



THE EFFECT OF BRAND IMAGE AND PRODUCT INNOVATION ON PURCHASE DECISIONS

By

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ABSTRACT

The purpose of this study is to find out and analyze the influence of brand image on purchasing satisfaction, to find out and analyze the effect of product innovation on purchase satisfaction and to find out and analyze the influence of brand image and product innovation on purchase decision of ltd sport helmet (study on UMSU students). The approach used in this study is an associative approach. The population in this study was all UMSU students while the sample that met the criteria for drawing observations was 100 people using the Accidental Sampling technique. The data collection technique in this study used the questionnaire technique. The data analysis technique in this study uses classical assumption test, multiple regression, t test and F test, and coefficient of determination. The data processing in this study used the SPSS software program version 16.00. It is partially known that the brand image has a positive and significant influence on the purchase of sport helmets. It is partially known that product innovation has a significant positive influence on the purchasing of ofhelm ltd sport. Simultaneously it is known that brand image and product innovation together have a significant influence on the decision to purchase a sports ltd helmet.

Keywords: Brand Image, Product Innovation and Purchasing Satisfaction

A. Introduction

In modern times, the global market is filled with a wide variety of products, the abundance of complementary or substitute products shows that not only the product is a factor that convinces consumers, but also the message tied to the product, which will make consumers to decide on the purchase of a product. The importance of paying attention to the purchasing decisions of the company can meet the needs of consumers.

To carry out the strategy, the company must be able to create products that are in demand and in accordance with the wishes of consumers. Without a precise strategy, a company will not survive, because competitors will come to offer better



products to compete with those competitors' products and will seize market share from that company.

According to Kotler (2011, p. 124) "Intelligent companies seek to understand the consumer's purchasing decision process in full, all their experiences in learning, choosing, using, and even getting rid of products".

The importance of *consumer decision making* is an integrating process that combines knowledge to evaluate two or more alternatif behaviors and choose one of them. According to Nugroho J. Setiadi (2008, p. 415) "Consumer purchasing decisions are important for companies, where a company must be able to attract consumers to decide on the purchase of products or services". Companies must have good and interesting ideas so that consumers continue to use the products offered by the company.

According to sutojo (2009, p. 80) "Factors that influence consumers in deciding on purchases, including the conformity of product specifications and quality with the standards found, price feasibility and payment terms, determination of the delivery schedule of the ordered product, prospects for business development".

According to Kotler and Keller (2011, p. 258) "A *brand* is a sign in the form of an image, term, name, word, letters, numbers, color arrangement, or a combination of these elements that have differentiating power and are used in trade activities in goods or services". Consumers pay attention not only to the product, but also the brand that makes a product different from other products.

Brand image is how consumers perceive the identity of a company. A strong brand is characterized by the recognition of a brand in society, high brand associations on a product, a positive perception of the market and high loyalty of consumers to the brand. The brand image is seen from the associations that people have towards a brand.

Furthermore, product innovation In the competition as it is today, companies are required to offer products that innovate and have more value, so that they look different from competitors' products. Zimmerer (2008, p.57) That, product innovation is one thing that has the potential to create the thoughts and imaginations of people who ultimately create customers.

The term product innovation is always activated differently by several experts. Suryani (2008, p. 304) innovation in broad concepts is actually not just limited to products. Innovation can be in the form of ideas of ways or objects that are witnessed by a person as something new. Innovation is also often used to refer to changes that are felt by various new things by the people who are experiencing it. Sutarno (2012, P. 132) innovation is the transformation of knowledge to new products, processes and services, the act of using something new.

Judging from the current competitive conditions that occur in helmet products. The diversity of helmet products that exist today encourages consumers to identify in decision-making when determining a brand that they think meets the criteria of an ideal helmet product. There are quite a lot of helmet brands circulating in Indonesia, making it difficult for consumers to choose a variety of other brands. There are various kinds of helmet brands circulating in Indonesia ranging from KYT, INK, GM, BMC, NHK, MDS, LTD, and so on. All helmet manufacturers, this



has each superior product and all compete in the consumer market in Indonesia through various breakthroughs and innovations. The low brand image of LTD helmets based on *the top brand* award is not good enough will affect the purchasing decision. The following is a list of helmet rankings based on the official website of a product observer, namely *the top brand Award.com*.

