

FACTORS AFFECTING CONSUMERS' GREEN PURCHASE BEHAVIOR (AN EMPIRICAL STUDY OF INDONESIA PAY PLASTIC POLICY)

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ABSTRACT

As the number two contributor plastic waste in the world, the Government of Indonesia to realize that this condition is very harmful to the environment in the future. Since 21 February 2016 the government issued a plastic rule paid in modern retail to reduce plastic waste. Based on the pre-survey that conducted in two cities, Jakarta and Bekasi, a relatively cheap price of plastic does not make consumers seek to bring their own shopping bags. This study aims to determine knowledge, attitudes, behavior and the consumer's responsibility to the environment. The result of this research can provide input to the government in determining the next policy. This study used online questionnaires distributed and got responses from 339 respondents. Data were processed using SPSS version 20. The research concludes that there are significant simultaneously Environment Awareness, Environment Knowledge, Environment Concern and Attitude, Perceived Effectiveness Consumers and Consumers Perceived Responsibility on Green purchase Behavior amounted to 70.2%

Keywords : environment awareness, environment knowledge, Environment Concern and Attitude, Perceived Effectiveness Consumers, Consumers Perceived Responsibility, Green Purchase Behavior.

A. Background Of Research

Green purchase behavior is an international issue that related to consumer purchase behavior that aware to environment aspects. In this research, that is related to consumer behavior when paying plastic in modern and traditional retail by the Indonesian government to reduce plastic waste policy. The data shown that Indonesia produced 3.2 million tons of plastic waste in 2010, with around 1.29 million tons of that ending up in the ocean, according to a study published in the journal Science. The figure places Indonesia second only to China, with its 8.8 million tons of waste, or 27 percent of global plastic waste (The Jakarta Post, 2015). Waste in the ocean is a serious problem. There are many pollutants and many more dangers than ever imagined (Woodall et al, 2013). We must start managing it by reducing, recycling and re-using plastic products.

Table 1 : The 10 Biggest Marine Polluters

Rank	Country	In Million Tons
1	China	8.8
2	Indonesia	3.2
3	Philippines	1.9
4	Vietnam	1.8
5	Srilanka	1.6
6	Thailand	1.0
7	Egyp	1.0
8	Nigeria	0.9
9	Malaysia	0.9
10	Bangladesh	0.8

Source: The Jakarta Post, 2015

Because of the plastic waste, pay plastic bag policy began to be implemented in Indonesia on February 21, 2016 to coincide with the National Waste Concern Day. This policy was an attempt by the government to suppress the amount of plastic waste in Indonesia. Although Parliament has indeed been passed Law No. 18/2008 on Waste Management a few years ago. Ministry of the Environment also issued Regulation on waste management with the concept of Extended Producer Responsibility (EPR). This is to demand responsibility of the producer to the matter of the product packaging. Through EPR is expected behavior of the community in using a plastic little by little changed.

Although the government policy of paid plastic apply in modern retail, based on the results of the pre-survey on consumers in several supermarkets in Indonesia, researcher found that there are different price in some of city in Indonesia. In Jakarta consumers pay IDR 5.000 for plastics bags. In Makassar consumers pays different price, IDR 4.500. In Balikpapan cosumers should be pay IDR 4.500 / piece plastick bags. In Bekasi, also some of city in Indonesia only pay the lowest price, IDR 2.000. Because the cheap price, this condition do not make consumers reluctant to pay. This behavior shows that consumers do not have awareness of the impact of plastics on the environment.

Based on the above problem, the researcher wanted to examine how to customers awereness, knowledge, environment concern and attitude, perceived consumer effectiveness, perceived environment responsibility towards consumers green purchase behavior, especially in Indonesia pay plastics policy case.

