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The Impact of Product Quality to Smartphone Buying Decisions

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ABSTRACT

The use of smartphones for the millennial generation will now become a primary need which is the main requirement in supporting various activities, both telecommunications and entertainment. This study tries to analyze the various factors that influence the millennial generation in making choices in smartphone purchasing decisions with all STEKOM University students as respondents. The number of samples in this study amounted to 100 people with a sampling method using convenience sampling, namely selecting respondents based on the ease of finding or access. Data analysis using multiple linear regression methods and processed with the help of SPSS 25. Based on the test results show that price, product quality, and lifestyle have a significant and positive effect on purchasing decisions of smartphones. The variable that is the most dominant and the most influential is the price variable.

Keywords: buying decision, product quality, customers lifestyle

RESEARCH BACKGROUND

The development of the digital world in the current era is very rapid, where in addition to the growth of internet networks in all regions that make the world borderless. The digital world cannot be separated from the sophistication of various communication tools such as smartphones and the internet which are mandatory tools, especially the younger generation in accessing various information quickly and easily. Smartphones are now a must-have item for the younger generation or in this case the millennial generation in supporting various activities, both in the form of communication, photography, and entertainment.

The millennial generation or Gen Z is a generation that has an interest in freedom, relies on instant and fast information, likes to personalize, is active in collaborating, likes to work with an innovative environment and loves to learn and hyper technology (Tapscott, 2009) in (Lalo, 2018). Meanwhile, based on the opinions of Absher and Amidjaya, generation Z or millennials have a birth year between 1982 to 2002 which experienced Google generation (Lalo, 2018).

The millennial generation's dependence on gadgets or smartphones is inseparable from the rapid development of digital technology that changes the way of life and considers technological needs to be primary needs. Today's smartphones are extraordinarily sophisticated with various interesting features such as cameras, internet network access, and various kinds of contemporary games that increasingly make the millennial generation always want to replace their old gadgets by buying smartphones that can meet their expectations so as to make smartphone sales increase.

Purchase decisions are all things experience in learning, selecting, using and removing goods/ products (Kotler & Keller, 2012).

Indonesia is a country that is a potential market for smartphone vendors in the world with the number of sales that continue to increase every year and are dominated by vendors from China. Based on the results of research from Canalys, a research institute that released a cellphone / smartphone market data in Indonesia in Q3 2020, where the top 5 vendors who have the highest market share include: the Oppo brand from China controls 24% market share in Indonesia, followed by the second position of the Vivo brand from

China also has a 24% market share, followed by the third position of the Xiaomi brand from China with 17% market share, followed by the fourth position of the Samsung brand from South Korea with 15% market share, and finally the fifth position of the Realme brand from China with 17% market share. From the data above, the majority of the smartphone market in Indonesia is dominated by vendors from China, here is figure 1. The Q3 2020 Indonesia mobile phone market version of Canalys.

Figure 1. Indonesian Smartphone Market Q3 2020 Indonesia version Canalys
Sources: Rahma (2020)

Harnoto and Silintowe's research entitled smartphone purchase decisions by students with a population and a sample of students of Satya Wacana Christian University in Salatiga as many as 200 respondents by sampling using purposive random sampling techniques. Using questionnaires in data collection and data analysis using multiple linear regression analysis techniques with 2 independent variables, namely reference groups (X1) and lifestyle (X2). The result is a variable in the form of (X1) as a reference group, (X2) as a lifestyle, it turns out to have a simultaneous influence on smartphone purchase decisions. Meanwhile, lifestyle variables have a partial and dominant influence (Harnoto & Silintowe, 2018).

There is also research conducted by Maghfiroh related to consumer satisfaction and implications for decisions in purchasing Xiaomi brand smartphones which were observed in a number of 160 respondents using purposive sampling methods and data analysis using full SEM models with the help of AMOS 24 software, it turned out that results were obtained in the form of product quality variables and word of mouth had a positive and significant effect on customer satisfaction / customers and variables Product quality is the dominant variable (Maghfiroh, 2019). While the research results from

Natanael about the factors influencing the purchase decision of generation Y of Xiaomi brand smartphones in Surabaya by taking 100 respondents as a sample and testing four independent variables, namely cultural, social, personal, and psychological factors using multiple linear regression analysis, where the results showed that all independent variables positively and significantly influenced the purchase decision of the Xiaomi brand in Surabaya (Kwanda, 2019).

