



Are smartphone buyers being rational?

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Abstract: This research is related to consumer behavior when purchasing a smartphone one of product that is closely related to technology. The purpose of this study is to determine marketing strategies by analyzing consumer behavior both rational aspect and emotional aspects. The independent variables represent rational aspect are technology, price perception, e-WoM, while emotional aspect represented by Emotion variable, and Trust is selected as a mediator variable of rational aspect. As the dependent variable is the intention to buy a smartphone. This research is a quantitative research, the sample used in this study was taken by purposive sampling method with the criteria of the respondent is smartphones users. The number of samples in this study is 338 respondents. The analysis used in the research uses structure equation modeling (SEM) to test the hypotheses in the proposed research model.

Keywords: Rational Aspect, Emotional Aspect, Purchase Intention

INTRODUCTION

This research related to consumer behavior. The object of this research is consumer behavior when purchasing technology products, especially high-tech mobile phones or smartphones, namely mobile devices that are not only used as audio and text communication tools, but can also be used to search for data, face-to-face virtual meetings and others activities (Nguyen and Phuong, 2020).

Smartphone users globally are increasing from year to year, in 2016 there were 3.6 billion and it is projected that it will continue to increase to 7.6 billion smartphone users in 2027. The growth of smartphone users is also significant in Indonesia, in 2011 smartphone users in Indonesia amounted to 11.7 million and continues to increase until it reaches 89.86 million in 2022. (Statista, 2022). The rapid growth of smartphone users is a potential market for smartphone manufacturers. Efforts to seize market share are unavoidable competition, therefore studies related to consumer behavior in deciding to purchase a smartphone and the factors that influence it are crucial.

This study aims to determine a suitable strategy or effort to increase consumer buying interest in smartphone products by studying and testing the relationship between technology,

price perception, e-WoM, emotional aspects, and consumer decisions in buying smartphones with Trust as a mediator.

Based on previous research, consumers consider several aspects in deciding to buy a smartphone, for example price, product quality, technology, brand, ease of use, product benefits, recommendations from other parties either directly or in the form of word of mouth (WoM) or e-WoM. Previous researchers considered that aspects of ease of use and benefits were significant in influencing consumers in deciding to buy products (Yu-Chih Huang, et al, 2019), other studies found that WoM or e-WoM had a significant effect (Ivana and Uturestantix, 2018; Iqbal A., et al., 2022), while other researchers assess price, technology are consumer considerations in deciding to purchase products (Nguyen and Phuong, 2020). Meanwhile, some researchers stated that the factors mentioned above did not have a significant effect (Herman, et.al., 2017, Le Minh Duy, 2019). The gap in the results of this study (research gap) is of concern to researchers to consider these independent variables in this study. After conducting preliminary survey that refers to previous research, this study determines the variables of technological aspects, price perceptions, e-WoM and emotional aspects as independent variables. In addition, this study also uses Trust as an intervening variable. The selection of intervening (mediation) variables is supported by research conducted by Fradiani and Astrid (2018) which examines consumer interest in purchasing books online (e-commerce). Another consideration for using Trust as an intervention variable of rational aspect because trust is one of the factors that motivates rational considerations to act. The selection of this mediating variable is supported by previous research related to the use of technology in marketing. (Liu et al., 2019). This research not only evaluates the significance of aspects that influence consumers in buying products, but also sorts out the rational and emotional influences of consumers in buying technology products, especially smartphones. The consumer's rationality and emotional level become a reference in determining the sales strategy for smartphone products.

LITERATURE REVIEW

Purchase Intention

The notion of buying interest is often interpreted as consumer behavior both in the process of repurchasing or buying at the first time, even buying interest can also be interpreted as a desire to buy, even though in the end the transaction does not occur due to one reason or another. Purchase intention is described as the willingness of consumers to buy certain products equipped with the information to reduce risk and increase customer purchase intentions (Mohseni et al., 2018).

Relationship between Trust and Purchase Intention

Trust is defined as an expectation of consumers that the services provided are reliable and meet a customer's need (Konuk, 2018). Trust can be considered as important because it can create a positive attitude towards buying interest (Liu et al., 2019). Consumer expectations in this study are expectations related to technology reliability, reliability of information conveyed in e-WoM electronic media and price perceptions. Based on the theory above, a hypothesis can be described.

H1: Trust affects a consumer purchase intention in buying a smartphone.

The relationship between trust and the independent variables that reflect an attitude of rationality is explained in the theory below

The Relationship between Technology and Trust

The quality of electronic products is usually reflected by the technology used by these products, as well as smartphones. The relationship between product quality and trust has been

studied by previous researchers including research conducted by Suhaily and Darmoyo (2017) related to electronic products where a product quality is reflected by the product technology. The results show that there is a significant and positive relationship between product quality and trust, or in other words, there is a significant relationship between product technology and trust.

