

## **The Effect of Price, Promotion and Performance of Smartphone On Purchasing Decisions (Study in Bandung during 2012 - 2013 )**

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### **Abstract**

Nowadays, the development of telecommunication technology is growing rapidly. This development affects the pattern of customer purchasing decisions. This situation happens to the smartphone products as well. By implementing a good marketing mix, marketer may expect getting a good product purchasing decisions from its customers. Finally, the company will be able to increase its competitive advantage.

The aim of this study is to identify the influence of several items of the marketing mix (price, promotion and performance of smartphone products) as independent variables against customers purchasing decision as a dependent variable. The study was done in Bandung during 2012 - 2013, by using 100 respondents as the samples. The sampling method is a non-probability sampling with a purposive sampling technique.

We also describe each variable in order to understand the respondent's perception by categorizing from their response of the questionnaire into the continuum line, starting from the worst to the best category. Then we analyze the relationship between variables of the marketing mix and customer purchasing decisions. The results show that those three independent variables significantly influence the dependent variable simultaneously. But price variable not significantly influence the dependent variable partially.

**Keywords: Marketing mix, Purchase Decision, Smartphone**

## 1. INTRODUCTION

### 1.1 Background

The development of telecommunications technology is growing rapidly. The development of telecommunications technology is affecting the pattern of use. The use of telecommunication products now more diverse, especially in the features that can be seen from the performance of the product. Now in the telecommunication market we can find smart phone products that have a higher capability than a conventional mobile phone.

Smartphone was discovered by Mike Lazaridis. The invention was characterized by the discovery of Blackberry in 1999 by RIM company in Canada. The discovery influenced the telecommunication product manufacturers to create another smartphone products. As a consequences, the smartphone market grows rapidly It also occurs in Asia. Results of research conducted by Yahoo and Mindshare stated that in mid-2013, smartphone users in Indonesia exceed 41.3 million people.

The results of the survey conducted [Parmuarip Lutfi, 2012] shows that the smartphone is used by many users because of its benefits, especially in the multimedia capabilities. It is also concluded that the results of the survey show the smartphone capabilities that can be used as “computers” become one of its attractiveness. It also shows the other thing that can be considered by users is that the smartphone can also be used as entertainment tool.

Because of in the market there are many kind of smartphone products such as Apple's smartphone products, Samsung, Sony and LG and also smartphones produced by China manufacture, then the price of smartphones tends to decrease. Information Week, Wednesday (11/27/2013) informed that the average selling price of smartphones in 2013 fell 12.8% .

From the data obtained through <http://gadgetan.com/inilah-dia-top-5-produsen-smartphone-dan-ponsel-dunia> regarding the sales of smartphones, it can be described as follows:

**Top Five Total Mobile Phone Vendors, Shipments, and Market Share, 2012 Q3 (Units in Millions)**

Vendor	3Q12 Unit Shipments	3Q12 Market Share	3Q11 Unit Shipments	3Q11 Market Share	Year-over-year Change
Samsung	105.4	23.7%	87.2	20.1%	20.9%
Nokia	82.9	18.7%	106.5	24.5%	-22.2%
Apple	26.9	6.1%	17.1	3.9%	57.3%
LG Electronics	14.0	3.1%	21.1	4.9%	-33.6%
ZTE	13.7	3.1%	17.6	4.1%	-22.2%
Others	201.6	45.3%	184.6	42.5%	9.2%
Total	444.5	100.0%	434.1	100.0%	2.4%

Based on the result of research concerning the effect of marketing mix influencing the purchase decision done by [Wahyu Pratomo Eko, 2013] mentioned that the marketing mix item influencing the

purchase decision mostly given by promotion and performance. We would investigate furthermore the effect of those variables and add it with Price variable.

## 1.2 Problem Statement

Based on the background as mentioned above, the problem statement can be formulized as follows:

- a. How much is the respondents give score in percentage concerning price variable, promotion variable, performance variable, and customer purchasing decision variable ?
- b. How much is the price variable, promotion variable, and performance variable significantly influence the customer purchasing decision partially or simultaneously ?

## 1.3 Research Objective

Based on the above problem statement, the objective of the research can be described as follows:

- a. For understanding how much is the score in percentage of price, promotion, performance and customer purchasing decision of the smartphone.
- b. For understanding how much the price variable, promotion variable, and performance variable significantly influence the customer purchasing decision partially or simultaneously.

