GREEN MARKETING AND ENVIRONMENTAL KNOWLEDGE FOR GREEN TOURISM

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Abstract: Green tourism is growing rapidly in various regions in Indonesia, including in East Lampung. The approach in this study uses a green marketing strategy to increase the intention to visit eco-friendly tourist attractions. This study aims to examine the effect of green marketing components, namely green products, green promotions, and green prices on visiting intentions. Also examine the direct and indirect effects of green products on purchase intention through environmental knowledge. The population and sample of this research are visitors to the Kerang Mas Beach tourism object. The sampling technique used was purposive sampling. Primary data was used in this study, with data collection techniques through online questionnaires. Data were analyzed using Structural Equation Modeling, AMOS Program 21 Version. The results showed that green price and green promotion had an effect on purchase intention, but green product had no effect. In addition, environmental knowledge does not have a role as a mediating variable in the effect of green products on purchase intention.

Keywords: Green Marketing Component, Environmental Knowledge, Green Tourism, Purchase Intention

1. Introduction

The development of coastal nature-based tourism is currently very fast in various parts of Indonesia. This is because the tourism industry has a real impact on the community's economy (Tosun, 2002). The tourism industry will continue to grow and have a significant role in the community's economy. Likewise in East Lampung Regency began to develop various coastal tourist attractions in order to have an economic impact on the surrounding community. There is plenty of evidence that tourism development in the region is able to encourage economic growth and preserve nature (Ritsma et al., 2010). Therefore, various beach resorts in this area have been built, namely Cemara Beach, Mutiara Baru Beach, Kuala Kambas Beach, Keruju Beach, and Kerang Mas Beach.

Kerang Mas Beach is a tourist attraction that was built since 2017, has beautiful natural scenery and a strategic location so that visitors are interested. Visitors are very crowded, especially on holidays. The various facilities provided are gazebos, toilets, bathrooms, prayer rooms, canteens, and various tourist attractions that add to the charm of the beach becoming more attractive. However, the beauty of the beach is being reduced due to the presence of plastic waste and other types of waste along the coastline. There are new and old garbage, and buried in the sand. The existence of this garbage in addition to disturbing the view, can also pollute the soil and sea water. The manager has provided trash cans in several locations, but the awareness of visitors to dispose of garbage in its place is still minimal. Garbage is also not managed properly, so it is still an unresolved problem. In addition to garbage, beach abrasion is also an environmental problem that requires a solution (Qhadumi, Q., 2020).

The existence of these problems does not make visitors quiet, even more crowded on Saturdays and Sundays, especially on year-end holidays. The high interest of the visiting community is a positive thing for managers and food and beverage traders in the tourist location. This is a very interesting business phenomenon. However, the management or managers of tourist attractions must continue to pay attention...
and improve the place so that visitors are still interested in visiting, even increasing. Wardhani et al. (2016), states that Green tourism has a principle of consistent attitude towards natural resources and social communities, thus it is hoped that an intensive interaction process between tourists and the natural environment will be formed, then tourists will get a valuable and memorable experience.

Research findings regarding the purchase intention of environmentally friendly products indicate that the consumption process or purchasing behavior of green consumers by refraining from buying products and services that are estimated to have the potential to pollute and damage the environment (Gu Jung, 1997; Park, SH, & Oh, KW, 2014 ). Intention to visit is influenced by many factors, according to Febriani, S. (2019), purchase intention is influenced by green marketing, especially price and product. In line with this opinion, Triana, M., & Sulhaini, S. (2019) Karunarathna, AK P et al. (2020) states that to increase consumer purchase intentions, they must increase the green marketing mix, namely product, price, distribution/place, and promotion. But on the other hand, Guspul, A. (2018), not all components of the green marketing mix affect the purchase intention of herbal products, namely green products. This inconsistent research finding shows that there are still research gaps. To cover the research gap, an intermediate variable is needed.

Green purchase intention is also influenced by other factors, namely environmental knowledge. This is as stated by Park, SH, & Oh, KW (2014). Wang, L, et al. 2020 that purchase intention is strongly influenced by environmental knowledge. In line with this statement, Khaleeli, M (2021); Ansari, MY, & Siddiqui, DA (2019) also argue that environmental knowledge is a predictor of green purchase intention. These various explanations show that green purchase intentions can be influenced by the green marketing mix, and environmental knowledge.

