Green marketing and purchase intention of green product: The role of environmental awareness

Krisdayanti & Arief Widodo

Economics and Business Faculty, Universitas Kristen Satya Wacana, Salatiga, Indonesia

Abstract
Along with the development of people's lifestyles, the concept of environmental awareness has now become part of their daily lives. For this reason, it is necessary to know the effect of green marketing on purchase intention in a green label tissue with environmental awareness as a moderation. This study uses a quantitative method by distributing questionnaires with Google Forms to 175 respondents, which are then analyzed using Moderate Analysis Regression (MRA). The results of hypothesis testing indicate that green marketing has a positive effect on purchase intention, and the consequences of the second hypothesis test indicate that environmental awareness strengthens the influence of green marketing on the customers' purchase intention. The implications of this research can provide input for companies that want to increase purchase intention of products with a green marketing strategy.

Keywords:
Green marketing, purchase intention, environmental awareness

Corresponding Author:
Arief Widodo
Email: arief.widodo@uksw.edu

© The Author(s) 2022
DOI: https://doi.org/10.36407/jmsab.v5i2.588
**Introduction**

The twenty-first century began with various environmental problems, including global warming caused by the greenhouse effect, pollution, and further ecological damage that occurred worldwide (Nekmahmud & Fekete-Farkas, 2020). Trends in environmental problems such as the degradation of natural resources, the loss of various biological species, and the severe threat of global warming make companies and business actors direct their businesses to implement a new business concept, namely green marketing related to environmental sustainability (Kusumawati, 2019). Recently, producers and consumers are increasingly paying more attention to the green product market (Cheung & To, 2019). It is even reported that there is a high trend in young consumers who have an interest in purchasing green products (Yadav and Pathak, 2017). However, Ritter et al. (2015) suggest that more research is needed to explore and promote green purchase behavior.

Green marketing is a marketing strategy for products that are considered safe for the environment by focusing on saving earth resources in the activities of changing production processes, product modifications, packaging changes, to changes in advertising that are oriented towards environmental sustainability (Syahbandi, 2012). Green marketing is product marketing that aims to meet consumer needs and desires without causing any harm to the surrounding environment, both the product itself, the production process and the packaging (Agustina et al., 2016). The marketing mix, as it is known, has 4P components such as Product (Product), Price (Price), Place (Place), and Promotion (Promotion) (Mugorrob, 2017).

There is consumer interest in using environmentally friendly products because they think they can provide more value for consumers and the environment. When consumers feel that they have benefited from green products, it can generate their buying interest in green products. Hasan and Ali (2013) states that the attitude of consumers who care about the environment can be seen by consumer behavior that protects the environment. This attitude can encourage an interest in buying a green product. The claim can make consumers realize to purchase products to preserve the environment. In line with the research of Ibrahim et al (2013), the possibility of buying interest can encourage consumers to lead to actual purchase actions. Meanwhile, according to Agustina et al. (2016), environmentally friendly consumers are willing to pay a premium price (higher price) compared to the cost of standard products that do not implement green marketing. Still, consumers who are already concerned about the environment will be willing to pay a little more for the sake of the domain. Get products that do not harm the environment. Consumer environmental awareness becomes one of the critical roles in increasing the intention to consume a product. By showing ecological conditions affected by pollution, consumers are expected to be able to preserve the environment so that consumer awareness becomes a vital role in increasing consumer buying interest to consume products that are more environmentally friendly (Ardani, 2018).

Existing studies have documented the relationship between green marketing and purchase intention but have mixed results. On the one hand, researchers found a significant effect of green marketing on purchase intention (Ardani, 2018; Arlanti & Suyanto, 2019; Nekmahmud & Fekete-Farkas, 2020), but on the other hand, gave contradictory results (Balawera, 2013; Yani & Astuti, 2016; Xu et al., 2020). Thus, the first purpose of this study is to replicate and provide the latest empirical evidence regarding the relationship between green marketing and purchase intention. In addition, the present
study's interest in tissue products is due to the increasing level of public awareness of the environment, not only making consumers buy environmentally friendly bottled water products but it is hoped that consumers will also choose similar products that have the same impact as environmental damage, which includes tissue.