## 2. LITERATURE STUDY

This literature study consists of price, promotion, performance and purchasing decision as follows:

### a. Price

Price is one out of the most important thing that can be considered as a revenue generator item. It is explained by . Kotler and Keller [2011, 383] as follows:

***Price is the one element of the marketing mix that produces revenue; the other elements produce costs. Prices are perhaps the easiest element of the marketing program to adjust; product features, channels, and even communications take more time. Price also communicates to the market the company's intended value positioning of its product or brand. A well-designed and marketed product can command a price premium and reap big profits. But new economic realities have caused many consumers to pinch pennies, and many companies have had to carefully review their pricing strategies as a result.***

However, Lancaster and Massingham [2011,160] explained about price as follows:

***The price of a company's products and services represents the vehicle for that company to achieve its financial objectives. It is through price and volume that revenue is generated. Price equates to the financial sacrifice that the customer is willing to make to purchase the product or service desired.***

Based on those two above statements, we may conclude that the price is one of the most important thing that should be considered in deciding the plan for getting revenue. The price may have an important impact in increasing or decreasing the revenue of the company. On the other side, price also becomes one of the most important thing from the customer side to do the purchasing decision. There are several things that we have to know concerning the price. The impact of the price to either the company or the customer especially to the purchasing decision explained by Lancaster and Massingham [2011,64] as follows.

***Research into the relationship between price and consumer behaviour is important to the marketer. Consumers may not be aware of the prices of certain goods they purchase. This is especially true in fast-moving consumer goods (FMCG) markets. Consumers may be sensitive to price differentials between competing brands; in this case the marketer will have to monitor competitors' pricing strategies and either compete on price or try to add value to the product in another way. For many products, there is a relationship between price and perceived quality.***

Based on those explanation we may assume that the consumer will not dominantly be influenced by the price in purchasing the product that not classified as fast moving consumer goods.

## **b. Promotion**

Promotion, as an effort to deliver information to the customer in the marketing communication may have a different impact to the customer. It is explained by Lancaster and Massingham [2011,64] as follows:

***“Different consumer groups respond positively or negatively to marketing communications. Research into consumer behaviour will indicate to which promotional tools the target market will respond favourably”.***

Promotion is defined as an effort to communicate product to the customer. It is mentioned by oleh Kotler and Armstrong [2012,52] as follows:

***“Promotion means activities that communicate the merits of the product and persuade target customers to buy it.”***

From those explanations above we may assume that the respond of the promotion could be different for every type of product. The other conclusion that can be understood is the respond from the customer depend on the type of the promotion itself. So we may understand that the promotion can be used for changing the image of the product for the customer. By delivering a good positive promotional campaign we may change the perception of the customer to our product. For realizing the promotion, surely companies spend a lot of money.

For example Ford spends more than USD 1.5 billion each year advertising to tell consumers about the company and its many products. Dealership salespeople assist potential buyers and persuade them that Ford is the best car for them. Ford and its dealers offer special promotions—sales, cash rebates, and low financing rates—as added purchase incentives. It is explained by [Kotler and Armstrong,2012] as follows:

***From the marketing strategy, promotion is the most important element of marketing. To implement the marketing program, the things to do are making communications with the customers. In the implementation we need initial efforts to communicate with the customers in order to obtain the initial response about what is actually required by the***

**customer. For implementing the communication the cost is required. Usually the cost is not small as it is mentioned in the Ford campaign case.**

### **c. Performance**

Performance of product is one of the most important thing to be delivered by the company to customer. It is explained by Kotler [2011, 134] as follows:

**“... This is clearly a customer-centered definition. We can say the seller has delivered quality whenever its product or service meets or exceeds the customers’ expectations. A company that satisfies most of its customers’ needs most of the time is called a quality company, but we need to distinguish between conformance quality and performance quality (or grade).**

From those statements we may understand that performance is customer centric context. The performance in the customer centric context is defined as performance quality. Even though the performance qualities are not the same for two products, but they can have same in conformity quality. As an example, Lexus provides higher performance quality than Hyundai. The Lexus rides smoother, goes faster, and lasts longer (durable). Yet both a Lexus and a Hyundai deliver the same conformance quality if all the units deliver their respective promised quality Kotler [2011, 134]. It means both of them fulfill their conformance quality, even though their performance quality are different.

