

## The Effect of Price, Needs and Scarcity on Purchasing Decisions for 3 Kg Lpg Gas Among the People of Bengkalis

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**Abstract.** *This study aims to analyze and see the effect of price, needs and scarcity on purchasing decisions for 3 kg LPG gas among the Bengkalis community. The research method of analysis used, namely multiple linear regression analysis with SPSS 27 tools. The sampling method in this study was non-probability sampling with purposive sampling technique. The number of samples in this study were 100 respondents. The results of this study indicate that the three variables of price, necessity and scarcity have a positive effect on purchasing decisions for 3 kg LPG gas in Bengkali both partially and together. Suggestions from this study are that the Government needs to pay attention to prices, needs and scarcity to increase people's buying intention for 3 kg LPG Gas in Bengkalis. It is better if the price of 3 kg LPG Gas needs to be adjusted to the community's income so that there is no scarcity of 3 kg LPG Gas and the community's need for 3 kg LPG Gas can be fulfilled properly and people's purchase intention will increase.*

**Keywords:** Price, Need, Scarcity, Purchase Decision

**Abstrak.** Penelitian ini bertujuan untuk menganalisis dan melihat pengaruh harga, kebutuhan dan kelangkaan terhadap keputusan pembelian gas elpiji 3 kg di kalangan masyarakat Bengkalis. Metode analisis penelitian yang digunakan, yaitu analisis regresi linier berganda dengan alat bantu SPSS 27. Metode pengambilan sampel dalam penelitian ini adalah non probability sampling dengan teknik purposive sampling. Jumlah sampel dalam penelitian ini sebanyak 100 responden. Hasil penelitian ini menunjukkan bahwa ketiga variabel harga, kebutuhan dan kelangkaan berpengaruh positif terhadap keputusan pembelian gas elpiji 3 kg di Bengkali baik secara parsial maupun secara bersama-sama. Saran dari penelitian ini adalah Pemerintah perlu memperhatikan harga, kebutuhan dan kelangkaan untuk meningkatkan minat beli masyarakat terhadap Gas Elpiji 3 kg di Bengkalis. Sebaiknya harga Gas LPG 3 kg perlu disesuaikan dengan pendapatan masyarakat agar tidak terjadi kelangkaan Gas LPG 3 kg dan kebutuhan masyarakat akan Gas LPG 3 kg dapat terpenuhi dengan baik serta minat beli masyarakat akan meningkat.

**Kata kunci:** Harga, Kebutuhan, Kelangkaan, Keputusan Pembelian

## INTRODUCION

In Indonesia, the government has launched a program for the use of LPG as an energy source in various sectors in 2007. The fuel conversion program from kerosene to LPG has been conducted to reduce pollution and improve energy efficiency in households. Based on Presidential Regulation No. 104/2007, the program also includes the distribution of subsidized LPG gas cylinders to the public at more affordable prices. The Indonesian government continues to encourage wider and more sustainable use of LPG. In addition, research and

development continues to be conducted to improve the efficiency and sustainability of LPG use, as well as reduce environmental impacts.

Several factors that influence purchasing decisions for 3Kg LPG gas are price, price is important because price is a strategy to attract more new customers, retain existing customers, avoid customer switching and create special advantages. Companies that prioritize affordable prices will have an impact on consumer satisfaction in purchasing decisions for 3Kg LPG gas.

Another factor is need. Needs are important because humans basically have many needs. The need itself is a barrier between what is expected and what actually happens. Needs are important because a high need for a product will increase the purchase of that product. Demand for 3kg LPG gas is influenced by many factors, including population, lifestyle and people's cooking habits.

