Antecedents of Attitude Toward Green Products and its Impact on Purchase Intention

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Antecedents of Attitude Toward Green Products and its Impact on Purchase Intention

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Abstract. The lack of information related to green consumption behavior becomes an obstacle to both local and international markets in developing their marketing strategy to promote green products. Therefore, it is fundamental to recognize green behavior of consumers through their purchase intention towards green products, considering that this trend is quite new for them. The purpose of the study is to examine the relationship between three antecedents of attitude towards green products, namely, eco-label, environmental concern and peer pressure, as well as to analyze their influence on consumer’s purchase intention. In this study, the Theory of Reasoned Action (TRA) is used as theoretical research framework. This study investigates the green products, particularly on the ready to drink (RTD) beverage products in a paperboard package certified by Forest Stewardship Council (FSC). The data were collected from 386 respondents in Malang, Indonesia. The findings of this study signified that eco-label, environmental concern and peer pressure have a significant positive impact on the attitudes towards green products. Moreover, this attitude also has a positive impact on green products purchase intention.

Keywords: attitude, eco-label, environmental concern, green purchase intention, peer pressure

1. Introduction
The condition of environmental degradation encourages several companies to take notice of the ecological aspects in running their business. They attempt to create environmentally friendly products which are commonly referred to as green products. Any strategic efforts during production process and marketing activities aimed at creating green products are often called the green marketing [1]. As a result, to date the marketers and consumers realize the urgency to protect the environment. This condition has changed the production and consumption patterns among marketers and consumers. It is expected that the enhancement of environmentally friendly consumption behavior will be able to minimize any environmental degradation, which eventually improve people’s awareness. These goals shall be achieved only if the company is able to understand certain driving factors of environmentally friendly consumption behavior [2]. Therefore, the marketers start promoting the purchase of green products to both existing and potential consumers since their business goal focused on ‘sustainability’. For instance, attaching an eco-label symbol in the packaging becomes a part of green marketing concept which is believed to improve consumers’ preference to purchase the green products [3].
Previous studies argue that people with high environmental concern are more likely to purchase green products. This phenomenon is widely known as green consumption trend. The underlying assumption of this trend is consumers purchase decision, in which they do not buy product merely based on quality and price preferences, but also its norms, values and beliefs [4]. Over the past years, many researchers from various scientific backgrounds are interested to investigate green consumption behavior as the determinants of sustainable green consumption [5]. Therefore, it is important to elaborate any factors influence consumer attitudes which increase their purchase intention of green products. This current study empirically focuses on investigating the green purchase intention by adopting the Theory of Reasoned Action which comprises attitude and behavioral intention components.

In Indonesia, green products are known as ecological products or environmentally friendly products. Green products can reduce environmental degradation since they do not contain any or contain fewer harmful materials for the environment, energy efficient in its production and consumption process and do not pollute air, water and soil. Various green products are commonly found in the daily life, including organic food, energy saving lamps, fuel-efficient vehicles and others [6]. “Ready to drink” (RTD) beverage is packaged in FSC (Forest Stewardship Council) labelled paperboard and categorized as a green product because of its recyclable packaging. Also, the raw material of the packaging is obtained from a well and responsibly-managed forest, therefore it is environmental friendly [7].

There are two popular theories used to delve into consumers’ behavior, those are Theory of Reasoned Action (TRA) by Azjen and Fishbein [8] and Theory of Planned Behavior by Azjen and Fishbein [9]. Generally, Theory of Reasoned Action is used to predict any behavioral intention, whereas Theory of Planned Behavior explains both behavioral intention and actual behavior. The Theory of Reasoned Action discusses the relationship between beliefs, attitudes, intention and behavior. This theory describes that an intention is the most important determinant of behavior. In short, Gotschi, Vogel, Lindenthal and Larcher [10] stated that behavior is a causal result from behavioral intention, while behavioral intention is a causal result from two causal variables, they are 1) attitudes and 2) subjective norms, where both are determined by beliefs.

