

# Campaigning Reusable Bag:

## The Role of Retailers to Achieve Sustainable Consumption

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**Abstract**—This paper aims to investigate whether retailers can contribute to sustainable consumption by campaigning the use of reusable bag. This becomes a challenge since thousands of Indonesian retailers use millions of plastic bags every day. Retailers can participate to reduce the use of plastic bags by developing a social marketing campaign to change consumer behavior. Understanding consumers' psychological process is important to create appropriate campaign. The modified TRA model combining with perceived consumer effectiveness as moderator is used as the basic theoretical framework to test the hypotheses. Purposive sampling is used to obtain data from 211 respondents which are then analyzed using structural equation modeling. The results of this study show that both attitude and subjective norm positively influences the intention to use reusable bag. Moreover, subjective norm and perceived consumer effectiveness moderate the effect of attitude on behavioral intention. This study contributes to the modification of TRA model by adding the role of subjective norm and perceived consumer effectiveness as moderators. The findings give support to the retailers to design persuasive messages that incorporating the variables that are proven to influence consumers in using reusable bag.

**Keywords**—attitude, subjective norm, perceived consumer effectiveness, behavioral intention

### I. INTRODUCTION

Researchers [1] and a joint report by a reputable international consultant [2] put Indonesia as the second country in the world that produces most of the plastic waste in the ocean. Indonesian Government, through the Ministry of Environment and Forestry was determined to reduce 75% of plastic waste in 2025, as this was announced in the 2017 Waste Care Day [3]. According to the Minister of Environment and Forestry, there is an increase in public awareness about the dangers of plastic waste. At the commemoration of the World Environment Day 2018, the Ministry of Environment and Forestry took Controlling Plastic Waste as a theme which was in line with the theme of World Environment Day launched by United Nations of Environment Programmed [4].

The resulting rise in environmental challenges caused by plastic waste is driving the government to start a national

program to reduce the use of plastic bag. A paid plastic bag program was launched in 2016 by the Ministry of Environment and Forestry supported by Indonesian Retailer Association (APRINDO) that required people to pay Rp.200, - for a plastic bag while shopping at retailers. This program was part of the national campaign called Indonesia Bebas Sampah 2020 to alleviate the deleterious impacts of plastic waste. Now, four cities in Indonesia, which are Bogor, Banjarmasin, Balikpapan and Denpasar have issued city regulations that prohibiting the use of plastic bags in modern retailer. Because of the environmental benefits of using non-plastic bags, there has to be a national movement to encourage people to use eco-friendly reusable bags.

On the other hand, the retailers' awareness of campaigning sustainable consumption is increasing. Research in retailing mentioned that educating and involving the consumer to practice more sustainable behavior is one type of retailers' participation to achieve sustainable consumption [5,6]. Moreover, promoting sustainable consumption by retailers can be done with their day-to-day interaction with the customers [6]. Marketing communication is believed to be a tool to encourage consumers in choosing sustainable products and services by providing information needed [7]. Retailers can use in-store communication, social media, their corporate websites and newsletter as well as TV advertising to influence consumers to changing their behavior [8,9], and it is a rare topic to be researched.

### II. LITERATURE REVIEW

The use of reusable bags (shopping bags that can be used repeatedly) is a new phenomenon in Indonesia and it is not easy to convince people to bring their own bags while shopping. To be able to change consumer behavior, marketing discipline can contribute through social marketing [10]. According to the two authors, social marketing can be used to encourage people to practicing sustainable consumption. Using reusable bags is a part of pro environmental behaviors that have been promoted in certain parts/cities [11,12], namely the purchase, use and disposal of household products that can protect the environment as well as having very small harmful impact on the environment.

Because consumption pattern is the result of various choices and activities of actors –individuals, households, businesses, governments–, social marketing can use advertising as a medium to provide information. Through advertising, people are made aware of the link between consumption practices and sustainability [13].

The history of social marketing began in the early 1970s which then its identity continuously evolving, but the essence remains the same which is the application of marketing principles to change people’s behavior [14]. *Social marketing is the application of marketing principles to enable individual and collective ideas and actions in the pursuit of effective, efficient, equitable, fair and sustained social transformation* [15]. The definition positions social marketing as a means for any individual and society to participate in actions that is self-determined and self-defined to transform into a better life.

Previous studies in social marketing suggested to adopt psychological understanding in order to explore the way people think and feel about certain behavior before they are voluntarily willing to change their behavior [16]. By understanding several psychological factors that can encourage consumers to buy and use reusable bag, retailers can design better social marketing campaign that include those factors in the advertising design.

Theory-of-Reasoned Action that consists of attitude, subjective norm and behavioral intention is one of the social psychology theories that has been used widely in understanding pro-environmental behavior. The original TRA and its implementations in numerous studies of green behavior mentions that if people evaluate a particular behavior as positive (attitude) and they think that others that are important to them expect them to perform that behavior (subjective norm), they will do it [17]. Several studies have proven that TRA can be used to determine the tendency of people to use eco-friendly reusable bags.

