

Research.

THE ANALYSIS OF PRICE, PROMOTION, AND PLACE AND THEN TO EFFECT ON CONSUMER DECISION MAKING *A Study of Structural Equation Modeling in Healthcare Products*

Ismulyana Djan

Lecturer at STIE Binaniaga, Bogor

Fitriyanti

Abstract. *The purpose of this study is to determine the customer's purchasing decision toward the product that directly influenced by the price variable, promotion variable and place variable, included analyzing the policy of price decision, promotion implementation and how important the place to decide customer's purchasing decision. The method used in his study is survey method using Structural equation modeling (SEM) analyzing technique through AMOS application. The result of the study shows that the price influenced the purchasing decision making as (CR) 2,399 > 1,96, and the promotion influenced the purchasing decision making as (CR) 3,493 > 1,96, and the place did not influence the purchasing decision making as (CR) - 1,089 < 1,96.*

Keyword : **Structural Equation Modeling (SEM)**

INTRODUCTION

The purchasing decision making is very influenced by many things relate to internal and external factors that strongly integrated. The purchasing decision making gives strong impact to the product sales level obtain, how can we increase the customer's interest to purchase or want to use the product, what factors, customers create classifications of a product they want, these questions need to be answered in this research to increase the sales. Purchasing decision is an action that customer do to purchase a product. Therefore, customer's purchasing decision is a process of choosing one of some solving problem alternatives in real action. The process of decision making is vary, some of them are simple some others complicated. The decision making is not ended by the purchasing transaction but followed by the customer's behavior level. In this case, the customer's purchasing behavior can be influenced by cultural factor, social factor and personality factor as stated by Kotler (2013:218) Consumer behavior is influenced by three factors: cultural, sub culture, and social class); social (reference groups, family, and social roles and statuses); and personal (age, stage in the cycle, occupation, economic circumstances, lifestyle, personality, and self concept. The most impossible thing to study the purchasing behavior is how a customer treat the product they want and need bought, to the special trimester digital product as a blood pressure measurement tools digitally like Automatic Blood Pressure Monitor Omron, in what level the customer want to spend their money to purchase this product, and that factors they want and need from the product, Kotler explain some factors that give a strong impact toward the purchasing decision of a product, some of them are the product quality, the price, and the purchasing place or the product distribution and how far the customer have the information of the product from the promotion. Kotler (2013:63) stated in details that "The four P components of the Marketing Mix: Product (product variety, quality, design, features, brand name, packaging, sizes and service); Price : list price, discounts, Allowances, payment period and credit terms; Promotion : sales promotion, advertising,

Ismulyana Djan and Fitriyanti: The Analysis of Price, Promotion, and Place and Then to Effect on Consumer Decision Making (A Study of Structural Equation Modeling in Healthcare Products)

sales forces, public relations and direct marketing); Place: channels, coverage, assortments, locations, inventory and transport”.

In a medical devices sales business, especially in a digital blood pressure measurement device like Automatic Blood Pressure Monitor Omron, there are some things on marketing and other factors that might be the consideration of the customer in choosing the medical devices purchasing place that could influence purchasing decision that is the factor of product quality, price, promotion, place, and store atmosphere. Product quality factor give a huge impact to the purchasing decision, customer will consider the quality of the product they want to purchase, and customer hopes the conformity between the price and the product quality that they will receive and the existence of the clear information about the advantage and disadvantage of the product through the promotion.

Based on the theory ad the case study in a medical devices sales company especially in a digital blood pressure measurement device like Automatic Blood Pressure Monitor Omron, this research analyzes how appropriate based on the customer's perception: pricing policy (price variable), information delivery to the customers from the promotion media (promotion variable) and the company's location factor (place variable) and also the influence toward customer's purchasing decision of the digital blood pressure measurement device.

RESEARCH METHOD

This research conducted in a medical devices sales company and the object of the research is the purchasing decision in Automatic Blood Pressure Monitor Omron product (digital blood pressure measurement device) and the subject of the research are the customers who purchase unpredictable population product. The amount of 160 responders pick as sample as suggested by Imam Ghozali, (2011:64): “ By the estimation method using Maximum Likelihood (MC) minimum 100 samples and maximum 200 samples are needed”. Meanwhile, data analysis technique used Structural Equation Modeling (SEM) analysis through AMOS software.