Based on problems, business phenomena, and research gaps, this study aims to examine and analyze the effect of green marketing and environmental knowledge components on visiting intentions. In particular, this study aims to examine environmental knowledge as a mediating variable between green products and visit intentions. The results of this study are expected to be useful for academics and practitioners, especially managers of environmentally friendly tourist attractions in order to increase the intention of visiting tourists.

2. Literature Review and Research Hypotheses

Purchase Intention

Purchase intention is an important factor for predicting consumer buying behavior (Fishbein & Ajzen, 1975). Purchase intention refers to an attempt to buy a product, which serves as a clue to predict future purchases. Park & Rlee, (1995) stated that the purchase intention of green products is a search for information related to the environment to evaluate the impact on the environment with evaluation standards, namely the quality of products that save energy and resources, and reduce environmental pollution. Furthermore, Nik et al., (2009) stated that green purchase intention is a concept regarding the possibility and willingness of a person to give preference to products that have environmentally friendly features over traditional products in purchase considerations (Nik et al., 2009).

Environmental Knowledge

Understanding environmental knowledge is a person’s ability to identify a number of symbols, concepts, and behavioral patterns related to environmental protection (Laroche, et al. 2001). Furthermore, environmental knowledge is the basic knowledge that consumers have about various things that can be done to assist in environmental protection activities which are facilitated by behavioral commitments to buy green products, (Maichum et al., 2016, Attia & Farrag, 2017).
Green Marketing

Pride and Ferrell (1993) define green marketing as an effort to design, promote, and distribute products that are safe and do not damage the environment. Deshpande, NM (2011). Green Marketing is an evolutionary movement and improvement of the quality of products and services to meet customer needs and desires, with efficiency and quality without affecting environmental problems. This definition means that green marketing is an effort to meet the needs and desires of customers by designing, promoting, distributing and improving the quality of products and services without harming the environment. Green marketing has several components, in this study only green products, green prices, and green promotions were studied.

Green products are developed using healthy ingredients and environmentally friendly measures. Ecological development goals call for reduced energy use, lower heat and pollutant emissions to maximize the sustainability of finite resources, Kumar and Ghodeswar (2015). Green tourism is assumed to be a green product that is part of Green Marketing activities to reduce the impact of environmental impacts caused by the production process (Albino, et al. 2009). The characteristics of green products according to Diamantopoulos et.al (2003) are recycling, long durability, biodegradability, renewable energy, low emissions, local production and energy efficiency.

Green pricing is an offer to customers of options to support the development of renewable energy and environmental improvement. The price of green products is higher than non-green products due to the higher costs incurred in the process, materials and to some extent involve the cost of obtaining eco-label certification on the product. However, Peattie (2001) argues that the price of green products is not too expensive, when compared to conventional products which do not take into account the socio-environmental costs of production, product use and waste.

Promotion serves to inform, influence consumer decision making and evoke consumer recall (Kotler, et al. 2009). Informing can mean notifying the presence of a new product in the market, proposing new uses for a product, explaining available services, changing product prices, how to use them, developing company image.

The results showed that the green marketing mix, especially green products, and the green price had a positive and significant effect on the purchase intention of green products (Febriani, S. (2019). Likewise with the findings of Pushpanathan, A., & Dhananjani Silva, NK (2020.) that green marketing mix has an effect on green purchase intention. Furthermore, Karunarathna, AK P et al. 2020 stated that to increase consumer buying intention, they must increase product, price, place, and promotion. Furthermore, Pemayun, TII, et al. 2020 stated that The marketing mix has a positive effect on the intention to stay at the Bagus Jati Hotel, Gianyar Regency, Bali.

The results of other studies confirm that green purchase intentions can be determined by environmental knowledge. Park, SH, & Oh, KW (2014). Wang, L, et al. 2020 states that purchase intention is significantly influenced by environmental knowledge. This statement is supported by Khaleel, M (2021); Ansari, MY, & Siddiqui, DA (2019) that environmental knowledge is an important predictor of green purchase intention.

