“Does green packaging matter as a business strategy? Exploring young consumers’ consumption in an emerging market”

Tuwanku Aria Auliandri https://orcid.org/0000-0003-4186-0990
Armanu
Fatchur Rohman https://orcid.org/0000-0001-7265-3324
Ainur Rofiq https://orcid.org/0000-0002-0888-1397


http://dx.doi.org/10.21511/ppm.16(2).2018.34

Tuesday, 19 June 2018
Wednesday, 11 October 2017
Monday, 11 June 2018

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License

“Problems and Perspectives in Management”

1727-7051
1810-5467
LLC “Consulting Publishing Company “Business Perspectives”

38
2
2

© The author(s) 2022. This publication is an open access article.
Abstract

Young consumer is a noteworthy consumer for a company as a sustainable marketing target. The business sector needs to consider green packaging as one of the company's competitive strategies. The existence of environmental problem phenomenon in recent years has increased the awareness of various parties to the importance of environmental sustainability. Indonesia as one of emerging markets, both for green product and green packaged product, also needs to take part in the issue.

Using Theory of Planned Behavior (TPB), this research aimed to simultaneously examine several influencing factors for young consumer's purchase intention toward green packaging. Two hundred seventy-six empirical data were obtained through questionnaires given to undergraduate students. The analysis, using Structural Equation Modeling (SEM), showed that attitude, personal norm, Perceived Behavioral Control (PBC), and willingness to pay significantly influenced the purchase intention. Furthermore, the level of environmental concern also determined the purchase intention through attitude.

Keywords

sustainability, green packaging, TPB, young consumer, business strategy

JEL Classification

M11, M31, O32

INTRODUCTION

Green packaging has been an attractive issue both for consumers and retailers in the past decade and is also in line with increasing consumer awareness in environmental sustainability. A packaging does not only serve to protect the main product, but is also expected to be environmentally friendly to reduce environmental problems due to the packaging waste. The business sector needs to consider green packaging as one of the company's competitive strategies. Indonesia as one of emerging markets, both for green product and green packaged product, also needs to take part in the issue.

Based on Koenig-Lewis et al. (2014), the current environmental damages are mostly caused by the non-eco-friendly packaging material. Waste from the product packaging inflicted by the consumers causes a poor condition for environmental sustainability (Biod et al., 1994). Yatna and Setyawan (2016) stated the importance of early awareness in managing the dangerous and decomposable waste, such as plastic packaging. In Indonesia, many campaigns on using less plastic packaging have been going on to reduce the effect of packaging on the environment. Understanding the factors, which influence the con-
sumers’ purchase intention toward green packaging, shall be very valuable for the government and companies to persuade consumer’s mindset and behavior in terms of environment awareness (van Birgelen et al., 2009).

Referring to Molina-Besch (2016), green packaging includes three main identities, they are minimizing the use of hard-to-decompose packaging, using a packaging with low energy consumption, and using the environmentally friendly packaging. Green packaging issue is often used to demonstrate the company’s commitment to environmental sustainability and increase the brand popularity (Byrne, 2017). For instance, using the eco-friendly paper and plastic packaging is one of Starbucks’s green practices to communicate its commitment for environmental sustainability (Jeong et al., 2014). McDonalds also implements a similar strategy by establishing a campaign on the use of biodegradable paper for food packaging, while Walmart employs 4Rs (reduce, reuse, recycle, and rethink) strategy to reduce packaging waste. The Global Cosmetic Industry (2017) claimed that 88% of consumers tend to be more loyal to the brands with positive commitments to the environment.

A research by Steenis et al. (2017) indicated that consumers respond positively to the environmentally friendly packaging. Green packaging products become the most important attributes, which affect consumers’ evaluations and preferences (Rokka & Uusitalo, 2008). Simmonds and Spence (2017) further revealed that packaging does not only serve as a protector of the main product, but is also able to affect consumer’s perceptions and buying behavior. The current empirical phenomenon shows that the green packaging product is an important issue for both researchers and industries (Prakash & Pathak, 2017). A number of national corporations and governments put their focus on improving the green packaging, such as by reducing or getting rid of the plastic waste and using recyclable packaging instead.

