

The Effect of Consumer Innovativeness on Purchase Intention of New Smartphone with Vicarious Innovativeness and Perceived Value as Mediations

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ABSTRACT

The purpose of this study was to examine the effect of consumer innovativeness on purchase intention of new Smartphone with vicarious innovativeness and perceived value as a mediation. A survey was conducted online with 200 respondents as participants. Hypotheses testing were done using smartPLS software version 3.2.8. Results of this study indicate that consumer innovativeness has a positive and significant effect on purchase intention of new products Smartphone with vicarious innovativeness and perceived value as mediation. Theoretical as well as practical contributions from this study will also be discussed further.

Keywords: *Consumer innovativeness, vicarious innovativeness, perceived value, purchase intention*

1. INTRODUCTION

There are many factors that can affect the demand for any type of product and the growth of business development in a country can be used as an indicator of economic growth that affects consumer demand. There are many influences that underlie a person's motives to participate in economic growth by purchasing products issued by a company. The more business developments increase, the more it affects the economic growth of a country. In order to be successful and achieve company goals, it is necessary to develop new products that can compete in the market and meet consumer needs. As a result, most companies are looking for unique models to develop new products [1]. Manufacturers of new products are required to interpret what features are more important and relevant according to relevant customer needs that can be effective in accelerating purchase intention of new products [1].

Consumer innovativeness, vicarious innovativeness and perceived value are three ways that consumers usually try a new product before they want to buy the product. Consumer innovativeness appears constantly for each individual to find out various kinds of new things in a product [1]. With the innovations obtained, consumers must also carry out vicarious innovativeness or a learning process which means acquiring new product information. Vicarious innovativeness directs innovators to have a new product as a concept [2]. In addition, buyers perform Perceived Value, which entails evaluating the acquisition of a new product or an entire new product characteristic. Consumers will be more confidence in purchasing new products if their perceived worth is high. Purchase intention, or the desire to buy a thing, emerges from these three factors. It is the desire

to achieve one's personal desires, which is impacted by trust and commitment. At current time, there are an increasing number of factors that influence demand for all items. Many firms have been competing for a long time in the sector of communication technology to present a smartphone that is original, unique in design, and offers many benefits to users. Smartphone industry strives to design and position specific new products to appeal to certain market segments [1]. Smartphone's feature that strengthens its dominance in the smartphone market with 5G network features so that smartphone can continue to lead in the competition in the market and meet consumer needs [5]. New smartphone product controls nearly 75% of the ultra-premium segment, compared to the previous year and this also shows that more consumers today are preferring high-end devices after realizing the importance of smartphones to them during the COVID-19 lockdown policies [6].

2. LITERATURE REVIEW

2.1. Purchase Intention

According to Kotler and Keller (2016: 198) "purchase intention is a form of behavior from consumers who wish to buy or choose products based on experience, its use and desire in a product". The customer's intention in analyzing a product brand goes through six processes, namely awareness of the desired product, knowledge of the brand, interests, preferences, trust, and buying [9]. Purchase intention is a choice made by customers after analyzing several similar products. Customers will make product

selections according to behavior, analysis results (product function) and habits (behavior).

2.2. Consumer Innovativeness

According to [7], consumer innovativeness is “the predisposition to buy new and different products and brands rather than remain with previous choices and consumption patterns”. In recent research on consumer innovativeness in new product, [10] point out that consumer innovativeness remains an important concept in understanding the adoption of new products, and predict consumers' innovative buying behavior using innovativeness as a personality trait.

2.3. Vicarious Innovativeness

Vicarious innovativeness which is called the learning process which means the acquisition of new product information. Vicarious innovativeness directs innovators to have a new product as a concept and then start buying the new product [2] Family members, relatives, and friends are the important information sources for innovators [11]. Consequently, vicarious innovativeness may play an important role in the collection of new product information and could indirectly influence consumers' new product adoption behavior.

2.4. Perceived Value

Perceived value is a decision-making process carried out by consumers before making a purchase transaction for certain products that consumers need [3]. The convenience, quality, and monetary value of a product are all factors in determining its perceived value [12]. Perceived value, on the other hand, is a multidimensional concept that incorporates functional, social, quality, and monetary worth [13].

