

SUSTAINABLE CONSUMPTION BEHAVIOR AMONG UNIVERSITY STUDENTS IN INDONESIA: THE ROLE OF VALUES AND NORMS

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Abstract – It is believed that consumers play a major role in environmental preservation. Therefore, it is fundamental to explore what factors can encourage consumers to engage in environmental preservation, or, in other words, to encourage consumers to conduct sustainable consumption behavior. One of the factors believed to be able to affect consumers' sustainable consumption behavior is psychological factors. This study tries to explore psychological factors in the form of norms and personal values and their effect on two types of sustainable consumption behavior, namely buying and curtailment behavior in the context of university students in Indonesia. A study with 256 respondents has been conducted in an attempt to test the proposed model of this study. Based on the result, it is found that norms and values can explain both types of sustainable consumption behavior used in this study. Here, altruistic values and personal norms are proven to be significant in influencing both behaviors, whereas egoistic values are proven to be insignificant. However, there is a difference in the result of subjective norms, in which they are able to explain sustainable buying behavior, but fail in explaining sustainable curtailment behavior. This study provides understanding of sustainable consumption behavior in the context of university students from a psychological factors perspective. Additionally, implications and suggestions for future research are elaborated.

Keywords: Sustainable Consumption Behavior, Personal Values, Personal Norms, Social Norms

I. BACKGROUND

Consumption activities are considered to be one of the most environmentally significant activities (Princen, 1999). It is suggested that a change in these activities can bring major improvement to tackle environmental problems (Tanner & Cast, 2003). Additionally, it is mentioned that the success of

environmental preservation does not only depend on the policy made by the government, but also depends on the choice and behavior made by individuals as the most important element in consumption activities (Bronfman, Cisternas, López-Vázquez, Maza, & Oyanedel, 2015). Currently, sustainable consumption behavior in developing country is considered to be larger in growth compared to that in a developed country. However, the factors which can activate this behavior have not been explored thoroughly (Dermody, Koenig-Lewis, Zhao, & Hanmer-Lloyd, 2017). Discovering these factors is important for both environmental and business reasons (Jansson, Marell, & Nordlund, 2010). By understanding these factors, the government, as the policy maker as well as the company as the producer can compose the right strategy to influence consumers' sustainable consumption behavior (Vermeir & Verbeke, 2008).

There are many factors that can affect sustainable consumption factors. Among these, psychological factors have been highlighted as one of the most important in encouraging change in behavior (Tanner & Kast, 2003). In fact, Robinson and Smith (2002) asserted that psychological factors like values, norms and beliefs are more powerful to predict environmental behavior rather than contextual or demographic factors. Many studies also argued that the change in behavior can only be made by incorporating psychological factors such as personal and social norms (Kinzig, Ehrlich, Alston, & Ostrom, 2013). However, very few studies have examined values and norms altogether exclusively. Therefore, this study tries to explore sustainable consumption behavior of university students from psychological factors, in the forms of values and norms. University students are chosen as it is mentioned that university plays a vital role in constructing individuals' beliefs, attitudes and behaviors towards sustainability (Cortese, 2003). These beliefs, norms and values developed in university phase would be internalized for a long time and determine the students' behavior when they become leaders in the future.

II. LITERATURE REVIEW

A. Sustainable Consumption Behavior

Sustainable consumption is a type of consumption which does not only consider taste, convenience, and price aspect of the product, but also the social responsibility aspect (Vermeir & Verbeke, 2008). Sustainable consumption behavior can be manifested in several ways (Ibtissem, 2010). It can be in the form of purchasing behavior, such as buying environmentally-friendly products or boycotting the products from irresponsible companies (Ibtissem, 2010). Besides buying environmentally-friendly products, an individual can also contribute to environmental preservation by engaging in behaviors that would reduce resource and energy (Dermody et al., 2007). These behaviors are also known as curtailment behavior (Jansson et al., 2010). Curtailment behaviors usually cost no money and are performed on a daily basis (Jansson et al., 2010).