The cause of the decline in the brand image of LTD helmets is due to the absence of product innovations carried out on LTD Sports helmets from 2014 to 2018. Here's a picture of ltd Sports helmets from 2014 to 2018. that the LTD Sports helmet does not exist to innovate the product in terms of shape. Making consumers will do a lot of consideration before deciding or buying the LTD Sports helmet product. So that can lead to a decrease in sales of LTD Sports helmets compared to other brands.

Based on the description above, the author is interested in conducting a study with the title "the influence of brand image and product innovation on the purchase decision of LTD Sports helmets (case study on UMSU students).

B. Method

This research is a quantitative research with an *associative* approach method according to Sugiyono (2012, p. 13) states that quantitative research methods are research methods based on the philosophy of *positivism*, used to examine in certain populations or samples, sampling techniques are generally randomized, data collection using research instruments, data analysis is quantitative / statistical with the aim of testing predetermined hypotheses. The formulation of *an associative* problem is a research question that asks the relationship between two or more variables.

The population in this study is all students of the University of Muhammadiyah North Sumatra consisting of several faculties on the UMSU Main Campus who use sport ltd helmets. To determine the sample size in this research using the *Accidental sampling* technique, that is, the author determines the sample from a certain population to the desired number of quotas, based on the entire population, the author sets a sample of 100 people,

The data collection technique used in this study is sourced from primary data, namely research data obtained directly from data sources that are specifically collected and are directly related to the problem under study. The data collection technique in this study used questionnaires. The data analysis method used in hypothesis testing in this study is a statistical analysis method of multiple regression to determine the influence of free variables on their bound variables.

C. Research Finding

Data normality testing is carried out to see whether in the regressi model, the dependent and independent variables have a normal distribution or not, if the data spreads around the diagonal line and follows the direction of the diagonal line then the regressi model meets the assumption of normality.



Normal P-P Plot of Regression Standardized Residual

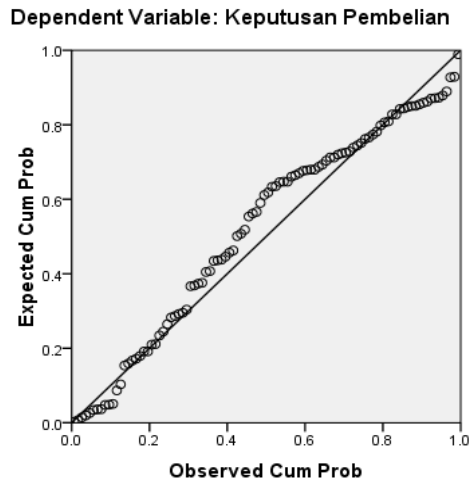


Figure.1 Normality Test Results
Source: SPSS 16.00 Data Results

Based on the picture. 1 above it can be seen that the data spreads following a diagonal line meaning that the data between the dependent variable and its independent variable has a normal relationship or distribution or meets the test of the assumption of normality.

Heterokedasticity

To find out whether or not heterokedasticity occurs in the regression model of this study, the analysis carried out is by informal methods. Informal methods in heterokedasticity testing are the graph method and *the Scatterplot* method.

Scatterplot

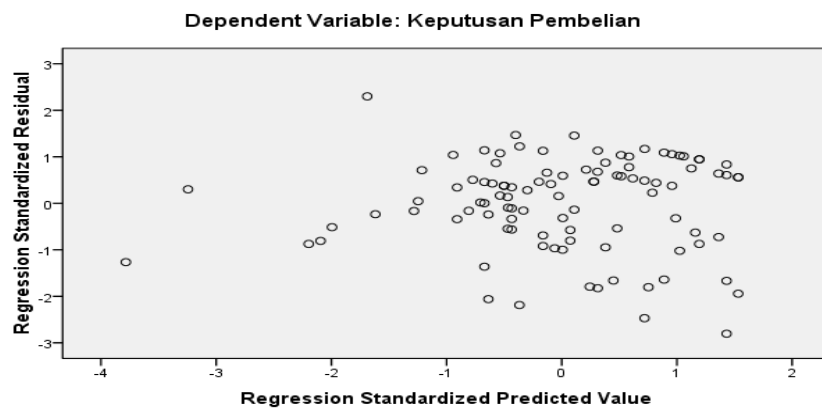


Figure.2 Test Results Heterokedasticity
Source: SPSS 16.00 Data Results

The shape of figure.2 above, it can be seen that the residual spread is irregular and does not form a pattern. It can be seen in the scattered dots or plots. The conclusion that can be drawn is that there is no heterokedasticity.