LPG gas is widely used in Bengkulu households as an energy source for cooking daily meals. 3kg LPG gas cylinders are commonly used in households for cooking purposes in the kitchen. In Bengkulu the demand for 3kg LPG gas increases suddenly and exceeds the available supply, causing a 3kg LPG gas crisis in Bengkulu. Crises often occur due to disruptions in the distribution and logistics chain, such as delivery delays or operational constraints at gas distribution agents and the use of 3kg LPG gas that is not targeted. In accordance with the provisions of Presidential Regulation (Perpres) No. 104/2007 on the Supply, Distribution and Pricing of 3kg Liquefied Petroleum Gas, the supply and distribution of 3kg LPG is only intended for households and micro businesses. But there are still many people who are not categorized as using 3kg LPG gas but instead use 3kg LPG gas for their daily needs thus supplies cannot meet the demand for 3kg LPG Gas which causes scarcity in Bengkulu.

Based on this, The Author is interested in conducting research on "The Effect of Price, Needs and Scarcity on Purchasing Decisions for 3kg LPG Gas among the people of Bengkulu". Purpose of the study, to determine the partial effect of price, needs, and scarcity on the decision to purchase 3Kg LPG gas among the Bengkulu community and to determine the simultaneous effect of price, needs, and scarcity on the decision to purchase 3Kg LPG gas among the Bengkulu community.

## LITERATURE REVIEW

There are several general theories in this study, according to Tjiptono (2020) that price is a monetary unit or other measure that is exchanged in order to obtain ownership rights or use of a good or service. Baraham Maslow in Asrahmaulyana and Nuramaliah (2022), argues that every human being has a hierarchy of needs from the lowest to the highest. If the lowest needs are met, it will trigger the emergence of higher-level needs. Scarcity is a condition where we do not have enough resources to fulfill all needs. In short, scarcity occurs because the number of needs is greater than the number of goods and services available (Siana, 2020). Based on Kotler and Keller (2016) consumer purchasing decisions are the final consumer purchasing decisions of individuals and households who buy goods and services for personal consumers.

In this study, it cannot be separated from the results of previous research that has been conducted as a comparison and study, including research with the title *The Effect of Price and Promotion on Purchasing Decisions at PT Putra Usaha Mandiri* (Herman et al, 2023). In this study, the price and promotion variables had a positive and significant effect on purchasing decisions at PT Putra Usaha Mandiri. In this research, the conclusions (1) The price variable in the study has a positive effect on purchasing decisions at PT Putra Usaha Mandiri, so hypothesis H1 is accepted and H0 is rejected, (2) The promotion variable in this study has a significant positive effect on the purchasing decision of PT Putra Usaha Mandiri, so hypothesis H2 is accepted and H0 is rejected, (3) Price and promotion variables have a significant positive effect on purchasing decisions at PT Putra Usaha Mandiri together (simultaneously).

Meanwhile Sjukun et al. (2022) conducted a study entitled *The Effect of Price and Promotion on Purchasing Decisions at Bakpia Kurnia Sari*. In his research, the results of regression analysis show that the price variable has a positive effect on purchasing decisions at Bakpia Kurnia Sari, the promotion variable also has a positive effect on purchasing decisions at Bakpia Kurnia Sari. From research conducted by Angelita Jectendra (2022) entitled *The Effect of Price and Promotion on Purchasing Decisions for 5.5 Kg (Non-Subsidized) LPG Gas (Survey of CV Customers. Jectendra Jaya in Sukaraja Village, Tasikmalaya Regency)*. The results of this study prove that price and promotion simultaneously have a significant effect on purchasing decisions for 5.5 Kg LPG at CV. Jectendra Jaya Sukaraja Tasikmalaya. Likewise, partially price and promotion have a significant effect on purchasing decisions on 5.5 Kg LPG at CV. Jectendra Jaya Sukaraja Tasikmalaya.

From this study there are four hypotheses, namely, H1 Price has a significant effect on People's Purchasing Decisions to Buy 3kg LPG Gas, H2 Needs have a significant effect on People's Purchasing Decisions to Buy 3kg LPG Gas, H3 Scarcity has a significant effect on People's Purchasing Decisions to Buy 3kg LPG Gas and H4 Price, Needs, and Scarcity have a significant effect on People's Purchasing Decisions to Buy 3kg LPG Gas.