B. Literature Review

Green Purchase Behavior

According to Wahid Rahbar and Shyan (2011) green purchasing behavior are customer aware of the huge effect that their purchasing behavior has on the environment. Dagher and Itani (2012, 2014) found that consumers are trying to help sustain their environment by demonstrating green purchasing behavior. In this researh, the definition of green purchase behavior is related to consumer behavior when paying plastic imposed by the Indonesian government to reduce plastic waste. Environmentally conscious behavior is unlikely to deliver instant personal gain or gratification, but rather a future-oriented outcome (e.g. cleaner environment) that often benefits society as a whole (Mc Carty and Shrum, 2001; Kim and Choi, 2005).

The Evolution of Green Marketing can be devided in three phases : (1) ecological green marketing, all of activities were concerned to solve environment problem (2) enviromental green marketing, that focus to clean technology that involved designing of new innovative product and (3) sustainable green marketing (Sahurkur & Raut, 2015)

Environment Awareness

Kollmuss and Agyeman (2012) define that Environmental awareness is “knowing as the impact of human behavior on the environment”. Environmental awareness has both a cognitive, knowledge-based component and an affective, perception based component. Environmental awareness is constrained by several cognitive and emotional. Panni (2006) found, that the more the consumers are aware regarding the societal and environmental issues the more they are involved in pro-social and pro-environmental behavior.

Environment Knowledge

Environment knowledge in this research is the consumer's knowledge on environmental issues , including the environmental conditions in Indonesia and how consumers utilize this knowledge to conserve the environment. Environmental knowledge can be defined as “a general knowledge of facts, concepts, and relationships concerning the natural environment and its major ecosystems (Fryxell & Lo, 2003). In other words, environmental knowledge involves what people know about the environment, key relationships leading to environmental aspects or impacts, an appreciation of “whole systems”, and collective responsibilities necessary for sustainable development. Mostafa (2009) found that environmental knowledge has a significant impact on the consumers' intention to buy green products.

Environment Concern and Attitude

Environment concern and attitude in this study leads to the concerns and attitudes of consumers towards the environment. The attention and consumer attitudes related to the action leads to the future of the environment .Studies show that when consumers are highly concerned about the environment, they are more likely to evaluate the effects of their purchases on the environment (Follows & Jobber, 2000). Schultz (2000) stated three factors of environmental concern: concern for the self), concern for other and the biospherical. The social psychology literature on behavioral research has established attitudes as important predictors of behavior, behavioral intention, and explanatory factors of variants in individual behavior (Kotchen & Reiling, 2000).

Perceived Consumers Effectiveness

Perceived consumers effectiveness is a consumer confidence that what they do right now will be have a positive impact on the environment in the future. Accordingly, Kim and Choi (2005) argued, that individuals with a strong belief that their environmentally conscious behavior will result in a positive outcome, are more likely to engage in such behaviors in support of their concerns for the environment. Hence, self-efficacy beliefs may influence the likelihood of performing green purchase behavior.

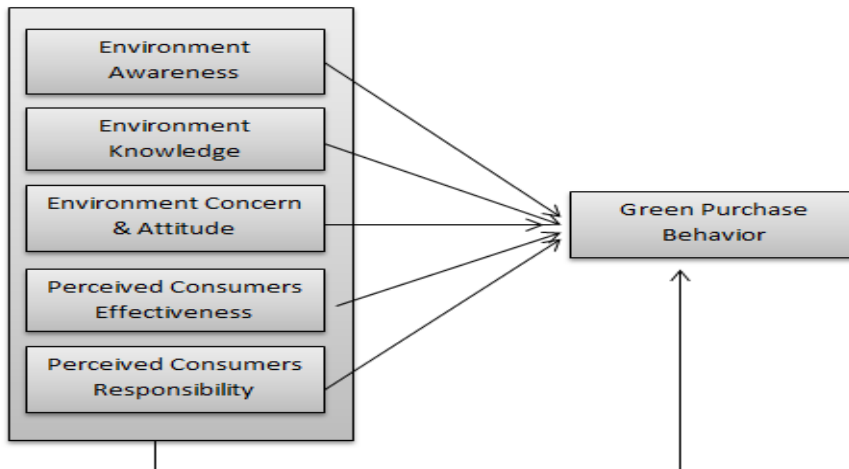
Perceived Consumers Responsibility

Perceived consumers responsibility is a consumers act responsibly towards the environment, these responsibilities into action. In this research these responsibilities include the willingness to bring your own shopping bags and rejected the pay plastic. Environmental responsibility starts from consumers themselves for willingly take on that responsibility as early as possible (Donald, 2011).