Multicholinerarity

The multicholinerarity test is used to determine whether in the regression model there is a high correlation including free variables, provided that: If *tolerance* < 0.1 or equal to *VIF* > 10 then there is a serious multicholinerarity problem. If *tolerance* > 0.1 or equal to *VIF* < 10 then there is no multicholinerarity problem. With SPSS version 16.00, multicholinerarity test results can be obtained as follows:

Table.1 Multicholinerarity Test Results

Coefficients ^a			
		Collinearity Statistics	
		Tolerance	VIF
Dependent Variable: KEPUTUSAN PURCHASE	Constant)		
	AND IMAGE	.998's	1,002
	PRODUCT INNOVATION	.998's	1,002

Source : Data Processing 2019 (SPSS 16.00)

Based on table.1 above, it can be seen that *the Variance Inflation Factor* (VIF) value for the brand image variable (X_1) is 1.002 and the product innovation variable (X_2) of 1.002. From each of the independent variables has a value smaller than the value of 10. Likewise, *the Tolerance* value in the brand image variable (X_1) sebesar 0.998 and product innovation (X_2) sebesar 0.998. From each variable *the tolerance value is* greater than 0.1 so it can be concluded that there are no symptoms of multicholinerarity between the independent variables indicated from the tolerance value of each independent variable greater than 0.1 and the VIF value smaller than 10.

Multiple Linear Regression Analysis

The multiple linear regression model used is consumer satisfaction as a dependent variable and promotion and service quality as independent variables. Where multiple analysis is useful to find out the influence of each dependent variable on the independent variable. The following are the results of data management using SPSS version 16.00.

Table.2 Multiple Linear Regression Test Results

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Dependent Variable: KEPUTUSAN PURCHASE	Constant)	-1,558	8,495		-183	,855
	AND IMAGE	,560	,172	,299	3.256	,002

	PRODUCT INNOVATION	,979	,280	,322	3,501	,001
Dependent Variable: KEPUTUSAN PURCHASE						

Source : Data Processing 2019 (SPSS 16.00)

From table.2 above, it is known that the values are as follows : Constant = -1.558, Brand Image = 0.560, Product Innovation = 0.979, The result is included including together linear regression together with knowing the following equation : $Y = -1.558 + 0,560(\text{Brand Image}) + 0.979(\text{Product innovation})$, Constant of -1.558 indicates that if the value of the independent variable is not constant then the purchase rate on the sport ltd helmet will increase. β_1 by 0.560 with the direction of the positive relationship shows that if the brand image increases it will be followed by an increase in purchasing satisfaction of 0.560 assuming other independent variables are considered constant. β_2 sebesar 0.979 with the direction of the positive relationship indicates that if the innovation is considered constant. β_2 sebesar 0.979 with the direction of the positive relationship indicates that if the innovation is the product experienced an increase, followed by an increase in purchase satisfaction of 0.979 assuming other independent variables were considered constant.

Hypothesis Test

T test

Used to test regression coefficients individually. This test is carried out to determine whether or not each free variable partially has a significant influence on the bound variable. After obtaining the calculated t value, then the calculated t value is compared to the table t.

Table.3 Results Test Statistics t (partial)

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Constant)		-1,558	8,495		-183	,855
BRAND IMAGE		,560	,172	,299	3,256	,002
PRODUCT INNOVATION		,979	,280	,322	3,501	,001
Dependent Variable: KEPUTUSAN PURCHASE						

Source : Data Processing 2019 (SPSS 16.00)

The results of statistical testing in the table above can be explained as follows:

The Effect of Brand Image (X1) on Purchasing Satisfaction (Y)

Based on table.3 above, t count for promotion variables of 3.256 for error 5% test 2 parties and $dk = n-2$ ($100-2=98$), obtained t table 1.984. If t counts > t of the table then a significant influence is obtained between X1 and Y, and vice versa if t counts < t of the table then there is no significant influence of antara X1 and Y, in this case t count = $3.256 > t$ table = 1.984. This means that there is a pengaruh between the brand image and the purchase of the sport.

