Exploring Values Orientation to Build Green Loyalty: the Role of Egoistic, Supply Chain Management, and Biospheric

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Abstract- The purpose of this paper is to explore the impact of eight dimensions of green supply chain management (GSCM) on economic, environmental and social performance, which are the three dimensions of corporate sustainability. This study aims to examine and analyze the influence of values orientation which consists of egoistic, supply chain, and biospheric towards green loyalty. This research is empirical research through questionnaire survey method distributed to 402 consumers who have experience buying green brands in Indonesia. With SEM data analysis tool. The results show that egoistic and supply chain have a positive effect on green loyalty, while altruistic does not affect green loyalty.

Keywords: values orientation, egoistic, supply chain management, altruistic, biospheric, green loyalty

1. Introduction
In recent years, the rapid industrial modernization has led to negative environmental impacts including greenhouse gas emissions, toxic pollutants, and chemical spills. In response to the growing global environmental awareness, green supply chain management (GSCM) has emerged as a concept that considers sustainability elements and a combination of environmental thinking along the intra- and inter-firm management of the upstream and downstream supply chain. At present, concern for the environment has turned into a compulsive behavior in purchasing decisions for environmentally friendly products [1]. In the midst of society, there is consumer interest in green products that are identified with products that do not cause pollution, use little natural resources, and are environmentally friendly, [2]. Even active consumers evaluate the greenness of a product, [3].

For some consumers, consuming green products has become an important force to protect and save the earth, [4]. The shift in consumer behavior from traditional purchases to environmentally friendly products is a necessity, when environmental problems are considered important in this decade, [5].

Consumers increasingly emphasize the principle of environmental awareness by making various changes in daily behavior, including consumer behavior, [6]. Consumers are willing to pay premium prices for products that are considered to have contributed to creativity, social responsibility and greening of the environment, [7-10]. Green brands have been extended to cover broader aspects, including ethical and social concerns, [11-13]. A green brand is characterized by the minimum usage of resources throughout the whole product lifecycle, [14]. It can be said that green brand refers to "a brand which offers a significant eco-advantage over its incumbents and which is able to attract consumers who set their priority to be green in their purchases", [15]. They identified the need for more green products, namely products that are environmentally friendly, non-polluting, use little natural resources, and do not damage the environment, [16]. Therefore a green brand is a product that reflects the benefits of environmental responsibility, ethical and social issues signal to consumers.

This phenomenon of green consumer behavior is a challenge for marketing. The choice of consumers happens to the expected results of the purchase decision. Consumers who have been believed to be a rational economic man turned out to choose green products that clearly have greater sacrifice than non-green, [17]. That is, from the point of view of utility theory, there has been a change in the consideration of decisions of rationality and self-interest, [18].

Currently, as argued by [19], the most prevalent research issues in the field of consumer response to green products regard the understanding of consumer characteristics that may affect the consumption behavior of green products. While green consumption can help address environmental sustainability, it is important that green brands result in brand loyalty, [20-24]. The more the consumers identify with a brand, the stronger would be their commitment and positive word of mouth communication, [25, 26].

In light of these pressing challenges, there is a need to better understand the factors that drive to green loyalty. Researchers have already devoted considerable attention to the factors that may facilitate environmentally friendly behaviors, [27]. An important such factor is a concept a value orientation in which "people judge phenomena on the basis of costs or benefits to ecosystems or the biosphere", [28]. Values are trans- situational beliefs that can guide individual decisions across a variety of contexts and domains, [29]. There are three important values orientation in a person that consists of egoistic, altruistic, and biosphere, [30].

The need to analyze values related to behavior in environmental issues encourages human behavior as an important contributor in solving various environmental problems, [31]. Other researchers also argue that environmental problems are rooted in human value, Stern [32-34]. By understanding the relationship between values and behavior, various environmental problems can be solved, [35].

By using a person's values orientation concept towards
the environment, previous research has shown that one's values are the factors that most influence their awareness and evaluation of certain objects, [36-40]. Values orientation is an intrinsic parameter that can strengthen or weaken behavior [41-45]. Furthermore, an important extension to past research in the area of behavior is to provide an analysis of loyalty. It’s because customers who built loyalty behavior will generally continue to use the brand despite being faced with many alternative brands of competing for products that offer superior product characteristics [46]. Therefore building green loyalty through understanding the values orientation is important to change consumer behavior to be green more, [47]. Because there has been little attention directed toward understanding the values orientation that influences green loyalty. This study is willing to investigate whether green loyalty can be built by values orientation [48, 49].