Performance also can be explained in the holistic marketing context as mentioned by Kotler [2011, 26]:

**“We define performance as in holistic marketing, to capture the range of possible outcome measures that have financial and nonfinancial implications (profitability as well as brand and customer equity), and implications beyond the company itself (social responsibility, legal, ethical, and community related).”**

Based on the statements above, performance can be expressed as a financial and non-financial measurement results. For the financial measurement, it can be measured clearly, but for the non financial measurement, the result is relative.

### **d. Purchase Decision**

As mentioned by Kotler, Armstrong (2012,154) the purchase decision can be explained as follows:



Figure 1 : Purchasing Decision Process

It means that the purchasing decision started from the requirement, that is identified by recognizing the requirement. After knowing the requirement, customer have to find the information concerning the solution for fulfilling the requirement. After having a lot of information, the customer has to evaluate each alternative and decide to choose one of them. After choosing one of the alternatives that he bought and used it, he has to do post purchasing evaluation. He has to evaluate what is the result of his decision.

Purchasing decision, explain by Kotler, Armstrong [2012,154] as follows:

***“The buyer’s decision about which brand.to purchase.....In the evaluation stage, the consumer ranks brands and forms purchase intentions. Generally,the consumer’s purchase decision will be to buy the most preferred brand, but two factors can come between the purchase intention and the purchase decision. The first factor is the attitudes of others. If someone important to you think that you should buy the lowest priced car, then the chances of you buying a more expensive car are reduced.”***

As mentioned by Kotler, we may conclude that the customer buy something not always based on the lowest price. The good brand also something that is considered by the customer to buy. Usually the good brand represents the good performance that should be considered by the customer. The performance is one of the items that will influence customer in purchasing decision.

### 3. METHODOLOGY

To understand the customer perceptions concerning the Price, Promotion, Product Performance and Customer purchasing decision as well as how much the influence of Price variable, Promotion variable, and Performance variable to customer’s purchasing decision variable, either partially or simultaneously, we conducted a research in Bandung started from November 2012 until February 2013, using a non-probability sampling method and purposive sampling technique.

The respondents consist of 100 people as samples who live in Bandung with the following composition:

- a. From the gender point of view consists of 52 males (or 52 %) and 48 females (or 48%).
- b. From the education point of view consists of 41 bachelors (or 41%), 32 senior high school (or 32%); 9 junior high school (or 9 %); and 18 unknown (or 18%).
- c. From the job point of view consists of 37 university students (or 37%), 24 entrepreneurs (or 24%), 22 employees (or 22%), 14 senior high school students (or 14%), and 4 unknown (or 4%).
- d. From the age point of view, consists of 17 people between 15-19 years (or 17%), 35 people between 20-24 years, (or 35%), 38 people between 25-49 years (or 38%) 10 people over 50 years (or 10%), .
- e. From the income point of view, 30 people has income below IDR 2,500,000 (or 30%), 28 people has income between IDR 2,500,000 – IDR 3,500,000 (or 28%), 24 people has income between IDR 3,500,000 - IDR 4,500,000; (or 24%), 18 people has income above IDR 4,500,000 (or 18%).

The independent (exogenous) variables are Price, Promotion, and Performance :

- a. The Price variables consists of several items such as: Affordability (1); Meet their financial ability (2); Varies (3); and match with the given features (4)
- b. The Promotion variables consists of several items such as: Having a positive impression (5); Easy to be understood (6); The availability in the sales package (7); Having an attractive sales package (8)
- c. The Performance variables consists of several items such as: The application based on an open source system (9); *The easiness of an open source system* (10); The Brands (name, logo, etc.) are easy to be understood (11); The Additional applications are easy to be installed (12)

While the dependent (endogenous) variable that is the Customer's purchasing decision variable, consist of several items such as: There is a need (13); Knowing the product through advertising from the media (14); Knowing the product through word of mouth (15); Considering the price and compare it with its benefits (16); Considering the quality of the purchased smartphones (17); Deciding to purchase (18); Deciding to use (19); Giving a good image (20).

Before operationalizing the measuring instrument, the research instrument tool (questionair) was tested by using a validity and reliability test of Cronbach's Alpha method. The validity test was done by measuring the correlation of each score item of the questions and total score. The reliability test was done by deviding respondens in two sections, then we calculated each section by measuring the correlation of each score item of the questions and total score . With a confidence level 95% and by using Pearson's correlaton, it shows that all question items are valid and reliable that can be used to measure all variables (the lowest correlation value is 0.771 and the highest is 0,884 ).