Second, this study proposes environmental awareness as a moderator, which was previously still relatively rarely studied. For example, Nekmahmud and Fakete-Farkas (2020) offer environmental awareness as an antecedent of purchase intention. Meanwhile, another study (Zhang et al., 2018) examined the role of environmental awareness on the relationship between greenwashing perceptions and green purchasing intentions. A recent study (Szabo & Webster, 2021) directed their investigation to the relationship between green marketing strategies and competitive advantage. Following up on the limitations of previous studies, the purpose of the two studies examine the role of environmental principles as a moderator of the relationship between green marketing and purchase intention explicitly, especially for green tissue products.

Theoretical framework and hypotheses
The Theory of Planned Behavior (TPB) (Ajzen, 1991) is the framework used in this study to explain the effect of green marketing on consumer attitudes and behavior toward green products. There are three variables in TPB theory: (1) attitude, (2) subjective norms, and (3) perceived behavioral control, which is cooperative, the combination of which can influence consumer behavior (Ajzen, 1991). Many previous researchers have used TPB to explain consumer behavior in green products (i.e., Cheung & To, 2019; Nekmahmud & Fekete-Farkas, 2020; Paul et al., 2016). For instance, Cheung & To (2019) uses TBP to explain the purchase intention of green products to consumers in China. Furthermore, Nekmahmud and Fekete-Farkas (2020) apply TPB to explain the purchasing behavior of green products to consumers in Pakistan. Thus, TPB provided a logical explanation as to why individuals choose green products based on their attitudes towards green marketing and environmental awareness.

Green marketing
Green marketing was first introduced in early 1975 by the American Marketing Association (AMA) as "marketing of products that are assumed to be environmentally safe and friendly is called green marketing" (Nekmahmud and Fakete-Farkas, 2020). Various names, including environmental marketing, eco-marketing, social marketing, organic marketing, and sustainability marketing. In general, ecological awareness is a major component of all definitions of green marketing (Martínez et al., 2020). Green marketing as one of the efforts to meet the wants and needs of consumers of green products that can reduce the impact of damage to the environment. Green marketing is a marketing strategy for products that are considered safe for the environment by focusing on saving earth resources in the activities of changing production processes, product modifications, packaging changes, to changes in advertising that are oriented towards environmental sustainability (Syahbandi, 2012).

Green produk
Rahman et al., (2017) stated that a green marketing mix is an approach from green marketing that is modified in products by raising environmental issues in company
activities, starting from strategic planning, and preparing production to distribution to consumers. Silvia et al., (2014) suggest that the green marketing mix must have a green element to promote its products and be responsive to environmental problems. The green marketing mix has several dimensions, including Green Products are defined as products with long-term durability that is ecologically safe to protect ecological sustainability (Istiantia et al., 2016). Green products are defined as products that are processed and designed to reduce the impact that can pollute the environment both during production, packaging, distribution, and use (Balawera, 2013).

In the green product dimension, general guidelines that include green products (Agustina et al., 2016), are products that do not involve cruelty to animals, relatively efficient in the use of resources during manufacture, use, and disposal. Products do not include ingredients derived from endangered species or threatening the environment, and the product does not contribute excessive waste in its use or packaging. Meanwhile, according to Haryadi (2009), the existence of individuals willing to pay for environmentally friendly products proves that there is support for improving the ecological environment. In addition, environmental certification labels such as ISO 1400 indicate that the product is environmentally friendly, which can support consumers in their purchasing decisions.

Green price

Price is one of the essential components in the green marketing mix because most consumers are willing to pay a premium price if there is a different perception of product value (Haryadi, 2009). This value is expected to provide a longer life expectancy and not harm the environment (Islam, 2018). Green prices are considered money consumers spend to get environmentally friendly products. In the green price dimension, there are several indicators, including the price comparison of ecologically friendly and non-environmentally friendly products and the suitability of the price and quality of green products (Haryadi, 2009). Meanwhile, Rahman et al. (2017) green products have a higher price (premium price), and the cost of green products is proportional to their quality. Many previous researchers have highlighted the importance of the price factor in influencing consumer purchasing decisions. Therefore, pricing environmentally friendly products is an essential issue for companies (Nekmahmad & Fekete-Farkas, 2020). Company management is faced with the problem of pricing that can reach consumer needs while still considering the cost of production (Reboredo & Ugolini, 2020).