C. Research Model And Hyphotesis

In this research the researcher used a quantitative method, where data were processed using SPSS version 20. The model in this research can be seen in Figure 1, Kauffman et all (2012), Kim & Choi (2005) and Picauly (2011) conclude that there are positive and significant correlation between variables Customers Awareness, Customers Knowledge, Environment Concern and Attitude, Perceived Consumers Effectiveness, and Perceived Environment Responsibility on Green Purchase Behavior.

Figure 1 : Theoretical Framework



Sources : Kaufmann et all (2012), Picauly (2011)

The hypthesis in this research are consist of :

H₁ : There is significant influence Environment Awareness on Green Purchase Behavior

H₂ : There is significant influence Environemnt Knowledge on Green Purchase Behavior

H₃ : There is significant influence Environment Concern and Attitude on Green Purchase Behavior

H₄ : There is significant influence Perceived Consumers Effectiveness on Green Purchase Behavior

H₅ : There is significant influence Perceived Consumers Responsibility on Green Purchase Behavior

H₆ : There are simultaneously significant influence Environment Awareness, Environemnt Knowledge, Environment Concern and Attitude, Perceived Consumers Effectiveness and Perceived Consumers Responsibility on Green Purchase Behavior.

D. Analysis And Interpretation

The researcher used self construted questionnaire and distributed online using google docs as many as 339 respondents. The questionnaire has been in validity and reliability test by using 30 respondent. All of the questions declared valid and reliable. The results of the questionnaire has also been in the classical assumption test.

Table 2 : Data of Respondents

Categories	Percentage
Male	51.2%
Female	48.8%
15 – 25 years old	49.5%
26 – 36 years old	20.3%
37 – 47 years old	13.9%
>47 year old	16.3%
Senior High School	21%
Undergraduated	53.5%
Post graduated	25.5%
Private Company	44.2%
Government Employee	5%
Entrepreneur	6.6%
Students	34%
Professional	10.2%
< IDR 2.500.000 / month	35.4%
IDR 2.500.000 – 5.000.000 / month	20.3%
>5.000.000 – 7.500.000 / month	11.5%
>7.500.000 – 10.000.000 / month	14.8%
>10.000.000 / month	18%

Source: Questionnaire, 2016

The researcher uses multiple regression analysis because the number of variables are six. The form of linear regression equation as follows:

$$Y = 5.367 + 0.278 X_1 + 0.245 X_2 + 0.676 X_3 + e$$

Where : Y = Green Purchase Behavior

X₁ = Environment Awareness

X₂ = Environment Knowledge

X₃ = Environment Concern & Attitude

Table 3 : Regression Analysis

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.367	3.293		1.630	.104
	Awareness	.278	.059	.312	4.743	.000
	Knowledge	.245	.069	.239	3.545	.000
	Attitude	.676	.127	.331	5.307	.000
	Effectiveness	-.005	.066	-.003	-.074	.941
	Responsibility	.028	.051	.023	.557	.578

a. Dependent Variable: GreenBehavior

Source : Questionnaire, 2016

Based on table 3 above, it can be seen that four of independent variables (Environment Awareness, Environment Knowledge, Environment Concern & Attitude and Perceived Consumers Responsibility) have positive effect on Green Purchase behavior. There is only one of independent variable (Perceived Consumer Effectiveness) has negative effect on Green Purchase behavior.