2. Literature Review

2.1. Green Loyalty

The topic of GSCM in manufacturing sectors in the AEE has received increasing attention from industry, academia, regulatory institutions, and customers. Loyalty refers to repeated buying behavior or repeated use of a product or brand, in the long run, Kumar (2004). Consumer loyalty represents a potential of sales occurred in the future, [28]. Loyalty means being consistent in buying behavior over and over for the same green brand, [22]. Therefore forming loyalty is one of the most important marketing goals.

In the context of the green brand, loyalty can be interpreted as understanding green loyalty, in general, is in line with brand loyalty where green brand loyalty can be defined as a dimension of behavior and attitudes towards a brand, [3]. Green loyalty can be interpreted based on [15], as the degree of repurchase intention which is driven by environmental motivation and sustainable commitment. Green consumers are considered loyal if they repeat their daily purchases. They also maintain their tendency towards the green brand. The behavioral dimension of green loyalty means that actual consumer behavior in the purchase or re-purchase of a green brand continues even though there are other alternatives and convey positive word-of-mouth about the brand, Dawes (2014). Indicators consist of: (1) Tending to buy green brands compared to other alternatives (2) Tending to buy green brands compared to other alternatives (3) Recommending others, [16].

2.2. Values Orientation

Another value theory is related to values and views on the environment are the theory of VBN which is a combination of values theory and norm activation models, [49]. This theory is an extension of the activation model of norms to improve the part of the intention and pro-environmental behavior which is specifically designed to test environmental behavior and includes a variety of fundamental concepts in environmental problems, [47]. Values have been defined by [22] as desirable goals that serve as guiding principles in one’s life. Values are abstract, general and maintain stability over time.

Values orientation relates to the environment and influences environmentally friendly activities consisting of egoistic, altruistic, and biospheric, [47], and biosphere values are directly related to nature.

2.3. Egoistic

Egoistic value is conceptualized by how an individual values him/herself focus on safeguarding or increasing his or her resources, make a personal relationship to other people and living nature, and concentrating on self-welfare, [44]. Egoistic is a value based on the purpose of maximizing personal gain or value that reflects the focus on individual interests. Thus, people with egoistic values are guided by hedonic and gain goals, [44]. There are eight indicators for measuring one's egoistic values, namely: (1) Social Power (2) Wealth (3) Authority (4) Influential (5) Ambitious (6) Hedonic (7) Achievement (8) Social Recognition in [47].

2.4. Altruistic

Altruistic value is conceptualized by how individual values a moral aspect of how to s to focus on other people welfare rather than him/ herself in terms of making a judgment on environment-related issues [48]. Altruistic is about enhancing benefits for the general public. This shows the value that reflects the point of focus on the welfare of others, [47]. Thus, people with altruistic values are guided by normative goals. It consists of indicators: (1) Equality: equality of opportunity for all (2) World at peace: free from war and conflict (3) Social Justice: fixing injustice and caring for the weak (4) Helpful: work for mutual welfare [47].

2.5. Biospheric

Biosphere value is displayed when a person behaves pro-environmentally based on perceived costs and benefits to the overall ecosystem, [11]. Biosphere value is directly related to nature, that reflects the focus on the interests of nature and the environment, [47]. People who strongly endorse biospheric values care for nature and the environment and more strongly base their decisions to engage in particular actions on the consequences of their behavior for nature and the environment.

Biospheric indicators consist of (1) Prevention pollution: I believe in protecting natural resources. (2) Respecting the earth: I believe it is important to harmonize with other species and nature. (3) Unity with nature: I prefer to fit into nature rather than control nature. (4) Protecting the environment: I like to protect the environment. (5) World of beauty: I believe to take-care the beautiful world (6) Preserving nature: I anticipate preserving nature. (7) Balancing nature: I consider the balance of nature is delicate and easily upset.

2.6. Green Supply Chain Management

Supply chain management is the coordination and management of a complex network of activities involved in delivering a finished product to the end-user or customer. Supply chain management has traditionally been viewed as a process where in raw materials are converted into final products, then delivered to the end-consumer. This process involves extraction and
exploitation of the natural resources. It is important to note however that we live in a decade where environmental sustainability has been an important issue to business practice. Since the early 1990’s, manufacturers have been faced with pressure to address Environmental Management in their supply chains. This is not an easy task to do however. Adding the ‘green’ concept to the supply chain concept adds a new paradigm where the supply chain will have a direct relation to the environment. This is interesting because, in history, these two paradigms were once in head-on collision with each other. Supply chains, in an operational sense, are about extracting and exploiting raw materials from the natural environment.

