

EFFECT OF PRODUCT QUALITY, PRICE PERCEPTION, PURCHASE DECISIONS DISTRIBUTION, AND IMPLICATIONS ON CUSTOMER SATISFACTION AT PT. XYZ¹

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ABSTRACT

This study aims to determine the effect of product quality, price perception, purchasing decisions distribution, and implications for PT. XYZ This research type is quantitative research. The research used primary data from questionnaires given to 300 respondents and secondary data from company data. The sampling method used is probability method. The population comes from gas product customers in PT XYZ cylinders in Banten, Jakarta, Java regions. Data processing in this study uses (Structural Equation Model-SEM) through LISREL 8.8 software. The study results indicate that product quality, price perception, and distribution have a positive effect on purchasing decisions, and purchasing decisions have a positive effect on customer satisfaction. Product quality has the strongest influence on purchasing decisions.

Keywords: product quality, price perception, distribution, purchasing decisions, customer satisfaction

INTRODUCTION

PT. XYZ is a multinational company from France, engaged in industrial gas. Industrial gas consumers consist of various sectors, including the food and beverage industry, chemical, cosmetics, hospitals, steel, automotive and others. Industrial gas used by industrial sector is usually in gasform.

Broadly speaking, PT. XYZ business lines divided into two are Large Industry (LI) and Industrial Merchant (IM). The Large Industry (LI) business includes gas sales through underground and on-site plant pipelines in nearby located or at consumer location while the Industrial Merchant (IM) business includes sale of Industrial Grade Gas (IPG) and Specialty Gas (SG) through tubes and tanks. Researcher will focus on business line Industrial Merchant (IM) in the gas sector Industrial Grade sales through tubes because this business line has a very high level of competition in Indonesia, contrast to business line in Large Industry (LI) which has a minimum competition level, this is because to run this business requires adequate knowledge and experience.

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Table 1.1 GasMarket Share in IndonesiaVersion World Gas on2015and 2016

Company	Market Share 2015	Market Share 2016
Various Gas	30%	35%
XYZ	22%	17%
Linde	20%	17%
Air Product	15%	15%
Others	13%	16%

Source: Gas World, Gas Report 2015 and 2016

Based on the data in Table 1.1, there are several producers engaged in industrial gas. From the existing producers, there are 5 (five) companies which dominate the Indonesian industrial gas market which consist of domestic and foreign companies. From data from Gas World through its report on Gas Report: South East Asia 2015 Indonesia states that XYZ ranked 2nd Market Share in Indonesia

In the following year, Gas World through its report Gas Report: South East Asia 2016 Indonesia, Market Share PT. XYZ dropped to 17%. Various Gas and distributor agents experienced a significant increase taking market share from XYZ and Linde.

