

**OPPORTUNITY FOR GREEN MARKETING:
ADULT CONSUMERS IN YOGYAKARTA**

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ABSTRACT

This study is based on 150 adult consumers in Yogyakarta who are 35-64 years old. The objective of the study is to analyze the important factors which affect green purchasing behaviors and gender differences in green purchasing behavior of adult consumers in Yogyakarta. This study uses questionnaire of 150 adult consumers in Yogyakarta. Hypotheses are developed to analyze the important factors which affect green purchasing behaviors and gender differences in green purchasing behavior of adult consumers in Yogyakarta. Regression is used to analyze the hypotheses. The result of this study is Concern of Self-Image in Environmental Protection and Social influence are significantly affecting green purchasing behavior of adult consumers in Yogyakarta and there is no difference between male and female of adult consumers in Yogyakarta in green purchasing behavior. Keywords : green purchasing behavior, adult consumers.

Keywords: Green Marketing, Green Purchasing Behavior, Gender, Adult consumers, Influence factors

I. INTRODUCTION

a. Background

The awareness of consumers about the global environmental problems has increased in many countries. There are 10 most important environmental issues facing the world, such as global warming, clean and renewable energy, ocean system collapse, electronic & nuclear waste, water degradation, land rush, biodiversity conservation, increase human population, new technologies and habitat loss. The consumer's awareness of these environmental problems encourages business industries to concern how they can create environmental friendly products and services.

Green Marketing has become a necessity for both producers and consumers for the creation of a healthy environment. According to American Marketing Association (AMA), Green marketing is the marketing of products that presumed to be environmentally safe. The awareness of consumers in many countries about the importance of environmental issues has increased. The Global environmental problems that globally faced Global warming issue makes consumers pay more attention in buying products. Many producers from many products start to use friendly material in their production process including packaging and labeling. Marketers have to find strategies to attract more people to become interested in buying green products.

The force of "going green" is now extending to the Asian region, where environmental threats are alarming local governments and citizens (Lee, 2008). The fast growing economy in Asia has led to vigorous rise of financially empowered consumers across Asia who is willing to spend more than previous generations (Li and Su, 2007).

In Indonesia, many companies already started to have environmental friendly productions that minimize bad impact to environment. On December 2013, Indonesian Government published the survey of PROPER (Program Penilaian Peringkat Kinerja Perusahaan dalam Pengelolaan Lingkungan) which one of the programs that observes companies and business. This objective of this program is to encourage companies and business to obey the environment regulation in order to achieve environmental excellency. The Government stated that they analyzed 1,812 companies which involved in environmental friendly production. This number has increased 38% compare to last period (2011- 2012) there were only 1,317 companies.

The companies were judged by production service activities, environmental management system, 3R, efficiency of energy, and business ethics. During 2012-2013 the number of companies which obey the environment has decreased from 69% to 65% compare to previous period (2011-2012). The decreasing of this number caused of 38% increasing of new companies which involve in this program.

b. Problem Statements

Based on the research background, the problem statements are:

1. What are the important factors which affect green purchasing behaviors of adult consumers in Yogyakarta?
2. Is there any gender difference in green purchasing behavior of adult consumers in Yogyakarta?

c. Objectives of Research

Based on the problem formulations which have been explained above, the research objectives that will achieve are:

1. To analyze the important factors which affect green purchasing behaviors of adult consumers in Yogyakarta.
2. To analyze gender differences in green purchasing behavior of adult consumers in Yogyakarta.

