

## UNDERSTANDING INDONESIAN GREEN CONSUMER BEHAVIOR ON COSMETIC PRODUCTS: THEORY OF PLANNED BEHAVIOR MODEL

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**Abstract:** This study aims to explain Green Purchase Behavior toward Green Cosmetic products using theoretical model developed from The Theory Planned Behavior. A web-based survey was conducted during January – March 2017. In total, 275 respondents were analyzed with SPSS. The results show that beliefs would positively affect the three predictors on TPB (attitude, subjective norms and perceived behavioral control). Green Purchase Intention were simultaneously affected by Attitude, Subjective Norms as well as Perceived Behavioral Control. The results also indicate that both Green Purchase Intention and Perceived Behavioral Control demonstrated significant relationship toward Green Behavior. Additionally mediating effect of Green Purchase Intention was found between Perceived Behavioral Control toward Green Behavior.

**Key words:** green behavior, green cosmetics, green purchase intention, mediation analysis, theory of planned behavior

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### Introduction

Predicting Consumers behavior is one of the most important things to elaborate before determine the development of marketing strategy (Han and Kim, 2010). Marketers are continuously investigated the patterns of consumers buying behavior as well as purchase decisions in order to predict the forthcoming trends for the key success of business. The analysis of what, when, why, and how can be explained as consumer behavior (Anute et al., 2015). The significant increase of green products awareness among people in Indonesia nowadays has created tremendous implications on the many industry, especially cosmetics industry. Consumer showed higher interest with product that not only offer good quality but also environmental friendly.

With increasing competition in cosmetic industries, each companies should be able to understand their consumers' green behaviors as one of success keys for company. In this study, we applied Theory of Planned Behavior (TPB) as theoretical model, which was purposed to explain the consumer green behavior (Han et al., 2010) and that can be utilized by cosmetic companies to increase their competitive advantages. The purpose of the research is to analysis Indonesian

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consumers green behavior on green cosmetic products by using TPB model. In addition, this study objectives is also to investigate further the moderating effect of Green Purchase Intention on the Perceived Behavioral Control-Green Behavior relationship.

### **Literature Review**

Consumer purchase intention is very important to understand because purchase intention is used to predict consumer behavior in purchasing environmentally-friendly products (Han and Kim, 2010). Predicting consumer behavior is very crucial for it determines the development of marketing strategy (Han et al., 2010). TPB model were used in the study, which is a theory that predicts the behavior consideration because behavior can be considered and planned (Krueger and Carsrud, 1993).

### **Behavioral Belief, Normative Belief, and Control Belief**

According to TPB, human behavior is developed based on three kinds of elements: Belief about the possible consequences or other response from the behavior (Behavioral Belief), belief about the normative expectations of others and motivation to approve the expectations held by Normative Belief and belief about the presence of factors from behavior (*Control Belief*) (Ajzen, 2002). Based on a research by Han and Kim (2010), Control Belief has a significant effect on Perceived Behavioral Control, and Normative Belief also significantly affects Subjective Norms. Another significant influence is also shown by Behavioral Belief on Attitude. Therefore, the hypotheses are as follows:

H1 = Behavioral Belief has a positive effect on consumers' Attitude in purchasing-environmentally friendly cosmetic products.

H2 = Normative Belief has a positive effect on consumers' Subjective Norm in purchasing-environmentally friendly cosmetic products.

H3 = Control Belief has a positive effect on consumers' Perceived Behavioral Control in purchasing-environmentally friendly cosmetic products.

### **Attitude, Subjective Norm, and Perceived Behavioral Control (PBC)**

Attitude is positive or negative belief to show a specific behavior (Ajzen, 1991). Subjective Norm is assumed to be the functions of specific beliefs that someone agrees or disagrees to display a behavior (Ajzen and Fishbein, 1980). PBC indicates that the motivation of a person is affected by how he perceives the level of difficulty or ease to display a specific behavior (Ajzen, 1991). Chen and Chai (2010) also conclude that there are effects and relationship that are significant and positive between consumers' attitude, Subjective Norm, and PBC with the purchase intention for environmentally-friendly products (Chen and Chai, 2010; Rehman and Dost, 2013; Tseng and Chang, 2015). Therefore, the following hypotheses are proposed:

H4 = Attitude has a positive influence on Green Purchase Intention of environmentally-friendly cosmetic products.

H5 = Subjective Norm has a positive influence on Green Purchase Intention of environmentally-friendly cosmetic products.

H6 = Perceived Behavioral Control has a positive influence on consumers' Green Purchase Intention of environmentally-friendly cosmetic products.

