In-store communication of reusable bag: Application of goal-framing theory

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Abstract
Campaigns on pro-environmental behavior are an important objective in social marketing due to the environmental problems caused by people's consumption. Therefore, social marketers need to understand the underlying factors that make people change their behavior. This research investigates the determinants of pro-environmental behavior from the perspective of goal framing theory with three overarching goals, namely hedonic, gain, and normative. The data were collected using a questionnaire survey method and analyzed by structural equation modeling. The results showed that gain and normative goals directly affect pro-environmental behavior instead of a hedonic goal. This research also showed that the biospheric value as one of the self-transcendence values moderates the effect of normative goal towards pro-environmental behavior, proposed in preliminary studies. The findings contribute to the existing research regarding pro-environmental behavior determinants and used by social marketing initiatives, especially in-store-communication, in designing the right message. Future studies need to investigate the role of hedonic and egoistic values in predicting pro-environmental behavior.

Keywords: Goal framing theory, biospheric value, pro-environmental behavior.

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INTRODUCTION

Awareness related to the importance of protecting the environment for the health and survival of future generations has been raised as a global agenda in many countries. This awareness is known as the sustainable development concept, which emerged after a report entitled "Our Common Future" was published by the Brundtland Commission at the United Nations in 1987 (Holden et al., 2014). The essence of this research is due to the need for a balance between economic activity, welfare, and the natural environment. Sustainable development focuses on fulfilling the current generation's needs without harming or sacrificing the future generations' interests. Conversely, the environmental damage that hit the ecosystem is largely caused by human consumption behavior, especially in the current generation (Blankenberg & Alhusen, 2019).
The United Nations has issued a document on Sustainable Development Goals, including Ensure Sustainable Consumption and Production Patterns, which essentially promote economic growth, save energy, and adopt a sustainable lifestyle (UNEP, 2012). Nowadays, consumers are required to implement pro-environmental behavior to achieve sustainable consumption.

Generally, pro-environmental behavior is interpreted as the use of products and services with minimum natural raw and toxic materials that do not cause gas emissions and pollution. The ultimate goal of environmental care behavior is to continue to meet future generations’ needs, as reflected in the sustainable development concept coined by the United Nations (UNEP, 2012).

The Brundtland Report publication raised the idea of using social marketing to reduce consumption, which is expected to help achieve sustainability by providing campaigns on the people's behavior changes (Peattie & Peattie, 2009). Furthermore, the United Nations Environment Program (UNEP, 2012) also released a report stating the need for transformative changes in human behavior through environmental awareness campaigns, promoting marketing disciplines to participate in voicing pro-environmental behavior and sustainable consumption through social marketing.

Kotler & Zaltman (1996) stated that social marketing uses modern techniques and concepts to create awareness on social-related issues and changes in people’s behavior. However, Saunders et al. (2015) stated that social marketing is the development of individual and group actions based on basic principles that can promote the creation of sustainable social transformation. Therefore, through a well-targeted marketing campaign, environmental care behavior to be achieved leads to social change that involves all society levels in achieving sustainable consumption and development.

Environmental care behavior that leads to sustainable consumption is in the realm of individuals (private-sphere behaviors), in implementing green consumption using goods and services for personal/household needs without damaging the environment or carrying out the recycling (Park & Ha, 2012; Stern, 2000). Therefore, in campaigning for environmental care behavior, an understanding of the factors capable of promoting people is needed. This is because by knowing these factors, designing social messages or advertisements becomes more focused.

Preliminary studies carried out by Okumah et al. (2020) and Blankenberg & Alhusen (2019) stated that one factor that promotes people to carry out environmental care behavior is the psychological aspect. The authors stated that several theories are often used in the environmental care behavior context, namely Theory-of-Reasoned Action, Theory-of-Planned Behavior, Value-Belief-Norm, and Norm-Activation Model. Almost all of these theories are proven to explain the factors capable of encouraging people to adopt environmental care behaviors.

