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Influence of product quality, promotion and design on purchasing decisions for Yamaha Mio motorized vehicles

Asih Purwanto
Fakultas Ekonomi, Universitas Muhammadiyah Surakarta, Sukoharjo, Indonesia

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ABSTRACT

This study aims to analyze the influence of product quality, promotion and design on the purchasing decision of Yamaha Mio motorcycle products and to analyze the variables that have the most dominant influence on the purchasing decision of Yamaha Mio motorcycle products in the people of Surakarta. The population in this study were all consumers of Yamaha Mio motorbikes in the Surakarta area. The sample used was 150 respondents with the Accidental Quota Sampling technique. The data collection technique used a questionnaire, while the data analysis technique used multiple linear regression analysis, classical assumptions (normality test, multicollinearity test, heteroscedasticity test), statistical tests (t test, F test and coefficient of determination). From the results of the classical assumption analysis, the normality test with Kolmogorovsmirnov was obtained significantly greater than 0.05, which means that the data is normally distributed. The multicollinearity test obtained VIF and Tolerance values that were close to one so that it could be concluded that the regression model had no multicollinearity problem, while the heteroscedasticity test using the Glejser method stated that there was no problem. Based on the results of multiple linear regression analysis from the t test, it was found that partially product quality has a significant effect on purchasing decisions for Yamaha Mio motorcycle products, while promotion and design have a significant effect on the 5% level. From the results of the F test that simultaneously product quality, promotion and design have a significant effect on purchasing decisions for Yamaha Mio motorcycle products where the value of F count> F table. Product quality has the most dominant influence on purchasing decisions for Yamaha Mio motorcycle products. An R square value of 0.255 is obtained, which means that the dependent variable can be explained by an independent variable of 25.5% while the remaining 74.5% is explained by other variables outside the model.

Corresponding Author:

Asih Purwanto
Fakultas Ekonomi, Universitas Muhammadiyah Surakarta
Jl. A. Yani, Mendungan, Pabelan, Kec. Kartasura, Kabupaten Sukoharjo, Jawa Tengah 57162
Email: purwantoasih@gmail.com

1. INTRODUCTION

One's buying behavior can be said to be something unique, because everyone's preferences and attitudes towards objects are different. In addition, consumers come from several segments, so what they want and need is also different. There are still many factors that influence purchasing decisions.

Producers need to understand consumer behavior towards products or brands on the market, then it is necessary to do various ways to make consumers interested in the products they produce.

Assael (1995) in Sodik (2004) developed a model of consumer behavior by specifying three factors that influence consumer behavior. The first factor that influences consumers is stimuli. Stimuli indicate the receipt of information by consumers and information processing occurs when consumers evaluate information from advertising, friends or from their own experiences. The second influence comes from the consumer's personal characteristics including perceptions, attitudes, benefits and consumer characteristics (demography, personality, lifestyle). The third influence is consumer response, namely the end result of the consumer decision process and a thorough consideration of all the factors above.

The results of research on the factors that influence the buying process or decision have been carried out a lot. This research will analyze the factors that influence the decision to purchase a Yamaha Mio motorbike. The interest in choosing this brand is because Yamaha Mio motorcycle products are increasingly in demand not only among Indonesian women but also all young people. Modern lifestyle is one of the individual factors that can influence a person's buying behavior. The Yamaha Mio motorbike is an outometric motorbike or also called a scooter which was designed specifically for women, but is now in demand by all young people.

The life of today's modern society also influences people's behavior patterns in purchasing. Modern life is often identified with a lifestyle that always follows the trend or developments of the times. Under these conditions, the decision to choose a brand plays a role in modern lifestyles, so that the desire to buy branded products also influences one's consumption patterns. Lannon (1996) in Muafi (2003) added that, "modern society's life has implications for the role of brands, meaning that consumers do not just want products, but also brands". Established brands are usually used as a symbol of a successful product, so that brand equity also influences the emotional state of consumers. Even though there are many similar products circulating in the market, especially competitor products, all of that will depend on consumer equity towards the brand. This means that if consumers have a correct understanding of the brand they believe in, then the brand personality in the minds of consumers will be stronger. Brand equity is a consumer's total perception of a brand that can be formed through good information from, friends' opinions or own experience. If consumers have a good perception of the brand, it will influence the formation of product choices to be purchased, then it will form a positive attitude which in turn will influence purchasing decisions. This is in line with the opinion of Sodik (2004) that the information obtained and processed by consumers will form a person's preference for an object.

