The Effect of Advertising and E-WoM on Brand Loyalty through Brand Image: Study on VIVO brand mobile users in Malang City

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Abstract:
In Indonesia there are 5 smartphone brands that dominate the competition between gadget companies, namely: Samsung, Apple, Oppo, Vivo, Xiaomi. In this study I researched the VIVO brand that marketed its products massively through various advertising media and aimed to create a good brand image in the community. Ads that are spread in various media, for example: television, internet, neonbox, billboards on the streets, and so on. This research aims to find out how VIVO customers respond to VIVO's advertisements and E-WoM about their loyalty to VIVO products. Is the brand image created by VIVO through advertising and e-WoM enough to maintain customer loyalty? The results of this study are that customers respond well to positive ads and e-WoM related to VIVO products. the things that made VIVO still unable to compete were the lack of efforts to take customers from other brands to switch to VIVO. it could be because the quality is still inferior to other brands and the product choices are not too varied.

Keywords: Advertising, electronic word of mouth, brand image, brand loyalty

1. Introduction
The rise of smartphone products is currently caused by people who love technology. The smartphone does have many advantages and attractive because of its sophisticated features and makes it easy for users to use on a daily basis. One of the most reliable of smartphones is its function to access the internet. Speed and internet access capabilities make users easily get information from other parts of the world and can communicate without being constrained by space and time.

As many as 81% of Indonesian people routinely look for the latest news and information every day, while the media used by the public, the highest is using a smartphone. Smartphones have become a means to access cyberspace and search information that is most widely used by Indonesian people. With that much interest, of course, Indonesia is a potentially big target for smartphone companies.

There are 5 smartphone vendors that dominate the market in Indonesia, one of which is VIVO. Vivo was founded in 2009 in Dongguan, Guangdong as a sub-brand of BBK Electronics. But they only emerged in 2012 after releasing the X1 series which was asked as the slimmest cellphone at that time. Continued in 2013 through the Xplay3s series which became the world’s first 2K screen resolution phone. Vivo itself first entered the global market in Southeast Asia and India in 2014 (Wikipedia, 2018).

Although classified as a new comer, but at the beginning of its appearance, Vivo managed to steal the attention of the public and could enter the ranks of the top 5 smartphone brands in power in Indonesia. Vivo promoted on a large scale at the beginning of its appearance and until now, even though I think the way of promotion can be said to be the same as Oppo. Vivo promotes through television advertisements, billboards, neon boxes, and makes branding in mobile shops, besides that Vivo also won a number of Indonesian singers who are known as brand ambassadors, for example Agnes Mo, Afgan, and Maudy Ayunda.

Behind the incessant promotion carried out by Vivo, it turns out that this has not been able to provide meaningful changes to Vivo’s market share in Indonesia. Compared to Oppo, which entered Indonesia in 2013 (Wikipedia, 2018), and Xiaomi which entered in 2014 (Wikipedia, 2018), Vivo is still unable to compete with the Oppo brand and its position in accordance with the two brands. Uniquely, Vivo was defeated by the Xiaomi brand which in marketing only used very little advertising media. With incessant promotion, many advertisements made by Vivo don’t seem to be as expected. How come? Quoted from the site teknọ.tempo.co (2017), Peter Wang as the Brand Director of PT Vivo Mobile Indonesia in the interview session discussed the target of Vivo in 2017 to enter the top 3 smartphone competition in Indonesia, in the latest data in November 2018 the Vivo smartphone is still in second place. This is what we want to discuss in this study, Vivo still cannot penetrate the top three with the promotion of its very intense advertising.

Vivo has a more aggressive marketing strategy than other gadget companies. Vivo took the initiative to branding in handphone shops, credit counters, malls, and even eating places. Vivo also popularized promotion by making the event team to enliven the places that had been branding before by doing a dance in front of the shop. With this step, it is expected that Vivo images as big and quality brands can be conveyed to the wider community. Therefore, this study aims to:

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2. Literature Review

Advertising is one of the promotion mix. Suhandang (2010) defines advertising as a process of mass communication involving a particular sponsor, namely the advertiser (advertiser), who pays the services of a mass media for broadcasting his advert, for example, through a television broadcast program. The purpose of an advertisement is an activity to communicate specifically that must be resolved with the target customer for a certain period of time.