There are so many considerations needed for millennials related to decisions in purchasing smartphones. One of them is price, which according to Lichtenstein et al, mentioned in market signals prices are the most important component and there is no doubt (Nur Cahya Muchsin Saggaff Shihab, 2018). Price has a definition of a sum of money or is possible with the addition of several products needed in order to get some combination of a product / good and also its services (Swastha, 2008).

Furthermore, the consideration is product quality, where according to Kotler and Amstrong, product quality is a characteristic of products or services that have a dependence on their ability to satisfy consumer needs that are applied or stated (Maghfiroh, 2019). The third factor that becomes a consideration in the decision to buy a smartphone is lifestyle, as stated by Kotler and Armstrong, where lifestyle is an individual pattern that can be shown (expressed) in an activity (in spending his time), interests (something important for individuals) and opinions (what people think for themselves and others) (Harnoto & Silintowe, 2018).

Armayani and Jatra's research entitled the role of brand image in providing promotional media and prices for purchasing decision variables on Samsung brand smartphones in Denpasar took a sample of 112 respondents with purposive sampling techniques with path analysis methods and sobel tests, where the test results showed that brand image variables have an important role in two factors involved, namely the level of promotion and consumer price levels It turns out that it can improve consumer decisions to buy smartphones with the Samsung brand in the Denpasar City area.

The purpose of this study is to analyze what factors influence the millennial generation when making decisions in buying smartphones, so the author tries to analyze three factors, including: price, product quality and lifestyle that have been adopted from various previous research sources (Armayani & Jatra, 2019).

RESEARCH METHODS

This research has a type of survey research which is a type of research that takes a sample from the total population using questionnaires or questionnaires as research instruments in order to obtain accurate and objective data. The research method uses quantitative methods, where all research data is in the form of numerical/numerical numbers analyzed using statistics (Sugiyono, 2018).

Population & Samples

Population is the total number of objects studied, which includes individuals with various characteristics of desire and conjecture (Subagyo and Djarwanto, 2012). Meanwhile, what is meant by sample is the part of the population that is the focus of research to obtain a general picture and data needed in research (Subagyo and Djarwanto, 2012).

Sampling Techniques

So, what goes into the scope of the sample in this study is everyone, from any background who can provide clear information about what is being studied, both intentionally encountered and those that researchers happen to meet accidentally. The respondents were matched into data sources (Sekaran, 2006). The minimum requirement for sample adequacy in this study is around 30 respondents with consideration of ease of data collection. The data collection procedure using questionnaires was distributed to consumers who purchased smartphone products as many as 100 respondents of Computer Science & Technology University (STEKOM) students using the convenience sampling method (selecting respondents based on ease of finding or accessing).

Data Collection Techniques

The data collection technique uses questionnaires / questionnaires that have been equipped with answer levels as an option for respondents in answering each question. To determine the value of the questions provided by the questionnaire. Using a method in the form of an assessment method utilizing the Likert Scale. Each question will be grouped into five scopes of answer choices (Subana & Sudrajat, 2011). The scores of each answer choice are listed in the table below:

Very Disagree	(STS)	: Score 1
Disagree	(TS)	: Score 2
Neutral	(N)	: Score 3
Agree	(S)	: Score 4
Very Agree	(SS)	: Score 5

Research Framework
The framework of this research described as figure below:

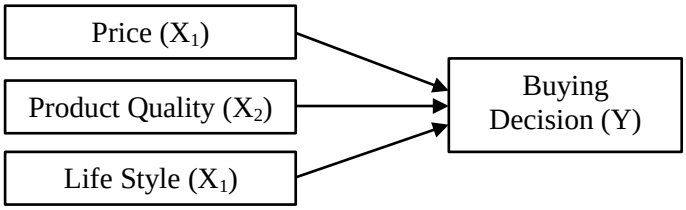

Figure 2. Research Framework

Research Hypothesis
1. How is the relationship between price variables and purchase decision variables?
2. How is the relationship between product quality variables and purchasing decision variables?
3. How do lifestyle variables relate to purchasing decision variables?

Data Analysis
The data analysis technique in this study uses multiple linear regression, where there are three independent (free) variables, namely price, product quality and lifestyle and one dependent variable (bound), namely purchasing decisions. Data analysis processing method using SPSS 25 program.