This research uses the goal-framing theory (GFT), primarily developed from the realm of social psychology, to understand environmental care behavior (Chakraborty et al., 2017; Lindenberg et al., 2018; Lindenberg & Steg, 2007, 2013). GFT, in essence, explains that humans are guided by three goals, namely gain, hedonic and normative in their thought processes which leads to environmental care behavior. Gain is people's purpose of benefitting from their actions, hedonic encourages them to acquire pleasure, while and normative make them act according to the norms applicable to the situation.
Goal-framing theory is a strong concept at the theoretical level, although it has not been widely applied in empirical studies. A research carried out by Chakraborty et al. (2017) using GFT found that normative goals among students promote them to behave more friendly to the environment. Furthermore, when examined, the GFT acts appropriately as a normative goal, which shows the importance of moral considerations, especially in environmental care behavior. In that context, normative goals are considered the most appropriate in promoting environmental care behavior. This is because people tend to act based on norms, such as maintaining environmental sustainability (Lindenberg & Steg, 2007, 2013).

However, preliminary research carried out by Lindenberg & Steg (2013) found the effect of hedonic goals towards environmental care behavior, driven by pleasure. Conversely, the effect of gain goals towards environmental care behavior has also been shown to be significant (Bolderdijk et al., 2011; de Groot & Steg, 2009; Griskevicius et al., 2010; Noppers et al., 2014).

Steg et al. (2014) developed a theoretical concept to support the initial idea of strengthening normative goals by proposing an integrated concept to promote environmental care behavior. The proposition put forward is that the normative goal depends on the biospheric values. Originally introduced by Stern (2000), biospheric values is defined as an ecological value that makes people more concerned about nature and environmental protection (Steg & de Groot, 2012).

The effect of biospheric value towards the intention to carry out environmental care behavior has been proven by many studies, such as the willingness to recycle (Balundé et al., 2019), energy-saving (Van der Werff et al., 2014), reduce gas emissions (Steg et al., 2011), save water for bathing (Steg et al., 2014) and decrease the use of energy at home (van der Werff & Steg, 2016). However, research involving biospheric value as a moderating variable has not been conducted. Steg et al. (2014) stated that the biospheric value in a person can activate normative goals, namely the obligation that a person feels to have environmental care behavior according to the prevailing norms (to act appropriately).

This research tries to prove Steg et al. (2014) idea by taking the phenomenon related to reducing plastic waste. Jambeck et al. (2015) stated that in 2015, Indonesia was the second-largest contributor to plastic waste in the world. At the individual/household level, most of these plastic wastes come from bags used for shopping. Therefore, several city/local governments, such as Banjarmasin, Denpasar, Balikpapan, Bogor, Bekasi, Semarang, and Jakarta, have issued regulations to minimize these wastes banning plastic bags in retailers/shopping centers. In Jakarta, Governor Regulation Number 142 of 2019 was issued regarding the Obligation to Use Eco-Friendly Shopping Bags in shopping centers, supermarkets, and public markets (Regional parliament, 2020).

In connection with the local government’s regulation regarding the use of eco-friendly shopping bags, almost all retailers, such as modern malls and minimarkets, have sold reusable shopping bags made of non-plastic. The attractive design is expected to increase consumers’ purchasing demand. Currently, these reusable bags are purchased at marketplaces and are quite expensive compared to the shopping centers, which are usually sold at low prices in the range of Rp. 20,000 to Rp. 50,000. The research carried out by Volva & Djamaludin (2018) on housewives in the Bogor area found that information on the use of reusable bags is mostly obtained from the media as well as shopping centers. However, the
reason for using this bag is because it is more beneficial, durable, long-lasting, efficient, and not harmful to the environment.

Retailers play a significant role in encouraging consumers to use reusable bags through in-store-communication. According to research carried out by Jones et al. (2011) on several department stores in the UK, marketing communications related to sustainable consumption are carried out through banners, posters, television screens, flyers, leaflets, or placing messages on goods shelves. The three authors stated that consumers as communication targets need to provide clear information and products on the appearance of messages to attract attention.