2.7. Conceptual Framework and Hypothesis Development

The hypothetical model that will be built refers to the antecedent variables raised in this research are values orientation, and how it affects green loyalty. A value is defined as a stable belief that facilitates an individual to conduct a particular action or end-state that he/she prefers. A person’s values are used to evaluate events and select behaviors, as well as those events and behaviors, based on their perceived importance level [21].

According to the prominently used, there are three value orientations (egoist, altruist, and biospheric) in the research work: [5]. Egoistic values influence the chronic accessibility of gain goals and make a person focus on safeguarding or increasing his or her resources. Egoistic values are encompassed by a broader category of self-enhancement values, reflecting a key concern with one’s individual interests. Although egoistic is expressed as values that lack sensitivity to the environment, [6], the goal is the feeling of benefits (self-enhancement), functional benefits and emotional benefits as the reflection of egoistic value goal. Previous research also shows that egoistic values are related to green behavior, [10].

2.7.1. Hypothesis 1a: The higher the egoistic, the more green loyalty increases

Altruism involves acting to increase the welfare of others incurring personal costs but lacking personal gains, [47]. As with most prosocial behavior, pro-environmental behavior has inherent characteristics of altruism and can be construed as such [11]. Altruism has also been addressed from a human values perspective. Behavioral research stretching over several decades has confirmed human values as important drivers of pro-environmental behaviors. Several studies have found that altruistic values are stronger among people who engage in pro-environmental activities.

Further research found that altruistic values have respectively a positive impact on consumers' environmental identity, [22], and altruistic also contributed to explaining participation in a green energy program, [29] and that willingness to pay for green electricity related to self-transcendence value types.

2.7.2. Hypothesis 1b: The higher the altruistic, the more green loyalty increases

Biospheric values follow a key concern with nature and the environment for their own sake. Both latter groups of values affect the chronic accessibility of normative goals in a given situation. People who strongly endorse biospheric values care for nature and the environment and more strongly base their decisions to engage in particular actions on the consequences of their behavior for nature and the environment. Studies showed that particularly biospheric values are strongly and consistently related to environmental preferences, intentions, and behavior: those with strong biospheric values are more likely to have pro-environmental preferences and intentions, and to act pro-environmentally, [45].

Previous studies showed that individuals who strongly endorse biospheric values are more likely to develop environmental behavior. [4] found that biospheric values have respectively a positive impact on consumers' environmental identity.

2.7.3. Hypothesis 1c: The higher the biospheric, the higher the green loyalty

### Figure 1. Conceptual Framework

3. Methods

3.1. Population and Sample

With all the requirements, this study involved 402 respondents. The population for this study is green brand consumers in Indonesia who are the generation of X and Y. The research sample is green brand consumers who actively buy green brands at least 3 times in the past year. To get a sample that can describe the population, and also to determine the number of research samples then the Hair formula is used which is 5 - 10 x the number of indicators. The sampling technique used is purposive sampling technique in which the characteristics of the sample in the study are categorized by age and minimally buy the green brand 3 times in the past year.

3.2. Measurement Instrument

Based on data collection techniques, the method of this research is the survey method which instrument is distributed questionnaire spread through a google form, with questions include each variable. Questions regarding the respondent's background are presented at the end of the questionnaire.

1. Green Loyalty

   Green Loyalty is the dependent variable in this study. The conceptualization and instruments used in the questions were adapted from [6] and Lin (2017) and consisted of 4 question items. The respondent assessment of the effectiveness of strategy implementation items were
obtained on 7 point-Likert-type scale.

2. Egoistic
   Egoistic is part of the values orientation, which consists of 8 question items, is an independent variable in this study. Questions are adapted from [47]. The respondent assessment of the effectiveness of strategy implementation items were obtained on 7 point-Likert-type scale.

3. Altruistic
   Altruistic is part of the values orientation, which consists of 6 question items, is an independent variable in this study. Questions are adapted from [47]. The respondent assessment of the effectiveness of strategy implementation items were obtained on 7 point-Likert-type scale.

4. Biospheric
   The other independent variable, a part of orientation values, is Biospheric. Biospheric concepts and instruments consist of 7 item questions adapted from [33]. The respondent assessment of the effectiveness of strategy implementation items were obtained on 7 point-Likert-type scale.

