The Impact of Environmental Knowledge, Healthy Food and Healthy Lifestyle Towards Green Consumer Behavior in Community of Padang City

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ABSTRACT

Aims of this study is to analyse: (1) Impact of environmental knowledge toward green consumer behavior, (2) the impact of healthy food toward green consumer behavior, (3) the impact of a healthy lifestyle toward green consumer behavior. This research is a quantitative research. Population for this research is all people who live in Padang and sample size is 100 respondents. Multiple regression analysis was performed by using SPSS 23. The results of this study found that: (1) Environmental knowledge has a positive and significant effect on green consumer behavior, (2) Healthy food has a positive and significant impact toward green consumer behavior, (3) Healthy lifestyle has a positive and significant effect on green consumer behavior.

Keywords: Environmental Knowledge, Healthy Food, Healthy Lifestyle, Green Consumer Behavior.

1. INTRODUCTION

Entering the 21st century, the trend of a healthy lifestyle among the world community is increasing. The improvement of the quality of life and a healthy lifestyle have encouraged people in various countries and a healthy lifestyle movement with a global theme of back to nature. The enhancement magnitude of the world organic market was increase from US $ 15.2 billion in 1999 to US $ 59.1 billion in 2010 [1].

There are many sectors that give more attention to the environmentally friendly movement in Indonesia, including government, researchers, business, consumers, and others. The Ministry of Environment and Forestry found that 95% of 10 billion plastic bags which is used by Indonesian cannot be recycled [2]. In addition, the Indonesian government also targeting to reduce gas emissions from the greenhouse effect by 26% in 2020. This policy has been implemented through the promotion of the use of organic fuels and exploiting geothermal resources [3].

Environmental and health problems are currently the main topics in people's daily lives. People's behavior patterns that are less friendly to the environment can give the impact on human health itself. The level of public awareness of products that are safe, healthy for consumption is the main thing, increasing public awareness that the benefits you get, if you consume green products [4].

People who consume organic products are called green consumer. Furthermore, Keles & Bekimbetova [5] also describe green consumer is someone who has a higher desire to pay for green products. So, greater opportunities are created for companies and governments to produce green products. There are several factors that underline green consumer behavior, namely environmental_knowledge, healthy food, and a healthy lifestyle.

One of the demographic characteristics that is interesting to study related to environmental issues is the difference in gender and age. Gender and age differences will indicate the characteristics of different roles, skills and attitudes that lead to ecological issues. Research (Jiuan et al., [6] in Singapore shows that the role of women in life causes them to become aware of environmental problems. Another different opinion was expressed by Ling-yee [6] with his study conducted in

Hong Kong, indicating that men care more about maintaining environmental quality.

The results of Suki's (2013) [7] study state that gender and age moderate the influence of environmental_knowledge, healthy food, and healthy lifestyles toward green consumer behavior. [7]

Based on the descriptions above, the authors conducted a study entitled: "The Influence of Environmental Knowledge, Healthy Food, and Healthy Lifestyles on Green Consumer Behavior in the People of Padang City".

2. LITERATURE REVIEW

2.1. Green Consumer Behavior

Keles & Bekimbetova [5] explained that green consumer behavior is a consumer who has a higher desire and willingness to pay more for green products, thus creating greater opportunities for companies and governments to produce environmentally friendly products [6] State that green consumer behavior can be defined as someone who makes a purchase and is influenced by his own awareness of environmental problems.

Environmentally friendly products are defined as products that protect and enhance environmental safety by reducing or eliminating pollution, waste, and toxins (Pavan, 2010). Green consumer behavior with preferences regarding the products to be consumed, will purchase environmentally friendly products which are also known as purchasing green products.

Consumers buy environmentally friendly products if their primary needs for performance, quality, and comfort have been met and people understand that environmentally friendly products will help solve environmental problems [15]. Lack of understanding of the uses and benefits of environmentally friendly products will make consumers cancel their purchasing decisions for environmentally friendly products

The behavior of consumers who care about the environment will influence their desire to consume environmentally friendly products [15]. In more detail, a person's environmental behavior is determined by several variables [19], namely:

a) Personal's cognitive assessment the value of environmental protection which is known as Environmental attitude.

b) Level of emotional involvement in environmental issues which is called as Environmental concern (concern for the environment)

c) Perceived seriousness of environmental problems. If a consumer considers that environmental issues are an important issue, of course the consumer's behavior in his daily activities will greatly consider environmental factors.