### **Green Purchase Intention and Green Behavior**

Green purchase intention is the most determining factor of the real purchasing behavior of consumers towards environmentally-friendly products (Rehman and Dost, 2013). The term of Green Behavior in this study refers to the consumption of products that are good or beneficial for the environment (Lee, 2009). Perceived behavior control also significantly influences consumer behavior in Taiwan on organic products (Tseng and Chang, 2015). Purchase Intention functions as a mediator for the influence of Perceived behavioral control on Green Behavior in Swedish adolescents in purchasing green products (Promotosh and Sajedul, 2011). Shabani et al. (2013) conclude that Green Purchase Intention has significant effect on consumers' Green Behavior towards green products in general in the market. Hence, the following hypotheses are proposed:

H7 = Perceived Behavioral Control has a positive effect on consumers' Green Behavior in purchasing cosmetic products that are environmentally friendly.

H7a = Green Purchase Intention mediates the influence of Perceived Behavioral Control on consumers' Green Behavior in purchasing cosmetic products that are environmentally friendly.

H8 = Green Purchase Intention has a positive effect on consumers' Green Behavior in purchasing cosmetic products that are environmentally friendly.

### **Research Methodology**

The population for this study was general Indonesian green cosmetic products consumers'. Sample of this study consisted of consumers who experienced buying environmentally friendly cosmetic products, in the last 6 months. The sample in this study used a purposive sample. A Web-based survey was used to collect data. In the opening instructions of this survey, a thorough description of a green cosmetic was given. A total of 34 questions were used to measure 8 variables. The measurement of each variables were developed based on previous researchs (Han and Kim, 2010; Chan, 2001). A five-point Likert scale ranging from "1-strongly disagree" to "5-strongly agree" were used. At first, 308 questionnaires were collected over a period of three months (January-March 2017).

Data screening were performed to ensure that only qualified sample were included for the data analysis. To do so, two screening questions were used for the data screening: "Do you ever buy environmentally friendly cosmetic products in the last 6 months?" and "Do you buy those cosmetic products because they are

environmental friendly?”. Only respondents who answered yes for both questions that included for final data. Therefore, 275 data were used for data analysis.

The demographic data indicate that the sample in this study consisted of 67.6% female respondents and 32.4% male ones. There were 41.1% respondents whose age was between 17-24 years, and 58.9% whose age was  $\geq 25$  years. The respondents whose income was 150 USD per month were 14.5%, 150 – 370 USD per month were 81.1%, and  $> 370$  USD per month were 4.4%. In this study, income refer as pocket money considering that majority of the respondents were young people.

The measurement instrument was tested with validity and reliability tests to see if it was good to use. The questionnaires were considered valid because  $r$  count was larger than  $r$  table and the positive value of  $r$  count of each statement (Corrected item-total correlation)  $> 0.1183$ . The variables in this study were considered reliable because the value of Cronbach Alpha  $> 0.70$  (Normative Belief 0.866; Behavioral Belief 0.868; Control Belief 0.831; Attitude 0.909; Subjective Norm 0.899; Perceived Behavioral Control 0.940; Green Purchase Intention 0.928 and Green Behavior 0.839). Both simple linear regression and multiple linear regression were also done in this study. The mediation analysis done in this study referred to the conditions proposed by Zhao et al. (2010).

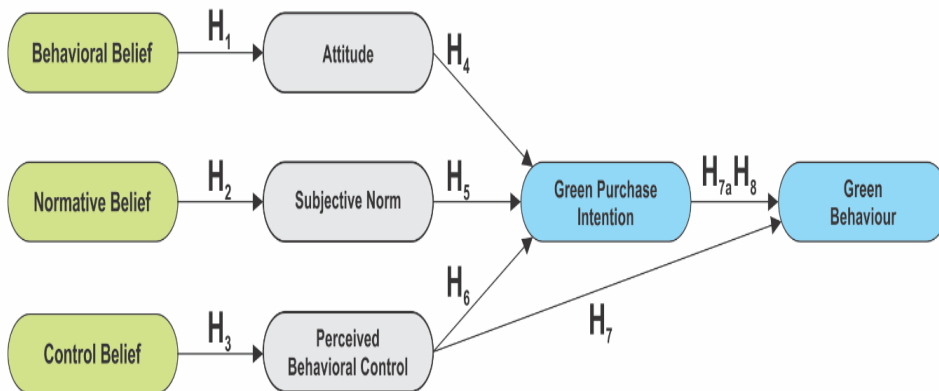


Figure 1. Research Framework

## Results

The analysis showed that Behavioral Belief has significant effect on Attitude ( $\beta = 0.855$ ,  $p = .000$ ), so Hypothesis 1 is accepted. Normative Belief showed a significant effect on Subjective Norm ( $\beta = 0.749$ ,  $p = .000$ ), so the Hypothesis 2 is accepted. Another significant effect was also demonstrated by Control Belief on Perceived Behavioral Control of environmentally friendly cosmetics ( $\beta = 0.391$ ,  $p = .000$ ), so Hypothesis 3 is accepted. The analysis result showed that, simultaneously, Attitude ( $\beta = 0.390$ ,  $p = .000$ ), Subjective Norm ( $\beta = 0.193$ ,

