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Moral Norm and Theory of Planned Behavior: The Intention to Use Eco-Friendly Reusable Bag

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Abstract: This study analyzes the influence of three variables in the theory of planned behavior (TPB) along with the moral norm variable to predict pro-environmental behavior, specifically the use of eco-friendly reusable bags. The sample population in this study was 280 people who were aware of the existence of eco-friendly reusable bags and understood its use. Data were analyzed using structural equation modeling. The results of hypothesis testing showed a positive influence of moral norm, attitude, and perceived behavioral control on the intention to use eco-friendly reusable bags. However, the influence of subjective norms on the intention to use eco-friendly reusable bags was found to be negative. This is a pioneering research in the use of the expanded TPB model with the moral norm variable to predict the use of eco-friendly reusable bags, a behavior that is rarely studied. As is well-known, the TPB has been widely used in explaining pro-environmental behavior; however, studies that include the moral norm variable are scarce. The results of the study suggest that decision-makers and retailers need to design social advertisements that can encourage consumers to use eco-friendly reusable bags that would minimize the use of plastic bags.

Keywords: attitude, behavioral intention, moral norms, perceived behavioral control, subjective norms.

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INTRODUCTION

The research results and reports of Jambeck et al. (2015) with the McKinsey Center for Business Environment along with Ocean Conservancy in 2015 showed Indonesia as the second-largest producer of plastic waste in the world that is dumped into the sea. Then in 2016, a non-profit association, the Indonesian Diet for Plastic Bags reported that according to the Ministry of Environment and Forestry records, more than one million plastic bags per minute were used and according to the Indonesian Retail Association (APRINDO), there were 32,000 outlets/retailers using more than nine million plastic bags every day. This shows that plastic bags cannot be separated from the daily lives of Indonesians when shopping, besides there is no clarity about the prohibition of plastic bags by the government.



On the other hand, the seriousness of the government (Ministry of Environment and Forestry) to reduce plastic waste was shown at the commemoration of World Environment Day in 2018; which took the theme Control Plastic Waste and in line with the World Environment Day theme launched by UNRP, Beat Plastic Pollution (www.kemendagri.go.id/news/2018/07/19). From APRINDO's side, it was reported that starting on March 1, 2019, all of its members implemented a paid plastic bag policy, which is Rp 200 per sheet.

An inconsistency arises when several large retailers that have produced eco-friendly reusable bags and sell them to consumers, but still provide plastic bags even though they are paid, so consumers can still use plastic bags. On the other hand, consumers' awareness of carrying their own shopping bags is still low, making the use of plastic bags unstoppable. This fact certainly raises further questions, which are the extent to which consumers are willing to voluntarily buy and use eco-friendly reusable bags and what factors can encourage them.

According to Peattie and Peattie (2009), marketing discipline can contribute to achieving pro-environmental behavior through social marketing, which uses conventional marketing concepts to change behavior. Marketing communications that use social advertising can be used to encourage people to switch to eco-friendly reusable bags. Wilhelm-Rechmann et al. (2013) proved the positive effects of social marketing on decisions in land use so that biodiversity is maintained.

In essence, through proper social advertising, the idea of inviting people to leave plastic bags and replace them with eco-friendly reusable bags can reach the intended target audience. The meaning of eco-friendly bag is a bag that is not made of plastic, can be reused, can come from recycled products and is more durable (Aygeman & Devaraj, 2017). Using eco-friendly reusable bags itself can be considered as one of the environmentally responsible behaviors, which are the type of behavior that has the least impact on the environment or are beneficial to the environment (Steg & Vlek, 2009). This type of behavior could be in the private sphere and is a manifestation of use items that can preserve the environment (Park & Ha, 2012).

From a broader perspective, the use of eco-friendly reusable bags at the individual level is part of sustainable consumption, which is defined by the Oslo Symposium as the use of goods and services to meet basic needs and improve quality of life by minimizing the use of toxic materials and does not endanger future generations and has been adopted as the twelfth destination in the Sustainable Development Goals (UNDP, 2015). The description above illustrates the need to campaign for pro-environmental behavior, one of which is the use of eco-friendly reusable bags.

