Analysis Of The Effect Of Green Marketing and Environmental Knowledge On Purchase Intentions Mediated By Brand Image

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Abstract:
The growth of industry and technology so rapidly affects the state of the environment. Technology that becomes equipment to support people's daily activities can lead to various environmental problems such as environmental pollution. With the rapid growth of single-use products with pressure from global organizations, environmentally friendly products have emerged, which are expected to be a solution to minimize environmental pollution and natural disasters. This study aims to analyze the effect of green marketing and environmental knowledge on purchase intention, which is mediated by the brand image of boxed tea products. In this study, data collection was obtained by using an online questionnaire. The sample in this study used students who were doing undergraduate or diploma studies and domiciled in Malang as many as 107 respondents. The results of this study show that green marketing has no significant effect on purchase intention, green marketing has a significant effect on brand image, green marketing mediated by brand image has a significant effect on purchase intention, environmental knowledge has a significant effect on brand image, environmental knowledge has a significant effect on purchase intention mediated by brand image. The findings of this study suggest that companies in Indonesia with single-use products pay attention to the impact of waste from these products on nature.

Keywords: Green Marketing, Environmental Knowledge, Brand Image, Purchase Intention


INTRODUCTION
Technological growth is increasingly advanced in line with rapid economic growth, which encourages excessive consumption and exploitation of natural resources, resulting in environmental damage and environmental pollution (Cheng, 2016). It certainly results in plastic waste pollution, which is increasing from time to time based on statistical surveys; around 30-40% of environmental damage is the result of unsustainable individual consumption (Chekimaal, 2016). Extremely high levels of demand and unsustainable levels of consumption globally are leading to severe environmental sustainability problems, and Extremely high levels of demand and unsustainable consumption levels are leading to severe environmental sustainability problems, and landfills. For example, based on statistical data (KLHK, 2018), plastic waste in Indonesia in 2018 amounted to 5.4 million tons, increasing every year, causing the growth of harmful organisms and affecting the purchasing decision-making process. (Hoornweg, 2016; Zaremohzzabieh, 2020).

It gives rise to green marketing behavior, which has developed as a marketing discipline paradigm for marketers and researchers in the realm of contemporary consumer research (Purnama, 2014; Lai and Cheng, 2016). Companies that are called green marketing if the company's activities consider the impact on the environment. (Waslito, 2014)
Based on a survey by the Ministry of the Environment (KLH), environmental knowledge still needs to be improved because 0.57 out of a total of 1 do not care about environmental impacts (KLH, 2020; Naysim, 2014). It is driven by environmentally friendly products, with one of the products from PT. Ultrajaya Milk Industry is a boxed tea that is certified by the Forest Stewardship Council (FSC), which proves that the packaging provider company cares about the environment and nature (Niken, 2019).

Table 1 Data based on TBI (Top Brand Index)

<table>
<thead>
<tr>
<th>Rating</th>
<th>2014 (%)</th>
<th>Top Brand Index (TBI)</th>
<th>2015 (%)</th>
<th>2016 (%)</th>
<th>2017 (%)</th>
<th>2018 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Teh botol Sosro (5.1)</td>
<td>Teh botol Sosro (47.8)</td>
<td>Teh botol Sosro (33.8)</td>
<td>Teh botol Sosro (33.0)</td>
<td>Teh Pucuk Harum (32.3)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Frestea (11.5)</td>
<td>Frestea (11.5)</td>
<td>Teh Pucuk (32.3)</td>
<td>Teh Pucuk (22.7)</td>
<td>Teh Botol Sosro (26.8)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Ultra Teh (8.1)</td>
<td>Ultra The (9.1)</td>
<td>Teh Gelas (13.1)</td>
<td>Teh Gelas (12.6)</td>
<td>Teh Gelas (9.6)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>ABC Teh Kotak (8.1)</td>
<td>Fruit Tea (4.8)</td>
<td>Ultra Teh Kotak (8.1)</td>
<td>Ultra Teh Kotak (6.8)</td>
<td>Frestea (9.2)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Teh Pucuk Harum (5.1)</td>
<td>ABC Teh Kotak (4.6)</td>
<td>Frestea (7.2)</td>
<td>Frestea (6.3)</td>
<td>Ultra Teh Kotak (4.1)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Fruit Tea (5.1)</td>
<td>Teh Pucuk Harum (4.1)</td>
<td>Teh Gelas (3.6)</td>
<td>Teh Gelas (3.4)</td>
<td>Tekita (3.4)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Tekita (3.1)</td>
<td>Teh Gelas (3.6)</td>
<td>Tekita (3.4)</td>
<td>Tekita (3.4)</td>
<td>Tekita (3.4)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Tekita (3.4)</td>
<td>Tekita (3.4)</td>
<td>Tekita (3.4)</td>
<td>Tekita (3.4)</td>
<td>Tekita (3.4)</td>
<td></td>
</tr>
</tbody>
</table>