Word of mouth marketing is oral, written, and electronic communication between people relating to the superiority or experience of buying or using a product or service. Recommendations from other customers are usually considered more reliable than promotional activities originating from the company. In fact, the greater the risk that customers feel in buying a service, the more actively they seek and rely on word of mouth (WoM) to help make their decisions. Consumers who lack information about a service are more interested in WOM. According to Julivand and Samiei (2012) said Electronic Word of Mouth as “a negative or positive statement made by actual, potential or consumer consumers regarding a product or company where this information is available to people or institutions via the internet”.

Brand Loyalty. Each company certainly aims to make the brand they create can be widely known by the community, so that when consumers plan to buy a product, the company’s brand will be the first choice. Aaker (1997) defines that brand loyalty as a measure of customer relationship to a brand. Aaker (1997) states that in relation to brand loyalty there are several levels of loyalty. Each level shows the marketing challenges that must be faced as well as assets that can be utilized. The levels are brand switchers, habitual buyers, satisfied buyers, likes the brand, and committed buyers. According to Schiffman and Kanuk (2007), brand loyalty is consistently consumer preferences to make purchases on the same brand on specific products or certain service categories. Brand loyalty is a strong commitment in subscribing or buying a brand consistently in the future. Griffin (2005) explains that brand loyalty can be measured through:

- Repurchasing customers on products of the same brand
- Customer loyalty to the brand so that it is not affected by other brands.
- Recommend the brand to others. Customers who feel satisfaction after using a product will invite other people to buy the product to get the same experience.

Brand image refers to the description of a brand, which contains consumer interpretations of attributes, advantages, uses, situations, users, and marketer characteristics and / or maker characteristics of the product / brand. Brand image is what consumers think and feel when they hear or see the name of a brand. Or in other words, brand image is a certain form or picture of a trace of meaning left in the minds of consumer audiences (Wijaya, 2011), which then guides the consumer audience to behave towards the brand, whether to try and accompany it or just try it then leave, or not at all want to try because the image is bad or not relevant to the needs of the consumer audience. According to Tjiptono (2011), brand image is a description of consumer associations and beliefs about a particular brand. A number of quantitative and qualitative techniques have been developed to help reveal consumer perceptions and associations for a particular brand, including multidimensional scaling, projection techniques, and so on. According to Kotler and Keller (2013: 50), the dimensions of brand image measurement can be seen from:

- The superiority of brand associations, one of the factors forming a brand image is product excellence, where the product excels in competition.
- Strength of brand associations, every valuable brand has a soul, a special personality is a fundamental obligation for brand owners to be able to express, socialize the soul / personality in one form of advertising, or in the form of other promotional and marketing activities. That is what will continue to be the link between the product / brand and the customer. Thus, the brand will be quickly recognized and will remain stable in competition. Building the popularity of a brand into a well-known brand is not easy. However, popularity is one of the keys that can shape the brand image of customers.
- The uniqueness of brand associations, is the uniqueness that is owned by the product as a differentiator from similar products

3. Research Method

This research method uses quantitative methods with data expressed in the form of actual numbers / numerics (numbers that can be calculated). Quantitative research is a method for testing theories by examining relationships between variables (Creswell, 2014). The things that will be discussed are the influence of advertising and e-WoM on brand
loyalty through the brand image of the Vivo smartphone. As an independent variable in this study, namely Advertisements (X1), e-WoM (X2), brand loyalty (Y) as the dependent variable, and brand image (X3) as a mediator variable.

Figure 1: Research Design

3.1. Population and Sample

3.1.1. Population

Population is the area of generalization that is in the study. This area includes objects or subjects that can be concluded (Sugiyono, 2011). The population in this study was determined to consist of residents of Malang who bought and used a Vivo smartphone. The way that researchers use in determining population numbers is to calculate the number of customers who fill out questionnaires through the Google Form and questionnaires that have been distributed by researchers in a certain period of time. Questionnaires were distributed using Google Form and questionnaires for 60 days, namely from 1 April 2019 to 1 June 2019. Total customers filled out questionnaires through google form as many as 96 people and filled out questionnaires as many as 322 people. The total population of 418 is assumed to be enough to become a population. The population in this study included the finite population, which means the population in this study can be determined exactly how many can be sampled.