These various explanations show that green buying intentions can be influenced by the green marketing mix, namely green products, green promotions, green prices, and environmental knowledge. Based on this description, the research hypothesis and conceptual Model (Figure 1) can be built as follows.

H1: Green products have an effect on Environmental Knowledge
H2: Green Product has an effect on Green Purchase Intention
H3: Green Promotion has an effect on Green Purchase Intention
H4: Green Price has an effect on Green Purchase Intention
H5: Environmental Knowledge has an effect on Green Purchase Intention
H6: Environmental Knowledge has a mediating role in the influence of Green Products on Green Purchase Intention

![Research Conceptual Model and Hypotheses](image)

**3. Research Method**

This type of research is quantitative, namely research methods based on the philosophy of positivism, used to examine certain populations or samples, sampling techniques are generally random, data collection uses research instruments, data analysis is quantitative/statistical with the aim of testing hypotheses that have been established, determined (Sugiyono, 2013). This research data is primary data. According to Sugiyono (2018), primary data is a data source that directly provides data to data collectors. The data collection technique used a questionnaire distributed through the googleform application. To strengthen the data, the researchers also made direct observations on the object being studied, namely the Kerang Mas tourist beach, making observations to obtain the required information. The data analysis technique used structural equation modeling (SEM) AMOS. Meanwhile, to test the mediating variable using the Sobel Test.

The population and sample of this study were visitors to the Kerang Mas Beach tourist attractions. The sampling technique used was purposive sampling. The sampling technique establishes certain criteria in determining respondents. The criteria for the respondents in this study were consumers who had visited Shells Mas Beach at least 1 time, at least 18 years old, male and female.

**4. Results and Discussion**

Characteristics of Respondents

Characteristics of respondents in this study based on gender, age, income and frequency of visits. Based on gender, there were more female visitors (69) than male visitors (43). Based on age, the most are 18-23 years old, the income level is one to two million per month, and the frequency of visiting is at most twice. This can be considered for the management of tourist attractions in determining effective strategies to improve services in order to increase the number of visitors.

Validity and Reliability Test

The results of the validity test using Confirmatory Factor Analysis (CFA) all constructs are declared valid except for one construct because it has a loading factor value of less than 0.30. Likewise with the
results of the construct reliability test, only one variable was unreliable, namely the green price (CR=0.276). Meanwhile, green product, green promotion, environmental knowledge and purchase intention were declared reliable.

Normality and Outlier Test

SEM analysis provides data normality conditions. The results of testing the normality of the data were carried out in several stages, data that had abnormality had to be excluded from the analysis. Therefore the number of indicators was reduced to 15 from 23 indicators. The results of the outlier test show that the value of the mahalanobis distance is greater than the value of Chi-Square (X²) = 37.6973. The data cannot be analyzed further because it must be deleted. The final result of data processing shows that all 110 data already have a value smaller than the value of X². It can be interpreted that all data is free from outlier values.

Hypotheses Test

Hypothesis testing using SEM is carried out in two stages, namely the model suitability analysis, and the path coefficient analysis with the CR value criteria which will be explained as follows.

**Goodness of fit Analysis**

The model suitability analysis was carried out using several goodness of fit index suitability criteria to measure whether the proposed model was good or not. This test aims to determine how well (fit) the model built in this research is. The results of the goodness of fit (GOF) model analysis show that the values of the Chi-Square index, the probability (P) of RMSEA, GFI, CMIN/DF, TLI, and CFI are good (fit) after Modification Indices are performed. Only the AGFI value, which is marginal. The results of the goodness of fit analysis indicate that the model in this study is good (fit). The results of the goodness of fit (GOF) model analysis are presented in Table 1. as follows.