2.2. Factors of Green Consumer Behavior

2.2.1 Environmental Knowledge

According to Fryxell, G., & Lo, C. Environmental_knowledge means the consciousness of environmental issues and its resolution. Usually, the most crucial dimensions of environmental consciousness are environmental_knowledge, values, willingness to act and actual behavior which is influenced by several factors containing elements of intention and situation [14].

Schahn & Holzer (Julina,2016) [2] stated that there are two indicators for environmental_knowledge, namely; abstract and concrete knowledge. Abstract knowledge is the knowledge related to environmental problems, causes, resolutions and the concrete knowledge is legitimate knowledge.

2.2.2 Healthy Food

According to the Indonesian Ministry of Health, healthy food includes fruits, vegetables, milk, fish and eggs. Some of these food choices, there is the fact that the level of vegetable consumption in Indonesia is among the lowest in the world [8]

However, currently green products are still difficult to found in Indonesian Market. Only a few local or imported green products are on the market. To find out about this green product you can see at labels in the form of logos or statements on products or packaging that identify green products. This label is usually called an ecolabel.

2.2.3. Healthy Lifestyle

Kotler [9] definite Lifestyle is a person's daily way of live in the world which is expressed in the activities, interests and opinions concerned. Lifestyle is often described by a person's activities, interests, and opinions. Changing your lifestyle by not smoking, avoiding alcohol, getting enough sleep, losing excess weight, adjusting your diet, and exercising regularly to

burn excess fat and calories can be a healthy lifestyle that diabetics must live by [17,18]

It can be concluded that healthy lifestyle behavior (style) is related to one's efforts to maintain and improve one's health through interactions with the environment, especially those related to health.
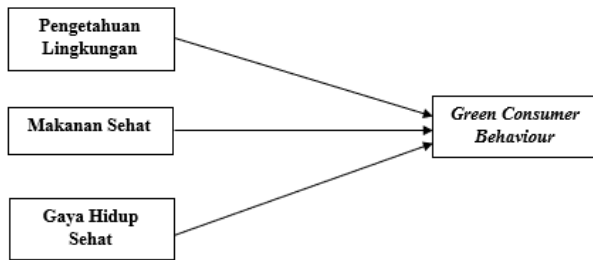
2.3. Conceptual Framework

Figure 1. Conceptual Framework

2.4. Research Hypothesis

Hypothesis 1

Environmental knowledge has a positif and significant impact toward green consumer behavior.
Hypothesis 2

Healthy food has a positif and significant impact toward green consumer behavior.

Hypothesis 3

Healthy lifestyle has a positif and significant impact toward green consumer behavior.

3. RESEARCH METHOD

This research is quantitative research which is based on the philosophy of positivism, used to examine specific populations or samples, data collection using research instruments, quantitative or statistical data analysis, with the aim of testing predetermined hypotheses [10].

Population for this research is all people in Padang city whose numbers are 909.040. To determine how many samples to be taken in an existing population, a mathematical formula can be used as a tool to determine the optimal target sample, according to Cochran and Syofyan (2010: 149). The sample is obtained based on the calculation is 96.04, For the purpose of this study the number of samples is 100 respondents.

4. RESULTS AND DISCUSSION

4.1. Overview of Research Objects

Aaccording to Julia, Green product is used to describe products that integrate environmentally safe in their initial process design, including minimizing the use of raw materials and energy, eliminating health and safety risks, and ecological degradation [2].

Environmentally friendly products are usually marked with an environmentally friendly label attached to the product. The label is a sign on a product that distinguishes it from other products to help consumers choose environmentally friendly products as well as serve as a tool for producers to inform consumers that the products they produce are environmentally friendly [17]. One form of environmentally friendly label is a recycling symbol which indicates that the product has a minimal negative impact on the environment. This label is based on international rules and is internationally recognized. Products with a recycling symbol consisting of three green arrows chasing each other are used to indicate that the product is recyclable.

Table 1. Validity Test Results

Variable	Corrected Item-Total Correlation	Conclusion
GC_1	0,817	Valid
GC_2	0,825	Valid
GC_3	0,825	Valid
GC_4	0,798	Valid
GC_5	0,735	Valid
PL_1	0,628	Valid
PL_2	0,756	Valid
PL_3	0,670	Valid
PL_4	0,706	Valid
PL_5	0,797	Valid
MS_1	0,743	Valid
MS_2	0,796	Valid
MS_3	0,722	Valid
MS_4	0,819	Valid
MS_5	0,785	Valid
GH_1	0,759	Valid
GH_2	0,663	Valid
GH_3	0,697	Valid
GH_4	0,819	Valid
GH_5	0,761	Valid

Corrected Item-Total Correlation value of the variable's green consumer behavior, environmental knowledge, healthy food, and healthy lifestyle is greater

than the desired value of 0.30. Thus, it can be concluded that the questionnaire used in this study is valid.