One concept of social psychology that is widely used to understand pro-environmental behavior is the theory of planned behavior (TPB) introduced by Ajzen (1991). The TPB model consists of attitude, subjective norms, and perceived behavioral control that is predicted to increase behavioral intention to mimick a certain behavior. TPB can be explained as follows: human behavior is generally based on several considerations, including beliefs about the results of their behavior and their assessment of these results (behavioral beliefs), the belief that there are normative expectations from others toward them and their motivation to comply with those expectations (normative beliefs) and beliefs about the existence of factors that can hinder/facilitate behavior and the strength of these factors (control beliefs). Behavioral beliefs will form attitudes toward a behavior, then normative beliefs form subjective norms, which are people's perceptions of other people's pressure on behavior and beliefs control results in perceived behavioral control, which is a person's perception of the ease/difficulty of carrying out a behavior.

Regarding the use of TPB to predict the intention to use eco-friendly reusable bags, several studies have proven that TPB can be used to determine the tendency of people to use eco-friendly reusable bags (Ari & Yilmaz, 2017; Hasan et al., 2015; Muralidharan & Sheehan, 2016; Ohtomo & Ohnoma, 2014). However, there

was a discourse about the use of another type of norm to predict pro-environmental behavior, because the TPB lacks in explaining the moral aspect of behavior (Poskus, 2015). Here, moral norm refers to the feeling of responsibility an individual has regarding the intention to act a specific behavior that does not harm the environment (Onwezen et al., 2013). Moreover, it is argued that moral norm is able to bring richer explanation about the underlying factors that encourage people to act pro-environmentally (Donald et al., 2014; Jakovcevic & Steg, 2013).

The meta-analysis carried out by Bamberg and Moser (2007) found that one of the psycho-social factors to understand environmentally friendly behavior was a moral norm. The initiator of TPB, also stated the need to incorporate moral norms into TPB to predict behavior that has a moral component in it. However, so far there has been no study that examines the effect of moral norms combined with TPB to predict the intention to use eco-friendly reusable bags, a relatively new kind of pro-environmental behavior that is currently being discussed as an effort to reduce plastic bag waste. Thus, the importance of this research can be seen from two aspects, theoretical and practical. The extension of TPB by including the moral norm is the theoretical contribution of this research. The results of this study are also expected to give to the government/retailers to design social campaigns for the use of eco-friendly reusable bags. Social advertising can be designed in such a way as to incorporate aspects in TPB and moral norms according to the results of this study.

METHODS

The design of this study was hypothesis testing, cross-sectional with the individual as a unit of analysis. The variables and instruments used were the moral norm (Tonglet & Read, 2004), attitude (Poskus, 2015), subjective norms (Poskus, 2015), perceived behavioral control (Tonglet et al., 2004), and behavioral intention (Huang & Su, 2016; Lao, 2014).

The data in this study were collected by distributing questionnaires to 280 people. According to Hair et al. (2010), when using structural equation modeling, the number of samples was obtained by multiplying the indicators by 10. The item statements in this study amounted to 28, so the respondents who were sampled were 280 people. The sampling technique was non-probability sampling in the form of purposive sampling, which was sampling based on criteria determined by researchers as follows: knowing the existence and usefulness of eco-friendly reusable bags.

The construct validity test was carried out to find out the extent to which the research instruments actually measure the variables to be measured (Sekaran & Bougie, 2016). The validity test used was Pearson product moment, in which the results showed that all instruments were valid because having Sig (two-tailed) which was smaller than 0.05. Next, the internal consistency reliability test was conducted to determine the extent to which the research instruments were homogeneous and reflect the underlying construct (Sekaran & Bougie, 2016). The reliability test results showed that all variables were reliable because Cronbach's alpha coefficient >0.6.

The research data were then processed using structural equation modeling (SEM) by first doing an overall fit model by looking at the following criteria: absolute fit measures and incremental fit measures. The results were as follows: chi-square at 450,168 (marginal fit), ρ value > 0.05 (not goodness-of-fit), RMSEA < 0.10 (marginal fit). While incremental fit measures showed three criteria, including TLI > 0.90 (goodness-of-fit), NFI > 0.90 (marginal fit), and CFI > 0.90 (marginal fit). Thus, the model was considered to be fit and can be used to test the hypothesis.

