

## The Influence Of Product Innovation And Price On Customer Satisfaction In Halodoc Health Application Services During COVID-19 (Survey of HaloDoc App Users in Bandung In 2021)

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**Abstract:** This research was conducted to find out how much influence product innovation (X1) and Price (X2) on Customer Satisfaction (Y) on Halodoc application in Bandung. The method used in this study is a quantitative method with 100 respondents of Halodoc application users in Bandung with multiple regression analysis calculations processed in SPSS25 Windows software. The main data from the study used questionnaire surveys, and secondary data was obtained through journal publications, articles, and theory books. According to the results of this study shows that the variable Product Innovation (X1) and Price (X2) has a significant influence together on the variable Customer Satisfaction (Y). These results showed the researchers that halodoc application users in Bandung considered the perspective when assessing satisfaction in using a product such as Product Innovation and Price offered.

**Keywords:** Product Innovation; Price; Customer Satisfaction

### 1. Preliminary

In the modern era as it is today the development of technology continues to accompany in various fields. Indonesian people in particular have been practicing and utilizing the development of technology, where Indonesians are now easier and faster in carrying out their daily activities. As in exchanging information, conducting transactions, and various other activities, the Association of Indonesian Internet Service Providers (APJII) noted that the number of Internet users in the country ranges in the number of 196 million in 2019-2020 and the estimated number of many parties in early 2021 can reach 225 million users. One of the areas that are experiencing the penetration of digitalization technology in the field of health.

One of the influences that add to the medium of health is the large number of health applications that can be easily accessed through smartphone devices or tablets. A researcher from Rock Health has determined that there are currently about 13,000 digital health apps worldwide. Today's patients have been keeping up with this trend.

The development of M-Health is currently growing rapidly, mainly due to factors related to the limitations of the health care system that is felt in developing countries. Coupled with the state of the COVID-19 pandemic that forces Indonesians to do Physical Distancing, so that not a few consumer purchasing behaviors also undergo changes from direct or offline purchases to online purchases.

This problem became a consideration to bring about an innovation of health products and services, which then channeled the innovation into a doctor consultation application service, the purchase of medicines, and online-based medical devices named Halodoc.

The Halodoc app connects the user with a doctor to consult without having to spend time on travel, and just to wonder about the illness suffered by the user. Although in the end the patient still has to go to the health facility to be examined directly, at least the information and initial handling of the needs of medicines and medical devices have been on target. Innovation must continue to be created because innovation is one of the most dependable factors by a marketer in marketing a product, innovation will create a new product that can provide better solutions for problem-solving faced by consumers.

Companies that innovate products should also pay attention to the price of their products because prices can also affect to win of a competition. Price is the value that consumers exchange for a benefit for the consumption, use, or ownership of goods or services. Each price set will result in different levels of demand for the product. Proper pricing needs to get a lot of attention from the company.

The company also needs to prioritize customer satisfaction to survive, compete, and master its main market in conditions of intense competition such as today's all-digital. Product innovation provided and followed the price offered and customer satisfaction is closely related to the profit that will be obtained by the company.

Based on the description, the study is poured in the title of the study: "THE INFLUENCE OF PRODUCT INNOVATION AND PRICE ON CUSTOMER SATISFACTION ON HALODOC HEALTH APPLICATION SERVICES DURING COVID-19"

## **2. Problem Formulation**

Based on the background of the above problems, this study is proposed to examine the extent of the influence of product innovation and price on customer satisfaction. The formulation of problems in this study is, (1) The influence of product innovation on customer satisfaction on halodoc application users in Bandung, (2) The influence of price on customer satisfaction on halodoc application users in Bandung, (3) The influence of product innovation and price on customer satisfaction in Halodoc application users in Bandung.

