a country with relatively less economy, economic growth and development can be considered as the government to develop the economy quickly (Amini Sedeh et al., 2022; Gadenne & Singhal, 2014; Machokoto et al., 2022; Oppon et al., 2023; Razzaq et al., 2023). It can give advantage to the state of Timor-Leste so that it can be categorized as a developed country. Because many people will have low incomes compared to people in other countries (Greenberg & Bar-Ilan, 2014). In such a case, the needs and society

of Timor-Leste that depends heavily on the amount of quality production in the economy is important to respond to the needs as a priority for products that are particular to the consumer (Goetsch, 2002).

Hence, the consumer is an important factor for the company. The company must focus attention on the consumer because the competition is fierce to fight each other, the consumer not only gets a product offer from one company, but also from competing companies among others offering the same production. The company must have an interesting plan and strategy that is different from its other competitors, so that the production is always in demand and brings in consumers.Product quality is a universal character and of production that influences the capacity and satisfaction of category needs in the process. Product quality is a dynamic condition that relates material or human goods, production from the environment to reach its life expectancy. (David Garvin, 2005). Therefore, quality is a characteristic of production materials that have the knowledge to produce construction materials to achieve consumer decisions.production completion may determine the consumer decision to carry out future repurchases.The influence of product quality on consumer decisions made by people to show that entrepreneur / company management needs to compare aspects of consumer behavior, especially the decision-making process at the time of purchase. Consumer decision is the process of making decisions to buy related to what to buy so know in advance of the activity (Sofjan Assauri, 2012:141).

Consumer decision is like approaching to solve problems in human activities to buy something to complete wants and needs that consist of knowledge of important goods, search for information, evaluation of alternative buyers. Consumer decisions and post-purchase behavior (Basu Swastha, 2015:15). Decision-making is a problem-solving process that consists of analyzing, seeking information, evaluating and selecting alternative buyers, purchase decisions, and post-purchase behavior.Thereforeconsumer decision is the behavior of human buyers to decide to choose a product or production can achieve the objective of consumers' desire consisting of knowing the problem, seeking information, evaluation of purchase alternatives, buyer decisions, and behavior after making a purchase.The result is carried out according to the effect of Product Quality and consumers are prepped starting from consumer needs to the end. These consumers can adapt services with high demand according to the company's importance of the relationship with current customers and consumers to improve their understanding of consumer needs.

Despite the growing importance of the construction materials sector in Timor-Leste, limited empirical research has examined the relationship between product quality and consumer purchasing decisions in the local batako industry. Previous studies have focused on general consumer behavior in developed markets, but there is insufficient understanding of how product quality specifically influences purchasing decisions for construction materials in the Timorese context, where market conditions, consumer preferences, and quality expectations may differ significantly from other markets.

Consumer decision-making processes involve problem recognition, information search, alternative evaluation, purchase decisions, and post-purchase behavior (Basu Swastha, 2015). In the construction materials industry, this process is particularly complex due to the technical nature of products and their long-term implications for building performance. Understanding

how product quality influences each stage of this decision-making process is essential for manufacturers seeking to improve market positioning and customer satisfaction.

Therefore, this study aims to analyze the influence of batako product quality on consumer purchasing decisions at Brother Building Unipessoal LDA in Dili, Timor-Leste, and to quantify the relationship between product quality attributes and consumer choice behavior in the local construction materials market.

RESEARCH METHODOLOGY

Consider that the data analysis method used in this process is quantitative method and data collection techniques used are questionnaires, interviews, documentation and observation. with the type of simple linear regression data analysis between the independent variable of product quality (x) and the dependent variable of consumer decision (Y). This analysis is to know the direction (relationship / connection) between the independent variables with the negative and positive dependent variable and to evaluate from the dependent variable if the value of the independent variable is experimental or increase the data usually used on an international scale to that simple Simple linear regression formula is as follows: $Y' = a + bX$, The method used for testing is to test the validity of the measurement is the formula peason product Moment (Sugiono, 2006) as:

$$r_{xy} = \frac{N \sum \text{xy} - \left(\sum x \quad\right)\left(\sum y \quad\right)}{\sqrt{\{(\sum x^2) - (\sum x^2)\}\{N \sum y^2 - (\sum y)^2\}}}$$