3.1.2. Samples

Determination of the minimum number of samples in this study using the Slovin finite population formula is as follows:

\[ n = \frac{N}{1 + Ne^2} \]

\[ n = \frac{418}{1 + 418 (0.05)^2} \]

\[ n = \frac{418}{2.045} \]

\[ n = 204.400 = 204 \]

Based on the calculation above the minimum number of samples in this study were 204 respondents. In this study, sampling uses probability sampling, so the technique used in sampling is systematic random sampling, which is a technique of determining samples by random sampling. The trick is to select the first respondent randomly as a sample and for the second sample by selecting respondents in multiples according to the results of the interval calculation.

4. Finding and Discussion

4.1. Path Analysis

Path analysis aims to determine the effect of Advertising (X1) and Electronic Word of Mouth (X2) on brand loyalty (Y) through brand image (X3).

(1) First Model Equation
The first model equation discusses the influence of advertising (X1) and Electronic Word of Mouth (X2) on brand image (X3), for more details, see Table 1 below
Table 1: Effect of Ads (X1) and E-Wom (X2) on Brand Image (X3)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95.0% Confidence Interval for β</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>Std. Error</td>
<td>t</td>
</tr>
<tr>
<td>1</td>
<td>11.129</td>
<td>6.312</td>
<td>1.763</td>
</tr>
<tr>
<td>X1</td>
<td>.274</td>
<td>.052</td>
<td>.074</td>
</tr>
<tr>
<td>X2</td>
<td>.330</td>
<td>.061</td>
<td>.330</td>
</tr>
</tbody>
</table>

Based on the calculation results in Table 1 above, it can be described as follows.

**Figure 2: Model Results of the First Equation Analysis**

Direct effect $X_1$ to $X_3$

$X_3 \longleftarrow X_1 \rightarrow X_3 = \rho_{X_3|X_1}. \rho_{X_3|X_1} = 0.162 \cdot 0.162 = 0.026244 = 2.6\%$

Direct effect $X_2$ to $X_3$

$X_3 \longleftarrow X_2 \rightarrow X_3 = \rho_{X_3|X_2}. \rho_{X_3|X_2} = 0.244 \cdot 0.244 = 0.059536 = 5.9\%$

The total effect of variables $X_1$ and $X_2$ on $X_3 = 0.026 + 0.059 = 0.085 = 8.5\%$

Other variable effect ($e_1$)

Based on the above calculation shows that the direct effect of testing the path coefficient on the advertising variable ($X_1$) has a positive and significant effect on brand image ($X_3$) of 2.6%, while the direct effect of Electronic Word of Mouth ($X_2$) on brand image ($X_3$) is 5.9%. So, the total effect of variables $X_1$ and $X_2$ on $X_3$ is 8.5%.

The value of $R^2$ in the table model summary is 0.105, this means the contribution of the influence of advertising ($X_1$) Electronic Word of Mouth ($X_2$) on brand image ($X_3$) of 10.5%. The contribution of other variables that did not included in this study amounted to 89.5%. While the value of $e_1$ is 0.994.

$Pe_1 = \sqrt{1 - Rsquare^2} = \sqrt{1 - 0.105^2} = 0.994$

(2) Second Model Equation

The second model equation discusses the influence of advertising ($X_1$), Electronic Word of Mouth ($X_2$), brand image ($X_3$) on brand loyalty ($Y$). For more details, see Table 2 below.
Table 2: Correlation of Advertising Coefficients (X1), E-Wom (X2), Brand Image (X3) and Brand Loyalty (Y)

Based on the calculation results in Table 2 above, it can be described as follows.
Effect $X_1$ to $Y$ through $X_2$

$p_{yx_1} = r_{x_1x_2} \cdot p_{yx_2} = 0.286 \cdot 0.238 \cdot 0.245 = 0.01667666 = 1.6\%$

Subtotal effect

$0.060025 + 0.01774976 + 0.01774976 + 0.01667666 + 0.01667666 = 0.12887784$

$= 12.8\%$

Direct effect $X_3$ to $Y$

$Y \leftarrow X_3 \rightarrow Y - p_{yx_3} = 0.256 \cdot 0.256 = 0.065536 = 6.5\%$

The total effect of variables $X_1, X_2, X_3$ on $Y$

$= 0.11401104 + 0.12887784 + 0.065536 = 0.30842488 = 0.308 = 30.8\%$

The others variable effect ($e_2$)

$Pe_2 = \sqrt{(1 - rsquare^2) = \sqrt{(1 - 0.308^2) = 0.934}}$

$= 93.4\%$

Based on the calculation above shows that the direct effect of testing the path coefficient on the Ad variable ($X_1$) has a positive and significant direct effect on brand loyalty by 8.1%. Calculation of the effect of advertising ($X_1$) on brand loyalty through brand image ($X_3$) is 1.6%, so it has a subtotal of 9.7%.