According to Stern (2000), there are four categories of factors affecting environmental behavior, which are psychological factors, contextual factors, routines or habits and personal capabilities. Psychological factors are all factors that guide the individual to act or behave, these include values, beliefs and norms (Stern, 2000). Contextual factors are external drivers that can both encourage and hinder pro-environmental behaviors (Stern, 2000). Meanwhile, habit is defined as an automatic link between an individual's objective and a specific behavior (Jansson et al., 2017). As for capabilities, they are the knowledge and skills needed to perform particular behaviors (Stern, 2000). This study will focus on the role of attitudinal or psychological factors, specifically values and norms, in influencing both sustainable buying and curtailment behavior

B. Altruistic and Egoistic Values

Schwartz (1992) defined values as "a desirable trans situational goal varying in importance which serves as a guiding principle in the life of a person or other social entity" (p.21) Values are believed to be able to affect a wide range of an individual's state of attitudes, norms, intentions and behaviors (Gardner & Stern, 2002), including sustainable consumption behavior (De Groot et al., 2012).

According to Nordlund and Garvil (2003), among all values dimension, self-enhancement vs self-transcendence dimension is more relevant to describe pro-environmental behavior, while self-transcendence values, or altruistic values (Stern, 2000) put emphasis on others' interest, self-enhancement values, or egoistic values (Stern, 2000) put emphasis on self-interest (De Groot et al., 2012). Moreover, as an individual would tend to consider a limited number of values when faced with decision-making, it is

suggested to emphasize on these two values first (De Groot & Steg, 2008).

It is mentioned that an individual with stronger altruistic values would possess stronger pro-environmental beliefs and, thus, would have a greater tendency to perform pro-environmental behaviors. Likewise, Lee, Lusk, Miroso, and Oey (2014) also postulated that individuals who hold altruistic values would be more likely to conduct various types of sustainable consumption behavior compared to those with higher egoistic values. On the other hand, individuals with higher egoistic values would be less likely to choose environmentally-friendly product or act more sustainably (De Groot & Steg, 2010). Based on these notions, the following hypotheses are developed:

- H1a: Altruistic values have a positive effect on sustainable consumption buying behavior
- H1a: Altruistic values have a positive effect on sustainable consumption curtailment behavior
- H2a: Egoistic values have a negative effect on sustainable consumption buying behavior
- H2b: Egoistic values have a negative effect on sustainable consumption curtailment behavior

C. Personal Norms

Personal norms, also known as moral obligation, are "self-expectation of specific action in a particular situation, experienced as a feeling of moral obligation" (Schwartz, 1977 as cited in Jansson & Dorrepaal, 2015). It is an individual's own expectation of how they should behave in accordance to their own internal values (Onel, 2017). In the context of environment, personal norms are the sense of having moral obligations to conduct pro-environmental behavior (Liu, Ehrlich, Alston, & Ostrom, 2018).

Personal norms are important in predicting sustainable consumption behavior (Bamberg & Moser, 2005). Likewise, according to Manstead (2000), personal norms were believed to be able to predict both prosocial behavior and actual behavior. The types of behaviors influenced by personal norms vary from recycling behavior (Thogersen, 2006), buying behavior (Tanner & Kast, 2003) to curtailment behavior (Nordlund & Garvill, 2003). Therefore, this study proposes the following hypotheses:

- H3a: Personal norms have a positive effect on sustainable consumption buying behavior
- H3b: Personal norms have a positive effect on sustainable consumption curtailment behavior

D. Social Norms

Social norms are the less internalized norms as compared to personal norms. They are learned through social interactions and socializations in a group (Jansson et al., 2017). Thus, social norms would be different from one individual to another as these are

learned from the group to which an individual belongs. While personal norms are driven by internalized expectations, social norms are mainly formed from perceived group expectations of what is being rewarded and what is being punished (Jansson et al., 2017). Social or subjective norms are defined as a belief whether a certain act or behavior would be accepted by social surroundings, like friends or family (Onel, 2016).

