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The Influence of Brand Image, Product Quality, and Price on Purchase Decisions and Repurchase Intention

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A B S T R A C T

Based on data from one of the best e-commerce in Indonesia, sales of flagship smartphones with a price range of 15-18 million rupiah. This study aims to analyze the effect of brand image, product quality, and price on purchasing decisions and repurchase intentions on iPhone smartphones (studies on users of iPhone 14 in Indonesia). This study uses sampling data. In this research study, 20 indicators were used, and based on the Maximum Likelihood (ML) technique, the number of samples that had to be fulfilled was 5 x n(indicators) = 100 pieces. The hypothesis was tested using the Structural Equation Model (SEM) method using AMOS 22 software. The results of this hypothesis test will be followed by using SOAR analysis to determine marketing strategies. This study shows that brand image has a significant effect on purchasing decisions, price has a significant positive impact on buying decisions, and buying decisions have a significant positive effect on repurchasing intention of the iPhone 14 smartphone. So for the model equation, the relationship between exogenous variables and endogenous variables Y2 = 0.262 X1 + 0.413 X3 + Z4.

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1. INTRODUCTION

In the era of globalization, technological progress is soaring. This goes hand in hand with increasing human needs. Of the many rapidly developing technologies, smartphones have become a primary requirement for human life (Wahyuni, 2022). The more smartphones are designed, the more diverse the smartphone brands are on the market. This encourages consumers to be more thoughtful and careful in choosing smartphone products because, in general, the brand of a product is very influential on consumer repurchase interest (Gunanto, 2019). Repurchase decisions are accompanied by factors that influence them, especially information about the benefits of the product they will get. Among them is product quality which depends on its ability to satisfy customer needs stated or linked to price (Kotler and Armstrong, 2008). Besides the quality and price aspects, consumers will also consider the brand image in purchasing. Currently, many smartphone products are the choice of consumers, such as Samsung, Apple, Oppo,

etc., each of which has its advantages. One of the most popular brands today is Apple. Apple is a technology manufacturer with a superior smartphone product called the iPhone. As one of the largest smartphone manufacturers in the world, Apple continues to strive to increase the satisfaction of its product users (Susanto & Cahyono, 2021).
According to Shopee, the following is sales data for flagship smartphones in the price range of 15-18 million rupiah:

Table 1. Smartphone sales data from Shopee

Smartphone type	Quantity Sold (pcs)
Samsung Galaxy S22 Ultra	862
Iphone 14	623
Oppo Find X5 Pro	132

Based on data from one of the best e-commerce sites in Indonesia, namely Shopee, the most sales of flagship smartphones with a price range of 15-18 million rupiah are held by Samsung's smartphone, namely the Samsung Galaxy S22 Ultra. Meanwhile, the number of sales of Apple's iPhone 14 smartphones is still below Samsung. This can happen because Samsung's smartphone has a better brand image in the eyes of consumers. In addition, according to Riyanto (2022) in the Kompas.com article, many smartphone users in Indonesia are still reluctant to switch from Android to iOS (the operating system owned by Apple products) because of the limitations of the iOS operating system, which cannot be tampered with. and the limits of the iPhone that you can't download apps from unofficial sources. Therefore iPhone needs to improve its brand image and product quality further to shift the position of Samsung smartphones.

Consumer decisions to use a product can be influenced by factors inherent in the development, such as quality, brand, and others. In addition, consumer behavior is also influenced by personal psychological factors in accepting new technology and the preferences of each individual. Therefore, an acceptable product is not only a good product from the producer's point of view and has the latest technology but also factors from the consumer's point of view. (Noor & Nurlinda, 2021).
One of the factors considered by consumers is the brand image. A good brand image will influence buyers to continuously determine their choices to buy these products (Iswanto, 2016). Apple is one of the companies that has successfully created a solid brand image in customers' minds. IPhone is considered a high-end smartphone with high prestige. The iPhone is marketed toward the upper middle class, making it a high-quality product. The iPhone is also famous for its high price compared to competing products. As a result, the brand image of the iPhone appears as an expensive product in the eyes of the general public. In addition, the iPhone also has a name in international circles because this smartphone is recognized by its premium logo.