2.5. Hypotheses Developments

Consumer innovativeness is seen as a predictor of product adoption behavior, which begins with purchase intention of new products. Consumers like items that have distinct innovation features, such as curiosity and ambition [1]. The first hypothesis of this research is as follow:

H₁: Consumer innovativeness has significant influence on the Purchase Intention of New Product.

Consumer innovativeness improves Vicarious innovativeness, or the learning process of new products, by searching for information about new products based on Vicarious innovativeness, allowing marketers to build relationships with customers and provide them with the most up-to-date information on new products. Therefore, we proposed second hypothesis below:

H₂: Consumer innovativeness has significant influence on Vicarious innovativeness.

Consumer innovativeness displays the characteristics of innovators who have a proclivity for purchasing new products. Perceived value, which includes promotion and experience, is a result of innovation [1]. Consumers will be more likely to have new products if you are more innovative. The third hypothesis of this research is as follow:

H₃: Consumer innovativeness has significant influence on Perceived value.

Consumers see Perceived value as the level of usefulness of new products because of the comparison between realized benefits and cost sacrifices to obtain new products [1]. Moreover, [1] stated that innovators who already have information will have a positive impact on innovation attributes such as relative advantage, social image, novelty, and aesthetics. Hence, the fourth hypothesis is as follow:

H₄: Vicarious innovativeness has significant influence on Perceived value.

Consumers who learn relevant knowledge about new products have a strong buying intention due to the vicarious innovativeness of new products [1]. Consumers hear about innovation from advertisements, word of mouth, the internet, and social media which are effective in convincing customers to buy a new product. Consumer's interest in new product is also boosted by social media advertisement [1]. The fifth hypothesis is as follow:

H₅: Vicarious innovativeness has significant influence on Purchase Intention of New Products.

Perceived value of a new product has a significant impact on consumer's purchase intent [1]. Moreover, [1] described consumers' perceived value of a new product as a subjective and objective evaluation of an invention that is linked to several characteristics. It can be conveyed in a variety of ways, such as perceived utility, enjoyment, and social image. Customers that perceive minimal risk are more likely to buy new products and innovative consumers tend to make risk-free and innovative decisions [1]. We proposed sixth hypotheses below:

H₆: Perceived value has significant influence on Purchase Intention of New Product.

Innovators look for information on new items and data to entice customers to try them out. Innovative customers will use social media to engage with one another and act as opinion leaders for other communities. In addition to other triggers created by marketers, innovative buyers will pay attention to innovations held by others. Because of their features, innovators are more connected with novelty and openness to new products. The seventh hypothesis is as follow:

H₇: Consumer innovativeness has significant influence on Purchase Intention of New Products with Vicarious innovativeness as mediating variable.

In general, innovators have a positive attitude toward innovation, evaluating product, simplicity of use, functional performance, and certainty in ways that the bulk of end

users do not. Innovators are more likely to create new items if they have a strong and favorable view of value [1].

H₈: Consumer innovativeness has significant influence on Purchase Intention of New Products with Perceived value as mediating variable.

Innovators gather information on new products and data about them, then analyze it all to encourage customers to perceive the value in the new product. Consumers will be able to learn more about the new product more simply as a result of personal communication. Because of the contrast between realized advantages and cost sacrifices to obtain a new product, customers will consider perceived value as the level of usefulness of a new product [1].

H₉: Consumer innovativeness has significant influence on Perceived value with Vicarious innovativeness as mediating variable.

Innovators are more likely to purchase new items because they have access to information about them and are familiar with their applications and benefits. Knowledge and risk had a favorable interaction effect on satisfaction with new product purchase intentions [1].

H₁₀: Vicarious innovativeness has significant influence on Purchase Intention of New Products) with the Perceived value as mediating variable.

Innovative consumers tend to reach out and learn about new products earlier than others. This kind of tendency can be called informed innovation [8]. Vicarious innovativeness or the process of learning new product information plus perceived value directly affects the purchase intention of new products. Therefore, the last hypothesis of this research is as follow:

H₁₁: Consumer innovativeness has significant influence on Purchase Intention of New Products with Vicarious innovativeness and Perceived value as mediating variables.