Consumer perceptions of product quality will shape preferences and attitudes which in turn will influence the decision to buy or not. This is in line with the opinion of Aaker (1997) in Sodik (2004) that the impression of quality provides value in several forms, one of which is a reason to buy.

The intention to make purchases can be formed from consumer attitudes towards the marketing mix, including through promotion. Promotional activities for Yamaha mio motorcycles can be carried out through advertising, gift giving, price discounts, and personal selling. In line with the above, consumer decisions in purchasing Yamaha mio motorbikes can be influenced by marketing stimuli such as product quality, promotions through attractive advertisements, discounts, gifts. In addition, design also influences purchasing decisions. Generally, consumers want innovative designs from time to time.

2. METHOD

2.1 Data source

This study uses data sourced from primary data, namely data obtained directly from respondents and secondary data from BPS regarding population data for the city of Surakarta.

2.2 Sampling technique

The population in this study were all consumers who use Yamaha Mio motorbikes in Surakarta. The assumption in this study is that the population is not limited. In this study, 100 samples were taken with the consideration that this number had exceeded the minimum number of samples in the study (n = 30). The sampling technique uses the Accidental Quota Sampling method, which is a sampling technique that can be carried out at any time until the desired number of samples (quota) is met.

2.3 Test research instrument

Validity test is used to measure the legitimacy or validity of the research. Validity test using Pearson correlation analysis, the decision determines whether the instrument items are valid or not. If at a significant level of 5% the value of r count > r variable, it can be concluded that the instrument items are valid.

Reliability test to find out whether the instrument has a good confidence index if tested repeatedly. The reliability test in this study used the Cronbach alpha formula, to determine the level of instrument reliability of the four research variables if the results of the instrument reliability test of the four research variables if the reliability test results gave an alpha value of > 0.6 (Gozali, 2001).

2.4 Data analysis technique

Multiple Linear Regression Analysis aims to determine the effect of product quality, promotion, and design on purchasing decisions. The expected regression equation in this study is:

$$Y= \alpha + \beta\ 1X1 + \beta\ 2\ X2 + \beta\ 3X3 + e \quad (1)$$

Information:

Y = purchase decision
X1 = product quality
X2 = promotion
X3 = design
α = constant
β1 = regression coefficient of product quality variable
β2 = promotion variable regression coefficient
β3 = regression coefficient of the design variable
e = disturbance (error)

Classical Assumption Testing is carried out to find out whether the data has deviations or not. This test was carried out after carrying out the Regression analysis and the Coefficient of Determination. The Classic Assumption Test consists of: Normality Test, Multicollinearity Test, Heteroscedasticity Test.

The statistical test consists of the t test, this test aims to determine the effect of each independent variable on the dependent variable. The F test aims to determine the effect of the independent variables on the dependent variable. The coefficient of determination (R^2) aims to measure how far the model's ability to explain variations in the dependent variable. In this study the calculation of the coefficient of determination to measure how far the ability of the independent variables (product quality, promotion, and design) in explaining the dependent variable (purchasing decision).

3. RESULTS AND DISCUSSION

3.1 Product Overview Yamaha Mio

Yamaha Mio is an automatic scooter produced by Yamaha Motor Indonesia. The motorcycle market in Indonesia is the 3rd largest motorcycle market in the world, but the largest market share is for small engine capacity motorbikes with the typical Southeast Asian character (underbone) model. This is somewhat unprofitable for motorcycle manufacturers, because the trend of the world motorcycle market for motorcycles with small engine capacity is the scooter type. This reason became the basis for Yamaha Indonesia to try to popularize scooters in Indonesia through Yamaha Nouvo in 2003, although not so successful, Nouvo's pioneering made it easier for Yamaha Mio to achieve success later on.