The questionnaire is used to collect the data. The data in the questionnaire measured using rating scale with 5 evaluation scale. The instrument was designed and developed through the theoretical analysis to determine construct validity that based on the theories and then synthesize in form of indicator of price, promotion, place and purchasing decision.

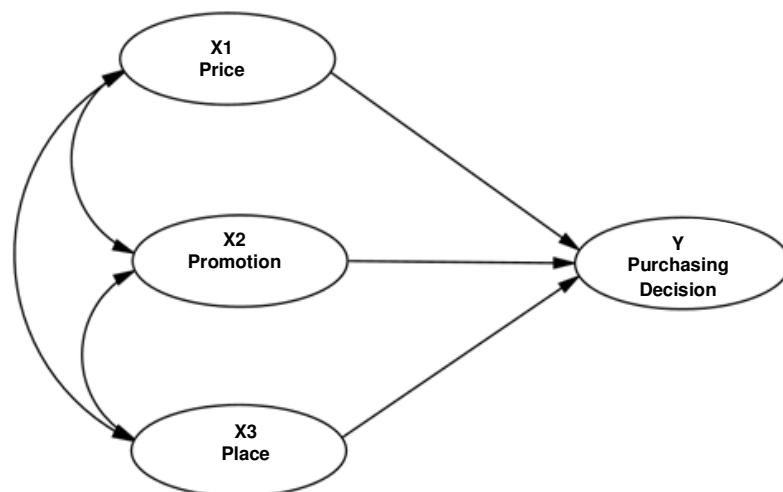
The definition of operational variable: The price is some money that charged to the product, service, or amount, Kotler and Armstrong (2010:169). Promotion is an activity that communicate the purpose of a product and persuade the target customers to purchase the product, Kotler and Armstrong (2012:76). Place is a location to serve the customers and also can be divine as location to display their goods, Kasmir (2009). Purchasing decision is an action that comes from the stimulation or connection from others s side, Kotler (2011). Whereas, construct, construct indicator and the code can be seen in table 1.

Table 1: Construct Indicators

Constructs	Constructs Indicators	Code
Price	The price of Automatic Blood Pressure Monitor Omron product suitable to the purpose get.	X ₁
	The price level of Automatic Blood Pressure Monitor	X ₂

Constructs	Constructs Indicators	Code
	Omron offers competitive to others competitor.	
	Give some discounts according to mutual agreement.	X ₃
	The price of Automatic Blood Pressure Monitor Omron meets customer's expectation.	X ₄
Promotion	I think the product advertisement uses the right media that are banner and blog.	X ₅
	I often receive discounts.	X ₆
	The salesperson serve me well.	X ₇
	I think the medical devices sales company help me fulfil the medical devices needs.	X ₈
Place	I think the medical devices sales company located in a reachable place.	X ₉
	I think the location of the medical devices sales company is strategic.	X ₁₀
	I think the transportation access to the medical devices sales company are easy to reach.	X ₁₁
Purchasing Decision	I am sure to purchase Automatic Blood Pressure Monitor Omron product that the medical devices sales company offers.	Y ₁
	Before purchasing Automatic Blood Pressure Monitor Omron I compare the product to the others homogeny product.	Y ₂
	I will recommend my close friends to purchase Automatic Blood Pressure Monitor Omron if they need the product.	Y ₃
	The small mistakes from the employees do not make me think to move to the other competitor.	Y ₄

The theoretical framework can be formed in as seen in the picture 1 below:



Picture 1
Theoretical Framework

Ismulyana Djan and Fitriyanti: The Analysis of Price, Promotion, and Place and Then to Effect on Consumer Decision Making (A Study of Structural Equation Modeling in Healthcare Products)

RESULT AND DISCUSSION

- A. The result of indicator validity test and reliability of construct: price, promotion, place and purchasing decision.

An indicator is valid if the loading value factor appear is more than 0,50. The validity test was using Amos software. The standardized regression weights output result shows all indicators for construct latent of price, promotion and place are significant because the loading factors are more than 0,50 so that the indicators are valid to measure latent variables (table 2). In the other hand, the construct latent endogen indicator validity test of purchasing decision shows three indicators are valid and one indicator have to be cut off because based on the output standardized regression weight gets estimate for Y_4 is 0,385.