Many studies have found a relation between social norms and sustainable consumption behavior. Social norms are proven to be able to cause change in behavior (Griskevicius, Cialdini, & Goldstein, 2008), purchasing decision (Vermeir & Verbeke, 2006) as well as change in product choice (Bamberg & Schmidt, 2003). Social norms are also found to influence conservation behavior (Goldstein, Cialdini, & Griskevicius, 2008). Therefore, the following hypotheses are developed:

- H4a: Social norms have a positive effect on sustainable consumption buying behavior
- H4b: Social norms have a positive effect on sustainable consumption curtailment behavior

III. RESEARCH FRAMEWORK

Based on the formulated research hypotheses, there are four independent variables proposed in this model, namely altruistic values, egoistic values, personal norms and social norms. Thus, the following research model is formed

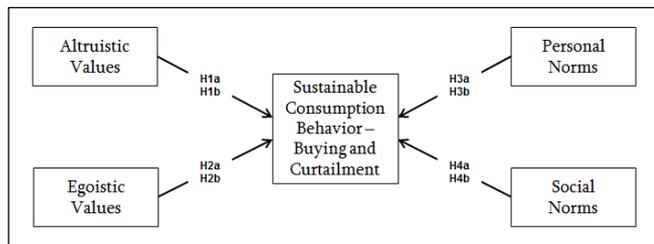


Figure 1. Research Framework

IV. METHODOLOGY

A. Research Design and Data Collection

This research employed descriptive research design to explore the relationship between proposed independent variables (altruistic values, egoistic values, personal norms and social norms) and dependent variables (sustainable buying behavior and sustainable curtailment behavior). The total number of samples used in this study is 256 university students. Research hypotheses were tested with multiple regression analysis, processed by SPSS 20.

B. Measurement

This study used standardized questionnaire to collect responses from the respondents. These questions were then measured by five-point scale ranging from (1) “very disagree” to (5) “very agree”.

Measurements for each variable in this study are adopted from various resources. Scale developed by Groot et al. (2007) was adapted to measure altruistic and egoistic values. Meanwhile, to measure personal norms, this study adopted scale from Steg et al. (2005). As for subjective norms, they were assessed by scale from Vermeir and Verbeke (2008). For sustainable consumption behavior, both buying and curtailment behavior were measured by scale from Dermody et al. (2007).

V. RESULT AND DISCUSSION

A. Sample Characteristics

Sample in this study were the students from four faculties in Universitas Multimedia Nusantara, a private university in Indonesia. As presented in Table 1, the sample of this research comprises of 57.4% female and 42.6% male. Most of the respondents are 19-20 years old, scoring for 55.1%. As for the degree, the majority of the respondents come from the faculty of communication. Most of the respondents have been exposed to environmental education in which 57.1% of the respondents stated that they have previously received environmental education.

This study also investigates the significant difference in sustainable buying and curtailment behavior score on each demographic group. Based on gender, it is shown that female respondents have higher average score in sustainable buying behavior (3.46) and in sustainable curtailment behavior (4.25). This result is consistent with the study from Lindeman and Verkasalo (2005) which found that women would be more willing to behave sustainably than men. According to Casey and Scott (2006), this can occur due to the fact that women have a role as a caregiver in society. This role makes them to be more nurturing and protective to their surroundings, including their environment.

There is also a significance difference of sustainable consumption buying and curtailment behavior score based on environment education exposure whereby respondents who have been exposed to environmental education scored higher in both sustainable buying and curtailment behavior with average score of 3.39 and 4.21, respectively. According to Kaiser and Fuhrer (2003), education and knowledge have an important role in predicting sustainable consumption behavior. Knowledge and education can become a distinguishing factor between those who are actively engaged in environmental preservation and those who are less engaged (Rizkalla, 2018).

