THE ANALYSIS OF ENVIRONMENTAL ATTITUDES, FUNCTIONAL VALUE AND PRICE TOWARD GREEN PURCHASING INTENTIONS HANDICRAFT PRODUCT IN MANADO

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ABSTRACT

Green Purchase Intention is conceptualized as the probability and willingness of a person to give preference to products having eco-friendly features over other products in their purchase considerations. Green Purchase Intention is a significant predictor of green purchase behavior, which means that purchase intention is positively affecting the probability of a customer decision that he will buy green products. This research is designed to analyze the influence of Environmental Attitudes, Functional Value and Price toward Green Purchasing Intentions in Manado. The method used to analyze the data is the Multiple Regression Analysis which enables the researcher to analyze the influence of the independent variables to the dependent variable, which is a Green Purchasing Intention. The independent variables in this research are Environmental Attitudes, Functional Value and Price. While the sample of respondents size are 100 respondents who have ever buy green product handicraft. The result of this research shows that there is significant simultaneous and partial influence of Environmental Attitudes, Functional Value and Price on Green Purchasing Intentions in Manado. Therefore, to enhance the Green Purchasing Intentions in Manado these three proponents should be considered intensively.

Keywords: environmental attitudes, green product, purchase intention

INTRODUCTION

Economic growth and national income of a country both developed countries and developing countries, among others obtained from the industrial sector. On one side of this sector depends on the chemical raw materials, fossils and other natural resources. Thus initially be a perspective in which natural resources will not experience scarcity because nature provides everything and nature as an area that is easily tamed. This process has been long held as a favorable economic cycle, but now has begun to notice that the activity has been done does not ensure sustainability for the long term. Not only has a shortage of natural resources but also environmental damage that has occurred is now a global issue.

Various environmental damages occurred in global and local level has become the world's attention. At the end of the 20th century, the correction of the economic process of industrialization has been a concern in any discussion. Meanwhile, Djajadinigrat, Hendriani and Famiola (2014:129) have brought the issue of environmentally friendly economic development, which in the present context is better known as the green economy. Some organizational activities such as manufacturing, transportation and marketing have bad affect on the environment and cause major environmental problems. Concerns about environmental dreadful conditions have been increasing as revealed (Hessami, Yousefi and Goudarzi, 2013). In the marketplace, environmentalism has become an important topic because customers now have understood that protecting the environment is essential for them (Ali and Ahmad, 2012). Today customers are ever more aware of negative effects of environmental degradation, becoming more environmental conscious and want to buy green products and services. Consumers now increasingly favor those businesses that are engaged in environmental practice and produce eco friendly products (Ali and Ahmad, 2012).
With the increasingly worsening threats to damage the environment, reinforced by information technology has encouraged the creation of global consumers who care about the environment, so it is predicted in the short distant future the number of consumers care about environment in Indonesia will increase rapidly. The consumer is known as a green consumer.

Environmental Attitudes, Functional Value and Price become the crucial factors that significantly influence Green Purchasing Intentions. These factors need to be considered for the company who sales green product, because these three factors are important to improving number of sales while still paying attention to the environment, not causing any bad impact to the environment. For this reason, it is very interesting to know whether the three factors above have a significant role towards Green Purchasing Intentions in Manado.

Research Objective

The objectives in this research are to find out the influence of:
1. Environmental Attitudes, Functional Value and Price on Green Purchasing Intentions in Manado simultaneously.
2. Environmental Attitudes on Green Purchasing Intentions in Manado partially.
3. Functional Value on Green Purchasing Intentions in Manado partially.
4. Price on Green Purchasing Intentions in Manado partially.

THEORETICAL FRAMEWORK

Green Marketing

The term green marketing includes the marketing activities of a company where all marketing undertakings are taken under the environmental concerns (Alsmadi, 2007). In addition, Green marketing is the marketing strategies where marketers aim to discover environmental responsive consumers. Displaying and positioning eco-friendly products in front of the consumers is considered as consumer products marketing (Rahman, 2013). Besides companies need to include essence of environment friendly performance of their products in advertisement (Kärnä, Hansen and Justlin (2003). However, the commercials related to environmental issues are considered as one dimensional part of the green marketing (Rahbar and Wahid, 2011).

Green Product

The term green product is used to describe products, which are not harmful for the environment or products which are Environment friendly. Chemical compositions of the products are also environment friendly and suitable to recycle (Alsmadi, 2007). Green products can be divided in different categories - consumable products are a consumable product is one category, which includes food item. This category especially emphasizes on the food manufacturing process where pesticides or harmful chemicals are not use during the manufacturing process of the food (Thøgersen, 2006).