Previous research [18] that used a social advertising in their experiment and found that the framed message in the social advertisement can increase participants’ positive attitude towards using reusable bag and will encourage them to do it. Generally, the role of attitude and subjective norm is powerful to drive people to use eco-friendly bag [19-22].

However, there are inconsistencies regarding subjective norm as predictor of behavioral intention to conduct pro-environmental behavior. Recent research [23] as well as another survey [18] also found that subjective norm does not influence people to use eco-friendly bag. On the other hand, a different finding [19] stated that, in fact, subjective norm is proven to be strong in predicting housewives’ intention to use eco-friendly bag.

Next, researchers that were interested in the role of subjective norm [24,25] found that subjective norm could be put as a moderating variable in explaining that positive attitude towards healthy behavior will encourage people to practice it if the social environment is more conducive and supportive.

Again, subjective norm can be defined as social influences or pressures that can influence a person to do a certain behavior.

Another determinant of pro-environmental behavior is perceived consumer effectiveness that is defined as the beliefs that individuals have regarding their actions in protecting the environment [26,27]. When an individual believes that he/she can perform actions that will save the environment, it means that he/she has high level of perceived consumer effectiveness. Previous research mentioned perceived consumer effectiveness (herein after PCE) as a significant predictor of pro-environmental behavior, such as buying green food [28], energy savings and recycling behavior [26]. Other studies also found direct effect of PCE on pro-environmental behavior [29-33].

Despite the empirical findings of PCE’s direct influence to pro-environmental behavior, it is rare to find the moderating role of perceived consumer effectiveness as suggested in pioneer research about PCE [34]. Twenty years after the initial suggestion of PCE as a moderator, researchers [35] found that PCE can strengthen the influence of attitude or beliefs on buying pro-environmental behavior. Another study shows that individuals who have positive attitude towards environmental aspects of food products are more likely to focusing on food labels containing environmental and social issues when they have higher level of PCE [36]. Earlier research mentioned that the relationship between attitude and behavior in the context of green purchase is moderated by PCE [37].

This current study accommodates the above phenomenon by modifying the TRA model using subjective norm and perceived consumer effectiveness as moderators, which is the novelty of this research. The findings of this study will help retailers in designing appropriate social advertising to encourage people to using reusable bag while shopping.

The conceptual model of this study is as follows:

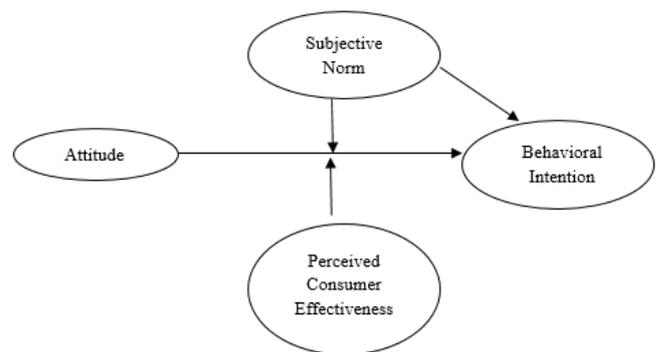


Fig. 1. Conceptual model.

### III. METHODS

This study is descriptive in nature, using hypotheses testing to find associations among variables and individuals as the unit analysis. Data was collected through a questionnaire survey and analyzed by structural equation modeling method.

Purposive sampling with some criteria determined by the author was used to obtain a sufficient numbers of respondents as sample. 211 respondents that knew the existence and usefulness of reusable bag participated in this survey.

The variables and measurements used in this study were adapted from previous research, which are attitude [38], subjective norm [38,39] perceived consumer effectiveness [39] and behavioral intention [38,39]. All items were scored on a five-point Likert scale, ranging from strongly disagree to strongly agree.

To test the goodness of measures, CFA was firstly used to verify the validity of the measures. All of the factor loadings are larger than 0.50 that met the benchmark criteria for more than 200 respondents [40]. Next, the Cronbach Alpha's for all measures were greater than 0.70 which shows that the internal consistency of reliability was sufficient. The structural modeling test was then conducted three times and the results (TLI=0.792; 0.824, CFI=0.847; 0.811, IFI = 0.850; 0.813, NFI= 0.752; 0.759) revealed that the data was fit.

#### IV. RESULTS AND DISCUSSION

##### A. Results

As hypothesized, there is an influence of attitude towards reusable bag on behavioral intention to use it is significant ( $p$  value =0.000; estimate= 0.546) and positive. Thus, H1 is supported. Also, the result of the hypotheses testing indicates that subjective norms has a direct effect on behavioral intention to use reusable bag ( $p$  value =0.000; estimate= 0.911). Thus, H2 is supported.

Table 1 shows the result of the hypotheses testing.