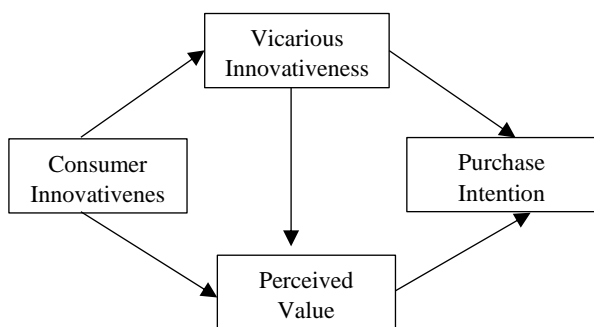


Figure 1 Research Model

3. METHODOLOGY

Data in this research was collected with non-probability sampling design technique called convenience sampling. There were 200 respondents participated in online survey. Hypotheses testing were done using SEM PLS software SmartPLS version 3.2. Research instrument of this study consists of 24 indicators from 4 variables, each of which consists of 6 indicators with a 6-point Likert scale from 1 “Strongly Disagree” to 6 “Strongly Agree”.

From the data collected, there were 112 female and 88 male respondents. The majority of respondents in this study were aged between 21-30 years (125 people). Most of respondents were college students (104 people) and about 137 people have total monthly expenditure under 5 million IDR.

4. RESULTS AND DISCUSSIONS

4.1. Validity and Reliability Test Results

The measurement of the convergent validity of this study was measured by looking at the value of the Average Variance Extracted (AVE) which will be valid if the value of each variable was greater than 0.50, conclusively, all variables have passed the test of convergent validity and discriminant validity. Reliability testing were done using Cronbach's alpha criteria. An instrument is considered reliable if the value of Cronbach's alpha has a minimum score of 0.6. Table 2 shows reliability test results of this study. Based on the results of the reliability test we can see that all indicators of each variable have a value of more than 0.8. This means that research data from the research variables in this study are valid and meet the requirements for the level of good reliability. Table 1 represents validity and reliability test results of this study.

Table 1 Validity and Reliability Test Results

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Consumer Innovativeness	0.869	0.874	0.905	0.657
Vicarious Innovativeness	0.902	0.908	0.925	0.672
Perceived Value	0.894	0.906	0.919	0.653
Purchase Intention	0.920	0.923	0.940	0.758

Source: Data Analysis using SmartPLS version 3.2.8

The next test will be inner and outer model test. The inner model test was done by calculating the coefficient of determination (R^2). The value of the coefficient of determination is categorized into three categories, namely the value of R^2 (r-square) of 0.25 is indicated as weak, the value of R^2 (r-square) of 0.50 is indicated moderate and the value of R^2 (r-square) of 0.75 is indicated substantial. Table 2 shows coefficient of determination results.

Table 2 The Results of Coefficient of Determination

Variable	R Square	R Square Adjusted
Perceived Value	0.703	0.699
Purchase Intention	0.693	0.688
Vicarious Innovativeness	0.532	0.530

Source: Data Analysis using SmartPLS version 3.2.8

The value of the R^2 analysis of the perceived value of 0.703. This means that 70.3% of the perceived value variable can be explained by consumer innovativeness and the remaining 29.7% is explained by other variables outside this study. In addition, the results of the R^2 analysis of vicarious innovativeness are 0.532. This means that 53.2% of the vicarious innovativeness variable can be explained by consumer innovativeness and the remaining 46.8% is explained by other variables outside this study. While the results of the R^2 analysis of purchase intention are 0.693. This means that 69.3% of the purchase intention variables can be explained by consumer innovation and the remaining 30.7% is explained by other variables outside this study.

We further done cross-validated redundancy test or Q^2 test. Q^2 test is only applied to the affected variable using a reflective measure. The value of Q^2 which is greater than 0 (zero) for the variable will have predictive relevance for the construct [1].

Table 3 Q^2 Analysis

Variable	Q^2
Consumer Innovativeness	
Perceived Value	0.445
Purchase Intention	0.510
Vicarious Innovativeness	0.350

Source: Data Analysis using SmartPLS version 3.2.8

The results of the Q^2 analysis show a value greater than 0 (zero) which indicates the observed values have been reconstructed properly. Where Vicarious innovativeness has a value of 0.350, Perceived value has a value of 0.445, and Purchase intention has a value of 0.510. So, it can be concluded that all variables have predictive relevance.