TABLE 1. SUMMARY OF SAMPLE CHARACTERISTICS

	Percentage	Sustainable Buying		Sustainable Curtailment	
		Score	Sig	Score	Sig
Gender					
Female	57.4%	3.39	0.020*	4.25	0.001*
Male	42.6%	3.27		4.01	
Age Group					
17-18	28.5%	3.36	0.374	4.18	0.462
19-20	55.1%	3.30		4.16	
21-22	16.4%	3.40		4.03	
Faculty					
Faculty of	26.2%	3.32	0.975	4.19	0.655
Faculty of Communication	32%	3.35		4.07	
Faculty of Art and Design	24.6%	3.32		4.15	
Faculty of Information and	17.2%	3.34		4.18	
Environmentally-educated					
Yes	57.1%	3.39	0.023*	4.21	0.033*
No	42.9%	3.27		4.05	

Note: * denotes significance at the 5% level

B. Validity and Reliability Analysis

This study utilized factor analysis with principle component analysis to assess validity of each measurement, in which the measures would be deemed valid if factor loading is ≥ 0.5 (Bringula, Moraga, Catacutan, Jamis & Mangao). Meanwhile, reliability of the scales for this study is determined by the score of Cronbach's alpha. The measure would be classified as reliable if the Cronbach's alpha value is above 0.6 (Malhotra, 2010). As presented in Table 2, all measurements are considered valid and reliable as all of them already fulfill the criteria used in this study.

TABLE 2. SUMMARY OF VALIDITY AND RELIABILITY ANALYSIS

Variable	Item	Factor Loading	KMO	Cronbach's Alpha	Variable	Item	Factor Loading	KMO	Cronbach's Alpha
Egoistic Values	EG	0.647	0.686	0.606	Subjective Norms	PN1	0.730	0.624	0.636
	EGV	0.679				PN2	0.754		
	EGV	0.663				PN3	0.780		
	EGV	0.605				PN4	0.801		
	EGV	0.513				PN5	0.718		
Altruistic Values	ALV	0.668	0.688	0.648	Sustainable Buying Behavior	SBB1	0.686	0.591	0.620
	ALV	0.766				SBB2	0.817		
	ALV	0.740				SBB3	0.602		
	ALV	0.614				SBB4	0.643		
Personal Norms	PN1	0.730	0.810	0.813	Sustainable Curtailment Behavior	SCB1	0.838	0.605	0.650
	PN2	0.754				SCB2	0.831		
	PN3	0.780							
	PN4	0.801							
	PN5	0.718							

C. Hypotheses testing

This study used multiple regression analysis test research hypotheses for both sustainable buying and curtailment behavior. The result shows that independent variables (altruistic values, egoistic values, personal norms, subjective norms) can predict sustainable buying behavior and sustainable curtailment behavior with F score of 11.891 and 9.627, respectively. Based on adjusted R², the variance

explained by independent variables is bigger for sustainable buying behavior (14.6%) than for sustainable curtailment behavior (11.9%). According to *t-values*, altruistic values ($\beta=0.129, p=0.016$), personal norms ($\beta=0.215, p=0.000$) and subjective norms ($\beta=0.112, p=0.032$) have significant effects on sustainable buying behavior. On the other hand, egoistic values ($\beta=0.002, p=0.981$) have no significant effect on sustainable buying behavior. Meanwhile, for sustainable curtailment behavior, the significant predictors are altruistic values ($\beta=0.300, p=0.000$) and personal norms ($\beta=0.271, p=0.000$). As for egoistic values ($\beta=0.079, p=0.404$) and subjective norms ($\beta=0.040, p=0.610$), they are found to be insignificant in explaining sustainable curtailment behavior.

TABLE 3. SUMMARY OF REGRESSION ANALYSIS

Variable	Sustainable Buying Behavior					Sustainable Curtailment Behavior				
	Beta	t-values	Sig	F Value	Ad R ²	Beta	t-values	Sig	F Value	Ad R ²
Constant	1.479	4.085	0.000*	U.891	0.146	1.306	2.413	0.017*	9.627	0.119
Altruistic Values	0.129	2.426	0.016*			0.300	3.766	0.000*		
Egoistic Values	0.002	0.024	0.981			0.079	0.836	0.404		
Personal Norms	0.215	4.316	0.000*			0.271	3.645	0.000*		
Subjective Norms	0.112	2.161	0.032*			0.040	0.510	0.610		

Note: * denotes significance at the 5% level

D. Discussion

In this study, altruistic values (H1a, H1b) are proven to be able to influence both types of behavior; meanwhile egoistic values (H2a, H2b) are found to be insignificant in both types of behavior. This result is consistent with the research conducted by Dermody et al. (2007) which found that altruistic values were better in explaining buying and curtailment behavior, while egoistic values failed to do so. This can happen because people who possess high egoistic values view sustainable consumption behavior as inconvenient and unpleasant for them as these behaviors cannot enhance their personal goals (Liobikiene, 2015). Thus, they would be less likely to conduct sustainable consumption behavior compared to people with high altruistic values.