Based on this theoretical framework, it is known that intention arises from attitudes and subjective norms. Attitude is the most accurate predictor of intention [8, 11]. Environmental concern, for example any knowledge about the attributes of environmentally friendly products such as eco-labeling, will be able to foster a positive attitude to influence the purchase intention of green products. Besides, another factor that influences consumer attitudes toward green products is an environmental concern and peer pressure [12].

2. Hypothesis Development

2.1 Eco-label and attitude

Atkinson and Rosenthal [13] defined eco-label as certification symbols attached to certain product to inform consumers about the product’s environmental qualities that can inspire consumers trust. Meanwhile, Rashid [14] described eco-label as a product’s instrument functioning to inform the consumers about the positive impact of the products for the environment. Referring to D’Souza, Taghian and Lamb’s statements [15], the use of eco-label is an opportunity for marketers to increase product competitiveness and expand market segments to global-scale.

The eco-label is frequently applied by the marketers to promote green products to attract consumers’ purchase intention. Any information written on eco-label is a useful media for consumers to understand the environmentally friendly products [16]. Similarly, the previous studies indicate that eco-label has a positive influence toward consumer’s trust on green products [17, 18]. Hence, the hypothesis is:

H1. Eco-label has a positive effect on attitude towards green products
2.2. Environmental Concern and attitude toward green products.
Environmental concern as a belief, emotion and concern level of an individual towards the environment [19]. Whereas, Zhou [20] described as an awareness or insight / thought that nature conditions are threatened by excessive use of natural resources and pollution caused by humans. Moreover, Albayrak, Aksoy and Caber [21] classified environmental concern into three dimensions, namely egoistic concern, altruistic concern and biospheric concern.

In general, the higher one's concern for the environment, the higher their sensitivity to current environmental issues. The stronger environmental concern, the higher consumer's attitude towards green products [11]. Consistent with this statement, Aman et al. [12] pointed out that consumers with stronger environmental concerns tend to have more positive attitude towards green products. In this regard, they often prefer consuming green products to conventional products. Therefore, the hypothesis is formulated as follows:

**H2.** Environmental concern has a positive effect on attitude towards green products

2.3. Peer Pressure and attitude toward green products.
Peer pressure is psychological pressure a person experiences from someone else. It is also described as social influence from the closest person such as family, friends, and spouse, that is affect someone’s perceptions, attitudes or behavior toward things [22]. According to Lee [23], social influence is the most important determinant of green purchasing behavior. In addition, information obtained from other people is a critical factor in influencing the purchasing behavior of environmentally green products. This happened as the characteristics of the social group will tend to share similar ideas, insights, desires and habits and in turn, support the eco-friendly behavior [24].

Various studies show that there is a correlation between peer pressure and green purchase intention [25, 26, 27]. As a matter of fact, in Indonesia, the correlation between peer pressure and attitude toward green product has not been empirically tested in any previous studies. Hence, it is quite necessary to analyze the connection of those aspects. Thus, we develop the hypothesis:

**H3.** Peer pressure has a positive influence on attitude towards green products

2.4. Attitude toward green products and green purchase intention
Attitude is defined as a person’s consistently favorable or unfavorable evaluations, feelings and tendencies toward an object or idea [28]. Meanwhile, Chen [29: 167] stated that “an attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor”. Generally, it is known that consumers with higher attitude toward green products prefer consuming environmentally friendly products, and vice versa. Additionally, Suki [30] asserted that the stronger the consumer's attitude towards green products, the higher their intention in purchasing these products. Consequently, this makes them to be more careful in selecting products [30]. Accordingly, high level of environmental awareness is able to increase consumers’ purchase intention towards green products [31, 32]. Most previous studies show that there is a positive link between attitude and purchase intentions [33, 34, 35]. Therefore, we proposed:

**H4.** Attitude towards green products has a positive impact on green purchase intention.

3. Methods
3.1. Sample and Data Collection
The study was conducted in Malang, Indonesia, by using a purposive sampling technique. The green product is described as a ready to drink (RTD) beverages in FSC-labelled paperboard packaging. The data was taken based on 386 questionnaires that was distributed to the respondents. Partial Least Square (PLS) method was applied to analyse the data.
3.2. Data Collection and Measures

The data was collected by using a questionnaire of 17 items with five-point Likert-type scale ranging from 1 “strongly disagree” to 5 “strongly agree”. Eco-label was measured using four items adapted from two sources [36, 37]. Similarly, environmental concern consisted of four items were referred from Nguyen and Du [36]; Seyrek and Gul [38]. After that, peer pressure was represented by four items adapted from Sharaf and Isa [37]. In addition, three items reflecting attitudes towards green products were adapted from [11, 36]. Lastly, green purchase intention employed two items which were adapted from [11, 39].

4. Results and Discussion

The measurement model includes the multi-item scales of eco-label, environmental concern, peer pressure, attitude towards green products and green purchase intention were examined by confirmatory factor analysis. All of the score of factor loadings > 0.5. Reliability of the model is tested by Cronbach’s alpha coefficients and composite reliability scores and it showed that all of Cronbach’s alpha scores > 0.6. Also, all scores of composite reliability is > 0.7 (Table 1). This indicates all of the constructs are reliable.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Factor Loading</th>
<th>Cronbach’s Alpha</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eco-label</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSC label is easy to recognize</td>
<td>0.748</td>
<td>0.850</td>
<td></td>
</tr>
<tr>
<td>Symbol of FSC is quite informative</td>
<td>0.786</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attachment of FSC label on RTD beverages attracts my attention</td>
<td>0.823</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSC label increase products image</td>
<td>0.703</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Concern</td>
<td></td>
<td>0.857</td>
<td>0.904</td>
</tr>
<tr>
<td>I pay attention to current environmental issues</td>
<td>0.820</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I often look for information about the green products</td>
<td>0.881</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I pay attention to the existence of eco-labels</td>
<td>0.886</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I avoid consuming products in non-environment friendly packaging</td>
<td>0.756</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Pressure</td>
<td></td>
<td>0.629</td>
<td>0.781</td>
</tr>
<tr>
<td>I often get information about green products from my family</td>
<td>0.531</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My family supports me to consume green products</td>
<td>0.638</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I often get information about green products from my friends</td>
<td>0.743</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My friends support me to consume green products</td>
<td>0.792</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude towards Green Products</td>
<td></td>
<td>0.860</td>
<td>0.915</td>
</tr>
<tr>
<td>I believe:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTD beverages in FSC labelled paperboard save for the environment</td>
<td>0.856</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buying RTD beverages in FSC labelled paperboard helps conserve forest around the world</td>
<td>0.895</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTD beverages in FSC labelled paperboard is one solution to current environmental issues</td>
<td>0.901</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Purchase Intention</td>
<td></td>
<td>0.775</td>
<td>0.899</td>
</tr>
<tr>
<td>I intend to buy RTD beverages in FSC labelled paperboard in my next purchase</td>
<td>0.903</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Given a choice, I prefer RTD beverages in FSC labelled</td>
<td>0.903</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
paperboard to non FSC labelled paperboard.

Figure 1 shows that all of the hypothesis were supported. Coefficient of determination ($R^2$) is 41%, and it indicated the variance in green purchase intention was explained by the model. This results summarize that the three predictors (eco-label, environmental concern and peer pressure) have a significant positive effect on the attitude towards green products. Furthermore, attitude towards green products has a significant positive effect on the green purchase intention (Table 2).