Table 2. Reliability Test Results

Variable	Cronbach Alpha	Conclusion
Green Consumer Behavior	0,922	Reliable
Environmental Knowledge	0,878	Reliable
Healthy food	0,910	Reliable
Healthy lifestyle	0,892	Reliable

Variables of green consumer behavior, environmental knowledge, healthy food, and healthy lifestyle give a Cronbach Alpha value greater than 0.70. Thus, it can be concluded that the questionnaire used in this study is reliable so that further data processing can be carried out.

4.2. Classical Assumption Test Results

Table 3. Normality Test Results

Variable	Asymp. Sig. (2-tailed)	Conclusion
Green Consumer Behavior, Environmental Knowledge, Healthy food, Healthy lifestyle	0,200	Normal

Asymp Value. Sig (2-tailed) on the unstandardized residual is 0.200 > 0.05. Thus, it can be concluded that the variables which is used in this study were normally distributed. So, further data processing could be carried out.

Table 4. Multicollinearity Test Results

Variable	Tolerance	VIF	Conclusion
Environmental Knowledge	0,402	2,486	Free from Multicollinearity
Healthy food	0,456	2,192	Free from Multicollinearity
Healthy lifestyle	0,741	1,350	Free from Multicollinearity

Tolerance value > 0.10 or with VIF < 10 so it can be concluded that the independent variables which is used in this research, namely environmental knowledge, healthy food, and healthy lifestyles have been free from multicollinearity problems.

The variables of environmental knowledge, healthy food and healthy lifestyle have a significance value > 0.05, so it can be concluded that the variables in the regression model in this study did not have heteroscedasticity problems or were free from heteroscedasticity symptoms.

Table 5. Heteroscedasticity Test Results

Variable	Sig	Cut Off	Conclusion
Environmental Knowledge	0,071	0,05	free from heteroscedasticity
Healthy food	0,278	0,05	free from heteroscedasticity
Healthy lifestyle	0,213	0,05	free from heteroscedasticity

4.3. F Statistical Test Results

Table 6. F Statistical Test Results

F	Sig.
127.525	0.000

The value of sig F is 0.000. The results of the sig F test with a value of 0.000 < from alpha (0.05), hereby can explain that environmental knowledge, healthy food, and healthy lifestyle simultaneously have a significant effect on green consumer behavior. In other words, the overall regression model is feasible or fit to see the effect of the independent variable on the dependent variable.

4.4. Determination Coefficient Test Results (R^2)

Table 7. Coefficient of Determination Test Results (R2)

R Square	Adjusted R Square
0.799	0.793

Adjusted R Square value in this research is 0.793. This shows that 79.3% green consumer behavior is influenced by the variables of environmental knowledge, healthy food, and healthy lifestyle. While the remaining 20.7% green consumer behavior is influenced by other variables that are not used in this study.

4.5. Hypothesis Testing Results

Table 8. Hypothesis Test Results

Variables	Regression coefficient	Sig
Constant	-2.269	0.045
Environmental Knowledge	0.304	0.000
Healthy food	0.500	0.000
Healthy lifestyle	0.294	0.001

From table above, Multiple regression equations that can be made based on the resulting regression coefficients are as follows:

Y = -2.269 + 0.304X1 + 0.500X2 + 0.294X3

From this equation, the intercept of -2.269 mathematically states that if the value of environmental knowledge, healthy food, and healthy lifestyle is zero, the Y value (green consumer behavior) is -2.269.

The regression coefficient of the environmental knowledge is 0.304, it means that increasing in one unit of the environmental knowledge variable with the assumption that the other independent variables are constant will cause the increase in green consumer behavior for 0.304.

The regression coefficient for the healthy food variable is 0.500, it means increasing in one unit of the healthy food variable with the assumption that the other independent variables are constant will cause the increase in green consumer behavior for 0.500.

The regression coefficient for variable healthy lifestyle is 0.294, it means that increasing in one unit of a healthy lifestyle variable with the assumption that the other independent variables are constant will cause an increase in green consumer behavior for 0.294.