The direct effect of Electronic Word of Mouth ($X_2$) on brand loyalty ($Y$) is 6%. Electronic Word of Mouth calculation of brand loyalty through brand image ($X_3$) is 1.7%, so it has a total of 7.7%. While the influence of brand image on brand loyalty is 6.5%.

This shows that indirect effects are smaller than direct effects. So, brand image ($X_3$) as an intervening variable in this study weakens the indirect influence of advertising ($X_1$) on brand loyalty ($Y$) and weakens the influence of Electronic Word of Mouth ($X_2$) on brand loyalty ($Y$).

The value of $R$ square in the summary model table is 0.308, this means the contribution of the influence of advertising ($X_1$) Electronic Word of Mouth ($X_2$) on brand image ($X_3$) of 30.8%. The contribution of other variables not present in this study amounted to 69.2%. While the value of $e_1$ is 0.934.

4.2. Hypothesis Testing

Hypothesis testing in this study by using path analysis. Testing can be done by testing the path coefficients in each variable Path analysis test results can be seen in Table 3 below.

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta</th>
<th>t</th>
<th>R Square</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iklan ($X_1$)</td>
<td>0.162</td>
<td>2.403</td>
<td>0.105</td>
<td>0.017</td>
</tr>
<tr>
<td>Citra Merek ($X_3$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$E-WOM (X_2)$</td>
<td>0.244</td>
<td>3.634</td>
<td>0.105</td>
<td>0.000</td>
</tr>
<tr>
<td>Citra Merek ($X_3$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loyalitas Merek ($Y$)</td>
<td>0.286</td>
<td>4.764</td>
<td>0.308</td>
<td>0.000</td>
</tr>
<tr>
<td>$E-WOM (X_2)$</td>
<td>0.245</td>
<td>4.011</td>
<td>0.308</td>
<td>0.000</td>
</tr>
<tr>
<td>Citra Merek ($X_3$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loyalitas Merek ($Y$)</td>
<td>0.256</td>
<td>4.214</td>
<td>0.308</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 3: Results of Hypothesis Test Analysis

4.2.1. Hypothesis Testing 1

The results of hypothesis 1 state that advertising has a positive and significant direct effect on brand image. This can be seen in Table 4.22 getting the path coefficient value of 0.162 with $p = 0.017$ ($p < 0.05$) which is significant. So, it can be concluded the hypothesis 1 advertisement has a direct positive effect on accepted brand image.

4.2.2. Hypothesis Testing 2

The results of hypothesis 2 state that E-WOM has a positive and significant direct effect on brand image. This can be seen in Table 4.22 getting the path coefficient value of 0.244 with $p = 0.000$ ($p < 0.05$) which is significant. So, it can be concluded that hypothesis 2 of E-WOM has a positive and significant direct effect on accepted brand image.

4.2.3. Hypothesis Testing 3

The results of hypothesis 3 state that advertising has a positive and significant direct effect on brand loyalty. This can be seen in Table 4.22 getting the path coefficient value of 0.286 with $p = 0.000$ ($p < 0.05$) which is significant. So, it can be concluded that hypothesis 3 advertising has a positive and significant direct effect on accepted brand loyalty.

4.2.4. Hypothesis Testing 4

The results of hypothesis 4 state that E-WOM has a positive and significant direct effect on brand loyalty. This can be seen in Table 4.22 obtaining the path coefficient value of 0.245 with $p = 0.000$ ($p < 0.05$) which is significant. So, it can be concluded that hypothesis 4 of E-WOM has a positive and significant direct effect on accepted brand loyalty.
4.2.5. Hypothesis Testing 5

The results of hypothesis 5 state that brand image has a positive and significant direct effect on brand loyalty. This can be seen in Table 4.22 getting the path coefficient value of 0.256 with \( p = 0.000 \) \((p < 0.05)\) which is significant. So, it can be concluded that hypothesis 5 brand image has a positive and significant direct effect on accepted brand loyalty.