Besides the brand aspect, product quality must also be considered so that consumers do not switch to other products. The iPhone creates a characteristic different from other smartphones in its operating system. These specifications are arguably the superior point of the iPhone smartphone. The iPhone is modified with an operating system different from other smartphones because this Apple product creates its OS. OS is the operating system for Apple hardware. Apple uses its own OS because the devices it produces will work optimally. Also, the advantages of the OS of this smartphone can only be used by those with only the Apple cellphone brand, and the OS belongs to the operating system group that closely follows technological advances. As long as there is no physical damage, it is claimed that iPhone users can still experience the same experience as when they first bought an iPhone, and this can influence iPhone consumer purchasing decisions (Susanto & Cahyono, 2021). Price also has a vital role in attracting consumer purchasing decisions. Price is an essential consideration in buying a product because price is one of the determining factors in consumer buying decisions. The price of iPhone products does seem more expensive than its competitors, but the brand image and quality of the products offered by the iPhone make people still want to buy these products. Based on this phenomenon, researchers are interested in examining whether brand image, product quality, and price are related to purchase decisions and repurchase intentions of consumers. The method used in analyzing this research is the Structural Equation Modeling (SEM) method. SEM is a

confirmatory technique used to test causality relationships where changes in one variable are assumed to result in changes in other variables. Furthermore, these hypotheses were developed using the SOAR analysis technique (Strengths, Opportunities, Results, Aspirations) to determine the appropriate marketing strategy as we advance for the company.

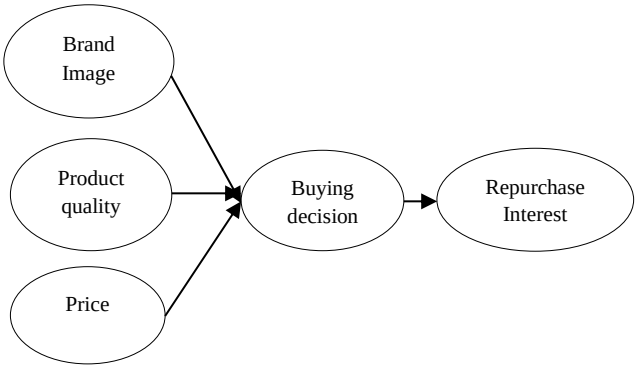

Figure 1. Research framework

2. LITERATURE REVIEW

According to (Miati, 2020), brand image is a series of associations that exist in the minds of consumers for a brand, usually organized into a meaning. Brand image is also said to be a hidden vision and belief in the minds of consumers as a reflection of associations that are stuck in the minds of consumers (Kotler, 2008). The results of research (Miati, 2020) concerning the Influence of Brand Image (Brand Image) on Purchasing Decisions for Deenay Veils (Study on Consumers of Gea Fashion Banjar) state that brand image has a significant positive effect on purchasing decisions.

H1: Brand image has a significant effect on purchasing decisions

According to Kotler and Armstrong (2015) product quality is how the product can satisfy consumers both physically and psychologically and shows it through the attributes or characteristics of a product. The research results by (Martini 2021) about the effect of product quality on purchasing decisions for Oppo cellphones in Pagar Alam City state that product quality significantly positively affects purchasing decisions.

H2: Product quality has a significant effect on purchasing decisions

Price is money as a medium of exchange to obtain a product or service. Price is one of the determinants of a company's success because price determines how much profit the company will get from selling its products in the form of goods or services (Agustina, 2018). The research results (Gunarsih, 2021) about the effect of price on consumer purchasing decisions at the Pelita Jaya Buyungon Amurang store state that price significantly positively affects purchasing decisions.

H3: Price has a significant effect on purchasing decisions.

Purchasing decisions are a part of consumer behavior, namely the study of how individuals, groups, and organizations select, buy, and use goods, services, ideas, or experiences to satisfy their needs and want (Ariadi et al., 2019). Purchasing decision is a process in which customers choose the items they are going to buy. Purchasing decisions are also in accordance with the customer's experience from previous purchases (Rendy, 2023). The results of research (Shabrina & Budiatmo, 2020) concerning the Effect of Product Quality and Price on Repurchase Intentions With Purchasing Decisions as Intervening Variables at Holland Bakery Pandanaran Semarang states that purchasing decisions have a significant positive effect on repurchase intentions.

H4: purchase decision has a significant effect on consumer repurchase intention.