After passing and completing the validity and reliability test, all of those questionnaires are used for collecting primary data.

We analyzed each variable with descriptive method by calculating the data scores given by respondents. While for measuring the influence of those independent (exogenous) variables either partially or simultaneously to the dependent (endogenous) variable, we used Path analysis of AMOS program.

#### 4. RESULT AND DISCUSSION

##### 4.1 Descriptive Analysis

Descriptive analysis were performed by calculating score value of price variable, promotion variable, performance of smartphones variable, and consumer's purchasing decision variable.

###### a Price Variable (X1)

Respons of the respondents regarding the price of smartphones are as follows:

**TABLE 1 RESPONS OF THE RESPONDENTS CONCERNING PRICE (X1)**

Variable	Item	Classified Answer	Frequency	Total Score	Average*
PRICE	1. Smartphone price affordable by customer	Strongly Disagree (1)	1	1	
		Disagree (2)	4	8	
		Agree (3)	79	237	
		Strongly Agree (4)	16	64	
		Total	100	310	77.50%
	2. Smartphone price match with the financial capability of the customer	Strongly Disagree (1)	0	0	
		Disagree (2)	6	12	
		Agree (3)	73	219	
		Strongly Agree (4)			
		Total	21	84	78.75%
		Total	100	315	
	3. Smartphone price are varies	Strongly Disagree (1)	0	0	
		Disagree (2)	7	14	
		Agree (3)	52	156	
		Strongly Agree (4)	41	164	
		Total	100	334	83.50%
4. The price variety of smartphone match with the given features	Strongly Disagree (1)	0	0		
	Disagree (2)	8	16		
	Agree (3)	49	147		
	Strongly Agree (4)	43	172		
	Total	100	335	83.75%	
	Total Price		1.294	80.88%	

\* Total cumulative value divided by the largest cumulative value (400)

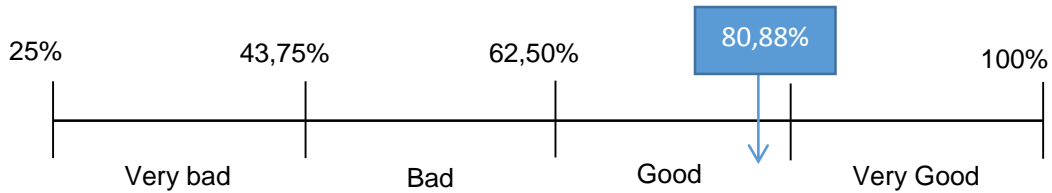
Source: Calculation result by researcher, 2013

Referring to the Table-1 above, the total score is 1,294. or equal to 80.88 % in average of score. It can be concluded that the respondents have a good response to the price. The highest score is come from the indicator item number 4 (the price variety of smartphone match with the given features) with an average of score 83.75% and the lowest score is come from the indicator item number 1 (smartphone price affordable by customer) with average of score 77.50%.



It can be concluded that most of the respondents agree that the price variety of smartphone match with the given features.

In the continuum line position diagram the price (X1) can be described as follows:



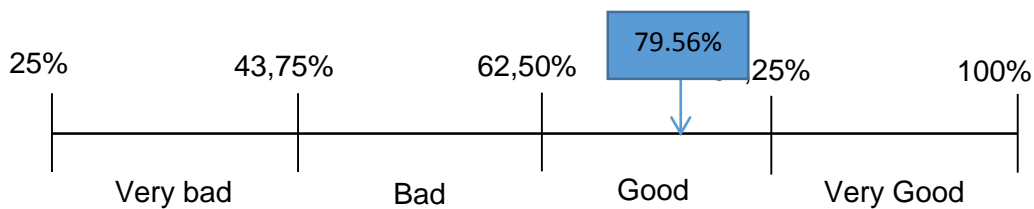
**Figure 2 : Price Level In Percentage (X1)**

**b. Promotion Variable (X2)**

By using the same method which is used by above Price variable descriptive analysis, the calculation results of all indicators give a total score of 1.273 with an average of score 79.56%. It can be concluded that the respond of a smartphone promotion is good. The highest score is the indicator item number 5 (having a positive impression) with average of score 81.00% and the lowest score is the indicator item number 8 (having an attractive sales package) with average of score 78.75%.