Referring to the previous studies on green packaging, there have been few researches discussing the purchase intention toward green packaging, especially in developing country and among young consumers (Prakash & Pathak, 2017; Biswas & Roy, 2015; Khare, 2015). Prakash and Pathak (2017) attempted to explain about the purchase intention toward green packaging using Theory of Reasoned Action (TRA). Thus, this research was constructed to profoundly understand the purchase intention toward green packaging among young consumers using Theory of Planned Behavior (TPB) and expand it by adding more variables, such as the level of environmental concern and the willingness to pay.

1. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

1.1. Theory of Planned Behavior

The theories, which are usually used to explain behavioral intention in social science, are TRA – Theory of Reasoned Action (Ajzen & Fishbein, 1977) and TPB – Theory of Planned Behavior (Ajzen, 1991). There are some related variables in TRA and TPB in explaining a behavior (Schiffman & Kanuk, 2010, pp. 253-254). TRA clarifies behavioral intention through two variables: the attitude toward behavior and the subjective norms, while TPB extends the predictor components by adding PBC – Perceived Behavioral Control. In marketing field, one’s intention and behavior are often explained either by TRA or TPB model (Assael, 2004, p. 226). Adding PBC variable as the predictor component in behavioral intention increases the rationalization of TPB (Ajzen, 1991; Ajzen, 1988, pp. 132-134).

Referring to Armitage and Conner (2001), TPB is widely used to justify behavioral intention and gain empirical support from various study fields. A most recent meta-analysis research proved that TPB theoretical framework provides good comprehension and prediction on individual motivation in consuming green products (Scalco et al., 2017). In a research on the purchase intention of green products, TPB is used as an intention predictor by using two additional explanatory variables: the willingness to pay and the environmental
concern. This research framework is developed from the researches by Prakash and Pathak (2017) and van Birgelen et al. (2009).

1.1.1. Attitude

Attitude depicts one’s evaluation of a behavior, such as bad/good or positive/negative (Ajzen, 1991). The more positive someone views a certain attitude, the higher the intention to behave as such. Some empirical researches on the green product consumption (including the green packaging) showed a positive influence on purchase intention (Ko & Jin, 2017; Prakash & Pathak, 2017; Yazdanpanah & Forouzan, 2015). Meta-analysis research conducted by Riebl et al. (2015) revealed that attitude has a strong and positive relationship with behavioral intention among adolescents. Therefore, the first hypothesis in this research was stated as follows:

\[ H1: \text{Young consumers' attitude positively influences their purchase intention toward green packaging.} \]

1.1.2. Subjective norm

Subjective norm measures to what extent social perception encourages someone to perform a certain behavior (Ajzen, 1991; Kim & Chung, 2011). If social environment around an individual gives a positive appreciation toward green products’ purchase intention, then, the purchase intention will also be high. A research by van Birgelen et al. (2009) provided an empirical support toward the previous statement. Therefore, the second hypothesis was stated as follows:

\[ H2: \text{Subjective norms positively influence purchase intention toward green packaging among young consumers.} \]

1.1.3. Perceived Behavioral Control (PBC)

PBC is referred to as one’s perception on the difficulty level of showing a certain behavior (Ajzen, 1991). Paul et al. (2016) argued that PBC is the most important predictor of human behavior out of three predictors of behavioral intention in TPB model. Various empirical resources showed positive influences of PBC on purchase intention in the context of green packaging’s consumption. A research by Martinho et al. (2015) illustrated a positive influence of PBC on the purchase intention of green packaging and a research by van Birgelen et al. (2009) also showed a similar result. Thus, the third hypothesis was stated as follows:

\[ H3: \text{Perceived Behavioral Control positively influences the purchase intention toward green packaging among young consumers.} \]

1.2. Additional explanatory variables of TPB

Adding an explanatory variable is meant to increase TPB model’s capacity in comprehending the behavioral intention (Conner & Armitage, 1998). Ajzen (1991) argued that TPB model provides a room for researchers to add relevant variables in order to enhance the explanatory capability in the individual’s behavioral intention. Therefore, the explanatory variables suggested for this research were environmental concern and willingness to pay.