3. RESEARCH METHOD

Quantitative Analysis

The research was conducted on one of Apple's smartphones, the iPhone. The focus of this research is aimed at iPhone 14 smartphone users in Indonesia. The independent variable in this study is X1, namely brand image; X2, namely product quality; and X3, namely price for the dependent variable Y1, namely purchase decision and Y2 repurchase intention. Purchasing decision variable is an intervening variable of the repurchase intention variable. Intervening variables are, in theory, hypothesized to affect the relationship between the independent and dependent variables, where

the independent variable does not directly affect the dependent variable but through intervening (moderating) variables.

The population of this study was conducted on iPhone 14 smartphone users in Indonesia using sampling data. This research study used as many as 20 indicators. Putri (2021) mentions that the minimum sample scale is 5-10 times the estimated parameters. Based on this statement, using a 5 x n scale (amount of observational data) will get 100 samples from 5 x 20 = 100. Waluyo and Rachman (2020) state that in the ML technique, the assumption of the SEM sample size must be met with a minimum of 100 samples. The 100 specimens employed in this investigation indicate that the SEM assumption uses the ML approach, with a sample size spanning 100-200. This inquiry is a cross-sectional study, which involves examining comparable subjects through a single data collection, utilizing a sample of participants, Santoso (2015). Structural Equation Modeling (SEM) is a statistical analysis technique that combines several aspects of path analysis and confirmatory factor analysis to estimate several equations simultaneously. SEM is carried out with three models: measurement, structural, and modification. The SEM method assists researchers in analyzing relationships built from one/several dependent and independent variables where each variable is in the form of a construct built from several indicators that are measured directly. SEM is a combination of factor analysis and multiple regression. When using SEM as an analytical tool, researchers must build the model based on theoretical justification or reasoning processes that are strong enough so that the factor analysis that applies in SEM is confirmatory (Confirmatory Factor Analysis) because it aims to confirm whether the indicators used have a theoretical basis and sufficient reason can ensure the factor. The SEM method is used if the assessment is tiered (more than one endogenous variable). The results of the SEM method will then be forwarded to the SOAR method. SOAR (Strengths, Opportunities, Aspirations, and Results) is a positive framework for strategic thinking and analysis that enables an individual, team, or organization to create strategies and strategic plans to build its future through collaboration, understanding, and a commitment to action (Syahbudi, 2022). SOAR analysis is an alternative to a strategic planning process besides SWOT analysis. This analysis allows organizational members to create a future according to their desires.

4. RESULT AND DISCUSSION

Data collection

This study uses the SEM method to determine a relationship or influence between Brand Image, Product Quality and Price on Purchase Decision and Repurchase Intention. The results of the SEM method will later be continued into the SOAR method to analyze appropriate marketing strategies in the future.

Table 2. Research attributes

Variable	Attribute	Indicator
Brand Image (X1)	X1.1	Corporate Image
	X1.2	Product Image
	X1.3	User Image
Product Quality (X2)	X2.1	Performance
	X2.2	Features
	X2.3	Reliability
	X2.4	Conformance to specification
	X2.5	Aesthetic
Price (X3)	X3.1	Product Price Affordability
	X3.2	Price Compatibility with Product Quality
	X3.3	Compatibility with Product Benefits
	X3.4	Price Variation
Buying Decision (Y1)	Y1.1	Desire to buy the product
	Y1.2	Priority in purchasing a product
	Y1.3	Willingness to sacrifice to get a product
	Y1.4	Product purchases based on product benefits and expectations
Repurchase Interest (Y2)	Y2.1	Transactional interest
	Y2.2	Referential interest
	Y2.3	Preference interest
	Y2.4	Explorative interest

After the questionnaires were distributed, data were processed using the Structural Equation Model (SEM) method. In the ML technique, the assumption that the SEM sample size must be met is a minimum of 100 samples. In this study, 100 samples were used so that the sample size was sufficient to meet the data required for the study. Furthermore, the flow chart depicting the model is expressed by two basic categories of equations:

A. **Measurement Model**

At the measurement model stage, the model's suitability is tested by testing various criteria of goodness of fit and cut-off value. The existing model shows that it does not represent latent variables, and fit index analysis calculates the weighted part of the variance in the sample covariance matrix, which is explained by the covariance matrix.