Smartphones are electronic products with high-tech quality and specifications. Technology has the potential to become a variable that influence consumers in buying a smartphone. According to research from Haroon M.J., et al., (2017), found that the ease of use and benefits of smartphones have a very significant role in shaping consumer interest in purchasing smartphones with 3G technology. In addition, the research from Nguyen and Phuong (2020), showing that aesthetics, product features, have a positive effect on the intention to buy a smartphone. This explanation formed the following hypotheses:

H2: Technology affects consumer purchase intention in buying a smartphone through Trust as a mediator

The Relationship between Perceived Price and Trust

Research conducted by Fadhilah, et.al (2021) regarding the effect of e-WoM and Perceived Price on Trust in online transactions shows that Perceived Price and e-WoM have a significant and positive effect on Trust. This study raises the following hypothesis:

H3: Perceived Price affects a consumer purchase intention in buying a smartphone through Trust as a mediator.

The relationship between E WoM and Trust

Based on research conducted by Lu, B. et, al (2016), e-WoM has a significant and positive effect on Trust, which means that improving the quality of e-WoM increases consumer trust in what is conveyed by producers. The research results were tested in this study by proposing the following hypothesis

H4: E WoM affects a consumer purchase intention in buying a smartphone through Trust as a mediator

Relationship between Emotional and Purchase Intention

The emotional aspect in this study is consumer behavior that does not consider rationality. One form of the emotional aspect of consumers is impulsive buying, namely buying suddenly. Retailers obtain sales mostly driven by impulsive buying behavior from consumers (Barakat, 2019). No references have been found regarding the relationship between emotional aspects and trust, so this study does not make trust an intervening variable for emotional aspects so that emotional aspects are directly related to purchase intention. To test the implementation of this research, a hypothesis was described

H5: Emotional influences a consumer purchase intention in buying a smartphone

Based on some of the theories above, this research establishes the following research framework:

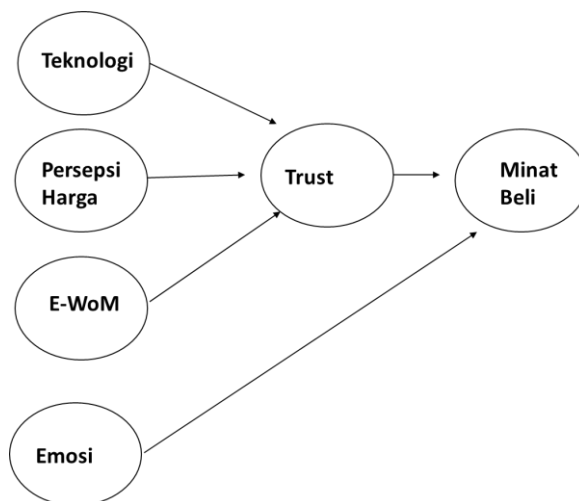


Figure 1. Research Model

RESEARCH METHODS

In accordance with the research objective, namely to increase sales by evaluating consumer behavior and considerations in buying a smartphone. This research evaluates the relationship between the independent variable and the dependent variable, which in the end will formulate what needs to be done on the independent variable so that the performance of the dependent variable is as expected. The flow of research is carried out as follows:

a. Formulation of the problem

The problem in this study is to formulate the efforts constructed by the independent variable so that the performance of the dependent variable is in line with expectations. The performance of the dependent variable is consumer interest in buying a smartphone while the independent variables are technology, price perception, e-WoM, emotional aspects with Trust as the intermediary variable. All the variables were obtained from previous research and refocused on the preliminary surveys.

b. Preliminary Survey

Preliminary surveys were conducted by selecting independent variables in accordance with this study. Referring to the independent variables that have been used by previous researchers, they were then tested on 30 respondents to obtain independent variables that are in accordance with the research topic and product used as the object of this study.

The selected independent variables are Price perception, E-WoM, Technology, emotions, Trust (as a mediating variable). Dependent variable is consumer purchase intention in buying a smartphone.

c. Model of Research

The framework of this research is an illustration of the relationship between the independent variable, intervening variable and the dependent variable which is presented in Figure 1

d. Data Acquisition

Data collection was carried out using a purposive sampling method with the criteria of respondents being consumers who understand smartphone products, both consumers who have bought smartphones before or new buyers. The respondent's area is limited around Greater Jakarta with the consideration that this area can reflect the characteristics of Indonesian society in general, especially urban communities as smartphone users. The number of respondents is at least 10 times the number of indicators or at least 240 respondents

e. Data analysis

The data analysis stage begins with Confirmatory Factor Analysis (CFA) using SEM (PLS) to test construct reliability and indicator validity. The analysis is continued by formulating a linear equation between the independent variables and the dependent variable.

f. Result and Discussion

The conclusion is the result of hypothesis testing which shows the significance level and weight of the influence of the independent variables on the dependent variable.

