



Analysis Of The Effect Of Product Quality And Electronic Word Of Mouth On Purchase Decisions Of Apple Products Through Brand Image: Case Study on iPhone 13 Series Users

Anesya Regita Pramesti^{1*}, Agus Maolana Hidayat²

Telkom University, Bandung, Indonesia.

***Corresponding Author**
Anesya Regita Pramesti

Telkom University,
Bandung, Indonesia.

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Abstract: One of Apple's products is the iPhone 13 Series, which was released in 2021 and is famous for its outstanding product quality and many enthusiasts. However, Apple experienced errors in design, which caused some LCD products to malfunction. The purpose of this study is to determine how product quality and electronic word of mouth impact consumer decisions to buy products through brand image. This study uses a descriptive and quantitative approach by distributing questionnaires to 200 respondents. This research uses SmartPLS Version 3.0 software in data processing. The findings demonstrated that both product quality and brand image are significantly positively impacted by product quality, which in turn influences purchasing decisions. EWOM has a major positive impact on brand image and a major positive impact on purchasing decisions. Through brand image, product quality significantly influences decisions about what to buy. Additionally, EWOM significantly improves brand image, which influences consumer decisions to buy.

Keywords: Product Quality, EWOM, Purchase Decision, Brand Image, iPhone 13 Series.

1. Introduction

Technology is now an integral part of human existence. Every year smartphone users in Indonesia have increased from 2018 by 73 million users and it is predicted that in 2028 there will be 211 million smartphone users in Indonesia. That way, the cellphone brands most widely used by the Indonesian people are Samsung, Xiaomi, then followed by the iPhone with a percentage of 14%. This proves that the iPhone brand is one of the most popular smartphone brands in Indonesia.

One of Apple's products is the iPhone 13 Series, which was released in 2021 and is famous for its outstanding product quality and many enthusiasts. However, Apple experienced an error in design, which caused some LCD products to malfunction such as freezing the screen (freeze) and turning green (greenscreen).

With the data that has been circulating about the iPhone 13 Series LCD damage on social media. Some users do not recommend purchasing the iPhone 13 Series to others, which is included in negative EWOM. EWOM will affect the brand image of the Apple company, especially the iPhone 13 Series brand. Other customers' purchasing decisions will be impacted by this. The problem formulations in this study are as follows:

- How is the product quality on the iPhone 13 Series?
- How is the impact of EWOM on the iPhone 13 Series?
- How does brand image affect the iPhone 13 Series?
- How does the iPhone 13 Series product quality affect consumer purchasing decisions?
- What is the impact of EWOM on purchasing decisions on iPhone 13 Series consumers?
- How does brand image influence purchasing decisions for iPhone 13 Series consumers?

- How do product quality and EWOM influence through brand image on purchasing decisions for iPhone 13 Series consumers?

Review Literature

Product quality consists of all the attributes of a service or product determined by its capacity to meet expected or stated requirements (Kotler, 2005: 49). Product quality is a characteristic of a service or product that can help satisfy customer needs, as stated by Kotler and Armstrong (2014: 231).

EWOM, as defined by Erkan and Evans (2016), facilitates communication between users regarding the exchange of experiences and opinions regarding a product or service through social media platforms or websites. This kind of communication by a group of users can positively or negatively affect their perception of the product or service.

Brand image based on Keller (2008: 51) is the perception of the brand by buyers as a representation of the beliefs that buyers have about the brand.

Based on Kotler and Armstrong (2014) purchasing decisions are the phase of the buying process where customers actually make purchases. Tanady & Fuad (2020) argue that the way in which the decision-making process is carried out affects the final product purchased.