Green Place

According to Agustina et al. (2016), producers must provide products in places easily accessible by consumers to influence purchasing decisions. Green place is related to distribution channels that reduce environmental damage by paying attention to the convenience of consumers in obtaining products (Nekmahmad & Fekete-Farkas, 2020). In line with Islam (2018) that distribution channels are activities to distribute environmentally friendly products without having excessive and negative air pollution impacts on the environment, which can be prevented by opening branches in all regions in Indonesia. The green place dimension related to distribution channels can be seen from the above understanding that to measure the green marketing mix on the green place dimension, indicators are needed, including strategic locations that reduce energy and
make it easier for green products to be reached and found, and completeness of products at each outlet. While in Haryadi's research (2009), the green place indicator can be measured by the distance of the outlet, the number of outlets, and the completeness of the green product at each outlet which is always available when needed (Ariescy et al., 2019).

**Green Promotion**

Green promotion is a marketing mix that has a significant role in the green marketing mix because it is one of the activities to communicate product advantages and influence consumers (Islam, 2018). Submission of information with green promotion is intended to provide information to consumers about the company's commitment to preserving the environment (Sienatra, 2021). The green place dimension related to distribution channels can be seen from the above understanding that to measure the green marketing mix on the green place dimension, indicators are needed, including strategic locations that reduce energy and make it easier for green products to be reached and found, and completeness of products at each outlet. While in Haryadi's research (2009), the green place indicator can be measured by the distance of the outlet, the number of outlets, and the completeness of the green product at each outlet which is always available when needed.

**Green marketing and purchase intention**

Purchase intention is essential in decision-making because a person intends to buy a product now or in the future. The emergence of purchase intention is due to a response to a product or service that makes consumers interested in creating a purchase (Ariescy et al., 2019). Furthermore, another author (Hisam et al., 2020) defines the purchase intention variable as four dimensions, namely Transactional Interest, a person's tendency to buy a product, measured by the indicator of Feeling interested in the products offered, Green image of the product making them interested in buying, The tendency of consumers to repurchase green products that are consumed. Referential Interest: The tendency to recommend to others with indicators Availability recommends environmentally friendly brands to others, tells others about positive experiences, and promotes green products to friends and others. Preferential interest is the behavior of someone who has the primary preference for products with indicators being the main choice in choosing a product, and exploratory interest is the behavior of someone who is always looking for information with indicators in the form of a person's tendency to try to find information about green products, Still looking for information on green products even though they are familiar with other products.

Wilson et al. (2014) stated that green marketing has a relationship with buying interest in green products; the relationship arises because companies use the issue of environmental damage, so companies use green marketing to increase consumer buying interest. A study by Septifani et al. (2014) found that green marketing affects buying interest of Starbucks consumers who have implemented green marketing in reducing paper and plastic waste by bringing or using their cups or bottles. The application of the green marketing concept is not just about marketing environmentally friendly products, but how to reorient the company to the environment and be responsible so that the idea can meet consumer needs by reducing the impact on the environment, which can lead to buying interest in green and environmentally friendly products (Sumarwan et al., 2012). Recently, more empirical studies also has been proved the relationship between green
marketing and purchase intention (Hisam et al., 2020; Kurniadin et al., 2021; Khaerunnisa, 2019).

H1. Green marketing has a significant positive influence on the green purchase intention.

The role of environment awareness

Green marketing can affect consumer buying interest if the company can fulfill the wants and needs for green products. The environmental damage makes consumers more sensitive to the environment, which impacts consumer behavior habits in increasing consumption of green products so that they can grow consumer awareness of environmental sustainability. According to Cheung et al. (2019), environment awareness influences generating a desire or interest from consumers in buying green products. Ardani (2018) states that ecological awareness can support green marketing in influencing buying interest so that a good application of green marketing by companies will create consumer ecological awareness, which will impact buying interest in green products.

Xu et al. (2020) explain that environmental awareness does not have a direct effect on purchase intention but rather an indirect effect through perceived behavioral control. It can be stated that individuals who have environmental awareness will tend to invest in green products, compared to individuals who pay less attention to the environment. Similarly, prior studies observed that environmental awareness had a significant effect on ecological purchase behavior (Nekmahmud & Fekete-Farkas, 2020). Therefore, we assume the following hypothesis

H2: Environmental awareness strengthens the influence of green marketing on purchase intention.