II. THEORITICAL BACKGROUND

a. Green Marketing

Green marketing also well known as environmental marketing, sustainable marketing and ecological marketing. All of those terms are essentially have the same practice. Green marketing encompasses much more than just a marketing hype, although there are not any single 'right' definitions about this term. Any definitions must include the fact that there is a voluntary exchange between company and the customer that achieve each side's objectives while minimizing the negative impact to the environment as much as possible when achieving this objectives, and also making sure that every activity is sustainable. Green

marketing is not limited to particular types of organizations; it can be exhibited on consumer markets, B2B (Business to Business) markets, suppliers, retailers, and even governmental bodies (Charter et al., 2001).

b. Green Purchasing Behavior

Many other literatures about environmental behavior mostly speaking about environmental behavior in general, a few has been addressed specifically about green purchasing behavior (Lee, 2009). Green purchasing behavior can be translated to the act of consuming products that are conservable, beneficial for the environment, and responding to environmental concern (Lee, 2009). Responding to environmental concern, one of the ways related to waste management system is by doing the 3R (Reduce, Reuse, and Recycle). Now days, social influence has been found as the most important factor that affect green purchasing behavior of adolescent, however there are several more factors which are: Environmental attitude, Environmental concern, Perceived responsibility, Perceived effectiveness of environmental behavior, and concern of self-image in environmental protection (Lee, 2008).

c. Social Influence

An important determinant of an individual's behavior is the influence of others. This belief can be proof with the use of well-known spokespersons endorsing products and portrayal of products being consumed in social situation (Bearden et al 1989). This clarify a major part of consumer susceptibility of interpersonal influence, which advocates a bilateral-directional interaction and can also occur between the environmental and personal characteristics (Bandura 1997; 1986; 1989).

Cheah and Phau (2005) stated that social influences and physical structures within the environment will develop and modify human expectation, beliefs, and cognitive competencies. Thus, it can be assumed that attitudes toward buying decisions are strongly influenced by their social environments, which include family, friends, and peer networks. Moreover, interpersonal processes and relationships between opinion leaders and professionals have a significant impact on attitude towards buying decisions.

d. Environmental Attitude

According to Kotchen & Railing (2008), a positive relationship between environmental attitude and environmental behavior has been discovered in some studies. Lee (2008) defined Environmental attitude as individuals' value judgment and it taps the individuals' cognitive assessment of the value of environmental protection. Mostafa (2007) found that Egyptian consumer's attitude towards green purchasing can influence their green purchasing intention and affecting their green purchasing behavior in a direct manner. Research by Dahlia (2011) found that Environmental attitude gave less influence to university students in Jakarta related to purchasing behavior.

e. Concern of Self-Image in Environmental Protection

Goldmith, Moore & Beaudoin (1999) defined self image as the perception individuals have of what they are like. Self image concept or self image is an important determinant of individual behavior as it is concerned with hoe we see ourselves and how we think other people see us. Individuals tend to create a personal image that is acceptable to their reference group. This inner picture of the self is communicated to the outside world by behavior, for instance, purchasing behavior. Self image is influenced by social interaction and people make purchases that are consistent with their self-concept in order to protect and enhance it (Lanceter & Reynolds, 2005).

III. HYPOTHESES

According to the literature reviews above, the author decide to have 7 hypotheses, they are:

- H₁ : Social influences have a positive influence with green purchasing behavior.
- H₂ : Environmental attitude has a positive influence with green purchasing behavior.
- H₃ : Environmental concern has a positive influence with green purchasing behavior.
- H₄ : Perceived seriousness of environmental problem has a positive influence with green purchasing behavior.
- H₅ : Perceived environmental responsibility has a positive influence with green purchasing behavior.
- H₆ : Concern of self-image in environmental protection has positive influence with green purchasing behavior.