Green Consumer

Consumers, who have environmental concerns, take initiatives to convert their behavior to the environment friendly behavior. Emphasis on purchase green products instead of conventional products is called green consumers (Vernekar and Wadhwa, 2011). Numbers of green consumers are increasing day by day. Consumers are getting more conscious for the environment and the products they use. Some factors make the consumers to be green consumer from conventional consumers. These factors include the coverage of media for environment, raising the level of information available about the green products than the previous time, attractive advertisement for the green products as well as more green substituted products (Jain and Kaur, 2004:189).

Green Purchasing Intentions

Green purchase intention is conceptualized as the probability and willingness of a person to give preference to products having eco-friendly features over other traditional products in their purchase
considerations. According to Beckford et al. (2010) and Chan (2001) research studies, green purchase intention is a significant predictor of green purchase behavior, which means that purchase intention is positively affecting the probability of a customer decision that he will buy green products.

**Environmental Attitudes**

Attitudes that discussed in this study will be the attitudes of the consumers in relation to the environment protection. Environmental attitudes are attitudes in a person that related to their response to the environment. According to Mostafa (2007), attitude is an important predictor to the behavior; therefore the understanding on the environmental attitudes of a typical consumer is by means to predict their behavior towards green purchasing. According to Wesley, environmental attitudes are rooted in a person’s self concept and also the degree of his perception on involvement in the natural environment and it is well related in predicting their behavior (Schultz and Zelezny, 2000).

**Functional Value**

Functional value is referred as the rational and economic valuations of individuals. The quality of the product and quality of service form this dimensions (Woodruff, 1997). According to Khan (2010) functional value is related to responsiveness, flexibility, reliability, and empathy.

**Price**

Kotler and Armstrong (2010), price is the amount of money charged for a product or service, or the summary of the values that customers exchange for the benefits of having or using the product or service. Price also defined (Malik, Ghafoor and Iqbal, 2012) as the amount of money or goods needed to acquire some combination of other goods and its companying services.

**Previous Research**

Ling (2013) aims to examine drivers and its moderating variable that influencing consumers’ purchase intention on green personal care products. The results revealed that environmental attitudes and self efficacy were found to be the factors that drive the purchase intention of consumers on purchasing of green personal care products. The findings created an understanding on what are the factors that influencing consumer purchase intention on green personal care product and serve as the information for marketers to plan for the marketing program that able to enlarge the market size of the said products. Ali and Ahmad (2012), examines the influence of various factors on the green purchase intentions of Pakistani consumers. Specifically, the findings from the correlation matrix, simple regression followed by multiple regression analysis confirm the influence of organization green image, environmental knowledge, environmental concern and perceived product price and quality on consumers purchase intentions toward green products. Hessami et al. (2013) present a conceptual model for main components and dimensions that effect consumers’ green purchasing intention. The purpose of this model is presenting functional guides for international marketers, organizations and corporations which work on products and green service.

**Conceptual Framework**

![Conceptual Framework](image-url)

**Figure 1. Conceptual Framework**
Research Hypothesis

The research hypotheses of this research are:

$H_1$: Environmental Attitudes, Functional Value and Price on Green Purchasing Intentions in Manado simultaneously.

$H_2$: Environmental Attitudes on Green Purchasing Intentions in Manado partially.

$H_3$: Functional Value on Green Purchasing Intentions in Manado partially.

$H_4$: Price on Green Purchasing Intentions in Manado partially.

RESEARCH METHOD

Type of Research

This research is quantitative research method using causal type of research. This type of research determines if one variable causes another variable to occur or change. This research will investigate the influence of environmental attitudes, functional value and price toward green purchasing intentions in Manado.

Place and Time of Research

This research was conducted in Manado, North Sulawesi during the period of July to October 2014.

Population and Sample

The population refers to the entire group of people, events, or things of interest that the researcher wishes to investigate (Sekaran and Bougie, 2009:262). The population in this research is the consumer who had ever purchased a green product in Manado. Sample is a conclusion can be made from the sample about the population to achieve the research objective (Saunders and Thornhill, 2007). This research is based on Simple Random Sampling technique of Probability Sampling Method. 100 consumers were conducted as the sample in this research.

Data Collection Method

The data used in this research consist of two types between primary data through questionnaires and secondary data taken from books, journals and relevant literature from library and internet to understand of theoretical support on this research.