Unlike its predecessor (Nouvo) which was influenced by the underbone design, the Yamaha Mio adheres to a pure scooter body design. This can be seen from the small wheel circumference (14 inches) resulting in a wide distance between the two axles.

A typical scooter full automatic engine is installed on this motorbike, with a capacity of 113 cc which is quite powerful and fits the Indonesian market. The automatic transmission became the main point in the sales campaign with the jargon "automatic first" with the aim of showing consumers that the Mio was produced earlier than its toughest rivals, the Honda Vario and Suzuki Spin.

Sales were quite successful, and was the opening for the popularity of scooters in the Indonesian market. The main market share is Sales are quite successful, and is the opening for the

popularity of scooters in the Indonesian market. The main market share is young women with the main advertising models Tessa Kaunang and Bunga Citra Lestari.

3.2 Respondent description

To make it easier to identify respondents in this study, it is necessary to describe the characteristics of respondents in Surakarta. The description of the characteristics of the respondents is as follows:

Respondents in Surakarta who use Yamaha Mio motorbikes are male and female respondents. The number of respondents in Surakarta with female gender shows a larger number compared to male gender. From all the respondents who were selected as the sample, the average used a Yamaha Mio motorcycle with a different color design. For more details, see the following table:

Table 1. Characteristics of respondents based on gender

Gender	Amount	Percent
Man	73	48 %
Woman	77	52 %
Amount	150	100%

Source: Primary data that has been processed

From table 1 above it can be seen that 73 or 48% of respondents using Yamaha Mio motorcycles were male, while female respondents were 77 or 52% of the total 150 respondents.

Based on the education level of respondents in Surakarta, the most used Yamaha Mio motorbikes were respondents aged 17-19 years.

Table 2. Characteristics of respondents based on age

No	Age	Amount	Percentage
1	17 – 19 Years	54	36 %
2	20 – 24 Years	52	35 %
3	25 – 29 Years	17	11 %
4	30 – 39 Years	19	13 %
5	40 years and over	8	5 %
	Total	150	100%

Source: Primary data that has been processed.

From table 2 above it can be seen that the respondents who use Yamaha Mio motorbikes between the ages of 17-19 years are 54 or 36%, ages 20-24 years are 52 or 36%, ages 25-29 are 17 or 11%, ages 30- 39 is 19 or 13%, and age 40 and over is 8 or 5% of the total 150 respondents.

Based on the education level of respondents in Surakarta, the most used Yamaha Mio motorbikes were respondents with a high school education level. This means that the level of education affects the mindset of respondents in using Yamaha Mio motorbikes. For more details, see the following table:

Table 3. Characteristics of respondents based on education

No	Education	Amount	Percentage
1	Collegetall	51	34 %
2	high school	60	40 %
3	junior high school	24	16 %
4	SD	15	10 %
	Total	150	100%

Source: Primary data that has been processed.

From table 3 above it can be seen that 51 or 34% of respondents who use Yamaha Mio motorcycles, 51 or 34% of university education, 60 or 40% of senior high school, 24 or 16% of junior high school, and 15 or 10% of elementary school, of all respondents which totals 150.

Table 4. Characteristics of respondents based on the type of work

No	Work	Amount	Percentage
1	Student	92	61 %
2	Trader	18	12 %
3	PNS / ABRI	10	7 %
4	Businessman	12	8 %
5	Etc	18	12 %
	Total	150	100%

Source: Primary data that has been processed.

From table 4 above, it can be seen that 92 or 61% of respondents who use Yamaha Mio motorcycles work as students, 18 or 12% of traders, 10 or 7% of civil servants / armed forces, 12 or 8% of entrepreneurs, and others others are 18 or 12% of the total 150 respondents.