The following are the latent variables used in this study along with the indicators as explanations

Table 1. Variables and Indicators

Variable	Definition	Indicator	Description
Technology	Technology on smartphones includes features, operating system	Tech1	Ease of use
		Tech2	Latest features
		Tech3	Hardware quality (battery, screen, etc.)
		Tech4	Application capabilities
Price Perception	Consumer perception of the price	Pr1	considers the price according to expectations
		Pr2	flexibility of means of payment (e-wallet, debit card, credit card)
		Pr3	payment scheme flexibility (cash, credit, etc.)
		Pr4	smartphone quality warranty or money back policy
E- WoM	Information that consumers obtain from other users in electronic media	WoM1	Electronic media versus conventional media
		WoM2	Reviews from reviewers who are well known by the public
		WoM3	Content (content) from Reviewer reviews
		WoM4	comments submitted by other users in electronic media
Emotional	Purchase considerations based on consumer emotions	Emo1	smartphone brand
		Emo2	my relative's recommendation
		Emo3	The influence of advertising
		Emo4	time to decide
Trust	Things that consumers believe in supporting buying decisions	Tr1	believes in the contents of the ad
		Tr2	believes in smartphone quality
		Tr3	the price of the smartphone I bought was reasonable
		Tr4	believes in the results of the review (comments)
Purchase intention	Consumer behavior that reflects interest in smartphones	Int1	is interested in buying a smartphone
		Int2	recommends smartphones
		Int3	replaces smartphones when there are new smartphone products
		Int4	looks for information about smartphones

FINDING AND DISCUSSION

Respondent Characteristics

This study managed to collect data from 338 respondents who were declared eligible for further processing. Most of the respondents were women with a composition of 196 women (58%) and 142 men (42%). The age group of respondents was dominated by the age group of 26 to 42 years as much as 63% of the total respondents.

Statistic test

Validity and reliability tests were carried out on the latent variables used in this study. All variables in this study are latent variables, each of which is explained by 4 indicators. The strength of each indicator in explaining its latent variable is measured using the outer loading factor. An indicator is considered be able to explain a latent variable if the value of the loading factor is > 0.6, while the reliability of measuring a variable is expressed by Cronbach alpha > 0.6, AVE > 0.5 and CR > 0.6. (Hair et al., 2019). The results of the validity and reliability tests indicate that all indicators are valid and all variables are reliable.

Table 2. Reliability and Validity

Variabel	Indicator	loading	Cr Alpha	AVE	CR
Purchase Intention	Int 1	0.798	0.795	0.621	0.867
	Int 2	0.746			
	Int 3	0.841			
	Int 4	0.764			
Price	Pr 1	0.753	0.838	0.672	0.891
	Pr 2	0.878			
	Pr 3	0.823			
	Pr 4	0.821			
Emotional	Emo 1	0.786	0.795	0.620	0.867
	Emo 2	0.848			
	Emo 3	0.740			
	Emo 4	0.772			
Technology	Tech1	0.831	0.866	0.712	0.908
	Tech2	0.862			
	Tech3	0.852			
	Tech4	0.830			
Trust	Tr 1	0.753	0.721	0.546	0.827
	Tr2	0.793			
	Tr3	0.702			
	Tr4	0.702			
E-WoM	WoM1	0.780	0.769	0.591	0.852
	WoM2	0.756			
	WoM3	0.831			
	WoM4	0.702			

Hypothesis testing

The path coefficient is calculated according to the research model used. Trust as a mediator has a significant direct relationship with other independent variables, namely E-WoM and Technology which all have a Pvalue <0.05. The same thing happened to the direct relationship between Trust and Purchase Intention and Emotional and Purchase Intention which also had a significant relationship marked with a Pvalue <0.05. Unlike the case with Price which has no significant relationship to Trust which is indicated by a Pvalue > 0.05. The results of the direct relationship between these variables are shown in table 2.