Table 3. Goodness of fit and cut-off value

Criteria	Model Test Results	Critical Value	Information
X^2 Chi-Square	388.946	Small, X^2 with df = 160 with α = 0.05	Not good
Probability	0.000	≥ 0.05	Not good
CMIN/DF	2.431	≤ 2.00	Not good
RMSEA	0.120	≤ 0.08	Not good
GFI	0.731	≥ 0.90	Not good
AGFI	0.647	≥ 0.90	Not good
TLI	0.737	≥ 0.95	Not good
CFI	0.779	≥ 0.95	Not good

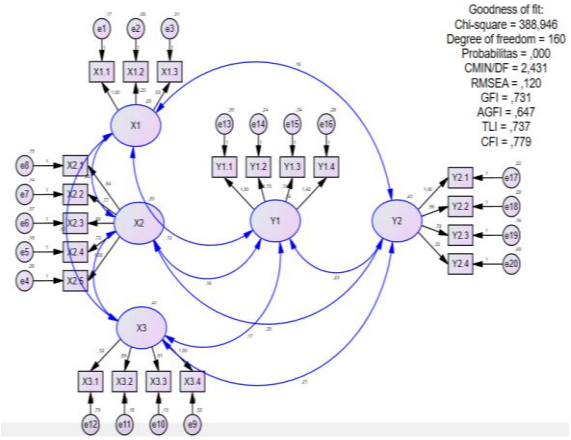

Figure 2. Measurement model of influence of brand image, product quality and price on purchase decision and repurchase interest of iPhone smartphone

Testing the validity of the measurement model results show that the indicators have a value of C.R> 2SE, so all indicators are declared valid. Variables significantly considered as dimensions of latent variables are marked with C.R. greater than the t-table. At the T table level of 0.05, df = 20 (sum of all indicators), the calculated t value is 1.725, so all indicators are significant. In the reliability test, the results showed that in the reliability test, the results were all reliable where the construct reliability results were more than ≥0.70. Next, a correlation test was carried out. The following results of the correlation test are shown in Table 4.

Table 4. Correlation test

Item	Estimate
X1 <--> X2	0.818
X1 <--> X3	0.559
X1 <--> Y1	0.702
X1 <--> Y2	0.527
X2 <--> X3	0.819
X2 <--> Y1	0.816
X2 <--> Y2	0.512
X3 <--> Y1	0.737
X3 <--> Y2	0.493
Y1 <--> Y2	0.925

Based on the data presented in the table, it can be inferred that there is a notable connection among the exogenous factors in this particular model. The relationship between these significant exogenous variables is commonly referred to as multicollinearity. The emergence of multicollinearity becomes a serious problem in research aiming to regress two or more exogenous variables on one or several endogenous variables because the condition must be met that the correlation between exogenous variables is insignificant (Waluyo, 2020). Basuki and Prawoto (Basuki, 2018) provide an alternative to overcome the multicollinearity problem by replacing or removing variables with a high correlation or increasing the number of observations. Researchers chose an alternative to exclude variables with a significant correlation and high value, namely the product quality variable (X2).

Table 5. Goodness of fit and cut-off value after X2 is out

Criteria	Model Test Results	Critical Value	Information
X^2 Chi-Square	202.951	Small, X^2 with df = 84 with α = 0.05	Not good
Probability	0.000	≥ 0.05	Not good
CMIN/DF	2.416	≤ 2.00	Not good
RMSEA	0.120	≤ 0.08	Not good
GFI	0.787	≥ 0.90	Not good
AGFI	0.696	≥ 0.90	Not good
TLI	0.777	≥ 0.95	Not good
CFI	0.822	≥ 0.95	Not good

Testing the validity of the measurement model after X2 was removed, the results showed that the indicator had a C.R>2SE value, so all indicators were declared valid. Variables significantly considered as dimensions of latent variables are marked with C.R. greater than the t-table.