DISCUSSIONS AND RESULTS
Respondent Profile

Table 1. Respondents Based on Gender

No	Remarks	Amount	Percentage
1	Male	55	55%
2	Female	45	45%
	Total	100	100%

Sources: Data from Author (2021)

Tabel 2. Respondents Based on Study Program

No	Remarks	Amount	Percentage
1	Information Technology	48	48%
2	Graphics Design	41	41%
3	Information Management	11	11%
	Total	100	100%

Sources: Data from Author (2021)

Validity Test

Tabel 3 Validity Test Result

Variable	Statement	Critical Value	Status
Price (X_1)	X_1.1	0,714	Valid
	X_1.2	0,764	Valid
	X_1.3	0,825	Valid
	X_1.4	0,838	Valid
Product Quality (X_2)	X_2.1	0,735	Valid
	X_2.2	0,742	Valid
	X_2.3	0,822	Valid
	X_2.4	0,835	Valid
Lifestyle (X_3)	X_3.1	0,917	Valid
	X_3.2	0,764	Valid
	X_3.3	0,579	Valid
	X_3.4	0,917	Valid
Smartphone Buying Decision (Y)	Y.1	0,587	Valid
	Y.2	0,506	Valid
	Y.3	0,558	Valid
	Y.4	0,692	Valid

Sources: Data managed from SPSS 25 (2021)

Based on the validity test using the SPSS 25 program attached to table 1 shows that all statement items are declared valid because the calculated value > rtable (0.195).

Reliability Test

Table 4. Reliability Test Result

Variable	Cronbach's Alpha	N of Items	Result
Price(X_1)	0,903	4	Reliable
Product Quality (X_2)	0,902	4	Reliable
Life Style (X_3)	0,902	4	Reliable
Buying Decision (Y)	0,779	4	Reliable

Sources: Data managed from SPSS 25 (2021)

Reliability test is a tool for measuring a questionnaire or questionnaire which is a construct (Ghozali, 2016). The reliability test results can be seen from Cronbach's Alpha value from the variables of price (X1), product quality (X2), lifestyle (X3), and purchase decision (Y) above 0.6 (critical value), so it can be concluded that all instruments are declared reliable.

Normality Test

The data normality test is carried out to be able to see the distribution of data in the form of several dots on the P-P Plot diagram image contained in the independent variable (Ghozali, 2016). Based on the P-P Plot diagram drawing, it can be seen that all dot marks spread around the diagonal line and meet the assumption of data normality.

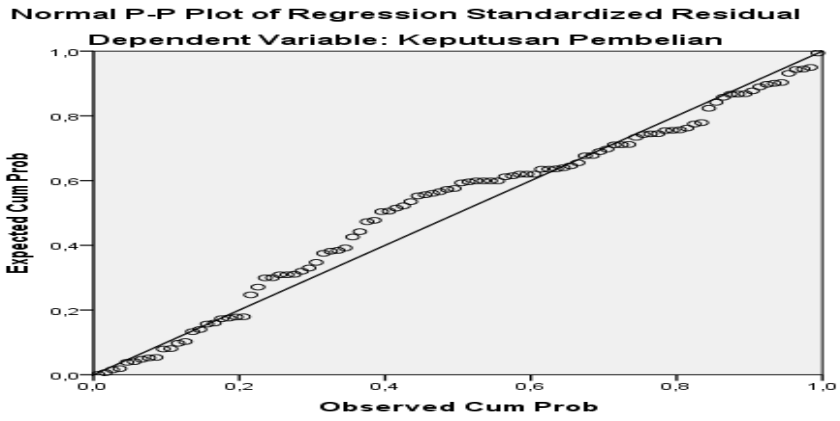

Figure 3. P-Plot Diagram

Sources: Data managed from SPSS 25 (2021)

Multicollinearity Test

Based on the results of the multicollinearity test using the SPSS 25 program, it shows a variance inflation factor (VIF) value of less than 10 and a tolerance value of less than 1, so there is no multicollinearity.

Table 5. Multicollinearity Test Result

Variabel	Tolerance	VIF	Conclusion
X_1	0,875	1,143	No Multicollinearity
X_2	0,999	1,001	No Multicollinearity
X_3	0,874	1,144	No Multicollinearity

Sources: Data managed from SPSS 25 (2021)

Heteroscedasticity Test

Based on the results of the heteroscedasticity test using the SPSS 25 program, it shows that on the scatter plot chart there is no certain pattern or flow in the point distribution, so there is no heteroscedasticity.