1.2.1. Environmental concern

Environmental concern is simply defined as one’s awareness about environmental issues (Hu et al., 2010). Chen and Tung (2014) argued that environmental concern is related to one’s attitude over environment protection, which encourages someone to be environmentally friendly. Paul et al. (2016) showed that the higher concern someone has for his/her environment, the more positive his/her attitude will be. Specifically, Prakash and Pathak (2017) showed a positive influence of environmental concern on the attitude toward green packaging among young consumers. Based on the support of the previous empirical research, this research suggested the following hypothesis:

\[ H4: \text{The environmental concern positively influences the attitude toward green packaging among young consumers.} \]

1.2.2. Willingness to pay

Green products consumption is usually related to consumer perception on their prices and benefits (Padel & Foster, 2005). It is clear, because
most green products are commonly more expensive than conventional products. Rana and Paul (2017) argued that someone who is consuming green products is willing to buy the products at a higher price than conventional products. A number of current research proved that the willingness to pay for premium products positively influences young consumers’ purchase intention toward green products (Prakash & Pathak, 2017; Yadav & Pathak, 2017). Prakash and Pathak (2017) illustrated that the willingness to pay for premium products positively influences young consumers’ purchase intention toward green packaging. Thus, the fifth hypothesis was written as follows:

*H5: The willingness to pay positively influences the purchase intention toward green packaging among young consumers.*

2. METHODS

The suggested research model was expected to provide a deeper understanding of factors, which influence the purchase intention of young consumers toward green products. Based on the literature review and the hypotheses development, the research model was illustrated as follows:

Positivist research philosophy was implemented to examine the relationship between variables in this research using a deductive approach (Neuman, 2011, p. 95). In addition, this research aims to test the explanatory causal relationship, which means that this research was designed to examine or assess the causal relationship between the research variables (Cooper & Schindler, 2011, p. 141). Researchers then tried to explain the purchase intention toward green products through some explanatory variables, they are attitude, personal norm, Perceived Behavioral Control (PBC), willingness to pay, and environmental concern. Based on the research timing, this research was a cross-sectional research, because the research respondents were observed at certain times and variables were measured during the research.

As previously explained in the research model, there were six research variables as independent and dependent variables. Attitude (AT), personal norm (PN), environmental concern (EC), Perceived Behavioral Control (PBC), and willingness to pay (WTP) served as the independent variables, while purchase intention (PI) acted as the dependent variable. The operational definitions for six variables were based on the researches of Prakash and Pathak (2017) and van Birgelen et al. (2009).

This research used primary data, which were obtained through survey. Purposive sampling technique was used to gain 276 respondents who were undergraduate students. The data, which consisted of respondents’ information (both related to questions and statements in the questionnaire), were, then, processed to test the research hypotheses.

The data were processed using Structural Equation Modeling (SEM), because it enabled the researchers to understand the influence between all latent variables at once (Hair et al., 2010, p. 634). The researchers implemented the SEM’s two-step approach, which was suggested by Anderson and Gerbing (1988). At the first stage, the researchers ensured the model’s validity and reliability using Confirmatory Factor Analysis (CFA). Next, structural model test was conducted to examine the hypotheses.
3. RESULT AND DISCUSSION

Data analysis using SEM was conducted using AMOS software. The validity of measurement model is fulfilled if the minimum value of standardized factor loading ($\lambda$) for each indicator is 0.5 (Hair et al., 2010, p. 709) and the Average Variance Extracted (AVE) value is minimum 0.4 (Verhoef et al., 2002). Next, the researchers have to ensure that the measurement model has a good reliability. Reliability is proven by Cronbach’s Alpha ($\alpha$) and Construct Reliability (CR). Referring to Hair et al. (2010, p. 710), the values of Cronbach’s Alpha ($\alpha$) and Construct Reliability (CR) should be at 0.6 as the minimum value.