RESULTS

Brother Building Company Unipessos

Lda is a new company involved in the production of batako to respond to the needs of the population's needs for house construction and established for national development. Brother Building Unipessos. Lda was established on Monday, February 4, 2009, as a new investment that wants to make in the area of marketing to other companies to achieve national development and reduce unemployment in Timor-Leste. This is Brother Building Unipessos. Lda that participates in the development as an investment to carry out production of batako to achieve industry to change the people of Timor Leste's life a country Brother company stands with capital investment of at least one million US dollars with the amount of Timorese in 30 people to date

a. Validity and Reliability Testing

Instrument testing is performed when the researcher uses research instruments whose validity and reliability must be tested. With this when conducting statistical analysis, as the results of data responded from the correspondence must be tested for validity and reliability.

b. Validity Testing

Validity testing is a tool that shows the extent of data to gather designs about any variable. Valid or not is a commonly known instrument for comparing moment person correlation indexes, with a significance level of 5% of the count value. (Arikunto, 1999:238). To facilitate the calculation of the validity test, the statistical program SPSS version 23 for windows was used. In addition, there is the issue of valid variable instruments or significance values of < 0.05. According to the results of the validity test of each variable can be seen from

the following table: Validity Test for the variable Product Quality (X): Correlation Results for the Validity Test of Product Quality (X).

Table 1. Test Validity

Correlations						
		X1	X2	X3	X4	X5
X1	Pearson Correlation	1	.764**	.650**	.780**	.627**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	30	30	30	30	30
X2	Pearson Correlation	.764**	1	.893**	.947**	.722**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	30	30	30	30	30
X3	Pearson Correlation	.650**	.893**	1	.905**	.749**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	30	30	30	30	30
X4	Pearson Correlation	.780**	.947**	.905**	1	.873**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	30	30	30	30	30
X5	Pearson Correlation	.627**	.722**	.749**	.873**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	30	30	30	30	30

**. Correlation is significant at the 0.01 level (2-tailed).

Reference: Accumulation of SPSS version 23

Based on the results of the validity test from the table above shows that the product quality variable indicator (X) is said to be valid because its value is greater than 0.50 or above. With this, the research instrument is used to measure variables that are still or can be used for further analysis. **Validity Test for Consumer Decision variable (Y) : Correlation Results For Consumer Decision Validity Test (Y)**

Tabel 2. Validity

Correlations						
		Y1	Y2	Y3	Y4	Y5
Y1	Pearson Correlation	1	.618**	.590**	.622**	.558**
	Sig. (2-tailed)		.000	.001	.000	.001
	N	30	30	30	30	30
Y2	Pearson Correlation	.618**	1	.953**	.932**	.831**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	30	30	30	30	30
Y3	Pearson Correlation	.590**	.953**	1	.981**	.942**
	Sig. (2-tailed)	.001	.000		.000	.000
	N	30	30	30	30	30
Y4	Pearson Correlation	.622**	.932**	.981**	1	.963**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	30	30	30	30	30
Y5	Pearson Correlation	.558**	.831**	.942**	.963**	1
	Sig. (2-tailed)	.001	.000	.000	.000	
	N	30	30	30	30	30

**. Correlation is significant at the 0.01 level (2-tailed).

Reference: Accumulation of SPSS version 23

Based on the results of the validity test from the table above shows that the consumer decision variable indicator (Y) is said to be valid because it has a value greater than 0.50 and above. With this, the research instrument is used to measure variables that are still or can be used for further analysis.

c. Reliability Testing

The reliability test is an indication that shows how to calculate Cronbach's alpha for the extension to measure the value of the indicator is reliable. With this, the reliability test is used to determine the value and consistency of the questionnaire instrument. A convinced instrument is reliable (reliable) for the moment product correlation coefficient must have a good value. (Arikunto 2003:239), the reliability test used is Cronbach's Alpha. When the instrument alpha or rsura> is greater than rtable it can be said that it is reliable, and it can be said that when rsura< is smaller than rtable it is not reliable. The following are the results of the table below: Results of the Reliability Test

Table 3. Test Reliability

Variable	Alpha	r table	Conclusion
(X) Production Quality	0.949	0.361	Reliable
(Y) Consumer Decisions	0.952	0.361	Reliable

Reference: Accumulation of SPSS version 23

Based on the table, it can be seen that the product quality variable (X) for consumer decision (Y) is all reliable, because the alpha value is greater than 0.6 or the rsura value is greater than the table, and significant < 0.05.