<table>
<thead>
<tr>
<th>Goodness - of -fit Indices</th>
<th>Cut-off Value</th>
<th>Result</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square (x²)</td>
<td>Expected to be smaller</td>
<td>90.364</td>
<td>Fit</td>
</tr>
<tr>
<td>Probability (P)</td>
<td>0.05</td>
<td>0.272</td>
<td>Fit</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>2.00</td>
<td>1.089</td>
<td>Fit</td>
</tr>
<tr>
<td>GFI</td>
<td>0.90</td>
<td>0.901</td>
<td>Fit</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.90</td>
<td>0.856</td>
<td>Marginal</td>
</tr>
<tr>
<td>TLI</td>
<td>0.90</td>
<td>0.980</td>
<td>Fit</td>
</tr>
<tr>
<td>CFI</td>
<td>0.90</td>
<td>0.984</td>
<td>Fit</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.08</td>
<td>0.029</td>
<td>Fit</td>
</tr>
</tbody>
</table>


Path Analysis

The significance of the influence between variables is based on the probability value (P). The influence between variables is declared significant if it has a P value of less than 0.05. The results of the path analysis test show that there are five paths, namely the significant path and three insignificant paths (Table 2). The significant path is the effect of green products on environmental knowledge, and the effect of green promotion on purchase intention. While the path that is not significant is the effect of green price
on purchase intention, the effect of green product on purchase intention, and the influence of *environmental knowledge* on purchase intention.

### Table 2. Path Analysis Result

<table>
<thead>
<tr>
<th></th>
<th>Std. Estimate</th>
<th>SE</th>
<th>CR</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Knowledge</td>
<td>-0.434</td>
<td>0.191</td>
<td>3.115</td>
<td>0.002</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>-0.221</td>
<td>0.252</td>
<td>-1.247</td>
<td>0.212</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>-0.390</td>
<td>0.203</td>
<td>2.058</td>
<td>0.040</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>-0.013</td>
<td>0.166</td>
<td>-0.089</td>
<td>0.929</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>0.248</td>
<td>0.145</td>
<td>1.783</td>
<td>0.075</td>
</tr>
</tbody>
</table>

Source: Primary Data (2021)

The Effect of Green Products on Environmental Knowledge

The results of testing hypothesis 4 obtained the standard estimate (Std. Estimate) value of 0.434, the standard error value (SE) of 0.191, the critical ratio (CR) value of 3.115, and the probability value (P) of 0.002. By using a significance level of 0.05 (5%) it can be stated that hypothesis 4 which states that green products have a positive and significant effect on environmental knowledge is accepted. It can be interpreted that the higher the green product, it is proven to be able to increase environmental knowledge.

The Effect of Green Product on Purchase Intention

The results of testing hypothesis 1 obtained a standard estimate (Std. Estimate) value of 0.221, a standard error value (SE) of 0.252, a critical ratio (CR) value of 1.247, and a probability value (P) of 0.212. By using a significance level of 0.05 (5%) it can be stated that hypothesis 1 which states that green products have a positive and significant effect on purchase intention is rejected/not accepted. It can be interpreted that the higher the green product, it is not proven to be able to increase purchase intention.

The Effect of Green Promotion on Purchase Intention

The results of testing hypothesis 3 obtained a standard estimate (Std. Estimate) value of 0.390, a standard error value (SE) of 0.203, a critical ratio (CR) value of 2.058, and a probability value (P) of 0.040. By using a significance level of 0.05 (5%), hypothesis 3 which states that green promotion has a positive and significant effect on purchase intention is accepted. It can be interpreted that the higher the green promotion, it is proven to be able to increase purchase intention.

The Effect of Green Price on Purchase Intention

The results of testing hypothesis 2 obtained the standard estimate value (Std. Estimate) of -0.013, the standard error value (SE) of 0.166, the critical ratio (CR) value of -0.089, and the probability value (P) of 0.929. The P value is not significant, so by using a significance level of 0.05 (5%) it can be stated that hypothesis 2 which states that the green price has a positive and significant effect on purchase intention is rejected/not accepted. It can be interpreted that the higher the green price, it is not proven to be able to increase purchase intention.

The Effect of Environmental Knowledge on Purchase Intention

The results of testing hypothesis 5 obtained a standard estimate value (Std. Estimate) of 0.248, a standard error value (SE) of 0.145, a critical ratio (CR) value of 1.783, and a probability value (P) of 0.075. By using a significance level of 0.05 (5%) it can be stated that hypothesis 5 which states
that environmental knowledge has a positive and significant effect on purchase intention is rejected/not accepted. It can be interpreted that increasing environmental knowledge is not proven to increase purchase intention.