Operational Definition of Research Variables

The general explanations about variables in this current study are stated as follows:

1. Environmental Attitudes ($X_1$) are attitudes in a person that related to their response to the environment. (Ling, 2013)
2. Functional Value is related to responsiveness, flexibility, reliability, and empathy. (Khan, 2010)
3. Price is the amount of money charged for a product or service, or the summary of the values that customers exchange for the benefits of having or using the product or service. (Malik et al. (2012)

Data Analysis Method

Validity and Reliability

Validity is a test of how well an instrument that is developed measures the particular concept it is intended to measure. To analyze the validity of questionnaire, Pearson Product Moment is used. The instrument will valid if the instrument is able to fill the requirement in validity test. Validity for each variable is good where the values are above minimum level of 0.30. Reliability test is established by testing for both consistency and stability of the answer of questions. Consistency indicates how well the items measuring a concept hang together as a set; Cronbach’s alpha is a reliability coefficient that indicates how well the items in a set are positively correlated to one another, the questionnaire is reliable if the value of Cronbach’s Alpha more than 0.6 (Sekaran and Bougie, 2009: 162).
Multiple Regression Analysis Method

The method of analysis used in this study is multiple regression model. Multiple regression analysis is the process of calculating a coefficient of multiple determination and regression equation using two or more independent variables and one dependent variable (Sekaran and Bougie, 2009: 348). The equation model of multiple regression analysis used in this research can be formulated as shown below:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon \]

Where:
- \( Y \) = Green Purchasing Intentions (Dependent Variable)
- \( \alpha \) = The constant, when all independent variable equal to 0
- \( X_1 \) = Environmental Attitudes (Independent Variable)
- \( X_2 \) = Functional Value (Independent Variable)
- \( X_3 \) = Price (Independent Variable)
- \( \beta \) = The slope for each independent variable
- \( \epsilon \) = Error

RESULT AND DISCUSSION

Validity and Reliability

Validity test is used to know whether the instrument is valid or not. The instrument is valid if the value of variable is positive and more than 0.3 (\( r > 0.3 \)). The result of environmental attitudes (\( X_1 \)) is 0.560, functional value (\( X_2 \)) is 0.752, and price (\( X_3 \)) is 0.859. It means that all the indicators are valid. Reliability test is used to check the consistency of the measurement instrument. The reliability test in this research using Alpha Cronbach that will show the instrument is reliable if the coefficient value is more than 0.6. The value of Cronbach Alpha is 0.874 which is more than 0.6. Therefore, the measurement instruments used for this research are reliable.

Classical Assumption

Multicollinearity

Table 1. Multicollinearity Result

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>Environmental Attitudes</td>
<td>.625</td>
</tr>
<tr>
<td>Functional Value</td>
<td>.502</td>
</tr>
<tr>
<td>Price</td>
<td>.714</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Green Purchasing Intentions

Source: SPSS data analysis, 2014

Table 1 show that the Tolerance value of environmental attitudes is 0.625; functional value is 0.502, and price is 0.714 meaning the tolerance value of each variable is more than 0.2. The VIF value of environmental attitudes is 1.599, functional value is 1.992, and price is 1.401 meaning the VIF value of each variable is less than 10. Since all the tolerance value is more than 0.2 and VIF value is less than 10 of each variable independent, this research is free from multicollinearity.
**Heteroscedasticity**

![](image1.png)

**Figure 2. Heteroscedasticity Result**

*Source: SPSS data analysis, 2014*

The Figure 2 shows that the pattern of points is spreading. The points are spreading above and below of zero point in ordinate. This is proved that there is no heteroscedasticity in this regression.

**Normality**

![](image2.png)

**Figure 3. Normality Result**

*Source: SPSS data analysis, 2014*

Figure 3 shows that the data spreads near the diagonal line and follow the direction of diagonal line. Therefore, the normality test is accomplished.

**Multiple Regression Analysis**

**Table 2. Multiple Regression Result**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>1.567</td>
<td>1.405</td>
</tr>
<tr>
<td>Environmental Attitudes (X₁)</td>
<td>.239</td>
<td>.070</td>
</tr>
<tr>
<td>Functional Value (X₂)</td>
<td>.285</td>
<td>.083</td>
</tr>
<tr>
<td>Price (X₃)</td>
<td>.426</td>
<td>.083</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Green Purchasing Intentions

*Source: SPSS data analysis, 2014*

The calculation is conducted by using the SPSS software. The computerized calculation ensures the accuracy of the analysis. From the result in table 2, the multiple regression model can be defined as:

$$Y = 1.567 + 0.239X_1 + 0.285X_2 + 0.426X_3$$

From the multiple linear regression equation above, it can inform the interpretation as follows:
1) Constant value of 1.567 means that if the variables in this research of Variable X₁, X₂ and X₃ simultaneously increased by one scale or one unit will increase the Y at 1.567 point.