Classical Assumption Testing

Classical assumption testing is the basis for regression analysis. The objective of this test is to find a useful and efficient approximate value for multiple linear regression. Based on the implementation of data analysis, classical assumptions must be followed with the objective of determining the estimation results of multiple regression limited by the symptoms of multicollinearity, heteroscedasticity and symptoms of normality. They are as follows:

a. Multicollinearity Test

The multicollinearity test is the value that is accepted or rejected, using the TOL (Tolerance) test and the VIF (Variance Inflation Factor) test, with a model considered not to affect multicollinearity when the VIF value is less than 10 and the TOL (Tolerance) value is zero or below. The results of data analysis are seen in the following table: TOL and VIF test

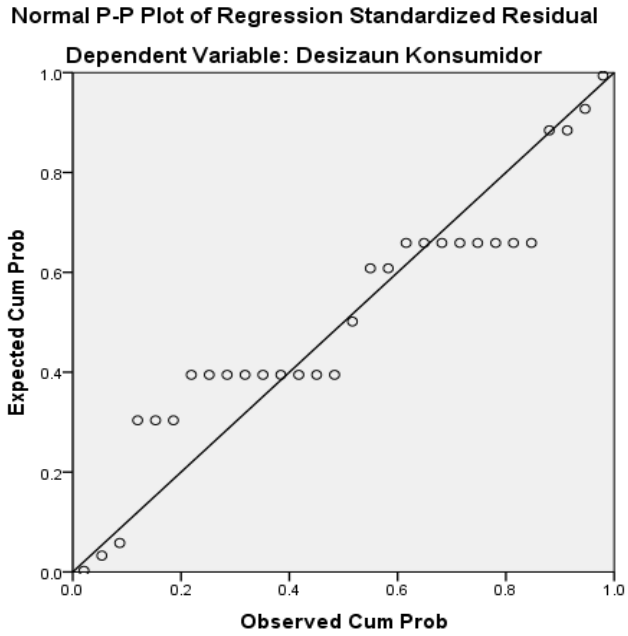
Table 4. Multicollinearity Test

Coefficient			
		Collinearity Statistics	
Model		Tolerance	VIF
1	(Constant)		
	Product Quality	1,000	1,000
maid. Dependent Variable: Consumer Decision			

From the table above, it can be seen that VIF is a regression of product quality variable (X) where the free variable with the largest value is from 1 to 10 (ten) above and TOL value as 0 (zero) below. This shows that there is a regression model for multicollinearity between X to Y variables.

b. Normality Test

Normality test aims to test the regression model of the dependent variable and two independent variables that have a normal distribution or not. To identify the residual when there is a normal distribution that can be seen from the drawing usually of the normal graph P-*Plot*(plane) that with circulation points to the diagonal line of the regression model against the assumption of normality: Normal PP Plot.

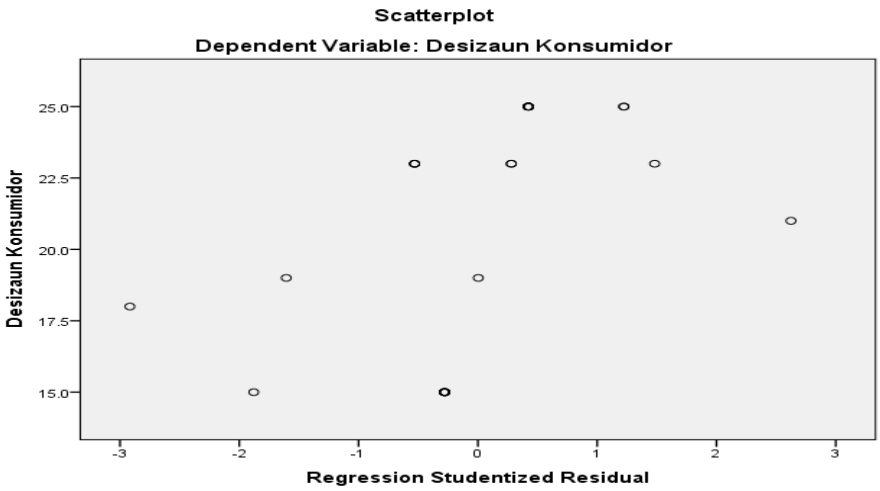


Reference: Accumulation of SPSS version 23

From graph 1. (Annex 6 ouput), which can be seen from the point of the diagonal line, follows its circulation to the orientation of the diagonal line according to the regression model against the assumption of normality, so that it can be used for prediction.

c. Heteroskedasticity Test

Heteroskedasticity test means variables (variants) are not the same variable for all observations. Heteroskedasticity test is performed using Spearman's correlation coefficient test is high to clarify between the absolute residuals for all independent variable regression results. When there is a probability of correlation result > 0.05 (5%), from heteroskedasticity as visualized that can be detected that there is a specific type of scatterplot graph that does not form a clear model, circled dot above and number 0 for the Y axis, this does not appear heteroskedasticity. Scatterplot



Reference: Accumulation of SPSS version 23

Based on the graph. (Annex output) see that the point circles to a random way, which does not shape particularly with a clear top and bottom with the calculation of the number 0 to the right Y shows that there is no heteroskedasticity for the regression model, as well as this model is used for prediction.