In this research, CFA was conducted at two stages. The first stage showed that there were variables, which did not fulfill the minimum value of 0.5 for standardized factor loading, so it was taken out and re-measurement was conducted at the second stage of CFA. Three indicators of attitude and two indicators of environmental concern are taken out of the second stage of CFA model. The

### Table 1. CFA validity and reliability

<table>
<thead>
<tr>
<th>Construct and indicator</th>
<th>Standardized factor loading ($\lambda$)</th>
<th>AVE</th>
<th>Cronbach’s $\alpha$</th>
<th>CR</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attitude (AT)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will choose to buy green packaging</td>
<td>0.859</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>I am willing to buy a product with recyclable packaging</td>
<td>0.525</td>
<td>0.427</td>
<td>0.659</td>
<td>0.678</td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>I will buy a product of a non-popular company, if its products are environmentally friendly</td>
<td>0.518</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td><strong>Environmental Concern (EC)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I care about environment</td>
<td>0.521</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>I try to buy a recycled product</td>
<td>0.753</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>I switch to green product for environmental sustainability</td>
<td>0.763</td>
<td>0.434</td>
<td>0.726</td>
<td>0.749</td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>When I have to choose one out of two products, I much prefer the green packaging</td>
<td>0.560</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td><strong>Subjective Norms (SN)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel obligated to preserve environment</td>
<td>0.577</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>I must do whatever I can to preserve environment</td>
<td>0.675</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>I feel obligated to use the green packaging</td>
<td>0.743</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>My friends appreciate my decision to choose the green packaging</td>
<td>0.603</td>
<td>0.419</td>
<td>0.811</td>
<td>0.811</td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>My family appreciates my decision to choose the green packaging</td>
<td>0.600</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>Choosing the green packaging is important in my community</td>
<td>0.669</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td><strong>Perceived Behavioral Control (PBC)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I buy the green packaging, I feel like I have done something positive for environment</td>
<td>0.620</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>I believe that decision to choose the green packaging directly influences the environment as a whole</td>
<td>0.782</td>
<td>0.497</td>
<td>0.730</td>
<td>0.746</td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>My choice to buy the green packaging directly influences the environment</td>
<td>0.703</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td><strong>Willingness to Pay (WTP)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am willing to pay more for the green packaging</td>
<td>0.926</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>I am proud to use the green packaging, even though it is more expensive than the conventional packaging</td>
<td>0.764</td>
<td>0.756</td>
<td>0.898</td>
<td>0.902</td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>I am willing to pay a higher price for a more environmentally friendly product</td>
<td>0.909</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td><strong>Purchase Intention (PI)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will buy the green packaging in the near time</td>
<td>0.700</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>I plan to buy the green packaging regularly</td>
<td>0.613</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>I plan to buy the green packaging, because it positively affects the environment</td>
<td>0.724</td>
<td>0.454</td>
<td>0.790</td>
<td>0.804</td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>I pay attention to environmental friendly aspect on the packaging of products I buy</td>
<td>0.757</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
<tr>
<td>I avoid buying products the packaging of which negatively affects the environment</td>
<td>0.552</td>
<td></td>
<td></td>
<td></td>
<td>Valid &amp; reliable</td>
</tr>
</tbody>
</table>
second stage of CFA proved a proper goodness of fit ($\chi^2/df = 2.041$; RMSEA = 0.062; GFI = 0.873; TLI = 0.899; and CFI = 0.913). The final CFA analysis' findings were illustrated in the following table.

Based on Table 1, all variables at the second stage of CFA are valid and reliable. Next step was performing the structural model construction to examine the hypotheses on the causal relationship between the variables. The interpreted structural model fulfilled the goodness of fit ($\chi^2/df = 2.042$; RMSEA = 0.062; GFI = 0.871; TLI = 0.899; and CFI = 0.912). The results of SEM's analysis at the structural model could be illustrated as follows.