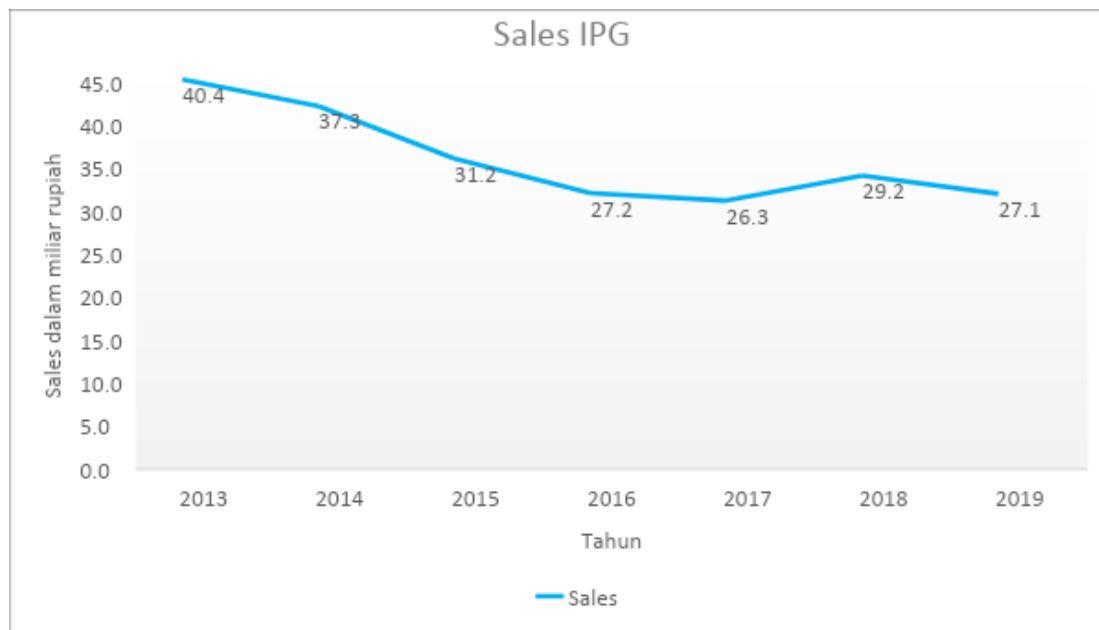


Figure 1.1 IPG Sales in 2013-2019

Source: Data on IPG Sales in 2013-2019

From PT. XYZ for the sector of gas Industrial Grade through the tube from 2013 to 2016 has decreased. This is consistent withMarket Sharedata by Gas World which states that there was adecrease in Market Share 5%Air Liquidefrom 2015 to 2016.

Based on the data in Table 1.2, there was a decrease load in shippingbetween 2013 and 2019. load Shippingis the number of items sent to the customer divided by the delivery capacity

Table 1.2 Load IPG Shipping on 2013-2019

Year	Load Shipping
2013	85%
2014	83%
2015	75%
2016	72%
2017	70%
2018	75%
2019	60%

Source:Data Load IPG Shipping

Every year, PT. XYZ conducted a survey on customer satisfaction using the Net Promotor Score (NPS) method, which is by distributing questionnaires then measured on a scale of 1 to 10. In the NPS method, the types of customers are divided into,

1. Promoter:customers who are enthusiastic about the product and will continue to buy . They will be happy to refer the product to their relatives. Size on a scale of 9-10.
2. Passive:customers who are satisfied with the product but are not enthusiastic and may at any time move to another product if they find a product that is more interesting. Size on a scale of 7-8.
3. Detractor:customers who have poor experience with the product and if there is an opportunity will spread negative news about your product (negative word of mouth). Size on a scale of 0-6.

The results of the questionnaire that have been obtained are calculated using the NPS formula that is the percentage ofvalue promoter minus the percentage ofvalue detractor.

Table 1.3 Net Promoter Score 2013-2019

Year	Net Promoter Score
2013	86%
2014	87%
2015	88%
2016	78%
2017	75%
2018	70%
2019	68%

Source: Data Net Promoter Score IPG

Based on Table 1.3, there was a decrease in the value of the Net Promoter Score from 2015 to 2019 which indicates that there was a decrease in customer satisfaction at PT. XYZ

Decline in sales, market share,shippingloadand customer satisfaction experienced level by PT. XYZ is a phenomenon that is the reason for the writer to examine it. The author sees the importance of examining what influences play a role in improving purchasing decisions and customer satisfaction so that PT. XYZ can stay in business competition and increase industrial gas sales in Indonesia.

Table 1.4 List of XYZ Gas Prices and Competitors

Types of Gas	Prices in XYZ	Average Price of Competitors
Argon	26,000 / m3	25,000 / m3
Hydrogen	27,000 / m3	25,000 / m3
Carbon Dioxide	5,500 / kg	5,000 / kg
Nitrogen	15,500 / m3	12,000 / m3m3
Oxygen	10,500 / m3	8,500 / m3

Source: IPG Price List, 2019

Table 1.4 presents comparative data on gas prices of PT. XYZ with average gas prices from competitors. The selling price of gas products at PT. XYZ is indeed more expensive when compared to competitors, this is because PT. XYZ has high standards in producing gas so that it produces good quality gas.

Another factor that caused gas prices at PT. XYZ is more expensive than competitors is shipping. PT. XYZ has a standard in shipping, that is, the product will be sent the day after the customer request is made.

The author has conducted a pre-survey by distributing questionnaires to 30 respondents of industrial gas users. Based on the pre-survey results in Table 1.6 shows that the majority of respondents choose product quality, price and distribution that influence the decision to purchase industrial gas.