Table 3. Path Coefficient

	Original Sample	Mean	(STDEV)	T Statistics	P Values
E-WoM -> Trust	0.284	0.289	0.058	4.892	0.000
Price -> Trust	0.083	0.088	0.051	1.614	0.107
Emotional -> Pur-Intention	0.210	0.214	0.053	3.948	0.000
Technology -> Trust	0.190	0.187	0.070	2.716	0.007
Trust -> Pur-Intention	0.285	0.288	0.067	4.248	0.000

In addition to the direct relationship between variables, an indirect relationship analysis is also carried out between the independent variables and the dependent variable. This direct or indirect relationship is a test of the hypothesis presented in this study.

Variable Trust has a significant effect on Purchase Intention with Pvalue = 0.000 <0.050, thus the hypothesis.

H1: There is an influence of Trust on consumer purchase intention in buying a smartphone, it is accepted.

The Technology variable has no significant effect on Purchase Intention with Trust as a mediator, this is indicated by the Pvalue = 0.055 > 0.050, thus the hypothesis

H2: There is an influence of technology on consumer purchase intention in buying a smartphone through Trust as a mediator, is rejected

The Price variable has no significant effect on Purchase Intention, this is indicated by a Pvalue = 0.138 > 0.050, thus the hypothesis

H3: There is an influence of Price Perception on consumer purchase intention in buying a smartphone with Trust as a mediator, is rejected.

The E-WoM variable has a significant effect on Purchase Intention, this is indicated by Pvalue = 0.003 <0.050, thus the hypothesis.

H4: There is an influence of E WoM on consumer purchase intention in buying a smartphone with Trust as a mediator, is accepted

Emotional variables have a significant effect on Purchase Intention, this is indicated by a Pvalue = 0.000 <0.050, thus the hypothesis

H5: There is an emotional influence on consumer purchase intention in buying a smartphone, is accepted

The total effect of the independent variables on the dependent variable in testing the research hypothesis is presented in full in table 4.

Table 4. Total Effects

	Original Sample	Mean	(STDEV)	T Statistics	P Values
E-WoM -> Pur-Intention	0.081	0.084	0.027	2.950	0.003
E-WoM -> Trust	0.284	0.289	0.058	4.892	0.000
Price -> Pur-Intention	0.024	0.025	0.016	1.485	0.138
Price -> Trust	0.083	0.088	0.051	1.614	0.107
Emotional -> Pur-Intention	0.210	0.214	0.053	3.948	0.000
Technology -> Pur-Intention	0.054	0.055	0.028	1.923	0.055
Technology -> Trust	0.190	0.187	0.070	2.716	0.007
Trust -> Pur-Intention	0.285	0.288	0.067	4.248	0.000

Goodness of Fit

The SRMR (Standardized Root Means Square Residual) of this study is 0.065 which indicates that there is a match between the model used and the observation data. SRMR values range between 0 and 1 where SRMR = 0 means perfect fit. Another parameter that can indicate the fit between the model and the observational data is the NFI (Normal Fit Index). This study gives NFI = 0.78 which means moderate fit.

Discussion

Path analysis shows that the independent variables related to the rational aspect have a significant and positive effect on the trust mediation variable, except for the price perception variable (Price). However, not all independent variables related to this rational aspect have an indirect effect on purchase intention (Purchase). The results of the hypothesis test indicate that the independent variables Price and Technology have no significant influence on Purchase Intention, it means that consumer behavior in buying smartphones is not significantly influenced by price perceptions or technological considerations offered by smartphone manufacturers. Meanwhile, the E-WoM variable and Emotional Variable have a significant effect on purchase intention. This shows that smartphone consumers are strongly influenced by considerations of other users' opinions, advertisements and brands of smartphones.

The discussion above can provide input in increasing consumer purchase intention in smartphone products, namely by paying more attention to the emotional aspects and testimonials of users who have purchased the product rather than taking a price and technology approach to prospective buyers.

CONCLUSION AND RECOMMENDATION

Conclusion

In accordance with the research objective, which is to establish a strategy to increase consumer buying interest in smartphones by testing several variables, it can be concluded that the variables that significantly influence consumer buying interest are Emotional Variables and E-WoM Variables, while Price and Technology Variables are not significant. effect on consumer buying interest smartphone. The strategy that can be done to increase consumer buying interest in smartphones is to improve the quality of E-WoM and quality related to emotional aspects. Smartphone consumers tend to be less rational in purchasing a smartphone.

Recommendation

For the development of knowledge related to consumer behavior, this model can be developed and used for other products, both services and goods. The variables used can be implemented directly or through modification, in general the variables used are cognitive variables, namely variables that go through thinking processes and emotional variables that are impulsive.

Meanwhile, for practical purposes, smartphone entrepreneurs are advised to use tools that can influence consumer emotions such as using attractive advertisements, using influential endorsers and creating a collection of smartphone user testimonials to become a reference for potential buyers.

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