Based on the analysis in Figure 2 and Table 2, it could be seen that all hypotheses formulated in this research were supported empirically. Young consumers' purchase intention toward green packaging was affected by attitude, subjective norms, Perceived Behavioral Control, and willingness to pay. Furthermore, their attitude toward green packaging was affected by their level of concern toward environment. The research findings confirmed the previous researches on the capability of TPB and its development in explaining the purchase intention toward environmentally friendly products (Prakash & Pathak, 2017; Yadav & Pathak, 2017; Paul et al., 2016; van Birgelen et al., 2009).

<table>
<thead>
<tr>
<th>Structural relationship between constructs</th>
<th>Standardized estimates</th>
<th>Critical ratio</th>
<th>p-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT → PI</td>
<td>0.203</td>
<td>2.119</td>
<td>0.034</td>
<td>H1 supported</td>
</tr>
<tr>
<td>SN → PI</td>
<td>0.286</td>
<td>2.321</td>
<td>0.020</td>
<td>H2 supported</td>
</tr>
<tr>
<td>PBC → PI</td>
<td>0.279</td>
<td>2.730</td>
<td>0.006</td>
<td>H3 supported</td>
</tr>
<tr>
<td>EC → AT</td>
<td>0.875</td>
<td>6.317</td>
<td>***</td>
<td>H4 supported</td>
</tr>
<tr>
<td>WTP → PI</td>
<td>0.249</td>
<td>3.951</td>
<td>***</td>
<td>H5 supported</td>
</tr>
</tbody>
</table>

Note: *** Significant coefficient is recorded at p-value < 0.001.

Figure 2. The causal relationship between variables on the purchase intention toward the green packaging.
CONCLUSION

Through a series of statistically testing process, the obtained empirical data illustrated that all hypotheses were supported. The result of this study provided a better understanding in explaining the purchase intention of young consumers toward the products with green packaging. The purchase intention of Indonesian young consumers toward green packaging was positively affected by attitude, personal norm, Perceived Behavioral Control, and willingness to pay. The environmental concern positively influenced the purchase intention through the mediation of attitude. Specifically, in this research framework, subjective norms had the greatest direct positive influence on young consumers’ purchase intention compared to other predictor variables. In other words, the environment appreciation on young consumers toward eco-friendly attitudes had a major positive impact on the purchase intention of products with green packaging in Indonesia. The level of young consumers’ environmental concern also resulted in a significant and positive influence on the attitude formation toward green packaging, in which the attitude eventually and positively influenced on the purchase intention of products with green packaging. This research model provided some insights on the influencing factors of young consumers’ purchase intention toward green packaging.

Academically, this research provided theoretical and practical contributions in the marketing literature. The result yielded a theoretical support to explain the purchase intention of products with green packaging within the scope of young consumers in developing countries, which had not been specifically studied (Prakash & Pathak, 2017; Biswas & Roy, 2015; Khare, 2015). The findings in this study aligned and developed the results of Prakash and Pathak’s research (2017) and show that TPB contributed to a comprehensive and effective theoretical framework in explaining the individual’s motivation to consume eco-friendly products (Scalco et al., 2017).

Practically, the results provided an understanding at managerial level that the purchase intention of products with green packaging should be taken into account as the community’s role in building a strong subjective norm. Product marketing strategies with green packaging are necessary for building strong communities to reach out young consumers and make them interested in using products with green packaging. Subsequent research needs to accommodate other explanatory variables to enhance the research model’s ability in explaining the young consumers’ behavior toward products with green packaging. The application of this research model to different samples and times is also required to observe its consistency and expand the generalization of research model in the realm of purchase intentions on green packaging products among young consumers.

RESEARCH FUNDING

This research activity was supported and fully funded by LPDP-BUDI DN Scholarship Scheme for PhD Management Program in Universitas Brawijaya Indonesia, awarded by The Indonesian Ministry of Finance and The Indonesian Ministry of Research, Technology and Higher Education.

REFERENCES


33. Steenis, N. D., van Herpen, E., van der Lans, I. A., Ligthart, T.