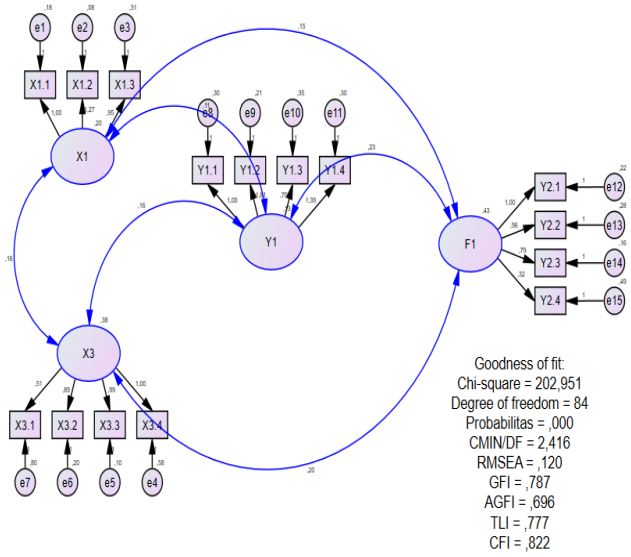

Figure 3. Measurement model after X2 released

At the T table level of 0.05, df = 15 (sum of all indicators), the calculated t value is 1.753, so all indicators are significant. In the reliability test, the results showed that in the reliability test, the results were all reliable where the construct reliability results were more than ≥0.70.

B. Structural Model

Testing is carried out using parameters at critical values. In structural terms, the model used is after spending X2.

Table 6. Goodness of Fit and Cut-off Value

Criteria	Model Test Results	Critical Value	Information
X² Chi-Square	233.98	Kecil, X² with df = 84 with α = 0.05	Not good
Probability	0.000	≥ 0.05	Not good
CMIN/DF	2.683	≤ 2.00	Not good
RMSEA	0.130	≤ 0.08	Not good
GFI	0.758	≥ 0.90	Not good
AGFI	0.666	≥ 0.90	Not good
TLI	0.735	≥ 0.95	Not good
CFI	0.781	≥ 0.95	Not good

From the table above, it can be seen that the results of the model test compared to the critical value show that all indicators are not good, namely X2 Chi-square, Probability, Cmin/D.F., RMSEA, GFI, AGFI, CFI and TLI, because there are still indicators that are not good from that the structural model needs to be modified model.

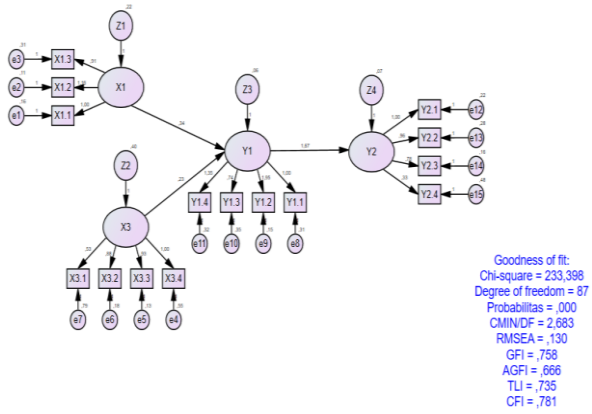

Figure 4. Structural model after X2 released

C. Modification Model

Parameters at critical values are used to perform testing.

Table 7. Goodness of fit and cut-off value

Criteria	Model Test Results	Critical Value	Information
X² Chi-Square	92.785	Small, X² with df = 84 with α = 0.05	Good
Probability	0.092	≥ 0.05	Good
CMIN/DF	1.221	≤ 2.00	Good
RMSEA	0.047	≤ 0.08	Good
GFI	0.898	≥ 0.90	Marginal
AGFI	0.840	≥ 0.90	Marginal
TLI	0.965	≥ 0.95	Good
CFI	0.975	≥ 0.95	Good

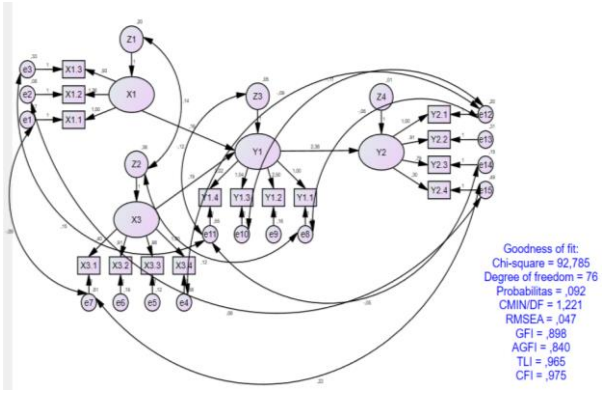

Figure 5. Model analysis modification influence of brand image, product quality and price on purchasing decisions and repurchase intentions

Simultaneous Equations

Simultaneous equations in this study were obtained

Y1 = 0.264 X1 + 0.416 X3 + Z3

Y2 = 0.262 X1 + 0.413 X3 + Z4

Thus, brand image (X1) and price (X3) directly affect purchasing decisions. And purchasing decisions have a significant influence on repurchase intention.