## **RESEARCH METHOD**

The type of data used in this research is quantitative data. In this study the data source used is primary data. The population that will be used as research is the use of 3Kg LPG gas in Bengkalis, the minimum sample for this study is 96 respondents, the sample taken is 100 respondents. In this study, the research used nonprobability sampling techniques with the purposive sampling types. To obtain data in this study using questionnaire data collection techniques. Data processing techniques with editing, coding, tabulation, and analysis with SPSS version 27. The data measurement scale used in this study is a Likert scale. The data analysis method used is descriptive statistics, classical assumptions, and regression analysis. The research hypothesis uses the T test, F test, and the coefficient of determination (R<sup>2</sup>). The research model in this study uses a double paradigm model with three independent variables X1, X2, and X3 with one dependent variable Y. The type of research used is associative research.

## **RESULTS AND DISCUSSION**

This research was conducted in Bengkalis city. The object of research to be carried out is 3Kg LPG gas. The respondent data obtained will be tested with the classic assumption test. The classic assumption test used consists of a data normality test using the P-Plot test in the form of a diagonal line or holographic graph showing a normal distribution pattern, thus, the regression model fulfills the normality assumption. Based on the multicollinearity test results, all variables have a tolerance value above 0.10 and a VIF value <10. Thus, it can be concluded that the regression model in this study does not occur Multicollinearity between independent variables. Based on the Heteroscedasticity Test using the Scatterplot Graph shows that there is no clear pattern, as well as points that spread evenly below and above or around the number 0 on the Y axis. It can be concluded that there is no heteroscedasticity in the regression model in this study. This analysis is to determine the direction of the relationship between the

independent variable and the dependent variable whether each independent variable is positively or negatively related. Based on the results of the autocorrelation test, it is known that  $DU < DW < 4-DU$ . Thus, it can be concluded that there is no autocorrelation in the regression model in this study.

Table1. Result of t Test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	1.863	3.112		.599	.551		
Price	.479	.166	.232	2.882	.005	.707	1.414
Need	.993	.187	.445	5.304	.000	.652	1.534
Scarcity	.414	.124	.252	3.332	.001	.799	1.251

Source: Processed data ,2023

Based on table 1. Test the effect of the price variable (X1) on the decision to purchase 3Kg LPG gas among the Bengkalis community. From the calculation it turns out that the tcount value (2.882) > ttable (1.98498) with a significant level of 0.005 < 0.05. So the conclusion is that H1 is accepted and Ho is rejected. This means that the price variable partially has a positive and significant effect on the decision to purchase 3Kg LPG gas among the people of Bengkalis.

The influence of the need variable (X2) on the decision to purchase 3Kg LPG gas among the Bengkalis community. From the calculation results obtained the tcount value (5.304) > ttable (1.98498) with a significant level of 0.000 < 0.05. So the conclusion is H2 accepted and Ho rejected. This means that the need variable partially has a positive and significant effect on the decision to purchase 3Kg LPG gas among the people of Bengkalis.

Test the effect of scarcity variables (X3) on the decision to purchase 3Kg LPG gas among the people of Bengkalis. From the calculation, it turns out that the tcount value (3.332) > ttable (1.98498) with a significant level of 0.001 < 0.05. So the conclusion is H3 is accepted and Ho is rejected. This means that the Scarcity variable has a positive and significant effect on the decision to purchase 3Kg LPG gas among the people of Bengkalis.

Based on table, it shows that the multiple linear regression equation obtained from the results of the analysis test is as follows

$$Y = 1.863 + 0.479 X1 + 0.993 X2 + 0.414 X3 + e$$

The regression equation means the following, The constant value (a) is 1.863, this means that if the independent variables, namely price, necessity and scarcity, are considered constant, the value of the dependent variable, namely the purchase decision, is 1.863 units. The regression coefficient value of the Price variable (X1) of 0.479 indicates that the price of 3Kg LPG gas is affordable and in accordance with the benefits and quality received will increase

purchasing decisions by 0.479 units. The regression coefficient value of the Needs variable (X2) of 0.993 indicates that the high need for 3Kg LPG gas will increase the decision to purchase 3Kg LPG gas by 0.993 units. The regression coefficient value of the Scarcity variable (X3) is 0.414, indicating that scarcity has an effect in increasing the decision to purchase 3Kg LPG gas by 0.414 units.