Furthermore, it can also be seen that the probability value of t, namely sig is 0.002, while the significant level of α previously set is 0.05, then the sig value is $0.002 \leq 0.05$, so that H_0 is rejected this means that there is a significant influence between the brand image and the satisfaction of the purchase of ltd sport helmets.

The Effect of Product Innovation (X2) On Purchasing Decision (Y)

Based on table.3 above obtained t count for product innovation variables of 3.501 for error 5% test 2 parties and $dk = n-2$ ($100-2=98$), obtained t table 1.984. If t count > t table then a significant influence is obtained between X2 and Y, and vice versa if t count < t table then there is no significant influence antara X2 and Y, in this case t count = 3.501 > t table = 1.984. This means that there is adifference between the quality of service and the purchase of sport helmets.

Furthermore, it can also be seen that the value of probability t, namely sig is 0.001 while the significant level of α previously set is 0.05, then the sig value is $0.001 < 0.05$, so that H_0 is rejected this means that there is a significant influence between product innovation and the purchase of a sports ltd helmet.

Test F

The F test or also known as the simultaneous significant test is intended to see the overall ability of the free variablesu X1 and X2 to be able to Y. The F test is also intended to find out whether all variables have a regression coefficient equal to zero.

Table.4 Simultaneous Test Results (F-Test)

ANOVA ^a						
Source		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	1688,161	2	844,080	10,916	,000 ^b
	Residual	7500,589	97	77,326		
	Total	9188,750	99			
Dependent Variable: PURCHASE DECISIONS						
Predictors: (Constant), PRODUCT INNOVATION, BRAND IMAGE						

Source : Data Processing 2019 (SPSS 16.00)

Based on table.4 above, F counted for brand image and product innovation variables of 10.916 for error 5% test 2 parties and $et al = n-3$ ($100-3 = 97$), obtained F table 3.09. If F calculates >F of the table then a significant anchoring is obtained between X1 and X2 against Y, and vice versa if F calculates the <F of the table then there is no significant influence between X1, and X2 on Y, in this case F calculates $10.916 > F$ table 3.09. This means a positive influence between brand image and product innovation on the purchasing of sport helmets.

Furthermore, it can also be seen that the probability value of F, namely sig, is 0.000 while the significant level of α previously set is 0.05, then the sig value is $0.000 < 0.05$, so that H_0 is rejected this means that there is a significant positive influence between the brand image and product innovation on the satisfaction of purchasing sports ltd helmets.

Coefficient of Determination

The coefficient of determination is used to influence whether there is an influence between the free variable and the bound variable, namely by squaring the coefficient.

Table.5 Determination Test Results

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.429 ^a	.184 ^a	.167	8.794
Predictors: (Constant), PRODUCT INNOVATION, BRAND IMAGE				
Dependent Variable: KEPUTUSAN PURCHASE				

Source : Data Processing 2019 (SPSS 16.00)

From table.5 above, it can be seen that the value of R is 0.429 or 42.9% which means that the relationship between the purchase satisfaction and its free variables, brand image and product innovation is close. At the value of *R-Square* of this research realm is 0.184 which means 18.4% variation of the purchase satisfaction is explained by free variables namely brand image and product innovation. While the rest are 81.6% is explained by other variables that were not studied in this study. The value of *R-Square* (R²) or coefficient of determination in this study is 0.167 which means 16.7% satisfaction of the purchase of sport helmets can be explained by the brand image and product innovation. Meanwhile, 83.3% can be explained by other factors that were not studied in this study.

Then *the standard error of the estimated* means measuring the variable from the predicted value. *Standard error of the estimated* is also called standard deviation. *The standard error of the estimated* in this study was 8.794 where the smaller the standard deviation means the better the model is at predicting consumer satisfaction.