Simple Linear Regression Analysis

Simple linear regression analysis is using the determination of the relationship and influence of the independent variable (X) on the dependent variable (Y). Multiple linear regression analysis was used in this research to determine the model of relationship between independent variables consisting of (X) to (Y). According to the results and the correlation model between the independent variable and the dependent variable based on the results were analyzed by using SPSS Versi 23 For Windows software.

Results From Simple Linear Regression Analysis

Coefficient						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	T	Sig.
1	(Constant)	2,775	1,911		1,453	.157
	Product Quality	.854	.090	.873	9,482	.000
maid. Dependent Variable: Consumer Decision						

Reference: Accumulation of SPSS version 23

Based on the above calculation results, it was obtained from multiple linear regression as follows: Y= 2.775+ 0.854X

The interpretation of the above model is as follows:

1. The constant value of 2.775 indicates that, if the value of the independent variable consisting of leadership style (X) is equal to zero (0), then the amount of consumer decision (Y) is equal to 2.775 and will not change.

2. The value of the product quality coefficient (X) is 0.854 which is a positive coefficient to explain that product quality (X) on willingness to work (Y) is a positive process, meaning that if product quality (X) is high, consumer decision (Y) is also high. The coefficient value is large enough to conclude that if product quality (X) increases by one unit, the amount of consumer decision (Y) will increase by one unit by 0.854, assuming independent variables and other constants (fixed).

The Coefficient of Determination (R^2)

The test of determination R2 is the test that affects the independent variable and dominates the dependent variable. To determine the independent variable that has an influence on the dependent variable to dominate and can be seen from the partial correlation coefficient.

The value of the partial correlation coefficient (R2) shows how there is a relationship between the independent variable to the dependent variable. With the partial correlation coefficient values are as follows:

Results Determining R^2

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.873a	.763	.754	2,167	.763	89,914	1	28	.000

maid. Predictors: (Constant), Product Quality

b. Dependent Variable: Consumer Decision

Reference: Accumulation of SPSS version 23

Based on a similar plot of RSquarewith 0.763 and the value of multiple correlation coefficient (R) (square correlation coefficient R) showed that it strengthens the relationship between the independent variable to the dependent variable of 0.873. The resulting value of the variable correlation (X) for the employee work willingness variable is very strong.

The determining value of the R2 coefficient is used to measure how well the model explains the dependent variable. The result of these calculations, obtained from SPSS version 23 for R2 with a value of 0.763 which means that 76.3% (Y) can be explained by the variable product quality (X). While the remaining 23.7% is explained by other variables that we do not know.

Hypothesis Testing

a. Partial Hypothesis Testing (t-Test)

The partial test (t Test) was used to test the influence of each variable as an independent variable on the dependent variable. This t test is to clarify the two hypotheses that suspect variable (X) as partially having a significant influence on variable (Y). There is a return to the inf luence of each variable as an independent variable on the dependent variable to see the value of Tsura obtained from the t test to the following table:

Calculation Results for Partially Testing T

Coefficient						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	2,775	1,911		1,453	.157
	Product Quality	.854	.090	.873	9,482	.000

Reference: Accumulation of SPSS version 23

There are also partially hypothesis testing measures as follows

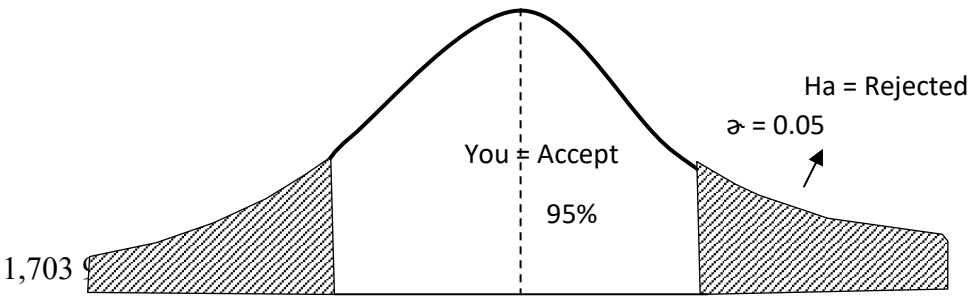
b. Partially testing the independent variable (X) for the dependent (Y)

With: β2 = 0, it means that the variable (X) does not influence (Y)