Hypothesis testing

The Effect of Brand Image (X1) on Purchasing Decisions.

Based on the results of SEM processing using AMOS software, it can be concluded that brand image significantly affects purchasing decisions. This can be seen from the C.R. value of 2.335 and table of 1.753 (tcount>ttable), so the hypothesis is accepted.

The results of this study are in accordance with the results of research conducted by (Miati, 2020) concerning the Influence of Brand Image (Brand Image) on Purchasing Decisions for Deenay Veils (Study on Consumers of Gea Fashion Banjar) state that brand image has a significant positive effect on purchasing decisions.

Effect of Product Quality (X2) on Purchasing Decisions.

The results of the 2nd hypothesis test cannot be proven because product quality (X2) is excluded.

Effect of Price (X3) on Purchasing Decisions.

Based on the results of SEM processing using AMOS software, it can be concluded that price significantly affects purchasing decisions. This can be seen from the C.R. value of 3.032 and table of 1.753 (tcount>ttable), so the hypothesis is accepted.

The results of this study are in accordance with the results of research conducted by (Gunarsih, 2021) about the effect of price on consumer purchasing decisions at the Pelita Jaya Buyungon Amurang store state that price significantly positively affects purchasing decisions.

The Effect of Purchase Decision (Y1) on Repurchase Intention (Y2)

Based on the results of SEM processing using AMOS software, it can be concluded that purchasing decisions significantly affect repurchase intention. This can be seen from the C.R. value of 3.882 and table of 1.753 (tcount>ttable), so the hypothesis is accepted.

The results of this study are in accordance with the results of research conducted by (Shabrina & Budiatmo, 2020) concerning the Effect of Product Quality and Price on Repurchase Intentions With Purchasing Decisions as Intervening Variables at Holland Bakery Pandanaran Semarang states that purchasing decisions have a significant positive effect on repurchase intentions.

SOAR analysis

Table 8. SOAR matrix

Internal / Eksternal		**S**	**O**
		• Corporate image • Product image • User image	• Affordability of product prices • Compatibility of price with quality • Compatibility with product benefits • Price variations
A	• Transactional interest • Referential interest • Preference interest • Explorative interest	**S.A. Strategy** • A good maker image can increase consumer explorative interest. • A good product image can increase consumer transactional interest • A good user image can increase consumer referential interest and preference	**O.A. Strategy** • The affordability of product prices can increase transactional interest • Matching price with quality can increase explorative interest • Variations in product prices can increase consumer preferences • Compatibility with product benefits can increase consumer referential interest
R	• Desire to buy the product • Priority in purchasing a product • Willingness to sacrifice to get a product • Product purchases based on product benefits and expectations	**S.R. Strategy** • A good maker image can increase priority in purchasing a product • A good product image can increase the willingness to sacrifice to get a product	**OR Strategy** • The affordability of product prices and the suitability of good-quality prices can increase the desire to buy products. • Price compatibility with good product benefits can increase product purchases based on benefits and expectations.

5. CONCLUSION

Brand image (X1) has a significant positive effect on purchasing decisions (Y1) with a C.R. value of 2.335 and a table of 1.753 (tcount>ttable), and it has a regression coefficient of 0.264. Product quality (X2) cannot be proven in this study because the product quality variable (X2) is excluded from

the research model. Price (X3) has a significant positive relationship to the purchase decision (Y1) with a C.R. value of 3.032 and a table of 1.753 (tcount>ttable) and has a regression coefficient of 0.416. Purchase decision (Y1) has a significant positive relationship to consumer repurchase intention (Y2) with a C.R. value of 3.882 and a table of 1.753 (tcount>ttable) and has a regression coefficient of 0.993.

Researchers who wish to conduct research with the same theme are expected to be able to further develop variables such as perceptions of promotions, word of mouth (WOM), social media or others that are relevant to consumers of Iphone Smartphones.

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