### Table 2. Structural Parameter Estimates

<table>
<thead>
<tr>
<th>Hypothesis Path</th>
<th>Path Coefficients</th>
<th>$p$-Values</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eco-label → Attitude</td>
<td>0.348</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>Environmental Concern → Attitude</td>
<td>0.149</td>
<td>0.026</td>
<td>Supported</td>
</tr>
<tr>
<td>Peer Pressure → Attitude</td>
<td>0.282</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>Attitude → Green Purchase Intention</td>
<td>0.642</td>
<td>&lt;0.001</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Eco-label is an example of green marketing that assists consumer to differentiate green products from conventional products. Moreover, the information provided on the eco-label can influence consumers’ attitude. There are two types of Forest Stewardship Council (FSC) label attached on ready to drink beverages in Indonesia, those are 1) eco-labelling which only shows FSC symbol, 2) another type of eco-labelling which does not only show FSC symbol but also short information about the benefits of purchasing eco-labelled products.

The results showed that consumers tend to possess a positive attitude towards green products if the information presented clearly. This indicates that eco-label would be effective if the information written in detailed and easy to understand. This finding was consistent with the previous researches [13, 40]. The important thing is that the attitude towards green products of consumers who have better knowledge of eco-label will also increase.

Regarding to the environmental concern, it shows a positive influence attitude towards green products. This result is in accordance with the prior studies [12, 41, 42]. It can be concluded that consumers with higher environmental concern will have favorable attitude towards green products. As a result, a person with better environmental concern is more likely to have a positive attitude towards green products, which then lead to green purchase intentions. Environmental concern is reflected as one's emotions towards activities that cause damage to the environment, and thereby encouraging consumers’ trust and preference on green products. Khaola et al. [42] asserted that environmental concern is a determining factor in influencing consumer attitudes towards environmentally friendly products.

In relation to peer pressure, it shows that the consumers who communicates regularly with a person consuming green products routinely, have a positive attitude towards green products. This result is
similar to previous study conducted by Promotosh and Sajedul [25], which revealed that peer pressure is an important factor in affecting consumers’ attitude towards green product among young consumers. This condition is resulted from the fact that young people are interacting with their peers, getting information about the quality of green products from them and encouraged to consume green products more frequently rather than with their family. Accordingly, peer pressure is a predictor which affects consumers’ attitude towards green products, and expected to improve green purchase intention. This result is consistent with the previous studies [25, 26, 27].

In the case of purchase intention, this result supports the Theory of Reasoned Action (TRA), especially in predicting consumers’ intention to purchase green products. Therefore, customers’ attitude toward the green product is a crucial predictor of green purchase intention. This current finding is in line with previous studies [11, 12, 43, 44]. Consumers who believe in the positive environmental impact of green products have a higher intention to purchase them.

5. Conclusions
This results clarify that eco-label, environmental concern, and peer pressure is the critical factor for creating positive attitude towards environmentally friendly products. As a result, it is important for the companies to include eco-label in their products. Currently, the lack of eco-label knowledge in the society makes them paying less attention and care on the existence of eco-label. Therefore, collaboration between government and marketers is highly required to inform the public about the benefits of consuming green products. These efforts can be done through credible advertisements, educational program and social campaigns. The right educational program can be applied in the early learning process to foster environmental awareness. This does not only increase purchase intention and sustainable consumption, but also believed to decrease several environmental issues.

References
[18] Zhou M 2013 A Multidimensional Analysis of Public Environmental Concern in Canada Canadian Rev. of Sociology 50 4 453-481
[21] Chen M F 2007 Consumer Attitudes and Purchase Intentions in Relation to Organic Foods in Taiwan: Moderating Effects of Food-Related Personality Traits Food Quality and Preference 18 7 1008-1021

[36] Nguyen L Q, Du Q 2010 Effectiveness of Student’s Choice in Ecological Food Umea School of Business. Sweden

[37] Sharaf M A, Isa F M 2017 Factors Influencing Students Intention to Purchase Green Products: A Case Study in University Utara Malaysia Pertanika J. of Social Sci. and Human. 25 8 239-250

[38] Seyrek I H, Gul M 2017 Factors Affecting Green Purchasing Behaviour: A Study of Turkish Consumers. Inter. J. of Acad. Res. in Bus. and Social Sci. 7 1 306-319