It indicates that respondents are more interested in the message of the smartphone contained in the advertising media (print and electronic media) and giving a positive impression.

In the continuum line position diagram the promotion (X2) can be described as follows:



**Figure 3 : Promotion Level In Percentage (X2)**

**c. Performance Variable (X3)**

According to the data obtained throughout the indicator, the Performance Variables give a total score of 1,306 with average of score 81.63%. It can be concluded that the respond of smartphone performance is good. The highest score is the variable indicator item number 9 (the application based on an open source system) with average of score 83.50% and the lowest score is the variable indicator item number 10 (the easiness of an open source system) with average of score 79.75%.

This condition indicates that from the point of view of the customer, the most preferred smartphone performance is based on open source systems.

In the continuum line position diagram the performance variable (X3) can be described as follows:



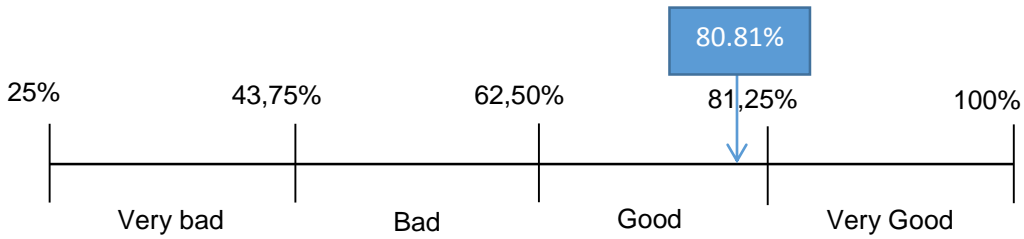
**Figure 4 : Performance Level In Percentage (X3)**

**d. Purchase Decision Variable (Y)**

The calculation result of the primary data for all indicators of Purchasing decision variables give a total score of 2,586 with average of score 80.81%. It can be concluded that the smartphone purchasing decision variables are good. The highest score is indicator item number 17 (considering the quality of the purchased smartphones) with average of score 83.75% and the lowest score is indicator item number 13 (knowing the product through advertising from the media) with average of score 78.75%.

This condition indicates that the majority of respondents prefer paying particular attention to the quality of purchased smartphones.

In the continuum line position diagram the purchasing decision variable (Y) can be described as follows:

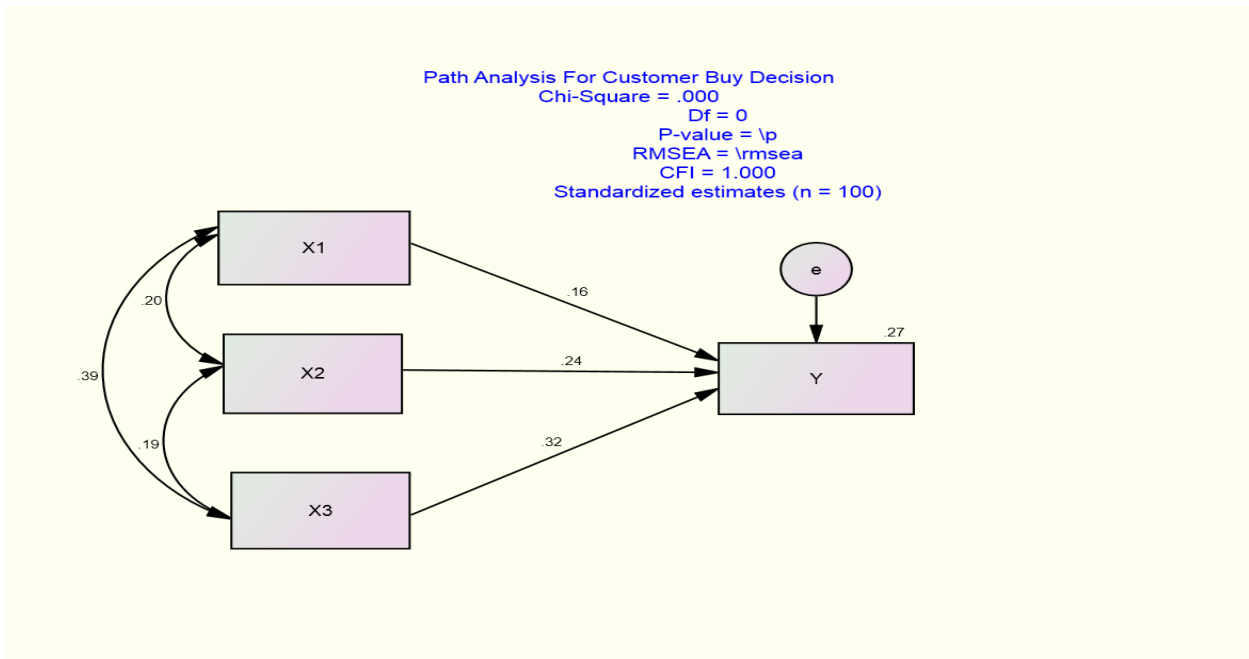


**Figure 5 : Purchasing Decision Level In Percentage (Y)**

**4.1 The impact to the Purchasing Decisions**

To understand how is the relationship between variables and how much the independent (exogenous) variables influence significantly either partially or simultaneously to the dependent (endogenous) variable, we use Path analysis method of AMOS program.

The AMOS program output gives an overview of the path between the variables as follows:



**Figure 6 : Path Analysis Diagram**

Where :

- X1 : Price variable
- X2 : Promotion variable
- X3 : Performance variable
- Y : Purchasing decision variable

By using a 95% confidence level or significance of  $\alpha = 5\%$  and degree of freedom  $df = n-1 = 100-1 = 99$ , it give value of t-table = 1.987.

So we may conclude several things as follows:

**a. The effect of variable X1 to variable Y :**

From the calculation, we obtained  $t\text{-count-1} = \rho / SE = 0.16 / 0.087 = 1.84$ . With the t-table = 1.987 ( $t\text{-count-1} < t\text{-table}$ ) it means that the effect of variable X1 to Y variable is not significant. In the other words it can be explained that the effect of Price variable to the smartphone purchase decision with path coefficient  $\rho = 0.16$  is not significant enough.

**b. The effect of variable X2 to variable Y.**

From the calculation, we obtained  $t\text{-count-2} = \rho / S.E = 0.24 / 0.074 = 3.24$ . With the t-table = 1.987 ( $t\text{-count-2} > t\text{-table}$ ) it means that the effect of variable X2 to Y variable is significant. In the other words it can be explained that the effect of Promotion variable to the smartphone purchase decision with path coefficient  $\rho = 0.24$  is significant enough.

**c. The effect of variable X3 to variable Y.**

From the calculation, we obtained  $t\text{-count-3} = \rho / S.E = 0.32 / 0.076 = 4.210$ . With the t-table = 1.987 ( $t\text{-count-3} > t\text{-table}$ ) it means that the effect of variable X3 to Y variable is significant. In the other words it can be explained that the effect of Promotion variable to the smartphone purchase decision with path coefficient  $\rho = 0.24$  is significant enough.

Thus, partially from the three independent variables, only the variable Price is not significant enough to influence the customer's decision to purchase smartphone. Such condition is estimated that the price is not become problem for customer's considerations to decide to purchase, as long as the price offered reasonable and equal to the quality of products perceived by the customer.

**d. The simultaneous effect of independent variables**

Simultaneously the effect of independent variables X1, X2, and X3 to dependent variable Y can be explained by structural equation below :

$$Y = 0.16 X1 + 0.24 X2 + 0.32 X3 + 0.27e$$

From the AMOS program calculation shows that the price variable, promotion variable, and performance variable simultaneously influence 27.4% of consumer's purchasing decisions significantly.

## 5. CONCLUSIONS

From the description above it can be concluded as follows:

- a. Respondents scored the Price variable (X1) by 80.88% of the ideal score, Promotion variable (X2) by 79.56% of the ideal score, Performance variable (X3) by 81.63% of the ideal score, and Customer purchasing decision variable (Y) by 80.81% of the ideal score.
- b. Path coefficients show that independent variables (X1, X2, and X3) partially influence the dependent variable Y (customer's decision to purchase) with a score of price variable 0.16 ( or 16%), promotion variable 0.24 ( or 24%), and performance variable 0.32 ( or 32%) respectively. Price variable (X1) partially does not significantly influence the customer's decision to purchase smartphone product (Y). But simultaneously with other variables, ie, promotion variable and performance variable significantly influence 27.4% customer's purchasing decisions.

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