TABLE I. HYPOTHESES TESTING RESULTS

Hypothesis	Estimate	p value	Decision
H1: attitude significantly influences behavioral intention to use eco-friendly reusable bags	0.546	0.000	H1 supported
H2: subjective norm significantly influences behavioral intention to use eco-friendly reusable bags	0.911	0.000	H2 supported
H3: subjective norm significantly moderates the effect of attitude on behavioral intention to use eco-friendly reusable bags	0.857 (high in subjective norm) 0.595 ( low in subjective norm)	0.000	H3 supported
H4: perceived consumer effectiveness significantly moderates the effect of attitude on behavioral intention to use eco-friendly reusable bag	0.808 (high in subjective norm) 0.831( low in subjective norm)	0.000	H4 supported

Source: data processed result.

H3 proposes that there is a moderation role of subjective norm in the influence of attitude on behavioral intention to use reusable bag. In order to test the role of subjective norm as a moderating variable, a multi group technique was carried out into high and low scores in subjective norm. Then, after the hypotheses were tested, a probability level of 0.000 was obtained, which is smaller than 0.005. This result indicates that subjective norm significantly moderates the effect of attitude on behavioral intention both in the high (estimate coefficient; 0.857) and low (estimate coefficient; 0.595) scores. Thus H3 is supported.

H4 postulates that perceived consumer effectiveness moderates the influence of attitude on behavioral intention to use reusable bag. Again, the multi group technique was used to divide the respondents into high and low perceived consumer effectiveness scores. The probability level of 0.000 (<0.005) shows that H4 is supported for both groups of respondents, which are high in perceived consumer effectiveness (estimate coefficient=0.808) and low in perceived consumer effectiveness (estimate coefficient= 0.831).

The result of the H1 testing confirms that the more people think that reusable bag is convenient to use, safer, useful and wise option compared to conventional shopping bag, they are more willing to use it. Next, as supported in H2, subjective norm is another determinant of using reusable bag. An individual that is influenced by others (family, friends) as well as news (magazines, newspapers and other channel) is more willing to use reusable bag. Also, the government regulations related to environment protection can influence people to use reusable bag. These findings are in line with previous research [18-22]. Furthermore, it is shown that subjective norm moderates the effect of attitude on behavioral intention which is consistent with findings from earlier studies [24,25], that attitude plays greater role in intention to eat organic food when social pressure and environment are supportive and informative enough to support this behavior. Similarly, people that already have positive attitude towards eco-friendly bag are more willing to use the bag when they think they should comply with the social norm.

Regarding the moderating effect of perceived consumer effectiveness, research shows that positive attitude towards wine that comes from environmentally friendly wineries will encourage people to buy it when they strongly believe that their purchase will make differences in environment (PCE) [35]. Using eco-friendly bag will also the easier for individuals who believe that performing such behavior will result positively to the environment. This study responds to Gupta and Ogden's proposition [41] as well as suggestion from previous literature [34] to include PCE as moderating variable in predicting the influence of attitude on behavioral intention to perform pro-environmental behavior.

#### V. CONCLUSION

The present research introduced a modified TRA model to explain people's intention to use reusable bag. The findings

indicate that attitude and subjective norm influence behavioral intention in using reusable bag. Also, the moderating role of subjective norm and perceived consumer effectiveness are proven to strengthen the influence of attitude on behavioral intention to use reusable bag. Thus this study enriches the use of TRA model that can increase the understanding of attitude-behavioral intention gap in the pro-environmental behavior studies by incorporating subjective norm and perceived consumer effectiveness as moderating variables.

This study provides some suggestions for retailers to practicing social marketing campaign aimed at encouraging consumers to use reusable bag. The in-store communications that are place in retail stores is a good choice [9]. In the store, retailers can put digital media advertising in any place which is easy to find by customers while they are shopping. The advertising surely depends on the message and creative strategy. Determining the themes and appeals that will tie into the purpose of the campaign is very crucial. Both transformation and informational appeals can be utilized by retailers.

Increasing consumers' knowledge about the benefits of reusable bag to the environment is part of informational appeal that helps strengthening consumers' positive attitude. Besides, transformational appeal that elaborates the non-product-related benefits can be used to increase the role of subjective norm and perceived consumer effectiveness. Showing what kind of person that uses reusable bag and his/her contribution to the environment can stir up positive emotion that leads to positive attitude towards reusable bag and will motivate the intention to use it. Similarly, messages will be more persuasive when it includes reference groups (family, friends, co-workers) as representation of subjective norm that telling consumers to use reusable bag. Involving store employees especially cashiers in the campaign is also important [9]. The store employees must have a clear understanding about reusable bag and trained to offer it to the consumers.

This study has several limitations that future researchers may be able to overcome. Firstly, this study focuses only on the behavioral intention to use reusable bag. Since some studies found that people are not always consistent with their behavior intention, it will be useful for future study to look at the actual behavior in using reusable bag. Next, this study only incorporated two variables of the TRA, attitude and subjective norm as predictors of behavioral intention. Future researchers can use Theory-of-Planned Behavior which is the extended of TPB as well as incorporate additional variable such as moral norm as suggested by previous research [42] as one indicator that enriches the predictive power of TPB.

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