This study also found that personal norms (H3a, H3b) play an important role in explaining sustainable consumption behavior, both from buying and curtailment perspectives.. As asserted by Jansson et al. (2010), personal norms make individuals feel obliged to behave sustainably and will further direct them to act accordingly. This result is similar with previous studies (Testa, Cosic, & Iraldo, 2016) which stated that

individuals with higher level of personal norms would be more likely to have a higher intention to act sustainably. Meanwhile, subjective norms were found to be significant in influencing sustainable buying behavior (H4a), but were insignificant in explaining sustainable curtailment behavior (H4b).

The result of this study gives insight for government as the policy maker and companies as the producer of environmentally-friendly product. Based on the result of this study, individuals' sustainable consumption behavior is highly influenced by their surrounding values and norms. Thus, making policies and strategies to internalize and alter these values and norms would be an effective approach, especially for long-term perspectives. As asserted by Vermeir and Verbeke (2007), encouraging and internalizing the right values can contribute in achieving sustainability in the long run. Specifically for the university, strengthening values and norms about the importance of environmental perseverance should be one of its major agendas. The organization of course programs should incorporate the internalization of values and norms to the student.

In regards to personal norms, it is important to communicate the impact of each consumption activity towards the environment. If the individuals are aware about the consequences of each choice they make, this will help them in making decisions based on their activated moral obligations. University and government can activate this moral obligation this by conducting active norm management, which is an approach to change norm through the utilization of campaigns and appeals from well-known and respected figures like celebrities or influencers in the society (Kinzig et al., 2013).

As for social norms, this can also be escalated through active norm management approach. It is mentioned that the reason of conducting sustainable consumption behavior is not only to follow personal norms, but also to be accepted and be valued by the surrounding (McAdams, 1997). The implementation of active norm management is not only in the form of making campaign but can also be in the form of giving a good exemplary. Like for example, a study conducted by Cialdini (2005) showed that information about the record of guests that reuse their towels in the hotel and its effect on environment was more effective rather than giving information about the impact of towel reuse on environment only (Kinzig et al., 2013).

However, the scale of campaigns has to be carefully considered. According to Abrahamse et al. (2005), a personal and tailored campaign would be more effective compared to large scale campaign. A localized campaign would make the information become more relatable and personal for the audience, and will further activate their personal norms as a result. Therefore, it is advisable to focus more on

community-based environmental campaigns rather than the nationwide ones.

The findings of this study also give implication in creating the content for the campaign. For the content of the campaign, it is advisable to incorporate altruistic values in the campaign, since these values are the ones proven to be significant in predicting both buying and curtailment behavior in this study. As altruistic values focus on the benefit of others, the campaign and advertisement about environmental issues or environmentally-friendly product should highlight the impact of these problems on other persons and surroundings, as well as the outcome of the environmentally-friendly product for the others' wellbeing.

VI. CONCLUSION

This study sought to explain sustainable buying and curtailment behavior from values and norms perspective. The result implies that sustainable buying behavior of the university student can be escalated by strengthening altruistic values, personal and social norms, in which personal norms contributes the higher. Meanwhile, enhancing sustainable curtailment behavior can be done by utilizing altruistic values and personal norms, whereas altruistic values plays a bigger role in this model. In this study, adjusted R^2 is only 14.6% and 11.9% which indicates that there are still big portion of variation of sustainable consumption behavior that has not been explained by this model. Therefore, it is suggested for future studies to explore sustainable consumption behavior from other perspectives as well, such as contextual, habit or capabilities.

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