2) Coefficient value of 0.239 means that if the variables in this research of X₁ increased by one scale or one unit, it will improve and increase Y at 0.239.

3) Coefficient value of 0.285 means that if the variables in this research of X₂ increased by one scale or one unit, it will improve and increase Y at 0.285.

4) Coefficient value of 0.426 means that if the variables in this research of X₃ increased by one scale or one unit, it will improve and increase Y at 0.426.

**Multiple Regression Coefficient of Correlation & Determination**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.783</td>
<td>.614</td>
<td>.602</td>
<td>2.033</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Environmental Attitudes, Functional Value, Price

Source: SPSS data analysis, 2014

The coefficient of correlation (R) measures if there is significant relationship between the three independent variables with dependent variable, the value of R is 0.783 which proves that the relationship among independents and dependent variable is very strong. The coefficient of determination (R²) measures how far the ability of a model in explaining variation of dependent variable. The value of R² is 0.614 shows that the linear relationship in this model is able to explain the green purchasing intentions (Y) for 61.4% while the rest 38.6% is explained by other factors not discussed in this research.

**Hypothesis Testing**

**F-test**

F-test is used to determine the whole effect of all independent variables to dependent variable. This test is done by comparing the F_count with F_table. If F_count is higher than F_table, H₀ is rejected and H₁ is accepted.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>630.211</td>
<td>3</td>
<td>210.070</td>
<td>50.826</td>
<td>.000⁰</td>
</tr>
<tr>
<td>Residual</td>
<td>396.779</td>
<td>96</td>
<td>4.133</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1026.990</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), X₁, X₂, X₃
b. Dependent Variable: Y

Source: SPSS data analysis, 2014

The level of significant of 0.05 and degree of freedom (df) of 3; 100, the F_table from F distribution table is F₃,100;0.05 = 2.70, while f_count is 50.826 then the result is f_count > f_table : 50.826 > 2.70. Since the F_count is greater than F_table, H₀ is rejected and H₁ is accepted. It means that the independent variables significantly affect the dependent variable simultaneously.

**T-test**

<table>
<thead>
<tr>
<th>Model</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>1.115</td>
<td>.268</td>
</tr>
<tr>
<td>Environmental Attitudes</td>
<td>3.395</td>
<td>.001</td>
</tr>
<tr>
<td>Functional Value</td>
<td>3.429</td>
<td>.001</td>
</tr>
<tr>
<td>Price</td>
<td>5.111</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Green Purchasing Intentions

Source: SPSS data analysis, 2014
The partial influence for each independent variable will be explained as follows.

1. Environmental Attitudes (X₁) to Green Purchasing Intentions (Y)
   The hypothesis is reject $H_0$ and accept $H_1$ if $T_{count} > T_{table}$. Or accept $H_0$ and reject $H_1$ if $T_{table} > T_{count}$. In Table 5 the $T_{count}$ of environmental attitudes (X₁) is 3.395. Comparing $T_{count}$ with $T_{table}$: 3.395 > 1.984. Since the $T_{count}$ is greater than $T_{table}$, $H_0$ is rejected and $H_1$ is accepted. Therefore, environmental attitudes have very significant influence to green purchasing intentions.

2. Functional Value (X₂) to Green Purchasing Intentions (Y)
   The hypothesis is reject $H_0$ and accept $H_1$ if $T_{count} > T_{table}$. Or accept $H_0$ and reject $H_1$ if $T_{table} > T_{count}$. In Table 5 the $T_{count}$ of functional value (X₂) is 3.429. Comparing $T_{count}$ with $T_{table}$: 3.429 > 1.984. Since the $T_{count}$ is greater than $T_{table}$, $H_0$ is rejected and $H_1$ is accepted. Therefore, functional value has significant influence to green purchasing intentions.

3. Price (X₃) to Green Purchasing Intentions (Y)
   The hypothesis is reject $H_0$ and accept $H_1$ if $T_{count} > T_{table}$. Or accept $H_0$ and reject $H_1$ if $T_{table} > T_{count}$. In Table 5 the $T_{count}$ of price (X₃) is 5.111. Comparing $T_{count}$ with $T_{table}$: 5.111 > 1.984. Since the $T_{count}$ is greater than $T_{table}$, $H_0$ is rejected and $H_1$ is accepted. Therefore, price has very significant influence to green purchasing intentions.