Table 1.5 Pre Survey Purchasing Decision

No.	Statement	Correspondent Count
1	Product Quality	13
2	Distribution	9
3	Price	6
4	Promotion	1
5	Others	1

Source: Pre-Survey Data, 2019

Based on background exposure and pre-survey results, there are three main factors that influence the decision to purchase gas products at PT. XYZ namely product quality, price perception and distribution. The purchase decision will also see the implications for customer satisfaction.

RESEARCH METHOD

Sampling technique used in this study is probability sampling that provide equal opportunities or opportunities for each population to be selected as a sample (Sugiyono, 2017), in this case all gas products customers XYZ cilindresinBanten, Jakarta, and Java regions. To determine the size of the sample taken from researchers population using the formula put forward by Slovin with a 95% confidence level with the value of e = 5% is as follows:

Formula:

n = SamplesNumber

N = Populations Number

e = Error level in choosing sample members who are tolerated by 5%

$$n = \frac{1000}{1 + 1000 (0,05)^2}$$

So the number of samples taken: n = 285 samples.

1. To avoid samples that are incomplete or cannot be processed, the samples number distributed is 400 research samples. The data analysis method used is Structural Equation Modeling (SEM) through Lisrel software. This analysis is a combination of two separate statistical method is factor analysis developed in psychology and psychometrics and simultaneous equation model developed in econometrics (Ghozali, 2008). According to Hair in Sugiyono (2017) There are 7 steps in data analysis process using SEM model, are (1) Developing concepts and theory-based models; (2) Constructing a path diagram to show relationships flow between exogenous and endogenous variables; (3) Convert path diagrams into structural equations and measurement equations; (4) Determine the input matrix and estimation models; (5) Assessing structural model identification; (6) Evaluation of model fit based on criteria goodness-of-fit; (7) Interpretation and modification of the model if needed.

RESULTS

Characteristics of Respondents

Judging from the consumers location in Banten, Jakarta, West Java and East Java. The most consumers are from West Java, this is according to information conveyed by the Ministry of Industry (Kemenperin) claiming the growth of the number of industrial estates in Indonesia is increasing. This allows PT. XYZ to get more consumers in the industrial area of West Java compared to other industrial areas.

Structural Model Compatibility Test

Structural model compatibility test is used to test the relationship between exogenous and endogenous variables hypothesized in the study, to know each variable has a significant relationship and to know the direction of the relationship of each variable whether positive or negative.

Based on the primary research data, the structural equation is as follows:

Structural Equations				
KPEL = 1.05*KPEM, Errorvar.= 0.35 , R ² = 0.66				
(0.066)		(0.045)		
16.02		7.73		
KPEM = 0.42*KP + 0.31*Harga + 0.27*DIS, Errorvar.= 0.28 , R ² = 0.72				
(0.043)	(0.042)	(0.033)		(0.032)
9.74	7.35	8.21		8.53