4.3. Sobel Test

The results of hypothesis 6 and 7 which show the influence of each variable both direct and indirect influences are shown in Figure 4 below.

![Figure 4: Results Analysis Model](image)

4.3.1. Hypothesis Test 6

Hypothesis 6 test shows that the advertisement has a positive and significant indirect effect on brand loyalty through the result brand image is accepted, it is evident from the results of SPSS 22 output with regression analysis of each variable that shows the results according to the level of significance. The results above in Table 3 show that advertising has a direct and indirect positive and significant effect on loyalty through a brand image with a significance value below 0.05 \((p = 0.000)\). This means that hypothesis 6 is accepted. Besides that, it can also be seen from the results of the following Sobel Test calculations.

\[
z = \frac{ab}{\sqrt{(b^2 \text{SE}_a^2) + (a^2 \text{SE}_b^2)}} = \frac{0.162 \times 0.256}{\sqrt{(0.256^2 + 0.031^2) + (0.162^2 + 0.031^2) + (0.244^2 + 0.091^2) + (0.062^2 + 0.030^2)}}
\]

\[
z = \frac{0.041472}{0.018846} = 2.200573065902579
\]

Based on the results of the Sobel Test, it can be seen that the value of \( t \) is 2.200 \((t \text{ count} > t \text{ table is 1.5787})\). This means that \( H_0 \) is processed and \( H_a \) is accepted or it can be concluded that advertising has a positive and significant effect on brand loyalty, through brand image.

4.3.2. Test Hypothesis 7

Hypothesis 7 test shows that e-WoM has a positive and significant indirect effect on brand loyalty through the brand image the result is accepted, it is evident from the results of SPSS 22 output with regression analysis of each variable that shows the results according to the level of significance. The results above in Table 3 show that E-WoM has a direct positive and significant indirect effect on brand loyalty through a brand image with a significance value below 0.05 \((p = 0.000)\), which means that hypothesis 7 is accepted. Besides that, it can also be seen from the results of the following Sobel Test calculations.

\[
z = \frac{ab}{\sqrt{(b^2 \text{SE}_a^2) + (a^2 \text{SE}_b^2)}} = \frac{0.244 \times 0.256}{\sqrt{(0.256^2 + 0.031^2) + (0.244^2 + 0.091^2) + (0.062^2 + 0.030^2)}}
\]

\[
z = \frac{0.062464}{0.03014} = 2.072461
\]
Based on the results of testing the Sobel Test, it can be seen that the value of t is 2.072 (tcount > t table is 1.5787). This means that H0 is rejected and Ha is accepted or it can be concluded that Electronic Word of Mouth has direct and indirect positive and significant effects on brand loyalty, through brand image.

5. Conclusion

Based on the results of research conducted by researchers, the conclusions from this study are as follows:

- The condition of advertising, Electronic Word of Mouth, brand image and brand loyalty of VIVO can be categorized as good, because the ad receives an average answer of 3.53, Electronic Word of Mouth gets an answer of 3.42, the brand image gets an average answer amounting to 3.52 and brand loyalty receives an average of 3.74.
- Advertising has a positive and significant direct effect on brand image of 2.6%, so the better and more attractive ads are made, the better the brand image in the minds of customers.
- E-WOM has a positive and significant direct effect on brand image by 5.9%, so the higher the Electronic Word of Mouth about VIVO, the better the VIVO brand image in the minds of customers.
- Advertising has a positive and significant direct effect on brand loyalty by 8.1%, so the better the ads created by VIVO, the more customer loyalty increases.
- E-WOM has a positive and significant direct effect on loyalty by 6%, so the higher the Electronic Word of Mouth about VIVO, the more it will increase brand loyalty towards VIVO.
- Brand image has a positive and significant direct effect on loyalty by 6.5%, so the better the VIVO brand image in the minds of customers, the higher brand loyalty from customers to VIVO.
- Advertising has a positive and significant indirect effect on loyalty through brand image of 1.6%, so the better the advertisement is supported by a good brand image in the minds of customers, the higher brand loyalty will be.
- E-WOM has a positive and significant indirect effect on loyalty through brand image of 1.7%, so the higher the Electronic Word of Mouth that is carried out and supported by a good VIVO brand image in the minds of customers, the higher brand loyalty will be.

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