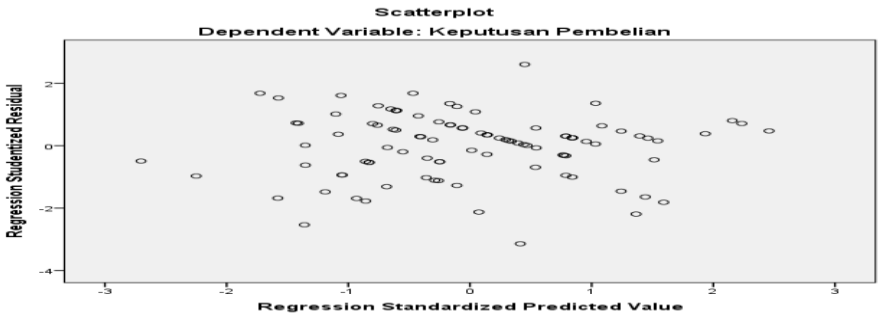

Figure 4. Scatterplot Diagram

Sources: Data managed from SPSS 25 (2021)

Hypothesis Test Result

H1: (X1) as a price variable has a significant and positive influence on purchasing decision

H2: (X2) as a price variable has a significant and positive influence on purchasing Decision variables

H3: (X3) as a price variable has a significant and positive influence on price decision variables

H4: (X1) as price, (X2) as product quality, and (X3) as lifestyle exert a significant and positive and simultaneous influence on purchasing decision variables.

Multiple Linear Regression Result
The analysis result shown on the table below:

Table 6. Multiple Linear Regression Results

Variable	B	t-count	Significant	Result
Konstanta	4,243			
Price (X1)	0,495	7,654	0,000	Signifikan, H1 diterima
Product Quality (X2)	0,125	2,076	0,041	Signifikan, H2 diterima
Life Style (X3)	0,163	3,294	0,001	Signifikan, H3 diterima
R*square*	0,521			
F-count	34,855	X_1, X_2 and X_3 significantly gives impact to smart phone buying decisions		

Sources: Data managed from SPSS 25 (2021)

Table 6 shows an F-count value of 34.855 > an F-table of 2.68 with sig. 0.000a < 0.05 can be explained by the variables Price (X1), Product Quality (X2), and Lifestyle (X3) simultaneously have an influence on the Purchase Decision variable (Y). The results of obtaining the test value of the coefficient of determination, where the Adjusted R-Square value is 0.506, which means that the percentage value is 50.6% of the model when describing independent variables or dependent variables, meanwhile, the remaining percentage explains some elements that are outside the research model of 49.4%. Based on table 4. So that the multiple linear regression equation can be arranged as follows:

$$\mathbf{Y = 4{,}243 + 0{,}495X_1 + 0{,}125X_2 + 0{,}163X_3 + e}$$

Partial Test (Test t)

1. **Effect (X1) as Price Variable on (Y) as purchase decision variable.**
   The t-calculate value of the price variable (X1) of 7.654 (df=1.985) with Sig. 0.000 < 0.05 shows that the price variable has a significant and positive influence on the variable smartphone purchase decision (H1 accepted). Price variables and the level of smartphone purchase decisions vary directly proportionally. The higher the price variable value, the higher the level of smartphone purchase decisions and vice versa.

2. **(X2) as a Product Quality Variable affects (Y) as a Buyer Decision Variable**
   The t-calculate value of the price variable (X2) of 2.076 (df=1.985) with Sig. 0.041 < 0.05 shows that the price variable has a significant and positive influence on the smartphone purchase decision variable (H2 accepted). Product quality variables are directly proportional to purchasing decision variables.

3. **(X3) as a Lifestyle Affects (Y) as a Purchase Decision**
   t-calculate the price variable (X3) of 3.294 (df=1.985) with Sig. 0.001 < 0.05 shows that the price variable has a significant and positive influence on the smartphone purchase decision variable (H3 accepted). Lifestyle variables are directly proportional to purchasing decision variables. The higher a person's lifestyle and prestige, the higher the level of smartphone purchase decisions.

Simultaneous Test (F-test)

Table. 7 ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	269	3	89,775	34,855	0,000
Residual		96	2,576		
Total		99			

Sources: Data managed from SPSS 25 (2021)

Based on the results of simultaneous testing (Test F) seen in table 5, which shows that the F-count value is higher than that of the F-table (34.855 > 2.68) and the significance value is 0.000 or less than 0.005. Based on these results which can be summarized in table 5, it can be concluded that there is a significant and simultaneous influence of the three independent variables on the smartphone purchase decision variable (H4 received).