3.3. Respondent Description
   The total number of respondents is 402 consisting of 175 men (43.53%) and 227 women (56.47%). In this study, the number of respondents is almost the same between men and women, although the frequency of female respondents is greater. From the Age profile, the number of respondents who answered the questionnaire aged 21-30 years is 217 people (53.98%) followed by respondents aged 31-40 years as many as 110 people (27.36%), the third rank is respondents with the age of 41-50 years as many as 57 people (14.18%). This is in accordance with the previous research by Nielsen which states that the millennial generation is the majority generation of green brand users and more environmentally conscious. From the Education profile, the majority of respondents who answered the questionnaire is 217 students (53.98%) with undergraduate education (S1), followed by the second place with 120 Masters (29.85%) with Masters (S2) education. From the description of the respondents, it is found that participants who show green behavior are the most from those with higher education and from the female group.

4. Results and discussion
   The Structural Equation Modeling (SEM), LISREL version 8.7 and two-step analysis approach as suggested by Gerbing (1988) were adopted to analyze the data.

4.1. The Analysis of Measurement Model

4.1.1. Convergent Validity
   The convergent validity tested is the degree of multiple items are used to measure the same concept agree. According to [29], standard factor loading, composite reliability, and average variance extracted are used as indicators to assess the convergent validity. The results of the validity and reliability test on all three variable statement items are shown by the following table:

<table>
<thead>
<tr>
<th>Latent Variable &amp; Indicator</th>
<th>*SFL ≥ 0.5</th>
<th>Error</th>
<th>*CR ≥ 0.7</th>
<th>*VE ≥ 0.5</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Egoistic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGO1 Social Strength</td>
<td>0.64</td>
<td>0.59</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>EGO2 Prosperity</td>
<td>0.60</td>
<td>0.64</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>EGO3 Power</td>
<td>0.77</td>
<td>0.41</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>EGO4 Influential</td>
<td>0.76</td>
<td>0.42</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>EGO5 Ambitious</td>
<td>0.81</td>
<td>0.34</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>EGO6 Luxury</td>
<td>0.91</td>
<td>0.17</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>EGO7 Self-Achievement</td>
<td>0.82</td>
<td>0.33</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>EGO8 Social recognition</td>
<td>0.83</td>
<td>0.31</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td><strong>Altruistic</strong></td>
<td>0.87</td>
<td>0.52</td>
<td></td>
<td></td>
<td>Good Reliability</td>
</tr>
<tr>
<td>ALT1 Equality</td>
<td>0.70</td>
<td>0.51</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>ALT2 World Peace</td>
<td>0.71</td>
<td>0.50</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>ALT3 Social Justice</td>
<td>0.61</td>
<td>0.63</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>ALT4 Mutual help</td>
<td>0.76</td>
<td>0.42</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>ALT5 Affection</td>
<td>0.77</td>
<td>0.41</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>ALT6 Care for Others</td>
<td>0.77</td>
<td>0.41</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td><strong>Biospheric</strong></td>
<td>0.92</td>
<td>0.61</td>
<td></td>
<td></td>
<td>Good Reliability</td>
</tr>
<tr>
<td>BIO1 Preventing pollution</td>
<td>0.75</td>
<td>0.44</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>BIO2 Respecting the earth</td>
<td>0.84</td>
<td>0.29</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>BIO3 Unity with nature</td>
<td>0.78</td>
<td>0.39</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>BIO4 Protecting environment</td>
<td>0.76</td>
<td>0.42</td>
<td></td>
<td></td>
<td>Good Validity</td>
</tr>
</tbody>
</table>
Latent Variable & Indicator | *SFL ≥ 0.5 | Error | *CR ≥ 0.7 | *VE ≥ 0.5 | Conclusion
--- | --- | --- | --- | --- | ---
BIO5 | World of beauty | 0.85 | 0.28 | Good Validity
BIO6 | Preserving nature | 0.78 | 0.39 | Good Validity
BIO7 | Balancing nature | 0.71 | 0.50 | Good Validity

Green Loyalty

**Conclusion**

GL1 | Tend to buy compared to other alternatives | 0.91 | 0.17 | Good Validity
GL2 | Continue to buy | 0.92 | 0.15 | Good Validity
GL3 | Be the First Choice | 0.87 | 0.24 | Good Validity
GL4 | Recommend to others | 0.79 | 0.38 | Good Validity

*SLF = Standardized Factor Loading, *CR = Construct Reliability, *VE = Variance Extracted