T-test is a significant testing in order to know whether the independent variables (Customers Awareness, Customers Knowledge, Environment Concern and Attitude, Perceived Consumers Effectiveness, and Perceived Environment Responsibility) is partially have significant influence into dependent variable (Green Purchase Behavior) or not. According to the table 3, it can be seen that Environment Awareness (X₁), Environment Knowledge (X₂) and Environment Concern & Attitude (X₃) have significant influence on Green Purchase Behavior, because the significance level lower than 0.05 (t= 0.000). Two other variables are Perceived Consumer Effectiveness (X₄) and Perceived Responsibility Consumers (X₅) have not significant on Green Purchase Behavior, because for a significant level higher than 0:05 (t = 0941 and t = 0578).

Table 4 : F - test

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23393.931	5	4678.786	160.519	.000 ^a
	Residual	9735.395	334	29.148		
	Total	33129.326	339			

a. Predictors: (Constant), Responsibility, Knowledge, Effectiveness, Attitude, Awareness

b. Dependent Variable: GreenBehavior

Source : Questionnaire, 2016

From Anova test or F test table 4 above, it is shown the value of F count is 160.519 Since the F count is 160.519 > F table (α = 0.05) with sig. 0.000, which is lower than α = 0.05, then it is accepted and the regression model can be used to predict The Green Purchase Behavior (dependent variable) or in other words, all of the independent variables (Customers Awareness, Customers Knowledge, Environment Concern & Attitude, Perceived Consumers Effectiveness, and Perceived Environment Responsibility.) simultaneously have significant influence on the dependent variable, Green Purchase behavior.

Table 5 : Coefficient Correlation

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.840 ^a	.706	.702	5.39888

a. Predictors: (Constant), Responsibility, Knowledge, Effectiveness, Attitude, Awareness

Source : Questionnaire, 2016

From table 5 above, Coefficient Correlation (R) is equal 70.2% of the variation that occurs in the Green Purchase Behavior is explained by all of the independent variables (Customers Awareness, Customers Knowledge, Environment Concern & Attitude, Perceived Consumers Effectiveness, and Perceived Environment Responsibility) while the rest 29.8% are explained by factors other than the research variables.

E. Conclusion

Simultaneously, Customers Awareness, Customers Knowledge, Environment Concern & Attitude, Perceived Consumers Effectiveness, and Perceived Environment Responsibility have significant influence on Green Purchase Behavior.

As a partially Customers Awareness, Customers Knowledge and Environment Concern & Attitude has significant influence on Green Purchase Behavior. This result in line with Kaufmann et al (2012), they found that as a partially Customer Awareness, Customer Knowledge and Environment Concern & Attitude have effect to Customer Green Purchase Behavior. Dagher, Grace K. ; Omar Itani & Abdul Nasser Kassar (2015) also found that environment concern and attitude have the positive effect to green purchase behavior.

According to Ooi, Kwek & Keoy (2012) the researchers Malaysia; the government policies need to be supported by employers in the implementation of the green purchase behavior. Fryxall, G. and Lo, C. (2003) who studied in the southern and northern China concluded that managers can contribute to green purchase behavior to include environmental education as part of the company education / training program. So the Government of Indonesia can be cooperate with the employers in relialize green purchase behavior as follow of research in Malaysia and China.

F. Managerial Implication

Based on the result, 70.2% independent variable influence on Green Purchase Behavior, improving the customer awareness, knowledge, attitude and responsibility are very important to Indonesia future environment. Lim et al (2013) suggest now is the time to improve green marketing strategies since it is crucial for promoting green products. Ahmad and Yuhdi (2008) said that the government support is very important for implementation green behavior. In Indonesia pay plastics policy case, mostly the respondents suggest IDR 10.000 is a reasonable price for motivating the customer bring their own shopping bag. Respondents also suggested that the government can implement a policy without plastic in all of traditional and modern retail. Plastics can be replaced with paper or cloth bags that can be used repeatedly .

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