Figure 4.1 Structural Equation

Source: Primary Data processed with LISREL

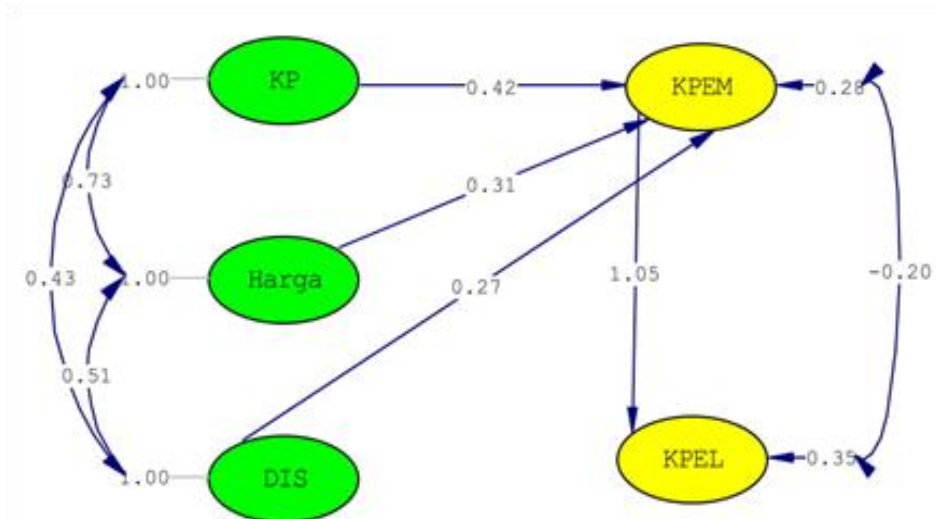


Figure 4.2 Structural Model Standardized Solution

Source: Primary Data processed with LISREL

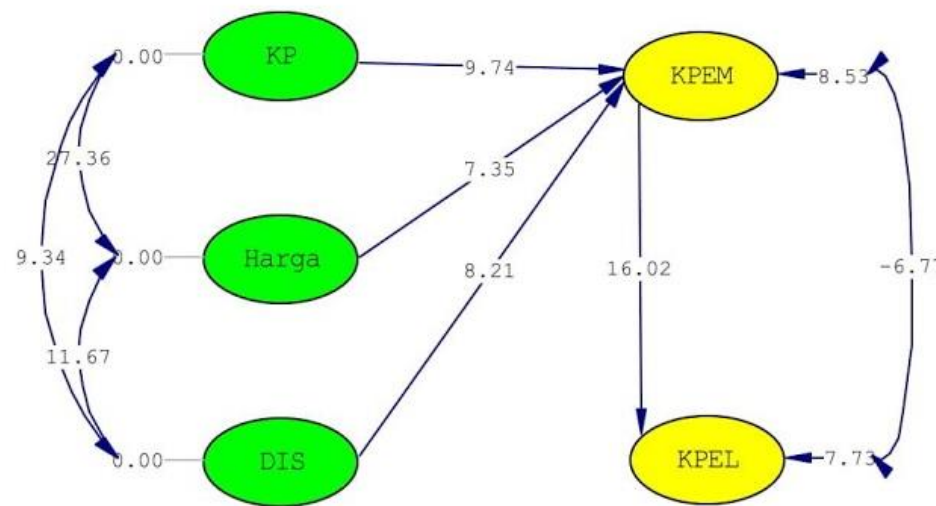


Figure 4.3 Structural Model T-Value

Source: Primary Data processed with LISREL

Based on LISREL analysis results of structural models in Figures 4.9 and 4.10, the relationship between exogenous variables of product quality, perceived price and distribution as well as endogenous variables of decision and satisfaction, can be explained as follows:

1. Based on Figure 4.10 it can be seen that the product quality variable on purchasing decisions has a t-value of 9.74 where the value is greater than 1,96, in this case shows a positive and significant effect between the two variables.
2. Based on Figure 4.10 it can be seen that the purchase decision in price perception of t-value 7.35 where the value is greater than 1.96, in this case shows a positive and significant effect between two variables.
3. Based on Figure 4.10 it can be seen that the distribution variable the purchase decision directly has a t-value of 8.21 where the value is greater than 1.96, in this case showing a positive and significant effect between the two variables.

4. Based on Figure 4.10 it can be seen that the purchase decision variable on customer satisfaction has a t-value of 16.02 where the value is greater than 1.96, in this case showing a positive and significant effect between the two variables.
5. Based on Figure 4.8, the determination coefficient or R-square (R^2) in LISREL analysis can be described as follows:
 - a. The value of the squared multiple correlation in the first equation is 0.66. This value indicates that 66% of the variation in the value of satisfaction is determined by variations in the value of the purchase decision variable.
 - b. The squared multiple correlation value in the second equation is 0.72. This value indicates that 72% of purchasing decisions variation value is determined by variations in the value of product quality, price perception and distribution.

CONCLUSIONS AND SUGGESTIONS

Conclusions

Based on the data analysis and discussion described in the previous chapter, several research conclusions can be drawn as follows:

1. Product quality has a positive and significant impact on consumer purchasing decisions of PT. XYZ
2. Price perception has a positive and significant effect on PT. XYZ
3. Distribution has a positive and significant effect on PT. XYZ
4. Purchasing decisions have a positive and significant effect on customer satisfaction PT. XYZ

Suggestions

Next researchers are expected to conduct research by adding other variables that affect service, word of mouth, trust, security, brand, and promotion. Thus it can enrich the factors studied regarding purchasing decisions where research requires a lot of development in various sectors, so that research results can make a positive and applicative contribution to the education world in general and also the business development of companies in particular.

Future researchers are also expected to conduct research with the same variables by changing the categories of objects or research areas, so that it can be seen whether this study results are consistent in the various types of objects and places analyzed.

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