Table 2. The mean, average variance extracted and inter-variable correlations

<table>
<thead>
<tr>
<th>No.</th>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Egoistic</td>
<td>4.40</td>
<td>1.27</td>
<td><strong>0.598</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Altruistic</td>
<td>5.86</td>
<td>0.85</td>
<td>0.212</td>
<td><strong>0.522</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Biospheric</td>
<td>5.63</td>
<td>0.92</td>
<td>0.215</td>
<td>0.752</td>
<td><strong>0.613</strong></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Loyalty</td>
<td>5.30</td>
<td>1.18</td>
<td>0.273</td>
<td>0.219</td>
<td>0.310</td>
<td><strong>0.764</strong></td>
</tr>
</tbody>
</table>

Note: The value on the diagonal table shows the square root of the average variance extracted (AVE) for each variable. Below diagonal numbers are correlations between variables.

Discriminant validity is examined by comparing the squared correlations between the constructs and the variance extracted for a construct, [19]. Table 2 show that the squared correlations for each construct are less than the square root of the average variance extracted by the indicators measuring that construct indicates adequate convergent and discriminant validity.

4.1.2. Structural Model Analysis

Structural Model represents the relationships between latent variables hypothesized in the research model. The procedure used 402 samples to test the significance of regression coefficients to estimate parameters. Figure 1 illustrates the research model.

Table 3 and figure 3 show the result of the structural models from the output of Lisrel. Values orientation namely with egoistic (B = 0.22 p<0.05) are positively related to Green Loyalty, altruistic (B = -0.14, p<0, 05) and biospheric (B= 0.39, p<0.05) are positively related to Green Loyalty, explaining 16% of the variance.

Figure 2. The Result from the output of Lisrel
The findings of this study indicate that egoistic has a positive and significant effect on green loyalty. This means that it is in line with the previous research which stated that egoistic value was an important value in green food positive behavior, [15]. The study stated that the health awareness of consumers who place organic products is worth health benefits, and they will most likely buy them. Other research also shows the same thing, concluding that egoistic values encourage an individual to be positive about green food, Yadav (2016). The positive relationship between egoistic and green behavior is based on the opinion that environmentally friendly behavior including feelings of (self-enhancement), functional benefits and emotional benefits is a reflection of egoistic values, no wonder that some other studies also show that egoistic values are related to green behavior, [17, 21] 

Furthermore, [18], in his research concluded that energy-saving behavior is more motivated because it is more economical compared to climate change. As it also happened in Japan, through [16] research, consumers made a reduction in gas and electricity consumption because they were driven by frugality compared to environmental views. From the previous research, it was shown that egoistic values in a person were able to encourage someone's desire to feel green benefits. The findings of this study are in line with the statement submitted by previous research that altruistic differentiated into social-altruistic and biospheric have unequal consequences, [26]. The previous research also shows that one's attention to the interests of others in the context of shared consumption is not necessarily in line with their alignments with the environment.

The findings of this study are also supported by previous research by [14], which states that altruistic values do not directly influence one's green behavior. The effect of altruistic values on green behavior occurs when mediated by PCE (perceived consumer effectiveness) and environmental awareness.

This research also proved that biophysics affects a person’s green functional benefits. This is in line with the Values Theory and VBN which state that biospheric values are predictors of green behavior, [12] for benefits to the environment, likewise previous studies by Werff (2014) in the realm of the smart energy system industry. It was found that the biosphere had an effect on the formation of behavior towards smart energy systems. And the last, the findings made by) [7], which examined consumer behavior towards green hotels, it was found that biospheric is the antecedent in determining green behavior.

This research discussed about loyalty supported by previous research, among others: [16, 21, 38].

5. Conclusion
This study refers to the conclusion that there are three values orientation that have a positive and significant influence on green loyalty, namely egoistic, supply chain and biospheric. This means that if the higher the egoistic value someone has, the higher his/her green loyalty will also increase. Likewise for biospheric values, the higher the biospheric value an individual has, the higher his/her green loyalty will increase. While the altruism value shows a different relationship, which does not significantly influence green loyalty.

The implication of these findings is that companies should pay more attention to the values of egoistic and biospheric consumers, both through advertising and promotional messages. For example, charity programs and campaigns to save the environment are more effective in building green loyalty that the two values of orientation can be more involved. Another implication is that the company provides information and services that green brands have fulfilled their personal interests, benefits and welfare, health, and their self-image that they are good people and save the environment.

REFERENCES
behavior. 