4.6. Discussion of Hypothesis Testing Results

4.6.1. The impact of Environmental Knowledge Towards Green Consumer Behavior

Based on the results of hypothesis testing, environmental knowledge has a positive regression coefficient value of 0.304 and a significant value of 0.000 with an alpha of 0.05. These results indicate that the significant value of 0.000 is smaller than alpha 0.05, thus the first hypothesis (H1) is accepted, and it can be concluded that environmental knowledge has a significant effect on green consumer behavior.

Consumer insight and knowledge are important factors for efforts to go green in Indonesia. In general, public knowledge to preserve the environment is still relatively low so it needs serious attention. The low level of consumer insight and knowledge about the environment has an impact on green marketing activities (environmental marketing) which are still few and pro-environmental consumer behavior is still relatively low in Indonesia. Consumer awareness will arise and be stronger if they are provided with complete and accurate information and knowledge about environmental issues. Good consumer knowledge will encourage positive behavior towards environmental sustainability. The higher the level of public knowledge about the environment, the more awareness to buy environmentally friendly products. Therefore, manufacturers need to implement strategies, including creating and using environmentally friendly

components, including eco-labelling to standardize products, certification, and communicating that the products they offer are included in the classification of environmentally friendly products [16]

Knowing about the causes and effects on the environment, the awareness of people will increase and potentially promote good attitudes towards environmentally friendly products [12,13]. It is possible that higher levels of environmental knowledge could result in much better consumer ecological behavior.

The results of this study support previous research from Suki [7] which states that environmental knowledge has a significant effect on green consumer behavior.

4.6.2. The Impacts of Healthy Food Towards Green Consumer Behavior

Hypothesis testing result in table 21 shows the healthy food variable has a positive regression coefficient value of 0.500 and a significant value of 0.000 with an alpha of 0.05. These results indicate that the significant value of 0.000 is smaller than alpha 0.05, thus the second hypothesis (H2) is accepted, and it can be concluded that healthy food has a significant effect on green consumer behavior.

The level of public awareness of products that are safe, healthy for consumption can influence their decision to use environmentally friendly products, because in general healthy food comes from organic, meaning that in the production process is free from chemicals materials, such as pesticides on plants which can damage the soil and become river waste. Thus, people who choose healthy foods will choose organic products and reduce products with chemicals that are not environmentally friendly. Increased public awareness that the benefits they will get if they consume green products can support environmental conservation.

Ahmad & Juhdi [4,20] noted that the perception of organic food affects consumers' pro-environmental behavior. Just a few of research has been conducted on the effects between healthy food and consumer ecological behavior. The results of this study are in line with the research of Suki [7] which states that healthy food has a significant effect on green consumer behavior.

4.6.3. The impact of a Healthy Lifestyle Towards Green Consumer Behavior

Based on the results of hypothesis testing, the healthy lifestyle variable has a positive regression

coefficient value of 0.294 and a significant value of 0.001 with an alpha of 0.05. These results indicate that a significant value of 0.001 is smaller than an alpha of 0.05, thus the third hypothesis (H3) is accepted, and it can be concluded that a healthy lifestyle has a significant impact to green consumer behavior.

Healthy lifestyle is concern on balance life and making a wise choice on consuming something. For Example doing exercise, avoid drunk and drugs, eating good nutrition. A high level of environmental concern is expected due to healthy problems [11]. Beliefs about product safety; safe for body health and safe for environment also. They also actively promote and persuade others to do the same habit and behavior. [4]

A consumer who has a healthy lifestyle incline to make some efforts that are good for the health, such as doing sports, consuming natural foods, and having a balanced life so that he can have a positive attitude towards organic food. People who have a healthy lifestyle will believe that a healthy life needs to be supported by a healthy environment, such as clean air, clean water. Thus, a healthy lifestyle will encourage someone to choose environmentally friendly products because they try to participate in maintaining a healthy environment [7]. The results of this study also support the research of Suki [7] which states that a healthy lifestyle has a significant effect on green consumer behavior.

5. CONCLUSION

This study can conclude:
1. Environmental knowledge has a significant positive effect on green consumer behavior, meaning that people who have knowledge about the environment will choose to use environmentally friendly products.
2. Healthy food has a significant positive effect on green consumer behavior, meaning that people who eat healthy foods will choose to use environmentally friendly products.
3. A healthy lifestyle has no significant effect on green consumer behavior, meaning that even someone who adopts a healthy lifestyle does not encourage him to choose environmentally friendly products.

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