Methods

Population and sample

In this study, the population is all consumers of Wateru wipes which are classified as unlimited. Sampling using nonprobability sampling technique with purposive sampling method based on specific characteristics such as: Have you ever seen a product, advertisement, or website for Wateru wipes and bought a Wateru tissue product? To get a good sample size of respondents, the sample of respondents taken to fill out the questionnaire (Hair et al., 2010) can be determined by the number of indicators multiplied by 5-10 times. The number of needles in this study was 35, so the number of samples was five times the number of indicators, or as many as 175 respondents were taken.

Variable measurement

The green marketing variable is measured using four dimensions: green product, green price, green place, and green promotion (Muqorrobin et al., 2017). The buying interest variable was measured using four dimensions: Transactional Interest, Referential Interest, Preferential Interest, and Explorative Interest (Hisam et al., 2020). The environmental awareness variable is measured by three dimensions: knowledge, attitudes, and actions (Nekmahmud & Fekete-Farkas, 2020). The measurement uses a
Likert scale, namely: score 1 = strongly disagree, score 2 = disagree, score 3 = neutral, score 4 = agree, and score 5 = strongly agree.

**Data analysis**

The interaction test or Moderated Regression Analysis (MRA) is a tool used to determine whether the variables used can strengthen or weaken the direct relationship between the independent and dependent variables.

**Results**

Adjusted R square shows the coefficient of determination or the role of the independent variable on the dependent variable. Thus, the influence of green marketing on buying interest is 63.9%, and other variables outside of this study influence the remaining 36.1%. Furthermore, the adjusted R square shows a coefficient of determination of .681 or 68.1% (model 2). Table 2 shows an increase in the adjusted R square value from regression model I to regression model II by 4.2% compared to the first regression test of 63.9%. The adjusted R square figure of .68 or 68.1% shows that only 68.1% of the purchase intention can be explained by the green marketing, which is moderated by the Environmental Awareness; other factors explain the remaining 31.9%, which were not investigated in this study.

Table 1 calculations show that environmental awareness can simultaneously strengthen the relationship between the green marketing variable and the purchase intention because F-value is 186.57 > Ftable is 3.09 with a significance level of .01 and based on the t-count value. The environmental awareness variable (Z) directly and significantly strengthens the influence of green marketing on the purchase intention because the T-value is 4.85 > the cut-off value is 1.96 with a significance level of .00 which is smaller than .05.

**Discussion**

The first hypothesis of this study proves that green marketing has a positive effect on buying interest statistically. The first equation’s findings show a significant impact of green marketing on buying stakes. Therefore, it can be concluded that the first hypothesis, which states that green marketing has a significant positive effect on purchase intention, was accepted. The results indicate that, as measured by 19 items, green marketing significantly and positively affects consumers’ buying interest in Wateru wipes. This shows that the better the company’s green marketing strategy for its products, the better the consumer’s buying interest to buy. These results agree with the research of Hisam et al. (2020), Kurniadin et al. (2021), and Khaerunnisa (2019), which prove that green marketing has a significant effect on purchase intention. Based on this research, it can be concluded that green marketing is needed by companies to be implemented; environmentally-oriented companies can be one of the marketing strategies in increasing buying interest.

The results of the second hypothesis are accepted, so it can be proven that the environmental awareness variable moderates green marketing on buying interest. In other words, ecological awareness strengthens the positive relationship between green marketing and purchase intention. That is, if consumers have good environmental
environmental awareness, green marketing will affect buying interest. Conversely, if consumers have poor environmental awareness, green marketing will negatively affect buying stakes. In line with Ardani’s research (2018), consumers who have a high understanding of the environment have a higher buying interest in environmentally friendly products.