H1 : β2 ≠ 0, meaning that, variable (X) influences (Y)α= 0.05with df (n - k)= 28**Table = 1,703**

Price = 9.482

Partially Variable Curve (X) to (Y)



Accepted and Rejected Place Curves (Hypothesis X)
Figure 4.4

Based on the calculation obtained from Tsura with 9,482 > Table 1,703 is Ho accepted to the significance level of 95% or significant value of t test with 0.00 which is greater thanαwith 5% when Ho is not accepted and Ha is accepted, with this it can be concluded that product quality (X) influences (Y).

c. Hypothesis TestingTogether/Simultaneously(F-test)

To clarify the first hypothesis the F test is used to test the significance of the regression coefficients together/simultaneously. Based on the results of the F test according to the calculation for SPSS for 23, it can be seen in the following table:

Calculation Results for Simultaneously Testing F

ANOVAa						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	422,065	1	422,065	89,914	.000b
	Residual	131,435	28	4,694		
	Amount	553,500	29			

maid. Dependent Variable: Consumer Decision

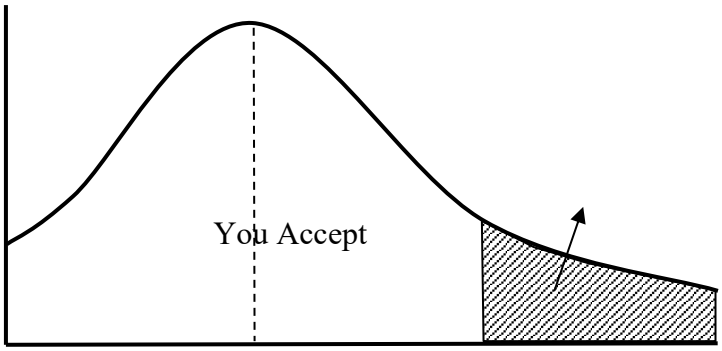
b. Predictors: (Constant), Product Quality

Reference: Accumulation of SPSS version 23

1. H0: B1 = B2 = 0
   The hypothesis states that the variable (X) has no influence on (Y). Here: $\beta 1 \neq \beta 2 \neq 0$
   Ftable (df numerator = k; denominator df2= n – k/ k - 1)
   Ftable(30 - 2) = 28 / Ftable 28 = 4.20
2. The acceptance criterion for the hypothesis, that is: Fsura 89.914 > 4.20 is accepted

Simultaneously Variable Curve (X) to (Y)

Ha La Simu



4,2089,914

Discussion

Partial Influence of Product Quality(X) on Consumer Decision(Y)

The results of statistical calculations clearly show that the t test for the hypothesis that the product quality variable (X) shows that there is a significant influence on consumer decision (Y). With a large significant value of 0.000, compare with a significant level (a) 5%, then the Asymp value. Sig. (2-sided) which is less than 5% with this Ho does not accept and Ha accepts, or the correlation value of the partial coefficient (tsura) with the amount of 9.482> value (table) 1.703 has a significant influence on consumer decision (Y).

Simultaneous Influence of Variable (X) on Consumer Decision(Y)

The results of statistical calculations clearly show that t test (t test). In this hypothesis test it was found that the product quality variable (X) showed that there is a significant influence on consumer decision (Y). With a large significant value of 0.000, compare with a significant level (a) 5%, then the Asymp value. Sig. (2-sided) which is less than 5% with this Ho does not accept and Ha accepts, or the correlation coefficient value simultaneously (fsura) with the amount of 89.914> value (ftable) 4.20 has a significant influence on consumer decision (Y).

R^2 Determinants of Product Quality (X) to Consumer Decision(Y)

The results of statistical calculations showed a relationship between independent variables such as product quality (X) to dependent variables with a correlation coefficient value of 0.876. This value is shown in the relationship of product quality variable (X) to consumer decision (Y) which is high and strong relationship. The value of the coefficient of determination R2 to use to measure the fitness of the model consisting of variance for the

dependent variable. According to the results of SPSS calculation obtained value = 0.763 which means 76.3% for consumer decision (Y) and explained by the product quality variable. While 23.7% is explained by other variables that are not mentioned or not detailed.R^2

CONCLUSION

If Figure 89.914> Table 4.20 is Ho does not accept that at the 95% level of confidence for df numerator 2 and df denominator 28, which means, the significant value of test F value 0.000 which is less than 5% shows that Ho does not accept and Ha accepts, or can be said that Ho does not accept and Ha accepts (2) simultaneously influences the decision consumer (Y) who receives or has facts of reality.

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