Saber & Weber (2019) stated that the three important things in in-store-communication carried out by supermarkets in accordance with sustainability are the strategies used to implement in-store-communication, whether they practice sustainability, and the availability of certified organic products for sale. In-store communication is carried out using visual, print media or by creating a special space for organic products. Fuentes & Fredriksson (2016), Saber & Weber (2019), and Lehner (2015) stated that the practices in stores seen directly by consumers also promote sustainable consumption rates.

Research on in-store-communication related to sustainable consumption has discussed the placement of organic, Fair Trade, and environmentally-friendly certified products (Carrero & Valor, 2012; Bezençon & Etmad-Sajadi, 2015). However, there are still no discussions on in-store-communication using messages that promote consumers to use reusable bags as part of sustainable consumption. Furthermore, consumers' psychological aspects need to be reviewed from the goal-framing theory due to the campaign on the use of reusable bags as part of advertising in social marketing.

Normative goals reflect on a person's purpose to act according to applicable norms (to act appropriately). Previous studies carried out by Lindenberg & Steg (2013), de Groot & Steg (2008), and Chakraborty et al. (2017) have proven that when people act based on the existing norms, they become more motivated to conduct environmental care behavior.

The Hedonic goal aims to ensure people have fun by buying environmentally friendly products. Eren et al. (2012), Jakovcevic & Steg (2013), Lindenberg & Steg (2013), and Steg et al. (2014) concluded that there is an effect of hedonic goals towards the intention to carry out environmental care behavior.

The gain goals describe the purpose to be achieved after people consider the benefits obtained in performing an activity. Grisvikevicious et al. (2010) stated that participating in environmental care behavior increases a person's status. Similarly, Bolderdijk et al. (2011), de Groot & Steg (2009), De Silva & Pownall (2014), Noppers et al. (2014), and Chakraborty et al. (2017) stated the positive effect of gain goals towards the intention to conduct environmental care behavior. The normative goals reflect a person's purpose to act appropriately. Previous studies carried out by Chakraborty et al. (2017), de Groot & Steg (2008), and Lindenberg & Steg (2013) stated that someone who acts based on existing norms is more motivated to carry out environmental care behavior. Steg et al. (2014) stated that the effect of normative goals towards the intention to conduct environmental care behavior is stronger when a person has high biospheric values.

This research novelty investigates the determinants of pro-environmental behavior from the perspective of goal framing theory with three overarching goals, namely hedonic, gain, and normative. This research is expected to provide suggestions for retailers to design
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in-store communication on the importance of reusable bags and promote changes in consumers' behavior towards sustainable consumption using the print/visual media.

METHOD

This is a descriptive correlational study used to explain the effect between variables through hypothesis testing. The research design is following the study carried out by Sekaran & Bougie (2014), which consisted of several steps. These included determining a research strategy in the form of a survey for data collection and analysis as the study because it is natural with minimal interference. Furthermore, the non-probability sampling method was used to obtain data from reusable bags using questionnaires with the cross-sectional method used for analysis. The respondents were determined based on those that have seen and understand the importance of reusable bags to the environment. This research uses five variables, namely Hedonic, Gain and Normative Goals adapted from Chakraborty et al. (2017), Biospheric value from De Groot et al. (2012), and the intention to carry out environmental care behavior from Teng & Wang (2015) and (Lao, 2014). Furthermore, the data were analyzed using covariance-based structural equation modeling with AMOS Version 23 and SPSS Version 21. The validity and reliability tests were carried out on the whole data (main data) with the Confirmatory factor analysis used as a validity test tool and internal consistency reliability for reliability testing (Hair et al., 2014; Sekaran & Bougie, 2014).