D. Discussion

The Effect of Brand Image on Purchasing Habits

Based on the results of the research above between the brand image and the purchase *decision* t_{count} of 3.256 while the t_{table} is 1.984 and has a significant figure of $0.000 \leq 0.05$ means H_0 rejected and H_a accepted which shows that there is partially a positive and significant influence between the brand image on the purchasing of sport helmets. Based on the results of testing the research hypothesis on the influence between brand image variables (X_1) on purchasing decisions (Y) obtained t_{table} by 1,984, and the acquisition of calculated t values of 3,256 with the meaning that $t_{counts} > t_{table}$ with a significant value of $0.000 < 0.05$. From the results it can be concluded that H_0 was rejected. This shows that there

is an influence between the brand image variables (X_1) on the buyer's decision variabelen (Y)Pthere is a sport Ltd helmet (case study on UMSU students)

The results of this study are in line with previous research conducted by Irawan (2017), brand image is a marketing activity that is designed and carried out creatively, a strong brand produces consumer loyalty that high. The results of Pratiwi's research (2010) said that brand image is one of the marketing activities that affects increasing sales or buying noodlesof the public if the brand image can be able to provide andfulfill the basic functions of the brand image, introduce and cause trust, then it will further increase buying interest .

The Effect of Product Innovation on Purchasing Satisfaction

Based on the results of the research above between product innovation andthe decision to purchase ltd sport helmets, namely ltd sport helmets obtained t_{count} asr 3,501 while t_{table} is 1,984 and has a figure significant of $0.000 \leq 0.05$ means H_0 is rejected and H_a is accepted. Based on these results, it was concluded that H_0 was rejected and H_a was accepted which shows that there is partially a positive and significant influence between product innovation and decisions. purchase of ltd sport helmets. Based on the results of testing the research hypothesis on the influence between the Variable Product Innovation (X_2) on Purchasing Decision (Y) obtained t_{table} by 1,984, and the acquisition of calculated t value of 3,501 with the meaning that $t_{counts} > t_{table}$ with a significant value of $0.000 < 0.05$. From these results it can be concluded that H_0 was rejected. This shows that there is an influence of signifikan between the variable Product Innovation (X_2) on the variable Purchase Decision (Y)Pthere is a sport Ltd helmet (case study on UMSU students).

The results of this study are in line with previous research conducted by Fahrizal (2014) the purchase decision of the product is basically due to the benefits and quality provided by the product. Lopiyoadi (2013) stated that consumers will feel satisfied if their evaluation results show that the products they use are of high quality. This is supported by theresearch conducted by Idha (2014) which showsthat product innovation affects purchasing decisions."

The Influence of Brand Image and Product Innovation onPurchasing Satisfaction

Based on the results of research through hipotesis testing on the influence of Brand Image (X_1) and Product Innovation (X_2) Purchasing Decision (Y) simultaneously through the F test above, it can be seen that the calculated f value is 4.465, while f_{table} of 3.090 with a significant rate of 0.05. Based on the results of the test, it can be understood that there is a significant influence between the variables Brand Image (X_1) and Product Innovation (X_2) on Purchasing Decisions (Y) on Ltd Sport Helmets (Case Study On UMSU Students).

The results of this study are in line with previous research conducted by Tjiptono (Windyasari and Fifilia, 2009) stating that the factors that influence purchasing decisions are *product* (product), *price* (*price*), Brand Image (*promotion*) and location (*location*). According to Fahrizal (2017) stated that brand image and product innovation have a significant effect on purchasing



decisions and can be accepted, customers who receive a quality brand image and innovation, then customers will feel satisfied if the results of their evaluation show that the products they use are of high quality

E. Conclusion

Based on the results of research and discussions that have been previously stated, conclusions can be drawn from research on the influence of brand image and product innovation on the purchase decision of ltd sport helmets. It is partially known that the brand image has a positive and significant influence on the purchase decision helm ltd sport (Study on Students of Universitas Muhammadiyah Sumatera Utara). It is partially known that product innovation has a positive and significant influence on the kepenvoy of purchasing ltd sport helmets (Study on Students of Universitas Muhammadiyah Sumatera Utara). It is simultaneously known that brand image and product innovation together have a significant influence on the kepenvoy of purchasing ltd sport helmets (Study on Students of Universitas Muhammadiyah Sumatera Utara).

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