CONCLUSIONS AND SUGGESTIONS

The results showed a finding related to variables that influence smartphone purchase decision variables in STEKOM University students using a multiple linear regression method consisting of three independent variables, namely Price (X1), Product Quality (X2), and Lifestyle (X3) and one dependent variable Purchase Decision (Y). The results of the study based on simultaneous tests showed an F-count value of 34.855 greater than the F-table value of 2.68 (sig. 0.000a < 0.05).

Based on the partial test (t-test), each independent (tied) variable has a significant and positive influence on smartphone purchase decisions characterized by t-count values > t-table values. The most dominant independent variable dominant to the smartphone purchase decision variable is the Price variable (X1).

For further research, the author would suggest to add other variables such online promotions and offline store location on the study. Also, suggested to have bigger respondents and using SEM PLS or SEM AMOS in the statistical calculation.

REFERENCES

Armayani, A., & Jatra, I. M. (2019). Sasaran dari penelitian ini bertujuan guna untuk memberikan penjelasan mengenai pengaruh brand image terhadap keputusan pembelian, promosi terhadap keputusan pembelian, harga terhadap keputusan pembelian. Metode yang digunakan untuk menentukan sampel adal. *E-Jurnal Manajemen*, *8*(8), 5222–5239.

Ghozali, I. (2016). Aplikasi Analisis Multivariate Dengan Program IBM SPSS 23 (Edisi 8). Cetakan ke VIII. In *Penelitian*. https://doi.org/10.1021/ol7029646

Harnoto, T., & Silintowe, Y. B. R. (2018). Keputusan Pembelian Smartphone Oleh Mahasiswa : Kelompok Acuan Atau Gaya Hidup. *Journal Ilmu Komunikasi*, *30*(2), 181–197. Retrieved from https://ojs.uajy.ac.id/index.php/modus/article/download/1708/1188

Kotler, P., & Keller, K. L. (2012). Global Marketing Management 14 th Edition. In *Management Decision* (Vol. 48).

Kwanda, N. (2019). Pengaruh Faktor Budaya, Sosial, Pribadi Dan Psikologis Terhadap Keputusan Pembelian Smartphone Xiaomi Generasi Y di Surabaya. *AGORA*, *8*(1), 7. Retrieved from http://repository.iainpalopo.ac.id/id/eprint/1092/1/SKRIPSI DINI.pdf

Lalo, K. (2018). Menciptakan Generasi Milenial Berkarakter dengan Pendidikan Karakter guna Menyongsong Era Globalisasi. *Ilmu Kepolisian*, *12*(2), 68–75

Maghfiroh, K. (2019). Pengaruh Harga, Kualitas Produk Dan Word of Mouth Terhadap Kepuasan Konsumen Serta Implikasinya Pada Keputusan Pembelian Smartphone Xiaomi. *Business Management Analysis Journal (BMAJ)*, *2*(2), 34–44. https://doi.org/10.24176/bmaj.v2i2.4075

Nur Cahya Muchsin Saggaff Shihab. (2018). Pengaruh Persepsi Harga, Kualitas Produk, Citra Merek dan Layanan Purna Jual terhadap Keputusan Pembelian dan Dampaknya terhadap Kepuasan Pelanggan Smartphone Asus Studi Kasus Di PT.Datascrip. *Journal of Entrepreneurship, Management and Industry (JEMI)*, *1*(1), 34–46.

Rahman, A. F. (2020). Oppo Jadi Penguasa Pasar HP Indonesia di Q3 2020. Retrieved April 16, 2021, from inet.detik.com website: https://inet.detik.com/business/d-5248191/oppo-jadi-penguasa-pasar-hp-indonesia-di-q3-2020

Sekaran, U. (2006). *Metode Penelitian Bisnis*. Jakarta: Salemba Empat.

Subagyo, P., & Djarwanto. (2012). *Statistika Induktif* (Edisi 5). Yogyakarta: BPFE.

Subana, & Sudrajat. (2011). *Dasar-dasar Penelitian Ilmiah* (Cetakan Ke). Surakarta: Pustaka Setia.

Sugiyono. (2018). Metode Penelitian Kuatintatif , Kualitatif dan R&D / Sugiyono. In *Bandung: Alfabeta*.

Swastha, B. (2008). Manajemen Pemasaran Modern. In *Liberty*, *Yogyakarta.* (Vol. 1). https://doi.org/10.1063/1.3643766

Tapscott, D. (2009). *Grown up Digital: How the Net Generation is Changing Your World*. New York, USA: McGraw Hill.