Table 1
Validity and Reliability Test Results

| Variable         | Factor Loading | Cronbach Alpha |
|------------------|----------------|----------------|
| Hedonic Goal     |                |                |
| 1. Practicing eco-friendly behavior makes me feel healthy and energized. | 0.854 | 0.937 |
| 2. I am happy when I carry out environmentally friendly behavior. | 0.885 | |
| 3. It is fun to be able to participate in environmental activities. | 0.848 | |
| 4. I enjoy carrying out activities that benefit the environment. | 0.855 | |
| 5. Conducting eco-friendly behavior makes me happy. | 0.834 | |
| 6. The use of reusable bags reduces the indiscriminate disposal of plastic bag waste. | 0.684 | |
| 7. Participating in social activities makes me feel better. | 0.838 | |
| Gain goal        |                |                |
| 1. Studying the sustainability aspect through various sources is very useful. | 0.785 | |
| 2. Organic food prevents people from having health problems. | 0.695 | |
|                  |                | 0.860          |
| Variable                                                                 | Factor Loading | Cronbach Alpha |
|------------------------------------------------------------------------|----------------|----------------|
| 3. The use of reusable bags reduces the disposal of plastic waste in my house. | 0.700          |                |
| 4. Actively inviting others to use reusable bags made me feel like a person that cares for the environment. | 0.757          |                |
| 5. All parties need to carry out campaigns on the use of reusable bags.  |                |                |

**Normative Goal**

1. People need to how to use reusable bags when shopping.  
2. A culture of environmental care improves life quality.  
3. Humans tend to maintain the ecosystem balance by protecting the environment.  
4. People need to be able to practice a lifestyle and consumption pattern that maintains environmental sustainability.  

**The intention to carry out environmental care behavior**

1. I am going to purchase the Reusable Bag as long as it is available to retailers (Supermarkets and Hypermarkets).  
2. I am willing to buy the Reusable Bag even though it is more expensive compared to ordinary plastic bags.  
3. I am willing to learn more about reusable bags by gathering information.  
4. I recommended the reusable bag to my friends, and they are willing to make purchases.  
5. I would like to recommend the reusable bag to my family for them to make purchases.  
6. The chances of me buying a Reusable Bag are very high.  
7. I am going to buy a reusable bag.  

**Biospheric value**

1. I feel it is important to preserve the natural environment.  
2. We need to maintain harmony with other living beings.  
3. I believe it is important to protect natural resources.  
4. We have to adapt to nature and not force our desires which lead to destruction.  

Source: Data Processed (2020)
Table 1 shows that all indicators are valid because of their ability to fulfill the criteria, where the loading factor is greater than 0.35. Similarly, all research variables are reliable because the Cronbach alpha is above 0.6.

Before processing the data, the model suitability test (goodness-of-fit) is carried out with several good fit indicators, namely ECVI: 2.826, RMSEA: 0.089, IFI: 0.913, TLI: 0.901, CMIN/DF: 3.485, and AIC: 884.679. The overall results show that the model is fit with NFI (0.882) and RFI (0.867) marginally fit. The multiple group method was used to test the moderation effect to divide the respondents into 2 groups with different degrees. The data processing results showed that the probability level value is 0.000, which means that there are differences between the 2 groups (High and Low Biospheric Value).

RESULTS AND DISCUSSION

Results

| Hypothesis | \( \rho \) value | Estimate | Decision |
|------------|------------------|----------|----------|
| H1: There is a positive effect of normative goals towards the intention to carry out environmental care behavior | 0.0495 | -0.648 | Not supported |
| H2: There is a positive effect of hedonic goals towards the intention to carry out environmental care behavior | 0.0935 | -0.418 | Not supported |
| H3: There is a positive effect of gain goal towards the intention to carry out environmental care behavior | 0.015 | 1.959 | Supported |
| H4: There is a significant influence of biospheric value on the effect of normative goals towards the intention to carry out environmental care behavior | 0.000 | 0.626 (at low biospheric value) | Supported |

Source: Data Processed (2020)

Discussion

Based on the hypothesis testing results, the first hypothesis stated that there is no positive effect of normative goals towards the intention to carry out environmental care behavior. Although this finding contradicts several previous studies, the goal framing theory initiators, namely Lindenberg & Steg (2007), reported that the normative is the smallest compared to the other two goals. When viewed from the respondents,' the majority aged 18-25 years and unemployed are less likely that they are less to buy reusable bags despite being cheap.