Sobel Test

The mediation variable was tested using the Sobel Test, with an online calculator application. The test results obtained the value of CR or t count of 1.366 and the value of P = 0.171. The criteria for the Sobel test statistic value < 1.96 and P = Value > 0.050, indicating that the effect of green products on purchase intention through environmental knowledge is not significant. In other words, environmental knowledge is not able to act as a mediating variable from the effect of green products on purchase intention.

Table 3. Hypotheses Test Result

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1  Green products have an effect on Environmental Knowledge</td>
<td>No Support</td>
</tr>
<tr>
<td>H2  Green Product has an effect on Green Purchase Intention</td>
<td>No Support</td>
</tr>
<tr>
<td>H3  Green Promotion has an effect on Green Purchase Intention</td>
<td>Support</td>
</tr>
<tr>
<td>H4  Green Price has an effect on Green Purchase Intention</td>
<td>Support</td>
</tr>
<tr>
<td>H5  Environmental Knowledge has an effect on Green Purchase Intention</td>
<td>No Support</td>
</tr>
<tr>
<td>H6  Environmental Knowledge has a mediating role in the influence of Green Products on Green Purchase Intention</td>
<td>No Support</td>
</tr>
</tbody>
</table>

Source : Primary Data, (2021)

Discussion

Purchase intention, in this case called the intention to visit eco-friendly tourist attractions, can be increased with a green marketing strategy (Gu Jung, 1997; Park, SH, & Oh, KW, 2014). Green marketing components, namely green products, green prices, green promotions, are believed to play a role in increasing visit intentions. In addition, a person's level of environmental knowledge is believed to be able to support efforts to increase visit intentions.

The results of the study cannot prove green products, to increase visiting intentions. Efforts to manage the Kerang Mas Beach tourism object using environmentally friendly tourist attractions, maintaining the beauty of the beach, trying to protect the beach from air and water pollution, and managing waste recycling are not able to increase the interest of tourists to visit. This is in line with the opinion that green products have no effect on purchase intention (Guspul, A., 2018).

The results of the study also found that the green price had no effect on purchase intention. Efforts made by managers of eco-friendly tourist attractions related to policies that are more expensive than other places have proven to be unable to increase the intention of tourists to visit. This finding contradicts the results of research which states that green price has an effect on purchase intention (Triana, M., & Sulhaini, S, 2019; Karunarathna, AK P et al. 2020).

Other findings in this study green promotion affect purchase intention. This proves that the efforts made by the manager of the Kerang Mas Beach tourist spot with promotions on social media and websites are able to increase the interest of tourists to visit. In the digital era and the era of the COVID-19 pandemic, the role of online promotion is considered the most effective as a promotional medium to increase visitation intentions.

The effect of green products on environmental knowledge shows that the use of environmentally friendly tourist attractions, maintaining the beauty of the beach, trying to protect the beach from air and
water pollution, and managing waste recycling are proven to be able to increase environmental knowledge. On the other hand, this study found that environmental knowledge had no positive and significant effect on purchase intention. Tourist knowledge about the environment is proven not always to increase the intention to visit eco-friendly tourism-based tourism objects. This is not in line with the opinion that environmental knowledge has a positive and significant effect on purchase intention. The results of the mediation test using the Sobel Test show that the effect of green products on purchase intention through environmental knowledge is not significant. This means that green products do not play a role in efforts to increase purchase intention either directly or indirectly, namely through environmental knowledge.

5. Conclusion and Suggestion

Various research findings that the management of tourism objects need to continue to improve the promotion of environmentally friendly (green promotion) in an effort to increase interest in visiting. Efforts that can be made are promoting through social media such as Facebook, Twitter, Instagram, websites and others. Another effort is to increase the role of green products in order to increase environmental knowledge. Unsupported research results can be used as a reference for future research. Future research can add components of green marketing, namely price, product, place, promotion, people, process, and physical evidence.

References


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