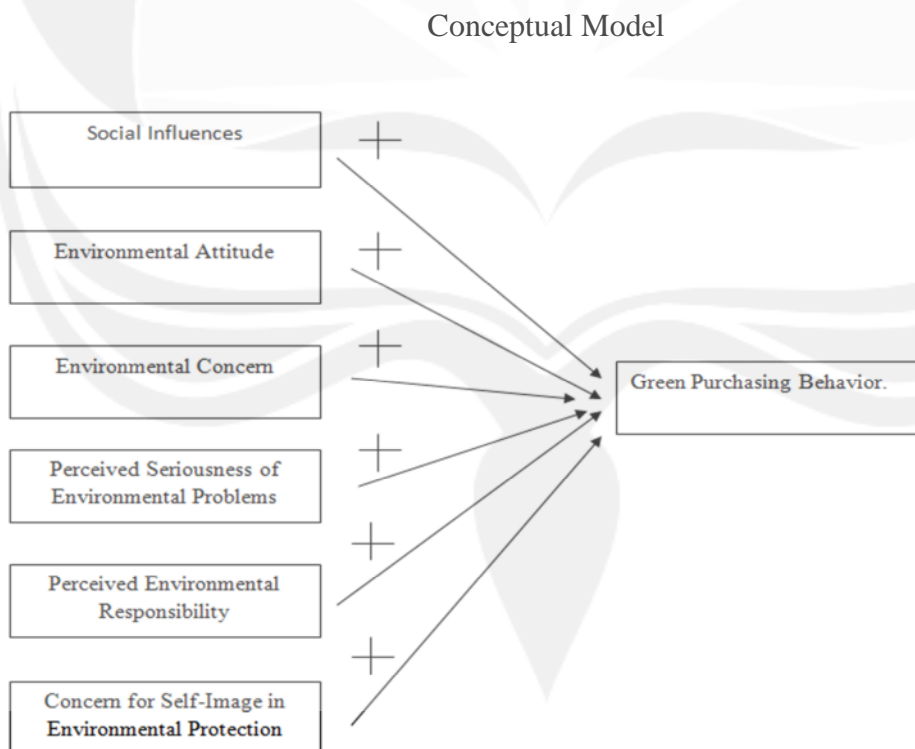
IV. RESEARCH METHODOLOGY

a. Population, Sample, Sampling Method

The populations who were the respondents in this study were adult consumers who are 35 – 64 years old. This study took 150 elderly consumers as sample. The sampling method which is used in this study is non probability sampling with the type of convenience sampling means that the collection of information from member of population who are conveniently available to provide it.

b. Research Variables

In this study, there are six variables were used to be examined and analyze the link of green purchasing behavior. A variable is a characteristic of an item or individual (Levine, et al, 2007, P. 4). The conceptual model which is used the author was shown as below:



Source : Zeleny et al (2000)

c. Data Analysis

This research used regression analysis which was processed by using SPSS Program (Statistical Package for the Social Science version 19). The regression model that was used in multiple regressions which was used to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable. In this study there is one independent variable, which is green purchasing behavior.

Table 3.1
Analysis Method of Hypothesis

Hypothesis	Explanation	Analysis Method
H ₁	Social influences have a positive influence with green purchasing behavior	Multiple Regression Method
H ₂	Environmental attitude has a positive influence with green purchasing behavior	Multiple Regression Method
H ₃	Environmental concern has a positive influence with green purchasing behavior.	Multiple Regression Method
H ₄	Perceived seriousness of environmental problems have a positive influence with green purchasing behavior.	Multiple Regression Method
H ₅	Perceived environmental responsibility have a positive influence with green purchasing behavior.	Multiple Regression Method
H ₆	Concern for self-image in environmental protection has a positive influence with green purchasing behavior.	Multiple Regression Method

Based on figure 3.1 and table 3.1, the analysis will use one regression equation as follows:

$$GPB = \alpha + \beta_1SI + \beta_2EA + \beta_3EC + \beta_4PSE + \beta_5PER + \beta_6CSI$$

Where:

GPB = Green Purchasing Behavior

SI = Social Influences

EA = Environmental Attitude

EC = Environmental Concern

PSE = Perceived Seriousness of Environmental Problems

PER = Perceived Environmental Responsibility

CSI = Concern for Self-Image in Environmental Protection

V. DATA ANALYSIS

a. Descriptive statistics of Data Collection

The study shows that the most of the respondents are female (52% or 78 respondents), while 48 % (72 respondents) are male. The majority of respondents are 35-44 years old which is 67.3%. The rest which is 32 % represents a group of 45-64 years old adults. 40.7% of them are S1 Graduated and followed by 33.1% who are SMA graduated. 32% works as entrepreneur, 31.3% as employee and the rest 17.3% work as Civil Officer. The study shows the most of respondents which represents 23.3% have 3-4 million as their monthly income. While 22.7% of respondents earn above 4 million and 21.3% earn 1-2 million as their monthly income. 42.2% of respondents are member of environmental organization clubs, while 53.3% are not a member of environmental organization clubs.

79.9% of respondents know about green products and only 19.3% who don't know about green products. 47.3% of respondents find green advertisement on TV, the other respondents which represent 26.7% find green advertisement in Magazines or Newspaper and the rest of 12% of respondents find green advertisement on Internet. 43.3% of respondents buy green products more than 6 times in a year. 11.3% of respondents buy green products once in a year and the other 11.3% of respondents buy green products four times in a year.

The majority of respondents bought foods and beverages by 66%. 16% of them bought cosmetics, and the rest of 13.3% bought households and eco electronics. 50.7% of them bought organic foods. 14.7% of respondents bought body Shop and the rest of 12.7% bought Starbuck.

b. Reliability

The result of 6 predictors shows that there are 3 variables which have good consistency and stability they are social influence which is the most consistent and stable with 0.900 Cronbach's alpha score, Concern for self-image in environmental protection which has 0.844 Cronbach score, and Environmental concern with 0.747 Cronbach's score. The other 3 variables are less consistent and stable which have less than 0.60 in Cronbach's score.

Reliability

Variables	Number of items	Cronbach's alpha
Social influence	6	0.900
Environmental attitude	7	0.416
Environmental concern	4	0.747
Perceived seriousness of environmental problems	5	0.238
Perceived environmental responsibility	7	0.220
Concern for self-image in environmental protection	3	0.844

c. Regression

The first table 'Model Summary' shows the three (3) independent variables that are entered into regression model, the R (0.583), which is the correlation among three (3)

independent variables with the dependent variable. The R Square value is 0.340 that indicates that independent variables influence the dependent variable by 34%.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.583 ^a	.340	.326	.53109

a. Predictors: (Constant), CONSELF, ENCCON, SOCINF

The ANOVA table shows that the F value of 24.713 is significant at the 0.000 level. This result reflects that 34% of the variance (R-Square) in green purchasing behavior intention has been significantly explained by the three (3) independent variables. In other words, Social influences, Environmental Concern, Concern for self-image in environmental protection have a positive influence to green purchasing behavior of adult consumers in Yogyakarta

The table of Coefficients shows which independent variables are the most important in influencing green purchasing behavior of adult consumers in Yogyakarta. The result shows the significance probability, it concludes that Social influences and Concern for self-image in Environmental Protection are significantly affecting the green purchasing behavior of adult consumers in Yogyakarta by having p-values <0.05 which are 0,000 significant level. On the other hand, Environmental Concern is not significantly affecting the green purchasing behavior of adult consumers in Yogyakarta, it shows by having p-value > 0.05. So, the marketers have to use social influence by attracting adult consumers to promote green purchasing behavior to their family members and friends. This strategy is significantly influence adult consumers to have green purchasing behavior. The marketers have to create self-image values in their green products. This strategy can influence adult consumers to buy green products because by having green purchasing behavior, they will have good self-image in society.