RESULTS AND DISCUSSION

The result of hypothesis 1 showed that there is a significant effect of moral norm effect on the intention to use eco-friendly reusable bags. This shows that the more people feel guilty if they do not use eco-friendly reusable bags and feel that bags should not be disposed, their intention to buy eco-friendly reusable bags is higher. Moreover, people will be willing to look for information about eco-friendly reusable bags and recommend them to their friends and family. A sense of concern for the health and well-being of the community where a person lives also increasingly makes them intend to buy eco-friendly reusable bags even though the price is relatively expensive compared to the usual plastic bags that are obtained for free. Moral norms also reflect the principle of life held by some people, which is caring for the environment that drives him/her to buy eco-friendly reusable bags.

The results of hypothesis testing can be seen in Table 1.

This finding is in line with several previous studies that examined the influence of moral norms on other environmentally friendly behaviors. Tonglet et al. (2004) found that moral norm, especially those related to concern for the community and the environment, influences the intention to recycle. Chan and Bishop (2013), as well as Poskus (2015) also proved that feeling responsible for participating in protecting the environment can encourage people to recycle.

Other pro-environmental behaviors that are also widely studied is the use of public transport. Air pollution and severe congestion makes the government in many countries appeal to its people to reduce use of private vehicles and switch to public transportation. Harland et al. (1999), Heath and Gifford (2006), Donald et al. (2014), Jakovcevic and Steg (2013) are some researchers who found that the norms adopted by the community and internalized within themselves contribute to the intention to use public transport. The moral norm states that protecting the environment is a value that should exist in every human being.

Looking at the research results discussed above and because the use of eco-friendly reusable bags is one type of pro-environmental behavior, it can be assumed that moral norms can also play a role as a predictor of the use of eco-friendly reusable bags as evidenced by this study.

It was proven in the second hypothesis that the more people consider the use of eco-friendly reusable bags to be good, useful, ethical, and commendable, the tendency to leave plastic bags and use bags that could be reused will increase. As one of the components of TPB, attitude is often found as the biggest contributor (compared to two TPB constructs) to predict pro-environmental behavior. The result of this study supports several previous findings as discussed below.

Table 1 Hypothesis Test Results

Hypothesis	Coefficient	Sig.	Decision
H1: there is a moral norm influence on behavioral intention to use eco-friendly reusable bags	0.548	0.000	H1 supported
H2: There is an influence of attitude on behavioral intention to use eco-friendly reusable bags	0.257	0.003	H2 supported
H3: There is an influence of subjective norms on behavioral intention to use eco-friendly reusable bags	-0.295	0.005	H ₃ supported
H4: There is an influence of perceived behavioral control on behavioral intention to use eco-friendly reusable bags	0.558	0.000	H4 supported

Source: Data Processed Result

The experiment conducted by Muralidharan and Sheehan (2016) using the display of social ads in two frames (loss and gain) found that the attitude towards the intention to use eco-friendly reusable bags increased in the conditions of both frames. This proves that the attitude that is the result of one's evaluation of the intention to use eco-friendly reusable bags can be formed or changed using social advertising. Through gain framing (avoiding fees), people were invited to think that they do not need to pay fees when carrying shopping bags, while on loss framing (paying taxes), people will be taxed when receiving plastic bags from retailers. This research also gives the view that government's intervention is needed to change behavior. Likewise, Ohtomo and Ohnoma (2014) proved that intervention (at retailers) can increase consumers' positive attitudes to buying eco-friendly reusable bags.

Another study conducted by Chang and Chou (2018) using TPB also found a strong influence of attitude on the intention to use eco-friendly reusable bags. Volva et al. (2018) proved that the positive attitude of housewives about carrying their own shopping bags can encourage them to buy eco-friendly reusable bags.

Next, the test of the third hypothesis found that subjective norm influences intention to use an eco-friendly reusable bag in a negative direction. People also know that the government supports environmental conservation and has planned to achieve Waste-Free Indonesia by 2020, but it is not enough to encourage them to use eco-friendly reusable bags.

Similar results were found by Chang and Chou (2018) who conducted research studies in Taiwan explained that subjective norm was not strong enough to predict the use of eco-friendly reusable bags. However, Volva et al. (2018), who studied housewives in Bogor, Indonesia, found that compared to the other two constructs in TPB, it was precisely the subjective norm that had a greater role in the intention to use eco-friendly reusable bags.