$p = .000$ ) and Perceived Behavioral Control ( $\beta = 0.389, p = .000$ ) have significant effect on Green Purchase Intention of environmentally friendly cosmetic products, but separately it can be seen that the biggest influence was shown by Attitude towards Green Purchase Intention. Therefore, Hypothesis 4, Hypothesis 5, and Hypothesis 6 are accepted. The result also showed that Hypothesis 7 is accepted; Perceived Behavioral Control has a positive significant effect on Green Behavior ( $\beta = 0.774, p = .000$ ); so does Green Purchase Intention which has a positive impact on Green Behavior ( $\beta = 0.819, p = .000$ ), so Hypothesis 8 is accepted.

The results of mediation analysis showed that positive significant effect was shown by 1). Perceived Behavioral Control as an independent variable to the mediating variable of Green Purchase Intention (Path a:  $\beta = 0.877, p = .000$ ), 2). Green Purchase Intention (mediator) on the dependent variable of Green Behavior (Path b:  $\beta = 0.819, p = .000$ ), and 3). Perceived Behavioral Control on Green Behavior (Path c:  $\beta = 0.774, p = .000$ ). According to the conditions of mediation suggested by Zhao et al. (2010), there was a significant and positive mediation effect (multiplication result of Path a and Path b) and in line with the direct effect of Path c (significant positive), then there is a complementary mediation effect with Green Purchase Intention as a mediator, thus Hypothesis H7a is accepted.

### Discussion and Findings

According to the results, it is found that beliefs are the factor that positively becomes a determinant in TPB (behavioral belief, normative belief, and control belief). Moreover, Behavioral belief, normative believe, as well as control believe were acted as subjective attributions that influence consumer's perception toward an object, which in this study is environmentally-friendly cosmetic products. The results of this study are in line with the results of other studies, such as that of Han and Kim (2010) stating that beliefs affect the attributes of TPB on consumers to purchase environmentally-friendly hotel.

The findings of this study showed a significant and positive relationship between Attitude and purchase intention of cosmetic products that are environmentally friendly. This is in line with a research by Chen and Chai (2010), concluding that there are positive relationship and effect between consumer's attitude towards the purchase intention of environmentally-friendly products with multiple linear regression. Another finding was also made by Chen and Chai (2010), that there is positive effect of attitude towards the intention of purchasing environmentally-friendly cosmetic products. On top of that, Attitude was found as the strongest variable that affect Green Purchase Intention. A positive attitude in seeing the living environment will make a person have feeling and assessment for environmentally-friendly cosmetics, resulting in the intention to purchase such cosmetics.

Another significant and positive relationship was also demonstrated by perceived behavioral control and subjective norm towards green purchase intention; this is in

line with a research conducted by Rehman and Dost (2013) that subjective norm positively supports teenage consumers' green purchase intention towards environmentally-friendly products, and then a research by Maichum et al. (2016) in Thailand as well as Tseng and Chang (2015) in Taiwan conclude that perceived behavioral control has a positive influence on green purchase intention of environmentally-friendly products, including environmentally-friendly cosmetics. Consumers' self-belief in their ability to purchase and get environmentally-friendly cosmetics, as well as social support that eventually shapes consumers' perceptions towards environmentally-friendly cosmetics also help increase consumers' purchase intention of environmentally-friendly cosmetics.

The results also showed that there is a direct, positive and significant effect of perceived behavioral control and green purchase intention towards green behavior of environmentally-friendly cosmetic products in Indonesian consumers. This result supports the conclusion of a research by Wu and Chen (2014) in Taiwan, as well as Promotosh and Sajedul (2011), conclude that perceived behavioral control has an effect on green behavior. The result is also consistent with a research by Shabani et al. (2013), concluding that green purchase intention has a positive effect on consumers' green behavior. A complementary mediation effect in this study was shown by green purchase intention as a mediator for the effect of perceived behavioral control on green behavior; this is in line with a research by Leong and Palm (2015). The finding showing green purchase intention as a mediator in this study helps clarify that purchase intention is able to act as a mediator for the three key elements (attitude, subjective norm, and perceived behavioral control) in TPB towards behavior, which in this study was shown in the element of perceived behavioral control.