2. Research Methodology

This study employs a descriptive method of quantitative research. In descriptive data analysis, collected data is described without conclusions drawn in order to determine the strongest relationship between variables through correlation, regression analysis, and comparison of average sample or population data. Quantitative is a

research method based on philosophy positivism which is used to research a specific population or sample, aiming to describe and test the hypotheses that have been established. The measurement scale used is the scale, Likert 1-5 used as a reference for the length of the short interval on the measuring instrument. The Likert scale consists of 1 (strongly disagree), 2 (disagree), 3 (moderately agree), 4 (agree) and 5 (strongly agree). Data obtained from primary and secondary data. Primary data was obtained through the distribution of questionnaires with, Google Forms. While the secondary data is obtained from journals and website relevant. Sample collection using Nonprobability sampling with incidental specification. Incidental sampling technique is the determination of

samples by chance where the researcher meets anyone who meets the criteria and can be used as a source of data.

The method applied for causal models is called structural equation modeling. SEM may assess factors that cannot be directly measured and can correct measurement mistakes. Partial Least Square (PLS), a statistical method based on SEM, was utilized in this work. Regression models' partial least squares, sometimes referred to as projections against latent structures, are computed using PLS. PLS has the benefit of being able to model several dependent and independent variables (complex models), and even in the face of skewed and missing data, its conclusions are still trustworthy.

Tabel 2: Respondent's Profiles

Variables	Categories	Frequency	Total
Gender	Male	66	200
	Female	134	
Age	15 – 20 years	15	200
	21 – 25 years	121	
	26 – 30 years	57	
	>31 years	7	
Job	Student	116	200
	Employee	71	
	Others	45	
Salary	< Rp 1.500.000	24	200
	Rp 1.500.001 – Rp 5.000.000	79	
	Rp 5.000.001 – Rp 10.000.000	83	
	>Rp 10.000.001	10	
Domicile (island)	Java	157	200
	Sumatra	13	
	Sulawesi	9	
	Kalimantan	14	
	Bali	5	
	Others	2	

3. Result and Discussion

Evaluation of the Measurement

The link between indicator variables and related constructs is evaluated using measured models. Measurement indicators and the direction of the relationship between concepts and measurement indicators can be found in the results. Table 1 displays the measurement's validity and reliability.

Tabel 3.1: Evaluation of the Measurement

Variables	Composite Realibility	Critical Value	Cronbachs Alpha	Critical Value	Conclusion
Product Quality (X1)	0,983	>0,70	0,982	>0,60	Reliabel
Electronic Word Of Mouth (X2)	0,973		0,965		Realiablel
Purchase Decision (Y)	0,980		0,976		Realiablel
Brand Image (Z)	0,939		0,921		Reliabel

The results of each variable, which will subsequently be employed in this study, are shown in the table above. These factors are EWOM, purchase decision, product quality, and brand image. The composite dependence score has a Cronbach Alpha greater than 0.7. With a composite value of 0.983, the dependability of product quality, 0.973 for electronic word-of-mouth, 0.980 for purchasing decisions, and 0.939 for brand image, each have their own composite values. It is stated that this value makes it clear that every indicator is deemed accurate, consistent, dependable, and suitable for evaluating each variable.

Tabel 3.2 : Outer Loading

Variables	Item Statement	Outer Loading	Validity Test
Product Quality (X1)	X1.1	0.912	Valid
	X1.2	0.931	Valid
	X1.3	0.947	Valid
	X1.4	0.787	Valid
	X1.5	0.864	Valid
	X1.6	0.881	Valid
	X1.7	0.950	Valid
	X1.8	0.933	Valid
	X1.9	0.900	Valid
	X1.10	0.865	Valid
	X1.11	0.822	Valid
	X1.12	0.754	Valid
	X1.13	0.846	Valid
	X1.14	0.844	Valid
	X1.15	0.958	Valid
	X1.16	0.960	Valid
Electronic Word Of Mouth (X2)	X2.1	0.942	Valid
	X2.2	0.953	Valid
	X2.3	0.939	Valid
	X2.4	0.963	Valid
	X2.5	0.884	Valid
Purchase Decission (Y)	Y.1	0.952	Valid
	Y.2	0.933	Valid
	Y.3	0.952	Valid
	Y.4	0.936	Valid
	Y.5	0.970	Valid
	Y.6	0.923	Valid
Brand Image (Z)	Z.1	0.716	Valid
	Z.2	0.902	Valid
	Z.3	0.838	Valid
	Z.4	0.900	Valid
	Z.5	0.939	Valid
	Z.6	0.776	Valid