## **3. Theoretical Studies**

### **Product Innovation**

Creative innovation activities whether it is process innovation or product or service innovation will improve the company's ability to create quality products, furthermore, it is expected to increase the competitive advantage of the company that ultimately impacts the company's performance. According to Robbins & Coulter (2016), innovation itself is defined as taking creative ideas and turning them into useful products or working methods. A business venture that can make innovations, can lead and minimize the possibility of competitors innovating early. According to Lukas and Ferrell (2000) explained there are several indicators of assessment of product innovation, namely: Product Expansion (line extensions), Product Impersonation (me-too products), and New Products (new-to-the-world products).

### **Price**

Price is very related to the satisfaction of a customer, if the goods or services purchased are following customer expectations, it will create customer satisfaction. Kotler and Armstrong (2016:285) state that: "price the only element in the marketing mix that produces revenue, all other elements represent cost". Price is the only element of the marketing mix that generates revenue, while the other elements represent costs. Pricing is also the most flexible element of the marketing mix. In contrast to product features and commitment to channels, prices can be changed quickly. But at the same time, pricing is the number one issue faced by marketing executives. A common problem is that companies are too quick to reduce prices to increase sales rather than convince buyers that their products are more valuable at high prices.

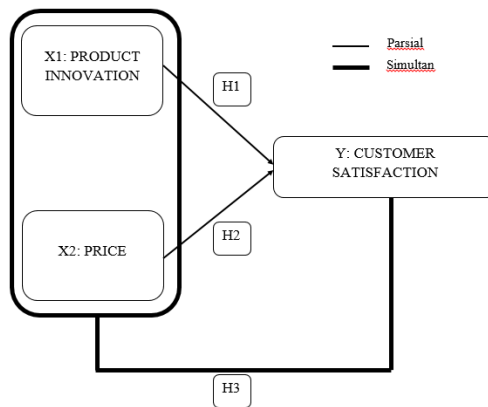
According to Kotler and Armstrong (2012:314) in Akmal (2019) explained four sizes characterize the price, are: affordability of price, the suitability of price with product quality, the suitability of price with benefits, and price according to ability or purchasing power.

### **Customer Satisfaction**

Customer satisfaction is an emotional response to an evaluation of a product or service's consumption experience customer satisfaction covers the difference between expectations and performance or results obtained. Customer satisfaction is very important to ensure the survival of a business, especially companies engaged in services. The purpose of service companies in addition to earning profit also provides satisfaction to their customers, both in terms of quality and service they provide to those customers. The sense of customer satisfaction includes different levels of importance and performance or perceived results,

Knowing customer satisfaction is a thing that is expected by the company so that in the future it can be improved again. According to Tjiptono customer satisfaction indicator consists of Re-Purchase, Creating Word-of-Mouth, Creating Brand Image, Creating purchasing decisions, and Overall satisfaction with goods (overall of satisfaction with the product).

## **Research Conceptual Framework and Hypothesis Development**



From the above frame of mind, it can be known, that the independent/free variables are product innovation (X1) and price (X2), while the dependent/bound variable is customer satisfaction (Y).

The hypotheses proposed in this study are as follows:

H1: It is suspected that there is an influence between product innovation (X1) partially on customer satisfaction (Y) on halodoc application users in Bandung.

H2: It is suspected that there is an influence between the price (X2) partially on customer satisfaction (Y) on users of halodoc application in Bandung.

H3: It is suspected that there is an influence between product innovation (X1) and price (X2) simultaneously on customer satisfaction (Y) on halodoc application users in Bandung.

#### 4. Research Methods

This research will discuss issues related to the influence of product innovation and price on customer satisfaction on halodoc app users in Bandung. In this study, researchers used quantitative data types and sources, for the samples selected in this study amounted to 100 consisting of halodoc application users in Bandung. This research sampling method uses the Nonprobability Sampling technique. Primary data in this study was obtained through questionnaires, while secondary data was obtained from journal publications and textbooks. Data analysis used is a descriptive analysis by adopting several linear regression analysis techniques using SPSS25 software.