Table 2.
Regression analysis

<table>
<thead>
<tr>
<th>Variabel</th>
<th>B</th>
<th>Std.Error</th>
<th>t-value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Marketing</td>
<td>.50</td>
<td>.03</td>
<td>17.58</td>
<td>.00</td>
</tr>
<tr>
<td>F-Statistics</td>
<td>309.16</td>
<td>.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-Square/ Adj Square</td>
<td>0.64</td>
<td>.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Model 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Marketing</td>
<td>.21</td>
<td>.07</td>
<td>3.15</td>
<td>.00</td>
</tr>
<tr>
<td>Green Marketing* Mod</td>
<td>.01</td>
<td>.00</td>
<td>4.86</td>
<td>.00</td>
</tr>
<tr>
<td>F-Statistics</td>
<td>186.58</td>
<td>.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-Square/ Adj Square</td>
<td>.68</td>
<td>.68</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Environmental awareness is defined as the ability of consumers to realize the widespread impact of personal consumption on the environment (Arlanti et al., 2019). In addition, environmental awareness is essential in increasing interest in consuming green products when consumers have a high sense of care for environmental sustainability (Ardani, 2018). Ecological awareness is a change in the attitudes and behavior of a person or group of people that leads to more attention and responsibility for environmental sustainability. In addition, ecological awareness is essential in increasing interest in consuming green products when consumers have a high sense of care for environmental sustainability (Ardani, 2018). Three dimensions of ecological awareness can be seen from the above understanding: knowledge, attitudes, and actions. The knowledge dimension relates to learning about environmental issues, the attitude dimension relates to the individual’s positive attitude towards ecological conditions, and the action dimension relates to buying environmentally friendly products.

Consumers are interested in using environmentally friendly products because they think they can provide more value for consumers and the environment. When consumers feel that they have benefited from green products, it can generate their buying interest in green products. The attitude of consumers who care about the environment can be seen by consumer behavior that protects the environment’s sustainability; this attitude can encourage an interest in buying a green product. The claim can make consumers realize to purchase products to preserve the environment. In line with the research of Ibrahim et al. (2013), the possibility of buying interest can encourage consumers to lead to actual purchase actions.

Managerial implications

The results of this study can empirically be used as a reference for tissue companies who want to increase their interest in buying products with a green marketing strategy. From the study results, the green marketing strategy affects purchase intention, so a green marketing strategy needs to be applied by the company. Activism that pays attention to social and environmental aspects can increase the brand’s rise in consumer perception.
because, for consumers, the brand becomes a reflection and identity of their values so that, in addition to increasing interest in buying green marketing, it can also help companies carry out their responsibilities while paying attention to aspects of environmental sustainability.

Currently, the Indonesian people are in a crisis of awareness about preserving the environment, so encouragement is needed to use environmentally friendly products (Tanaya et al., 2016). The high logging occurs due to the community's high consumptive power. Trees that are the world's lungs continue to be exploited due to illegal flights being used as building land. Not only for making land, but the trees cut down are also for manufacturing tissue. The tissue that is used excessively will encourage damage to forests and the environment. To make two packs of tissue or as many as 40 sheets, one tree is six years old, while one can provide oxygen for three people. As many as 270,000 trees are cut down worldwide every day to be used as tissue which ends up as garbage and waste (Nur Arinta, 2018). Companies that care about environmental sustainability are essential in using environmentally friendly products by changing their marketing strategy to increase market share (Ariani, 2017). As time passes, Indonesian people increasingly realize the importance of implementing a more environmentally friendly lifestyle. This is shown by the number of consumers who care about the environment in Indonesia by 112% from 2019 to 2020. As many as 86% of the people began to change their habits with a more environmentally friendly lifestyle, while 74% began to consume environmentally friendly products by choosing brands with a concern.

Limitations and directions for future research

This study has methodological limitations that can be considered in future studies. First, the data were collected using a cross-sectional design so that it has restrictions on causality claims. Further studies are suggested to use a longitudinal design so that the conclusion of causality between variables can be more robust. Second, this study is limited to tissue products that apply green marketing strategies. Thus, generalizations to other products need to be considered carefully. We suggest future studies consider broad sampling, covering a wide range of product types.

Conclusion

The main goals of this research were to evaluate the impacts of green marketing on purchase intention, moderated by environmental awareness. The results proved all the hypotheses that green marketing is positively associated with purchase intention, and customers' environmental awareness played a moderating role. In other words, environmental awareness can strengthen the relationship between green marketing and purchase intention.

References


inference system to study the behavior of the green consumer facing the perception of greenwashing. *Journal of Cleaner Production, 242*, 11604. https://doi.org/10.1016/j.jclepro.2019.03.060


Funding
The author(s) received no financial support for the research, authorship, and/or publication of this article.

Availability of data and materials
Data sharing is not applicable to this article as no new data were created or analyzed in this study.

Competing interests
No potential competing interest was reported by the authors.

Publisher's Note
Imperium Research Institute remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Rights and permissions
Open Access. This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by/4.0/.

Cite this article