Table 2. Result of F Test

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	831.942	3	277.314	40.691	.000 <sup>b</sup>
	Residual	654.248	96	6.815		
	Total	1486.190	99			

Source: Processed data ,2023

Based on the table above, it is known that the Fcount value is 40.691 and the Ftable value is 2.70. Because the value of Fcount is greater than Ftable, namely  $40.691 > 2.70$ , then H4 is accepted and H0 is rejected, which means that the variable price, need and scarcity simultaneously have a significant effect on Purchase Decision.

Table 3. Coefficient of Determination (R2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.748 <sup>a</sup>	.560	.546	2.61057

Source: Processed data ,2023

Based on the table, the R Square value is 0.560. Thus it shows that the purchase decision can be explained by price, need, and scarcity of 56% and the remaining 44% is explained by other variables not examined in this study.

As explained above, price influences purchasing decisions on 3 kg LPG gas among the Bengkalis community. This happens because the good price of 3 kg LPG gas is the reason consumers intend to buy the product. The findings of this study are in line with the research of Herman et al, 2023 which shows that price positively and significantly influences purchasing decisions.

Needs also significantly influence purchasing decisions on 3 kg LPG gas among the Bengkalis community. In line with research conducted by Asrahmaulyana and Nuramaliah (2022) 3kg LPG gas is very helpful and facilitates household chores with its small size and affordable price.

Furthermore, scarcity also significantly affects the decision to purchase 3 kg LPG gas among the people of Bengkalis, in line with research conducted by Asrahmaulyana and Nuramaliah (2022). This is because when there is scarcity, purchasing decisions increase.

All price, need and scarcity variables have a significant influence on the decision to purchase 3 kg LPG gas among the people of Bengkalis. This finding is in line with research conducted by Asrahmaulyana and Nuramaliah (2022) which states that price, needs and scarcity have a significant effect on the purchasing decision process.

## CONCLUSIONS AND SUGGESTIONS

Test the effect of the Price variable (X1) on the decision to purchase 3Kg LPG gas among the Bengkalis community, the conclusion H1 is accepted and Ho is rejected. This means that the price variable partially has a positive and significant effect on the decision to purchase 3Kg LPG gas among the people of Bengkalis. The effect of the Needs variable (X2) on purchasing decisions on 3Kg LPG gas among the Bengkalis community, then the conclusion is H2 accepted and Ho is rejected. This means that partially the need variable has a positive and significant effect on the decision to purchase 3Kg LPG gas among the people of Bengkalis. Test the effect of scarcity variables (X3) on purchasing decisions for 3Kg LPG gas among the people of Bengkalis, then the conclusion is H3 is accepted and Ho is rejected. This means that the scarcity variable has a positive and significant effect on the decision to purchase 3Kg LPG gas among the people of Bengkalis. The price, need and scarcity variables simultaneously have a significant effect on purchasing decisions, so H4 is accepted and Ho is rejected. From the results of the regression analysis, the R Square value is 0.560. This shows that purchasing decisions can be explained by price, need, and scarcity by 56% and the remaining 44% is explained by other variables not examined in this study.

Researchers provide several suggestions, for the government to pay more attention to the prices that will be offered to consumers and must pay attention to the suitability of prices with consumer income because 3kg LPG gas is intended for the poor. And improve strategies to overcome price increases and strategies so that the needs of the Bengkalis community for 3kg LPG gas can be met properly for the welfare of the community. For further researchers, in this study there are 3 independent variables that influence the decision to purchase 3Kg LPG gas, namely price, need and scarcity. It is recommended that future researchers look for variables that also affect purchasing decisions other than price, needs and scarcity such as location, promotion and others so that it is hoped that the research will be more optimal.

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