#### 5. Results and Discussion

Data from the responses of 100 respondents indicated that the results were obtained as follows:

**Table 1 Profile of Respondents**

Respondent Profile		Percentage
Gender	Men	56%
	Woman	44%
Age	<20 Tahun	2%
	21 - 25 Tahun	52%
	26 - 30 Tahun	43%
	31-35 Tahun	3%
	> 35 Tahun	0%
Education	SD	0%
	SMP	0%
	SMA	19%
	Perguruan Tinggi	81%
Job	Pelajar	0%
	Mahasiswa	28%
	Wiraswasta	65%
	PNS	7%
Monthly Income	<1 Juta	12%
	1-3 Juta	31%
	3-5 Juta	35%

	5-7 Juta	5%
	>7 Juta	17%

Based on the table above, For male gender has a greater percentage than women with a percentage of 56%. Based on the age of respondents 21-25 years has the highest percentage of 52%, which indicates that this age is the productive age. As for the level of education, higher education has a percentage of 81%. Based on self-employed jobs have the highest percentage gain with 65%, and for the average monthly income 3-5 million occupy the highest percentage with 35%.

**Validity test**

The validity test of each variable is shown in. Table 2, which shows that each statement is valid

**Table 2 Validity test**

Variable	Sub Variables	Statement	Count R	Table R	Information
Product Innovation	Intensity	Q1	0,599	0,1966	<b>Valid</b>
		Q2	0,709	0,1966	<b>Valid</b>
	Positive Valence	Q3	0,638	0,1966	<b>Valid</b>
	Negative Valence	Q4	0,624	0,1966	<b>Valid</b>
	Content	Q5	0,591	0,1966	<b>Valid</b>
Price	Price Affordability	Q6	0,686	0,1966	<b>Valid</b>
	Price Conformity With Product Quality	Q7	0,73	0,1966	<b>Valid</b>
	Price Conformity With Benefits	Q8	0,635	0,1966	<b>Valid</b>
	Price In Accordance With The Ability Or Purchasing Power of Consumers	Q9	0,698	0,1966	<b>Valid</b>
Customer Satisfaction	Re-Purchase	Q10	0,389	0,1966	<b>Valid</b>
	Word of Mouth	Q11	0,489	0,1966	<b>Valid</b>
	Creating Brand Image	Q12	0,574	0,1966	<b>Valid</b>
	Creating Purchasing Decisions	Q13	0,584	0,1966	<b>Valid</b>
	Over All of satisfaction	Q14	0,434	0,1966	<b>Valid</b>

Validity Test is used N=100, so known Df = N-2, then table r of 0.1966 as the limit of the value of the statement is considered valid. For all variables can be declared valid, because it has passed the minimum limit according to the table r.

**Reliability test**

The reliability test on each variable shows that the statement items are reliable

**Table 3 Reliability test**

Variable	Cronbach Alpha (>0,60)	Information
Product Inovation	0,625	<b>Reliable</b>
Price	0,63	<b>Reliable</b>
Customer Satisfaction	0,616	<b>Reliable</b>

Table 3, shows that the result of Cronbach Alpha variable X1 is 0.625, variable X2 is 0.630 and variable Y is 0.616, According to Ghozali (2011), if the value of Cronbach Alpha is greater than 0.6, then the instrument of this study is said to be Reliable.

**Multicollinearity Test**

Based on the results of calculations using SPSS 25, it can be seen that the value shows that there is no problem in terms of multicollinearity between the variables, this can be seen in the table below

**Table 4 Multicollinearity**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	16,768	2,501		6,706	0,000		
	TOTAL_X1	0,093	0,104	0,065	0,893	0,374	0,912	1,097
	TOTAL_X2	1,148	0,116	0,712	9,863	0,000	0,912	1,097

a. Dependent Variable: TOTAL\_Y

**Determination Coefficient Test**

**Table 5 Determination Coefficient Test**

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.734 <sup>a</sup>	0,539	0,529	2,46444

a. Predictors: (Constant), TOTAL\_X2, TOTAL\_X1

b. Dependent Variable: TOTAL\_Y

Based on the results of the determination coefficient test obtained R Square of 0.539. This means that there is a 53.9% effect of product innovation variables (X1) and price variables (X2) on customer satisfaction (Y) variables, and a 46.1% influence by other variables not studied in this study.