Regarding the inconsistency of findings of the influence of subjective norms on the intention to use eco-friendly reusable bags, there are some reasons to be explained. The first is the profile of the respondent. Volva et al. (2018) used housewives as respondents because they are directly involved in shopping and the decision to use an eco-friendly reusable bag lies in them.. While this study took respondents in general with housewives totaling 12 people. Respondents who did not work were 68 students, so they did not think too much about shopping including the use of eco-friendly reusable bags. Interestingly, there were 200 respondents who were occupied with various jobs such as civil servants, entrepreneurs, and professionals who have enough information about eco-friendly reusable bags from the government and other people/their families, but they are not motivated to buy and use eco-friendly reusable bags.

The next guess is that attitude plays the role of a mediator between subjective norm and behavioral intention. This thinking has been proven by Chang (1998) who stated that external influences originating from the social environment help form positive or negative attitudes towards a behavior. This finding is strengthened by Tarkiainen and Sundqvist (2005) who found that if someone feels that other people expect them to consume organic food (subjective norm), then they will make a prior assessment of the behavior of eating organic food (attitude) before deciding to buy it. Thus, people need to evaluate the benefits of eco-friendly reusable bags after obtaining information and opinions from other people and the government.

The fourth construct in TPB, perceived behavioral control, proved to have a positive influence on intention to use eco-friendly reusable bags as evidenced by the testing of the fourth hypothesis. This proves that the more someone feels comfortable, easy, and has the opportunity to use eco-friendly reusable bags, the more they are willing to buy these bags. Now with the ease of obtaining eco-friendly reusable bags at retailers, people are also increasingly encouraged to buy them.

The result of this study strengthened the findings of previous researchers who stated that perceived behavioral control is a stronger predictor than the other two TPB constructs (Chang & Chou, 2018; Hasan et al., 2015). Perceived behavioral control describes the extent to which people have control over their actions and perceptions of the ease of behavior. So far, the perceived behavioral control has proven to be quite strong and consistent in predicting the behavior of using eco-friendly reusable bags.

Regarding the results of the study, several suggestions can be submitted to policymakers and retailers to design a social advertisement that can encourage consumers to bring their own shopping bags that can be used repeatedly. Effective advertising depends on message strategy, message delivery creativity, and credible sources as communicators.

The first suggestion is that social advertisements should show the real benefits of using eco-friendly reusable bags, including cleaning the sea and land, reducing waste and hygiene of human food sources such as fish from the sea and poultry that take a lot of food from the soil. Next, to build a positive attitude towards the behavior of using eco-friendly reusable bags, an explanation can also be given by those who are experts in health and environment who can strengthen the good evaluation of the use of shopping bags that are reusable. The next suggestion is to highlight the moral aspect by creating an advertising scenario about someone who always uses eco-friendly reusable bags because they realize the adverse effects of plastic on the environment. In addition, such advertisement can show that some cities in Indonesia have implemented mayors' regulations regarding the use of plastic bags and how the opinion leaders living in those cities can motivate others to use eco-friendly reusable bags.

The researcher also suggested that social advertising could also present government representatives as spokespersons, for example, the Minister of Environment and Forestry explaining to the public about government policies regarding eco-friendly reusable bags and pricing for plastic bags. In addition, to convince people that a reusable shopping bag is available, even retailers should sell the bag and put it in a place that is easily seen by the buyer, such as near the cash register. Social advertisements can also be made by retailers and installed in stores with attractive displays such as beautiful handbag displays, made from materials that are comfortable and large enough to accommodate consumer goods.

CONCLUSION

The results of this study prove that there are positive effects of the moral norm, attitude, and perceived behavioral control on behavioral intention to use eco-friendly reusable bags. The subjective norm has a negative effect on behavioral intention to use eco-friendly reusable bags. Thus, this research enriches the research in the area of pro-environmental behavior in particular through the extension of the TPB model which has previously been robust in predicting intentions of environmentally friendly behavior by including the moral construct of the norm. This study has several limitations as follows: the number of respondents is only 280 people, the subjective norms that include injunctive and descriptive norms have not been operationalized and are the mediating role of attitude has not been tested before. Noting the first limitation, the next researcher should increase the number of respondents so they can better represent consumers who understand the use of eco-friendly reusable bags. Similarly, the next researcher can operationalize subjective norms which include injunctive and descriptive norms to be able to see the subjective norm's role in predicting the use of eco-friendly reusable bags. The last suggestion for the next researcher is to analyze the influence of subjective norm on the attitude that has been proven by previous researchers (Chang, 1998; Tarkiainen & Sundqvist, 2005) to accommodate subjective norm weaknesses as a behavioral predictor intention to use eco-friendly reusable bags.

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