Table 2
Standardized Regression Weights

			Estimate	Evaluation
X_4	<---	Price	,684	Valid
X_3	<---	Price	,732	Valid
X_2	<---	Price	,804	Valid
X_1	<---	Price	,740	Valid
X_8	<---	Promotion	,860	Valid
X_7	<---	Promotion	,673	Valid
X_6	<---	Promotion	,726	Valid
X_5	<---	Promotion	,774	Valid
X_{11}	<---	Place	,759	Valid
X_{10}	<---	Place	,760	Valid
X_9	<---	Place	,785	Valid

The result of construct reliability test of price, promotion, place, and purchasing, based on the analysis result the construct reliability = 0,81 is bigger than the cut off value that is > 0,70. And the Variance extracted = 0,59 more than the minimum cut off requirements value 0,50. Therefore all the construct latent reliable.

- B. The analysis of price, promotion, place and purchasing decision according to the customer's perception.

1. Price analysis

Price can be perceived differently by the different person. This research measure the price variable from the respondent about the price of automatic blood pressure monitor omronby medical devices sales company. The price variable in this research was measured using 4 statements items. The answer result and average statements about the price variable according to the indicators are $X_1 = 4,07$; $X_2=3,97$; $X_3: 3,89$; $X_4 = 4,07$ based on the average of AGREE statements, it means that the customers agree that the product price suitable to the purpose they get. The level of the price offer competitive to the other competitors. Give the discount according to mutual agreement and the price of the product meets the customer's expectation.

2. Promotion Analysis

Promotion is a communication tool and information delivery that inform, persuade, recall the customers, mediators, or both memories. This research measure product promotion variable from the respondents about the product promotion. The answer result and the average statements about promotion variable is 3,9 it means that there is NEUTRAL and AGREE to the company's

efforts to the advertise, discount, good salesperson service, and the information of the importance of the product.

3. Place Analysis

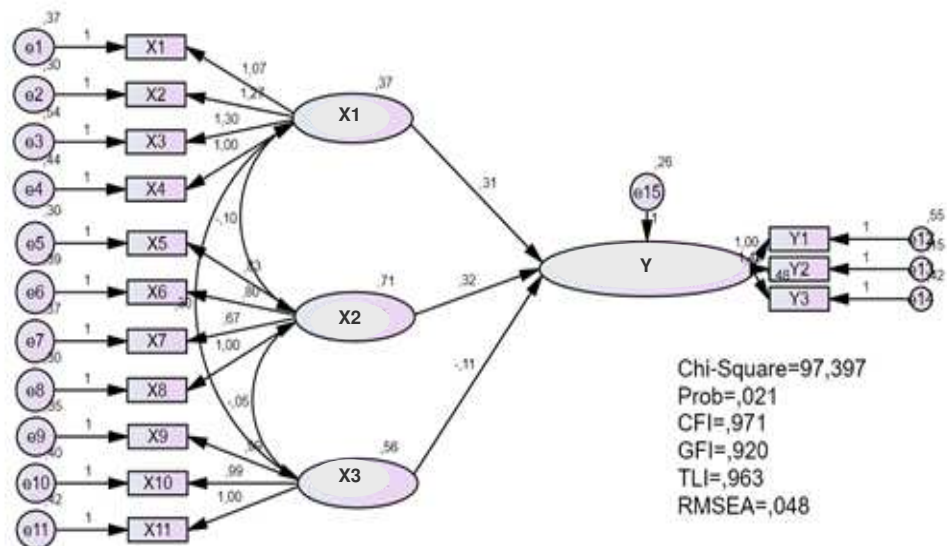
Place is a location to serve the customers, and can also be divine as a place to display the goods. This research measure the place variable according to the respondents' responds to the company's location. Place variable in this research was measured using 3 statements items. The answers result and the average answers about the place variable is 4,2 it means that the answers are in AGREE and STRONGLY AGREE toward the location that easy to reach, the strategic location, and reachable by public transportation.

4. Purchasing Decision

The customer's decision is a behavior that appear from the stimulation and connection from others side. This research measured purchasing decision variable according to the respondents' responds. Purchasing decision variable in this research was measured using 4 statements items. The answers result and the average answers about the purchasing decision is 3,79 it means in the NEUTRAL and AGREE toward the sureness of purchasing the product, the effort of comparing to other products before purchasing, recommend to their close friends although there are some small mistakes.