**Conformity Test (F test)**

**Table 6 Goodness of Fit Test Results**

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	688,312	2	344,156	56,665	.000 <sup>b</sup>
	Residual	589,128	97	6,073		
	Total	1277,440	99			

a. Dependent Variable: TOTAL\_Y

b. Predictors: (Constant), TOTAL\_X2, TOTAL\_X1

Based on table 6 above, the Conformity Test (Test F) uses the F statistical test with the research model  $Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + e$  using the SPSS 25 application in the windows application. F test results obtained a count of F at 56,665 with a significance level of 0.000. Since the significance value obtained is  $0.000 < 0.05$ , it can be concluded that the model has met the conformity requirements. Thus, the model is ready to use.

**Multiple Regression Analysis**

Based on the calculation results obtained from the questionnaire using SPSS 25, it can be seen that the test results of multiple regression analysis can be seen in the table below:

**Table 7 Multiple Regression Analysis Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	16,768	2,501		6,706	0,000
	TOTAL_X1	0,093	0,104	0,065	0,893	0,374
	TOTAL_X2	1,148	0,116	0,712	9,863	0,000

a. Dependent Variable: TOTAL\_Y

As a result of the calculation, the Constant value (a) is 16,768 and the value (X1) of Product Innovation is 0.093 and the value (X2) of the price is 1,148. The regression equation formula is obtained as follows:

$$Y = 16,768 + 0,093X_1 + 1,148X_2$$

This means that the Product Innovation variable (X1) positively affects the Customer Satisfaction (Y) variable and has a significant impact because the significant value more than that (>)  $\alpha = 0.05$  and The Price Variable (X2) also has a positive effect on 1,148. This indicates an influence on the Customer Satisfaction (Y) variable.

**Kolmogorov-Smirnov Normality Test**

The normality test is used to determine whether the data in the study is normally distributed or not.

**Table 8 Kolmogorov-Smirnov Normality Test Results One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		100
Normal Parameters <sup>a,b</sup>	Mean	0,0000000
	Std. Deviation	2,43942445
Most Extreme Differences	Absolute	0,064
	Positive	0,042
	Negative	-0,064
Test Statistic		0,064
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.

Based on table 10 above, the Kolmogorov-Smirnov normality test shows a significance value of 0.200 > 0.05. So it can be concluded that the data is normally distributed.

**6. Discussion**

1. F test results show that the score is 56,665 > F table 3,090, which means two independent variables, Product Innovation (X1) and Price (X2) has a significant effect on Customer Satisfaction (Y).
2. From the results of the previous regression test, obtained the following equation:

$$Y = 16,768 + 0,093X_1 + 1,148X_2$$

**7. Conclusion**

1. Referring to Test Result F shows that the variable Customer Satisfaction (Y) of Halodoc application users will be 56,665 points and this number has not been affected by other variables of Product Innovation (X1) and Price (X2). However, the amount is influenced by other variables outside of this study.
2. From the test result correlation coefficient (R) obtained a value of 0.734. So it can be concluded that the variable relationship of Product Innovation (X1) and Price (X2) has a strong relationship to the variable Customer Satisfaction (Y) which is 73.4%.
3. From the results of the study Coefficient of Determination (R2) obtained a value of 0.539. This indicates that the contribution of Product Innovation (X1) and Price (X2) variables can affect Customer Satisfaction (Y) by 53.9%, the remaining 46.1% is influenced by other variables not included in this study.

4. Variable Product Innovation (X1) has a coefficient of regression value of 0.093 and variable Price (X2) has a coefficient of regression value of 1,148 so it can be concluded if the better product innovation offered at an increasingly affordable price then Customer Satisfaction will increase.

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