Table 1 data based on TBI (Top Brand Index) data shows that Ultra Teh Kotak product has decreased. Although in 2014-2015 there was an increase of 1%, but for the following years, Ultra Teh Kotak continued to decline. In 2016, Ultra Teh Kotak again experienced a decrease of 1% and not only that, but its ranking also dropped to fourth. In 2017.

METHODS

The approach used in this research is a quantitative approach with the Associative Causal method of the survey research approach. The number of samples is 107 students who are studying for diplomas or undergraduate in Malang. The data measurement technique used in this study used a Likert scale of 1-5. The inference analysis model used in this study is the PLS (Partial Least Square) approach with the SmartPLS calculator. There are 3 stages of analysis in carrying out the PLS (Partial Least Square) approach, namely Analysis of the Measurement Model (Outer Model), Structural Model Analysis (Inner Model), Hypothesis Testing, and Mediation Testing. In this study, the Sobel test was also used to examine the role of the mediating variable in mediating the relationship between the independent and dependent variables.

RESULT AND DISCUSSION

Based on Table 2, it can be seen that the AVE value of all variables has a valid validity that meets the requirements. All items have a loading factor value of more than 0.5. The AVE value of each construct was more than 0.5. It shows that all items in each construct can be declared valid. All construct variables have Cronbach's alpha and composite reliability values of more than 0.6. The conclusion is that all the variable constructs used in this study have been tested for reliability or can be said to be reliable.
Table 2. Convergent Validity and Reliability Values

<table>
<thead>
<tr>
<th>Construction</th>
<th>Item</th>
<th>Loading Factor</th>
<th>AVE</th>
<th>Cronbach alpha</th>
<th>Composite reliability</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Marketing</td>
<td>GM1</td>
<td>0,869</td>
<td>0,531</td>
<td>0,825</td>
<td>0,87</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>GM2</td>
<td>0,74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GM3</td>
<td>0,569</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GM4</td>
<td>0,64</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GM5</td>
<td>0,779</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GM6</td>
<td>0,738</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Knowledge</td>
<td>EK1</td>
<td>0,779</td>
<td>0,542</td>
<td>0,834</td>
<td>0,876</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>EK2</td>
<td>0,642</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EK3</td>
<td>0,82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EK4</td>
<td>0,739</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EK5</td>
<td>0,753</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EK6</td>
<td>0,671</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand Image</td>
<td>BI1</td>
<td>0,802</td>
<td>0,624</td>
<td>0,878</td>
<td>0,908</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>BI2</td>
<td>0,78</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>BI3</td>
<td>0,608</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>BI4</td>
<td>0,851</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BI5</td>
<td>0,854</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>BI6</td>
<td>0,819</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>PI1</td>
<td>0,839</td>
<td>0,628</td>
<td>0,878</td>
<td>0,909</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>PI2</td>
<td>0,843</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>PI3</td>
<td>0,655</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PI4</td>
<td>0,641</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>PI5</td>
<td>0,865</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>PI6</td>
<td>0,875</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data Processed 2021

Based on Table 3, it can be seen that the AVE root value of each construct has a greater value than the correlation of latent variables between constructs. In conclusion, all constructs have met the discriminant validity test parameters to be declared valid.

Table 3 AVE Root Value and Latent Variable Correlation

<table>
<thead>
<tr>
<th></th>
<th>Brand Image</th>
<th>Environmental Knowledge</th>
<th>Green Marketing</th>
<th>Purchase Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Image</td>
<td>0,790</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Knowledge</td>
<td>0,462</td>
<td>0,736</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Marketing</td>
<td>0,745</td>
<td>0,636</td>
<td>0,729</td>
<td></td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>0,747</td>
<td>0,555</td>
<td>0,606</td>
<td>0,793</td>
</tr>
</tbody>
</table>