Table 3.2 demonstrates that the outer loading value of each indicator variable—which includes brand image, electronic word-of-mouth, purchasing decisions, and product quality—exceeds the minimum requirement of 0.7. In this instance, it says that due to their convergent validity, all of the test's determined indicators are reliable and appropriate for use in research tools.

Hypothesis Test

Tabel 3.3 : Hypothesis Test

Relationship Variables	Original Sample (O)	Sample Means (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Hypothesis Conclusion
Brand Image -> Purchase Decision	0,293	0,295	0,056	5,230	0,000	Accepted
Electronic Word Of Mouth -> Brand Image	0,155	0,159	0,051	3,045	0,002	Accepted
Electronic Word Of Mouth -> Purchase Decision	0,465	0,467	0,062	7,442	0,000	Accepted
Product Quality -> Brand Image	0,806	0,803	0,048	16,960	0,000	Accepted
Product Quality -> Purchase Decision	0,249	0,245	0,060	4,144	0,000	Accepted
Product Quality -> Brand Image -> Purchase Decision	0,236	0,235	0,017	2,627	0,009	Accepted
EWOM -> Brand Image -> Purchase Decision	0,046	0,046	0,051	4,599	0,000	Accepted

By considering the processed data and the results of such processing, the study's hypothesis is addressed. The hypothesis in this study is tested using T-statistics and P-Values. P-Values less than 0.005 indicate acceptance of the study hypothesis.

We can determine whether the predictive model can be successfully applied to the structural model by examining the t-statistics for each independent and dependent variable. If the test statistic's t-value is higher than the t-table value, the first hypothesis is accepted and the null hypothesis is rejected. The following conclusion can thus be drawn:

Hypothesis 1: Brand image influence purchase decision

The hypothesis test in table 3, it can be concluded that the t-statistic value is $5.230 > 1.96$, the path coefficient value is 0.293 and the P-Values are $0.000 < 0.005$, it can be obtained that H0 is rejected and H1 is accepted. This means that there is a positive and significant influence between brand image on purchasing decisions and the hypothesis is accepted. There is a positive influence, indicating that an increase in brand image will lead to purchasing decisions for consumers. According to the findings of Wijayanti (2022) that brand image has an influence on purchasing decisions, brand image can influence consumer behavior; when there are many similar products on the market, consumers will be more likely to choose to buy products based on a positive image of the brand than products that do not have a positive image of themselves..

Hypothesis 2: EWOM influence brand image

The hypothesis test in table 3, it can be inferred that H0 is rejected and H1 is accepted. The t-statistic value is $3.045 > 1.96$, the path coefficient value is 0.155, and the P-values are $0.002 < 0.005$. This indicates that the theory is accepted and that EWOM has a favorable and significant impact on brand image. There is a positive influence, suggesting that a product's brand image will be shaped by increasing EWOM. According to the findings of Baiquni (2020), it shows that e-WOM delivered by content creators on social media can change the image of smartphones, supporting the proposed hypothesis that EWOM has a positive effect on brand image.

Hypothesis 3: EWOM influence purchase decision

The hypothesis test in table 3, it is possible to determine that H0 is rejected and H1 is accepted: the t-statistic value is $7.442 > 1.96$, the path coefficient value is 0.465, and the P-Values are $0.000 < 0.005$. This indicates that the theory is accepted and that EWOM has a positive and considerable influence on purchasing decisions. An increasing amount of EWOM is positively correlated with customer purchase decisions. According to the findings of Wijayanti (2022) that brand image has an influence on purchasing decisions, brand image can influence consumer behavior; when there are many similar products on the market, consumers will be more likely to choose to buy products based on a positive image of the brand than products that do not have a positive image of themselves.