The next test was inner model test which were done by testing hypotheses or p-values (bootstrapping). This test was aimed to test the hypotheses in this study and to find out the relationship between the variables contained in this study between one variable and another [4]. Each hypothesis will be tested to see the results of the analysis and its significant value. If the positive and significant value is <0.05 then it is declared proven or accepted, on the contrary if it is negative and not significant > 0.05 then the hypothesis is rejected. In Table 4 we can see summary of hypotheses test results.

Table 4 Hypothesis Test Results

Test	Variable	Score				
		Original Sample (O)	Sample Average (M)	Standard Deviation (STDEV)	T-Statistics ((O/STD EV))	P-values
Path Coefficient	Consumer innovativeness → Perceived value	0.533	0.534	0.082	6.495	0.000
	Consumer innovativeness → Purchase intention	0.314	0.318	0.083	3,785	0.000
	Consumer innovativeness → Vicarious innovativeness	0.730	0.733	0.032	22.867	0.000
	Perceived value → Purchase intention	0.353	0.348	0.078	4,516	0.000
	Vicarious innovativeness → Perceived value	0.366	0.366	0.085	4.314	0.000
	Vicarious innovativeness → Purchase intention	0.238	0.239	0.060	3.930	0.000

<i>Specific Indirect Effects</i>	<i>Consumer innovativeness</i> → Vicarious innovativeness → Perceived value	0.267	0.268	0.065	4.124	0.000
	<i>Consumer innovativeness</i> → Perceived value → Purchase intention	0.188	0.186	0.052	3.640	0.000
	<i>Vicarious innovativeness</i> → Perceived value → Purchase intention	0.129	0.127	0.040	3.255	0.001
	<i>Consumer innovativeness</i> → Vicarious innovativeness → Perceived value → Purchase intention	0.094	0.093	0.029	3.254	0.001
	<i>Consumer innovativeness</i> → Vicarious innovativeness → Purchase intention	0.173	0.175	0.045	3.872	0.000

Source: Data Analysis using SmartPLS version 3.2.8

Based on the results of Table 4 above, we can see on the first path that Consumer innovativeness has a t-statistic of 3.785 and p-values of 0.000. It can be interpreted that the t-statistics is more than 1.96 and the p-value is less than 5% or 0.05, so the first hypothesis is accepted. Therefore, Consumer innovativeness has significant influence on purchase intention of New Products. The results of this study are supported by [5] which states that consumer innovativeness has a significant and positive effect on purchase intention. This means that if the consumer innovativeness is higher in smartphone products, the purchase intention will also be higher for smartphone products.

The second path shows that Consumer innovativeness has a t-statistics of 22.867 and p-value of 0.000. It can be interpreted that the t-statistics is more than 1.96 and the p-value is less than 5% or 0.05, so the second hypothesis is accepted. Therefore, Consumer innovativeness has significant influence on vicarious innovativeness. This is because vicarious innovativeness supports a high learning process regarding all kinds of things regarding new products which in the end will increase consumer innovativeness. The results of this study are supported by [6], which states that consumer innovativeness has a significant and positive effect on vicarious innovativeness. In the third path analysis, we can see that Consumer innovativeness has a t-statistics of 6.495 and p-value of 0.000. It can be interpreted that the t-statistics is more than 1.96 and the p-value is less than 5% or 0.05, so the third hypothesis is accepted. Hence, we can conclude that Consumer innovativeness has significant influence on perceived value. Consumer innovativeness supports consumers to know all kinds of things about new products and is willing to evaluate the product based on the perceived value of the new product. The results of this study are supported by [7] which states that consumer innovativeness has a significant and positive effect on perceived value.

The fourth path shows that vicarious innovativeness has a t-statistic of 4.314 and p-values of 0.000. It can be interpreted that the t-statistics is more than 1.96 and the p-value is less than 5% or 0.05, it means that the fourth hypothesis is accepted. Thus, vicarious innovativeness has significant influence on perceived value. The results of this study are supported by [1] which states that vicarious innovativeness

has a significant and positive effect on perceived value. That is, consumers must have vicarious innovativeness during the new product decision-making process.