Source: Data Processed 2021

1. Inner Model Evaluations

Inner Model testing will show the relationship between variables following theoretical studies and support the results of previous studies. The analysis of the inner model can be seen from 3 indicators, namely R-Square (R2), Q-Square Predictive Relevance (Q2), and Goodness of Fit (GoF). Based on (Ghozali & Latan, 2012) the value of the determinant coefficient (R2) is 0.75 (strong), 0.50 (moderate), and 0.25 (weak). The R2 value of the Brand Image variable is 0.556 (medium); this means that the exogenous variable has a moderate ability to explain the Brand Image variable. And the R2 value of the Purchase Intention variable is 0.617 (medium), which means that the exogenous variable has a strong ability to explain the Purchase Intention variable.
Based on (Ghozali & Latan, 2012) the value of Q-Square Predictive Relevance (Q2) is 0.35 (strong), 0.15 (moderate), and 0.02 (weak). Q2 in this study is 0.829 or 82.9%. This research model is included in the strong model, meaning that the variable brand image can predict the variables of green marketing, and environmental knowledge, purchase intention and the rest (100% - 82.9% = 17.1%) is explained by other variables outside the model this research. Research Model. The results of the above calculation get a GoF value of 0.583. In conclusion, the structural model of this study generally has good predictive properties (large GoF), meaning that the model has a high ability to explain empirical data.

2. Direct Effects Testing and Indirect/ Mediation Effects Testing

Table 4. The Result of Direct Effect Testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationships Between Variables</th>
<th>Path Coefficient</th>
<th>T-Statistics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Green Marketing - Purchase Intention</td>
<td>0.086</td>
<td>0.739</td>
<td>Negative - Significant</td>
</tr>
<tr>
<td>H2</td>
<td>Green Marketing - Brand Image</td>
<td>0.758</td>
<td>10.929</td>
<td>Positive - Significant</td>
</tr>
<tr>
<td>H3</td>
<td>Environmental Knowledge - Purchase Intention</td>
<td>0.299</td>
<td>3.073</td>
<td>Positive - Significant</td>
</tr>
<tr>
<td>H4</td>
<td>Environmental Knowledge - Brand Image</td>
<td>0.692</td>
<td>8.214</td>
<td>Positive - Significant</td>
</tr>
<tr>
<td>H5</td>
<td>Brand Image - Purchase Intention</td>
<td>0.673</td>
<td>7.994</td>
<td>Positive - Significant</td>
</tr>
</tbody>
</table>

Source: Data Processed 2021

Table 5. The Result of Indirect Effect/ Mediation Testing

<table>
<thead>
<tr>
<th>Variable</th>
<th>Inter-Variable Relationship</th>
<th>Path Coefficient</th>
<th>Standard Deviation</th>
<th>T-Statistics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Marketing - Purchase Intention</td>
<td>Direct effect</td>
<td>0.086</td>
<td></td>
<td></td>
<td>Significant</td>
</tr>
<tr>
<td>Environmental Knowledge - Purchase Intention</td>
<td>Direct effect</td>
<td>0.229</td>
<td></td>
<td></td>
<td>Significant</td>
</tr>
<tr>
<td>Green Marketing - Brand Image - Purchase Intention</td>
<td>Indirect effect</td>
<td>0.51</td>
<td>0.09</td>
<td>5.656</td>
<td>Significant</td>
</tr>
<tr>
<td>Environmental Knowledge - Brand Image - Purchase Intention</td>
<td>Indirect effect</td>
<td>0.189</td>
<td>0.037</td>
<td>5.037</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Source: Data Processed 2021

CONCLUSION

Based on the data analysis and discussion that has been stated, it can be put forward some research conclusions as follows:

1. Green Marketing has not provided a direct positive influence on Purchase Intention. Consumers think that this shift in consumption trends does not significantly impact environmental conservation; for that reason, the contribution of potential consumers to environmental conservation is more manifested in saving resources, bringing tote bags when shopping, and recycling plastic waste.
2. The level of knowledge of potential consumers on environmental issues currently happening is already high, so they can encourage their intention to buy green products. Furthermore, potential consumers associate current environmental issues with switching from conventional products to green products.

3. The brand image of Teh Kotak can affect the Purchase Intention of potential consumers. It shows that Teh Kotak has succeeded in building an image as a pro-environmental company. When looking for references about ready-to-drink drinks in environmentally friendly packaging.

4. Brand Image has succeeded in providing a role in the relationship between Green Marketing and Purchase Intention as partial mediation. It means that eco-friendly (organic) campaigns can influence potential consumers' purchase intentions for Teh Kotak products, meaning that Teh Kotak must first form a brand image and then be able to influence their purchase intentions towards Teh Kotak products.

5. Brand Image plays a role in the relationship between Environmental Knowledge and Purchase Intention as partial mediation. That is, the knowledge of potential consumers on various environmental issues can influence the purchase intention of Teh Kotak, either directly or through attitude mediation.

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