3.3 Data analysis

3.3.1 Multiple Linear Regression Analysis

Technical data analysis in this study using multiple linear regression analysis, aims to examine the effect of product quality, promotion, design on purchasing decisions. The regression model can be structured as follows:

$$Y = \alpha + \beta 1\ X1 + \beta 2\ X2 + \beta 3\ X3 + e \quad (2)$$

Information:

Y = purchase decision
X1 = product quality
X2 = promotion
X3= design
α = constant
β1 = regression coefficient of product quality variable
β2 = promotion variable regression coefficient
β3 = regression coefficient design variable
e = disturbance (error)

Regression analysis calculations in this study used the SPSS program. While the results of the analysis as in the attachment can be seen as in the table below:

Table 5. Results of Multiple Linear Regression Analysis

VariableIndependent	Regression Coefficient	t count	Sig.
Product quality	0.368	4,713	0.000
Promotion	0.060	0.740	0.460
Design	0.163	1,814	0.072
Constant	7,552	4.135	0.000
R^2	0.255		
F count	16,677		0.000

Source: SPSS program output

From the results of the regression analysis, the regression equation is obtained:

$$Y = 7.552 + 0.368\ X1^{**} + 0.060\ X2 + 0.163\ X3^{*} + e$$
$$t = 4.173 \qquad t = 0.740 \qquad t = 1.814$$

** = significant at 5%
* = significant at 10%

The regression model can be interpreted as follows: If the variable product quality, promotion and design = 0 then the purchase decision is expected to increase by 7.552. β1=0.368 means, if promotion (X2), design (X3) are considered constant, each increase in the product quality variable (X1), then the level of consumer decision in buying Yamaha Mio motorcycle products will increase. β2 = 0.060 means, if product quality (X1), design (X3) are considered constant, each increase in the promotion variable (X2), then the level of consumer decision in buying Yamaha Mio motorcycle products will also increase. • β3 = 0.163 means, if product quality (X1), promotion (X22), are considered constant, each increase in the design variable (X3), then the level of consumer decision in buying Yamaha Mio motorcycle products will also increase.

3.3.2 t test

This test is used to determine the influence of each independent variable partially on the dependent variable.

Table 6. Test Results t

Coefficientsa

mode		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	std. Error	Betas		
1	(Constant)	7,552	1827		4.135	.000
	KWP	.368	.078	.389	4,713	.000
	PROMOTION	6.00E-02	081	058	.740	.460
	DESIGN	.163	.090	.153	1,814	072

Dependent Variable: KP

By using the SPSS program, each independent variable is generated as follows:
X1 = 4,713**
X2 = 0.740
X3 = 1.814*
** = significant at 5%
* = significant at 10%

Because the t value of X2 and X3 < t table (0.740 and 1.814 < 1.976) the consequence is that Ho is accepted Ha is rejected for each of the variables above, in this case X2 and X3, meaning that each promotion and design variable has a partially insignificant effect on purchasing decisions for Yamaha Mio motorbike products in the people of the Surakarta area. Meanwhile, because the t value for X1 > t table (4.713 > 1.976), the consequence is that Ho is rejected and Ha is accepted. This means that the product quality variable partially has a significant effect on the decision to purchase Yamaha Mio motorcycle products in the people of the Surakarta area.

3.3.3 F test

The F test is to find out whether the product quality, promotion and design variables together have a significant influence on the purchasing decision of Yamaha mio motorcycle products.

Table 7.F test results

ANOVA b

l mode		Sum ofSquares	df	MeansSquare	F	Sig.
1	Regression	173,090	3	57,697	16,677	.000a
	residual	505,104	146	3,460		
	Total	678,193	149			

a. Predictors: (Constant), DESIGN, PROMOTION, KWP
b. Dependent Variable: PURCHASE DECISION

From the results of calculations using SPSS, it is obtained that F count is 16.677, because the F count > F table (16.677 > 2.667). The consequence is that Ho is rejected and Ha is accepted. Thus it is proven that there is a significant influence of product quality, promotion and design on the purchasing decision of Yamaha Mio motorcycle products in the people of the Surakarta area.