C. Data Analysis and Model Testing

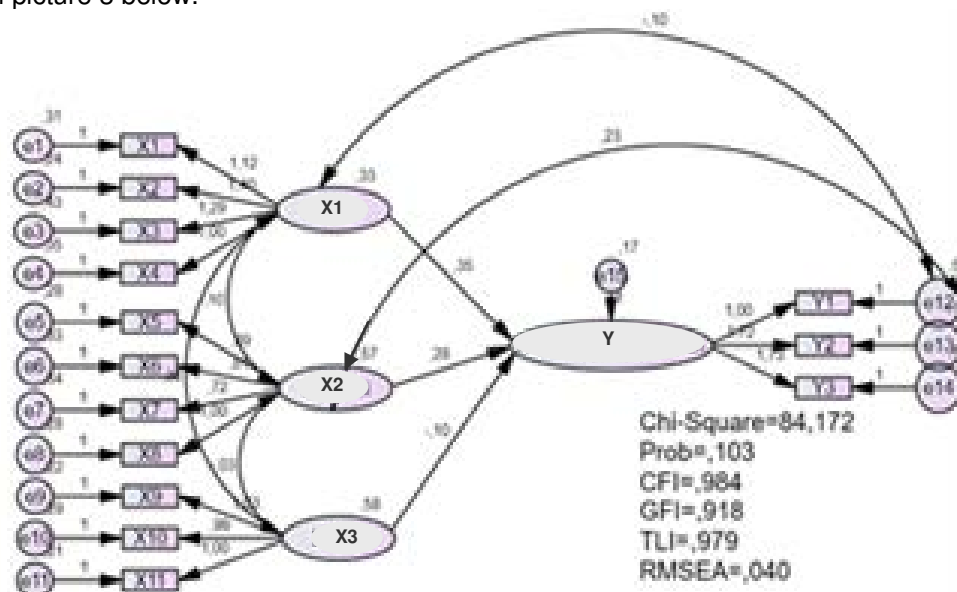
The model development in this research is according to the literature review and framework of the influence of price, promotion, and place toward the purchasing decision that produce the diagram of causality connection as seen in picture 2. Meanwhile, the input matrix used as the input is covariance matrix. In testing the causality relationship the covariance matrix was taken as the input in SEM operation. Estimation technique that used is maximum like hood because the amount of the sample used is 100-200, that is 160 samples. In estimation analysis the full model structural only input the indicators that already tested in validity and reliability.



Picture 2
 Full Model Structural

Chi-square result 97,397 with probability 0,021 is not fit yet, but we know that chi-square is sensitive to some samples. Therefore, we look at the other fit criteria those are GFI, TLI, CFI, and RMSEA all of them shot the value fit according to the

recommendation more than 0,90 and RMSEA between < 0,08. The further step that need to be conducted in order to modify the model to fit is modify test indices as seen in picture 3 below:



Picture 3
Full Model Structural

Model modification was conducted according to the modification indices by correlation price with e12 and promotion with e12. The result from the measurement can be seen in table 3 below:

Table 3
Goodness of Fit

Criteria	Cut Of Value	Result	Evaluation
Chi-Square	≤ 89,391, when Chisquare for df 69 level sig 5% = 89,391	84,172	Good
Probability	≥ 0.05	0,103	Good
GFI	≥ 0.90	0,918	Good
TLI	≥ 0.90	0,979	Good
CFI	≥ 0.90	0,984	Good
RMSEA	≤ 0.08	0,040	Good

Based on the table 3 the result of Chi-square 84,172 with probability 0,103 can be divine that the model is fit, as well as the fit criteria of GFI, TLI, CFI and RMSEA all show the fit value suitable to the recommendation more than 0,90 and RSMSE ≤ 0,08. The result show that overall model fulfill the fit model criteria.

D. Hypotheses Test

1. Hypothesis Test 1

Based on the result obtained the value (CR) 2,399 and the value probability (P) 0,016 this show the value of (CR) is more than 1,96 and the value of probability < 0,05, so can be said that hypothesis 1 H_a in this research can be accepted and H_o was rejected. Therefore, can be concluded that hypothesis 1 was accepted that the price has significant influence toward the purchasing decision of the product.