### **Managerial Implication**

Marketers of environmentally-friendly cosmetics should start paying attention to the environmentally-friendly attitude which has existed on consumers, which this study shows to give the biggest influence on purchase intention; in business, companies can use endorser (for example: experts) to market their environmentally-friendly cosmetics. The pricing strategy in marketing also requires attention in order to stimulate consumers' behavioral control. Marketers should concept strategies based on the analysis of TPB as a defining element of purchase intention because such purchase intention in this study has a mediator role and significantly influences the purchase behavior of environmentally-friendly cosmetics. Otherwise, if marketers ignore these green practices, they might not be able to develop competitive advantages of its green cosmetic products.

## Conclusion

The present study tested the expedience of TPB in understanding consumers' behavior to choose a green cosmetic products. The findings of the study indicate that the manufacturers should not only focus on product development or internal benefits for cosmetic, but also on environmental issues to market green cosmetic products in Indonesia. This study reveals and provides new support for the role of Beliefs towards the elements of Theory of Planned Behavior (TPB).

The current study includes several limitations that offer opportunities for future research. First, a majority of the respondents were young people hence, the study might only be applied to respective group. Future studies should test the proposed model to other age groups.

Second, this study was designed to generally examine green cosmetic product. In fact, each green cosmetic brands might have its own uniqueness which also might lead to differences in consumer's perception toward green products. Thus, future research should spesifically focus on the comparison between two or more green cosmetic products.

Third, the motivation for buying green cosmetics products were not investigated thoroughly in the current study. Therefore, Buying products without any green behavior motivatioun could be exist. Due to that problem, longitudinal approach should be incorporated for the future research.

Lastly, this research did not include past experience as predictor variable in TPB. TPB could be enhanced by incorporating past behavior into model. For future research, further assessment of the TPB model by adding past behavior ontention is needed to test and predict behavioral intention. It might be valuable to test the current model by considering the effects of personal characteristics (e.g., gender, age, and income) for future research.

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**ZROZUMIENIE ZACHOWANIA INDONEZYJSKICH KLIENTÓW  
DOTYCZĄCEGO EKOLOGICZNYCH PRODUKTÓW KOSMETYCZNYCH:  
TEORIA PLANOWANEGO MODELU ZACHOWANIA**

**Streszczenie:** Niniejsze opracowanie ma na celu wyjaśnienie zachowań zakupów produktów ekologicznych w kierunku ekologicznych produktów kosmetycznych przy użyciu teoretycznego modelu opracowanego na podstawie teorii planowanego zachowania. Badanie internetowe przeprowadzono w okresie styczeń - marzec 2017 r. Łącznie analizie z wykorzystaniem oprogramowania SPSS zostało poddanych 275 respondentów. Wyniki badania pokazują, że przekonania mogły pozytywnie wpłynąć na trzy predyktory teorii planowanego zachowania (ang. Theory of Planned Behavior, TPB): postawa, normy subiektywne i postrzegana kontrola behawioralna. Zamiar zakupów produktów ekologicznych był ukierunkowany jednocześnie postawą norm subiektywnych i postrzeganą kontrolą behawioralną. Wyniki badania wskazują również, że zarówno intencja ekologicznych zakupów jak i postrzegana kontrola behawioralna wykazały znaczne powiązanie z postępowaniem o charakterze ekologicznym. Dodatkowo



zaobserwowano pośrednie oddziaływanie zamiaru ekologicznych zakupów pomiędzy postrzeganą kontrolą behawioralną a postępowaniem o charakterze ekologicznym.

**Słowa kluczowe:** postępowanie o charakterze ekologicznym, ekologiczne kosmetyki, zamiar zakupów ekologicznych, analiza mediacji, teoria planowanego zachowania.

#### 了解印度尼西亞綠色消費者對化妝品的行為：計劃行為模式理論

**摘要：**本研究旨在從理論計劃行為理論模型中解釋綠色購物行為。在2017年1月至3月期間進行了網絡調查。共有275名受訪者用SPSS進行了分析。結果表明，信仰將對TPB（態度，主觀規範和感知行為控制）三個預測因素產生積極影響。綠色購買意向同時受到態度，主觀規範以及感知行為控制的影響。結果還表明，綠色購買意向和感知行為控制都表現出與綠色行為的顯著關係。綠色購買意向的調解效應也被認為是認知行為控制對綠色行為的影響。

**關鍵詞：**綠色行為，綠色化妝品，綠色購買意向，調解分析，計劃行為理論。