Discussion

The research was collected data from 100 respondents that were categorized by gender, age, and education. The data was taken from consumers of green product handicraft in Manado. The result shows that environmental attitudes, functional value and price have positive influence toward green purchasing intentions. Based on the hypothesis testing by F-test and T-test, the result has proven that there is linear relationship or have influence between variable partially and simultaneously.

Environmental Attitudes (X₁) towards Green Purchasing Intentions (Y)

Environmental Attitudes is an important factor that influence consumer to purchase a green product. Analyzing the partial test result between Environmental Attitudes and Green Purchasing Intentions, the researcher finds the similar result with the previous related studies. Ling (2013) explored that the results revealed that environmental attitudes were found to be the factors that drive the purchase intention of consumers on purchasing of green products. In addition, it was found that willingness of consumers to purchase on green products was moderating the relationship between environmental attitudes and purchase intention. The findings created an understanding on what are the factors that influencing consumer purchase intention on green product and serve as the information for marketers to plan for the marketing program that able to enlarge the market size of the said products. Environmental attitudes is said to be rooted in a person’s self concept and also the degree of his perception on involvement in the natural environment (Ling, 2013) and it is also a good predictor to the green purchase behavior of a person (Ling, 2013). The finding in this study is consistent with this statement where environmental attitudes were found positively significant in predicting the purchase intention.

Functional Value (X₂) towards Green Purchasing Intentions (Y)

Functional Value is an important factor that influences consumer’s Green Purchasing Intentions. Analyzing the result of partial test between Functional Value on Green Purchasing Intentions, the researcher finds the similar result with the previous related studies. Hessami et al. (2013) stated that the present model, unlike model which is include a Functional Value as a variable is compatible and consistent with rational choice theory and relations between attitudes toward green purchasing as dependent variable and independent variables (factors affecting attitudes toward green purchasing) are identified and explained with the help of that. In fact attitude toward green purchasing has played the role of dependent and independent variable. The presented model can be used as a basis for more extensive studies in the field of green products purchasing behavior and intention.
**Price (Xₚ) on towards Green Purchasing Intentions (Y)**

Price is an important factor that influence consumer to purchase a green product. Analyzing the result of partial test between Price and Green Purchasing, the researcher found the similar result with the related previous studies. Ali and Ahmad (2012) argued that the effect of price in influencing the purchase of a green product is very strong for respondents from environment friendly businesses having a positive image toward the protection of the environment. The results further indicated that the effect of organization green image toward environmental protection on consumers’ purchase intention is a crucial prerequisite, and can be further enhanced with the existence of price and quality. Thus, we could now conclusively state that the higher the offerings of the green products with competitive price and quality as compared to traditional products, the stronger the relationship between an organizational green image and respondent purchase intention. This reveals that if businesses offer environment friendly products to respondents with identical price and quality as compared to traditional products, along this an organization has a positive image in the eyes of a respondent, green purchase intentions will be high. In another word, consumers will purchase green products more often, if businesses offer competitive green products in terms of price and quality as compared to traditional products to those customers who are willing to give preference to environment friendly businesses.

**CONCLUSION AND RECOMMENDATION**

**Conclusion**

The final conclusions of this research are:

1. Environmental attitudes, functional value and price have significant influence towards green purchasing intentions in Manado simultaneously.
2. Environmental attitudes have a significant influence towards green purchasing intentions in Manado partially.
3. Functional value has a significant influence towards green purchasing intentions in Manado partially.
4. Price has a significant influence towards green purchasing intentions in Manado partially.

**Recommendation**

The following are recommendations as input that hopefully can be useful as suggestions:

1. Environmental Attitudes, Functional Value and Price show significant influence as factors that influence consumers’ Green Purchasing Intentions. Because in this research, Price is the most significant factor that influences Green Purchasing Intentions. Therefore, the researcher wants to emphasized to how strong Price as factor influencing consumers’ Green Purchasing Intentions. The price of green product, especially handicraft in Manado is relatively inexpensive and accessible to consumers. That is why the researcher suggests the marketers of green product to pay more attention to the price and keep the price of green products stable.
2. The researcher suggests the government should consider making policy supporting the development of home industry products, specifically handicraft of green products. Because green products are environmental friendly behavior. The policy such as, education and training for crafting skills development, capital building assistance and facilities, socialize the benefit of green products and the impact of green products to the environment.
3. For producer, the researcher suggests to keep finding opportunity to develop businesses concern about environment.
4. The researcher suggests the people; consumer and non-consumer to pay more attention about the environment. The examples of the effort are start and keep purchase green products.

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