Hypothesis 4: Product quality influence brand image

The hypothesis test in table 3, it is possible to determine that H0 is rejected and H1 is accepted: the t-statistic value is $16.960 > 1.96$, the path coefficient value is 0.806, and the P-Values are $0.000 < 0.005$. This indicates that the theory is accepted and that there is a positive and significant influence of product quality on brand image. Positive signals suggest that raising the caliber of products

will improve consumers' perceptions of the brand. The results of the Oktavenia & Ardani (2019) analysis show that product quality has a positive and significant effect on brand perception. Product quality can also improve consumer perceptions of the brand. This shows that if the company improves the quality of Nokia cellphone products, it will be able to improve product brand reputation.

Hypothesis 5: Product quality influence purchase decision

The hypothesis test in table 3, it is possible to determine that H0 is rejected and H1 is accepted. The t-statistic value is $4.144 > 1.96$, the path coefficient value is 0.249, and the P-Values are $0.000 < 0.005$. This indicates that the premise is accepted and that brand image has a favorable and significant influence on purchasing decisions. A favorable influence suggests that improving product quality will affect consumer choices on what to buy. According to Khairunnisa & Suwena (2023), product quality provides evidence that there is a significant positive correlation between purchasing decisions on Vivo Sarijaya Cellular Banyupoh smartphones. Consumers value cellphone products because of their design and appearance.

Hypothesis 6: Product quality influence purchase decision through brand image

The hypothesis test in table 3, it is possible to determine that H0 is rejected and H1 is approved. The t-statistic value is $2.627 > 1.96$, the path coefficient value is 0.236, and the P-Values are $0.000 < 0.005$. This indicates that the hypothesis is supported since there is a strong and positive relationship between brand image and product quality in mediating purchasing decisions. Positive evidence suggests that improving product quality will impact consumers' decisions to buy through brand perception. According to Setiadi & Ekawati (2019) argue that the role of brand image in controlling the effect of product quality on consumer choice shows that brand image is able to control the effect of product quality on consumer purchasing decisions.

Hypothesis 7: EWOM influence purchase decision through brand image

The hypothesis test in table 3, it is possible to determine that H0 is rejected and H1 is accepted: the t-statistic value is $4.599 > 1.96$, the path coefficient value is 0.046, and the P-Values are $0.000 < 0.005$. This indicates that the hypothesis is supported since there is a strong and positive relationship between EWOM and purchasing decisions that is mediated by brand image. There is a favorable influence, suggesting that boosting EWOM will affect consumers' decisions to buy through brand perception. According to Rahmawati & Dermawan (2024), EWOM through product image has a considerable impact on purchasing decisions. EWOM plays a major role in influencing customer perceptions of brands. The more EWOM that spreads, the better the brand image in the eyes of customers.

4. Conclusion

Based on primary and secondary data, this study examined iPhone 13 Series users in Indonesia regarding the impact of product quality and electronic word of mouth on purchasing decisions through brand image on Apple products in Indonesia. The results show that product quality has a significant positive effect on purchasing decisions. Additionally, EWOM influences purchasing decisions in a favorable way. Purchase decisions are significantly and favorably impacted by brand image. The impact of product quality on brand image is substantial and favorable. EWOM

significantly and favorably affects brand image. Product quality is mediated by brand image, which has a major positive impact on purchasing decisions. Additionally, there is a strong and positive mediating effect of brand image on the influence of EWOM on purchase decisions.

Suggestions for future researchers are to look for other variables and/or use other methods in this study for comparison. There are limitations in this study in obtaining primary data in the form of distributing questionnaires, it is hoped that further research can obtain more and broader data.

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