3.3.4 Coefficient of Determination

Analysis of the coefficient of determination aims to determine how far the ability of the independent variables (product quality, promotion and design) together to explain the dependent variable (purchasing decision). From the results of the analysis using the SPSS program it is known that the value of R2 (coefficient of determination) = 0.255 or 25.5% means that the ability of the independent variables together, namely product quality, promotion and design in explaining purchasing decisions is 25.5% while the remaining 74.5% is explained by other variables outside the regression model.

3.3.5 Regression Coefficient

To find out the most dominant factor for purchasing decisions in this study by looking at the value of the regression coefficient, this is considering the number of questionnaires for each variable is the same. To see the dominant influence, it can be seen by looking at the largest b regression coefficient resulting from the three independent variables. From the results of the regression analysis it is known that the value of the regression coefficient of product quality (β1) = 0.368, the promotion regression coefficient (β2) = 0.060 and the design regression coefficient (β3) = 0.163. Seeing the magnitude of the regression coefficient values of the three independent variables, it is known that the product quality variable has the most dominant influence on purchasing decisions, which is equal to 0.368.

The results of this study indicate that product quality has a positive and significant effect on purchasing decisions, meaning that the higher the product quality, the higher the purchasing decision. This is supported by the product quality regression coefficient of 0.368 and the partial significance test (t test) which produces a calculated t value of 4.713.

In practice, the motivation of consumers to buy Yamaha Mio motorcycle products varies, among others, because of information about quality products. Information about the quality of Yamaha mio motorcycle products obtained from advertisements or other people can shape an attitude and behavior of consumers to make purchases. If their perception of a quality product gets stronger, it will strengthen their attitude and will ultimately affect their intention to buy. This is as stated by Kotler (1997) that consumer decisions in purchasing are influenced by company stimuli, including product quality resulting in purchasing decisions based on product choice, brand choice, dealer choice, purchase time, purchase amount. In this study the product quality of Yamaha Mio motorcycles was assessed from trust in them, the technology used, quality of design, and promotion. This means that the better the consumer's perception of these three dimensions will affect the strength of the decision to buy Yamaha Mio motorcycle products. This study supports research conducted by Haryati (2003) that product quality has a significant effect on post-purchase decisions for Avon products in Surakarta.

Promotion in this study showed positive and insignificant results on purchasing decisions, meaning that if the Yamaha Mio promotion was higher, it had no effect on purchasing decisions. This is supported by the promotion regression coefficient of 0.060 and the partial significance test (t test) which produces a calculated t value of 0.740. This research differs from the opinion of Dharmmesta and Irawan (2001) which states that the main purpose of promotion is to inform, influence and persuade and remind target customers about marketing and the marketing mix. Promotion of Yamaha Mio motorcycle products in this study was carried out by giving discounts, cash back, advertisements, attractive brochures and direct sales through dealers. Consumer interest in these promotional attributes can influence consumer intentions to buy Yamaha Mio motorcycle products. This study differs from Prasetyo's research (2004) in which promotion has a significant effect on purchasing decisions for Chinese brand VCD players in Surakarta.

The design in this study gives positive results and is not significant on purchasing decisions, meaning that if the design is higher, it has no effect on purchasing decisions. This is supported by the design regression coefficient of 0.163 and the partial significance test (t test) which produces a calculated t value of 1.814. In this case, although the design does not affect the decision to purchase Yamaha Mio motorcycle products, the innovative design is expected to attract consumers' interest in purchasing this product.

4 CONCLUSION

Based on the results of data analysis, the following conclusions are obtained: Product quality has a significant effect on purchasing decisions. Promotion has no significant effect on purchasing decisions. Design has no significant effect on purchasing decisions. Product quality, promotion, design together have a significant effect on purchasing decisions. Product quality has a dominant influence on purchasing decisions. This is supported by the regression coefficient of product quality (0.368) which is the largest compared to the promotion regression coefficient (0.060) and the design regression coefficient (0.163).

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