Ismulyana Djan and Fitriyanti: The Analysis of Price, Promotion, and Place and Then to Effect on Consumer Decision Making (A Study of Structural Equation Modeling in Healthcare Products)

2. Hypothesis Test 2

Based on the result obtained the value (CR) 3,493 and the value probability (P) $< 0,05$ this show the value of (CR) is more than 1,96 and the value of probability is so much $< 0,05$, so can be said that hypothesis 2 H_a in this research can be accepted and H_o was rejected. Therefore, can be concluded that hypothesis 2 was accepted that the promotion has significant influence toward the purchasing decision of the product.

3. Hypothesis 3

Based on the result obtained the value (CR) -1,089 and the value probability (P) 0,276 this show the value of (CR) is less than 1,96 with the value of probability $> 0,05$, so can be said that hypothesis 3 H_a in this research was rejected and H_o was accepted. Therefore, can be concluded that hypothesis 3 was rejected that the place has no influence toward the purchasing decision of the product.

DISCUSSION

A. The influence of the price toward the purchasing decision of the product

This can be proven with the statistic SEM analysis result through AMOS in output of the causality test result that shows the value of CR is more than the critic value for significance 0,05 is $2,399 > 1,96$ and has the probability $< 0,05$ that is 0,016, so the hypothesis 1 was accepted. The hypothesis test shows the significant influence between the prices toward the purchasing decision. Moreover, it shows that the price could stimulate customer's behavior to decide something according to their choices.

B. The influence of the promotion toward the purchasing decision of the product

The second hypothesis stated the influence of promotion toward the purchasing decision of the product. This can be broken by looking at the statistic SEM analysis result through AMOS in output of the causality test result that shows the value of CR is more than the critic value for significance 0,05 is $3,493 > 1,96$ and has probability so much less than 0,05. This shows that the more interesting the promotion that the company offer, the higher the customer's purchasing decision.

C. Place has no influence toward the purchasing decision of the product

The result of the SEM statistic using AMOS in output of the causality test result shows the value of CR is less than the critic value for the significance 0,05 is $-0,1089 < 1,96$ and has the probability more than 0,05 is 0,276. So the hypothesis 3 was rejected and can be assured that place has no influence toward the purchasing decision of the product.

CONCLUSION AND RECOMMENDATION

A. Conclusion

1. Price has significant influence toward the purchasing decision of the product.
2. Promotion has significant influence toward the purchasing decision of the product.
3. Place has no influence toward the purchasing decision of the product.

B. Recommendation

1. The analysis result toward price and how strong its impact toward the purchasing decision of the product, give an important information that the pricing of a product has to consider the customers' consideration and incentive and also suitable to the purpose. Considering the competitor factors and give discount regularly, the company's policy better not to change the price because it's already visible to the customers.
2. By looking at the policy of promotion that already conducted now, need more efforts toward the media that have been used the amount of the cost have to be adjusted. This can be done by using online selling using the provider that already in the online business today.
3. Even though the place has no impact to the customer's purchasing decision to get or have the product as the medical devices sales company they have to consider the service quality especially in the tangible dimension, the physical appearance is the easiest elements that the customers can remember.

REFERENCES

- Armstrong, Michael. 2009. *Armstrong's Handbook of Management and Leadership . " A Guide to Managing for Results"*. London : Kogan Page Limited
- Ghozali, Imam. 2011. *Model Persamaan Struktural Konsep dan Aplikasi dengan Program Amos 21.0*. Publisher : UNDIP Semarang.
- Kinicki, Angelo and Brian K. Williams. *Management a practical Introduction*, New York: McGraw-Hill/Irwin., 2008
- Kotler, Philip. & Keller, Kevin Lane 2009. *Marketing Management.13 th Edition* Pearson Prentice Hall is a Trade Mark of Pearson Education, Inc.
- Sugiyono. 2013. *Metode Penelitian Bisnis (Pendekatan Kuantitatif, Kualitatif, dan R & D)*. Publisher : Alfabeta Bandung.
- Siswono Haryono 2017. *Metode SEM untuk Penelitian Manajemen*. Penerbit Luxima Metro Media. Jakarta.
- Tony Wijaya. 2009. *Analisis Structural Equation Model Menggunakan Amos*. Publisher Universitas Atma Jaya Yoogjakarta.