Coefficients

Model	B	Beta	T	Sig	Result
(Constant)	2.357		8.041	.000	
Social influence	.232	.342	4.337	.000	Accepted
Environmental concern	.021	.020	.258	.797	Rejected
Concern for self-image in environmental protection	.269	.384	5.468	.000	Accepted

a. Dependent Variable: GPB

d. **Independent Sample Test**

To examine whether there is any difference between male and female in buying green products, Independent Sample Test is conducted. Table shows that p-values of Social Influences is > 0.05 which means that there is no significantly difference for male and female in buying purchasing behavior. The p-values of Concern for self-image in environmental protection is > 0.05 , it means that there is no significantly difference between male and female in buying purchasing behavior. So, there is an equal opportunity of green purchasing behavior among male and female adult consumers in Yogyakarta.

Independent Samples Test

Levene's Test for Equality of Variances	t-test for Equality of Means
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		F	Sig.	T	Df	Sig. (2- tailed)	Mean Differe nce	Std. Error Differ ence	95% Confidence Interval of the Difference	
									Lower	Upper
SOCI NF	Equal variances assumed	.002	.966	-. 484	147	.629	-.07588	.15683	-.38582	.23406
	Equal variances not assumed			-. 484	146. 105	.629	-.07588	.15689	-.38595	.23419
CON SEL F	Equal variances assumed	.549	.460	.305	148	.761	.04594	.15059	-.25164	.34352
	Equal variances not assumed			.305	146. 075	.761	.04594	.15079	-.25208	.34396

VI. CONCLUSION AND SUGGESTION

a. Conclusion

The objective of this study is to examine the factors that influence green purchasing behavior of adult consumers in Yogyakarta. This study has been designed to analyze the influence of Social influences, Environmental Attitude, Environmental Concern, Perceived seriousness of Environmental Problems, Perceived of Environmental Responsibility and Concern for self-image in environmental protection to green purchasing behavior of adult consumers in Yogyakarta. The conclusions of this study are derived from hypotheses testing to answer the problem statement:

1. Hypothesis H₁, Green Purchasing behavior of adult consumers in Yogyakarta is significantly influenced by Social influences (is accepted).
2. Hypothesis H₂, Green Purchasing behavior of adult consumers in Yogyakarta is not significantly influenced by Environmental attitude (is rejected).
3. Hypothesis H₃, Green Purchasing behavior of adult consumers in Yogyakarta is not significantly influenced by environmental concern (is rejected).
4. Hypothesis H₄, Green Purchasing behavior of adult consumers in Yogyakarta is not significantly influenced by Perceived seriousness of environmental problems (is rejected).
5. Hypothesis H₅, Green Purchasing behavior of adult consumers in Yogyakarta is not significantly influenced by Perceived environmental responsibility (is rejected).
6. Hypothesis H₆, Green Purchasing behavior of adult consumers in Yogyakarta is significantly influenced by Concern for self-image in environmental protection (is accepted).

In addition, the independent sample test shows that there is no a significant difference of Concern for self-image in environmental protection between male and female in buying purchasing behavior.

This study concludes that there is an opportunity for green marketing of adult consumers in Yogyakarta. It can be described by descriptive analysis which 42.2 % of respondents join environmental organization and they care about environmental issues. 79.9% of respondents already known about environmental products. Moreover, 43.5% of respondents buy green products more than 6 times in a year. Social influences and Concern for self-image in environmental protection are the significant influence for adult consumers in Yogyakarta in having green purchasing behavior.

b. Limitation of the Research

This study also had some inevitable limitations. In this study, the number of respondents used in this study 150 adult consumers from 35-64 years old in Yogyakarta because the previous study discussed adolescents in Hong Kong and university students in Jakarta. The time to conduct the study was approximately 6 months.

c. Suggestion

It is recommended to conduct future research to examine respondents not only in Yogyakarta but in other cities in Indonesia because Indonesia has many cultures which will affect the green purchasing behavior of adult consumers in other cities, different segments, for example children, teenagers, elderly citizens because each group segment has different green purchasing behaviors. The future research is recommended to study about factors that influence green purchasing behavior in specific products, such as eco friendly fuel, organic foods, etc.

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