It can be seen at the fifth path that the vicarious innovativeness variable has a t-statistics of 3.930 and p-value of 0.000. It is interpreted that the t-statistics is more than 1.96 and the p-value is less than 5% or 0.05, so the fifth hypothesis is accepted. Thus, vicarious innovativeness has significant influence on purchase intention of New Products. The results of this study are supported by [6] who stated that vicarious innovativeness has significant and positive effect on purchase intention. This means, vicarious innovativeness which includes advertising, word of mouth, and modeling, supports communication factors that have a major impact on consumer purchase intention.

At the sixth path we can see that the perceived value variable has a t-statistics of 4.516 and a p-value of 0.000. It can be interpreted that the t-statistics is more than 1.96 and the p-value is less than 5% or 0.05, so the sixth hypothesis is accepted and perceived value has significant influence on purchase intention of New Products. The results of this study are supported by [8] which state that perceived value has a significant and significant effect on positive on purchase intention. That is, the consumer's perception of the value obtained from a product will influence consumers to make a purchase of the product.

Consumer innovativeness at the seventh path was mediated by vicarious innovativeness and has a t-statistics of 3.872 and p-value of 0.000. It can be interpreted that t-statistics is more than 1.96 and p-value is less than 5% or 0.05. So, the hypothesis seven is accepted. Therefore, Consumer innovativeness has significant influence on purchase intention of New Products Smartphone with Vicarious innovativeness as mediating variable. Consumer's innovativeness to obtain information is supported by a learning process regarding all the information obtained. In line with [10]'s study, in this study, vicarious innovativeness will increase in-depth knowledge of the product so that it can increase purchase intention of New Products.

Consumer innovativeness at the eight path was mediated by perceived value with t-statistics of 3.640 and p-value of 0.000. It can be interpreted that t-statistics is more than 1.96 and p-value is less than 5% or 0.05. So, the eight hypothesis is accepted. It means that Consumer innovativeness has

significant effect on purchase intention of New Products Smartphone with perceived value as a mediating variable. Consumer innovativeness supports consumers to evaluate the product for everything that is obtained, which at the same time increases the consumer's purchase intention of the new product [11].

The ninth path shows that Consumer innovativeness was mediated by vicarious innovativeness and has a t-statistics of 4.124 and p-value of 0.000. It can be interpreted that t-statistics is more than 1.96 and p-value is less than 5% or 0.05. So, the hypothesis nine is accepted. Therefore, consumer innovativeness has significant influence on perceived value with vicarious innovativeness as mediating variable. This is because with consumer innovativeness supports vicarious innovativeness or a high learning process regarding all kinds of things about new products, so that it can increase perceived value - the value that will be obtained from new products [11] [12].

It can be seen at the tenth path that the vicarious innovativeness variable was mediated by perceived value and has a t-statistics of 3.255 and a p-value of 0.001. It can be interpreted that t-statistics is more than 1.96 and p-value is less than 5% or 0.05. So, the tenth hypothesis is accepted. Therefore, consumer innovativeness has significant influence on purchase intention of New Products with perceived value as a mediating variable. Vicarious innovativeness has studied the information and knows the high value obtained regarding all kinds of new products so that it can increase the purchase intention of the new products [16].

Finally, at the eleventh path we can see that consumer innovativeness variable was mediated by vicarious innovativeness and perceived value has a t-statistics of 3.254 and p-value of 0.001. It can be interpreted that t-statistics is more than 1.96 and p-value is less than 5% or 0.05. So, the eleventh hypothesis is accepted. Thus, consumer innovativeness has significant influence on purchase intention of New Products with vicarious innovativeness and perceived value as mediating variables. The results of this study are supported by [1] [2], which states that consumer innovativeness has a significant and positive effect on purchase intention of new products with mediating variables vicarious innovativeness and perceived value.

5. CONCLUSIONS AND SUGGESTIONS

5.1. Conclusions

Based on the research above, it can be concluded that all hypotheses in this study are accepted. The results of this study are expected to provide tangible benefits for consumers who want to buy new products. Consumers can solve various problems related to consumer innovativeness towards purchase intention with vicarious innovativeness and perceived value as mediation.

5.2. Suggestions

Based on this research results, it is hoped that companies can implement further efforts on how to increase purchase intention, such as in terms of more attractive designs, more sophisticated features, more color variants, as well as cheaper prices. Further research may also investigate different mediating variables or even put moderating variables which might help promote consumer's purchase intention on new product. For example, switching costs that arise when consumers have to change their existing product may hold their decision to adopt new product.

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