The second hypothesis does not find a significant positive effect on the hedonic goal towards the intention to carry out environmental care behavior. These results indicate that even though the respondents feel healthy, excited, and happy in caring for the environment,
this does not make them willing to buy reusable bags. Similarly, although they like to participate and enjoy environmental activities, it does not encourage them to buy bags. This finding is consistent with research carried out by Steg et al. (2014) and Chakraborty et al. (2017).

The third hypothesis stated that the data analysis results support the positive effect of gain goals towards the intention to carry out environmental care behavior. The research findings showed that more respondents are willing to buy reusable bags due to the numerous benefits, such as studying sustainability aspects and reducing waste in their homes. Therefore, they are willing to buy and use reusable bags. Furthermore, respondents are also happy to be considered as people that care about the environment when they invite others to use reusable bags, which also increases the usage rate. This hypothesis test results support the research carried out by Chakraborty et al. (2017), Griskevicius et al. (2010), Lindenberg & Steg (2013), and Noppers et al. (2014).

However, the fourth hypothesis's support explains the reasons associated with the inability of the normative goals to promote people to buy reusable bags. These testing results are in line with the research carried out by Steg et al. (2014), which stated the use of biospheric values to strengthen normative goals in a person, which creates environmental care behavior. Information or cues are designed to describe society's social norms to comply when campaigning for environmental care behaviors. This generates messages that target people with biospheric values in themselves, therefore the cognitive processes experienced promote them to adopt environmental care behavior.

CONCLUSION

There are several conclusions associated with this research. Firstly, there is no positive effect of normative and hedonic goals towards the intention to carry out environmental care behavior instead of the main goal. Finally, the role of biospheric value moderation is proven to be able to strengthen the effect of normative goals towards the intention to conduct environmental care behavior. This research is used as input for designing social campaigns or advertisements regarding reusable bags to change people’s shopping behavior through in-store communication at retailers. The essence of social marketing is using the marketing concept approach to change the target audience's behavior.

The first suggestion is to promote retailers' minimarkets, supermarkets, and hypermarkets in campaigning in-store by displaying advertisements, which shows the use of reusable bags for consumers and its benefits for the environment. The advertisement scenario is designed using the gain goal approach, which provides information to consumers on the benefits of using a reusable bag from a functional or psychological perspective. Reusable bags are used for various purposes, asides from shopping, such as in reducing plastic waste. Furthermore, advertisements show the benefits of reusable bags in reducing plastic waste at home, thereby making it cleaner.

Consumers are also conditioned to the normative goal, where as long as they are in retailers, plastic bags are not provided. It is expected that the consumer's thought process focuses on the goal that they need to own a reusable bag.
The last thing that needs attention is the accuracy in designing social advertisements displayed massively in stores using TV screens or posters that represent biospheric values, such as clean environmental conditions, the life harmony with nature, and various sustainable consumption activities. Furthermore, the advertisement needs to show the benefits of reusable bags and the condition of other countries that have banned the use of plastic bags to encourage its usage.

This research is limited to the use of surveys as a data collection method. Therefore, further research needs to be conducted using a social advertising scenario to obtain more representative results. Furthermore, this research is limited to the use of one variable in the self-transcendence value, namely biospheric. Therefore, subsequent research needs to be carried out to explore the egoistic and hedonic value variables in predicting the intention to carry out environmental care behavior following the research carried out by Steg et al. (2014).

According to Steg et al. (2014), another factor thought to strengthen the effect of normative goals towards the intention to conduct environmental care behavior is signaling cues in the form of injunctive norms. Therefore, future research needs to explore the use of biospheric values as a moderator. Furthermore, to determine the effect of goal-framing theory in promoting environmental care behavior, future research needs to be carried out in other aspects such as recycling, the use of public transportation facilities, etc.

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