

# Going Green: How Consumption Values Lead to Green Consumption Behavior in Z Generation

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## Abstract

**Purpose:** Consumption of plastic, especially single-use ones, is seen today as one of the leading environmental problems since it is used for a very short time and takes hundreds of years to decompose. At the same time, there has been a growing awareness to consume environmentally friendly products and minimize the use of plastic. Similar research has been conducted but in a limited amount in the Z generation context. This study aimed to identify the correlation between green consumption values and green consumption behavior in the Z generation.

**Research methodology:** The variables in this study were measured using the GREEN scale and the ECCB scale. The collected data was analyzed by using correlational methods. The two-stage cluster-random sampling technique was used, and 202 respondents participated in this study.

**Results:** The results showed that there is a significant positive correlation between green consumption value and green consumption behavior at a moderate level. Five indicators of green consumption behavior correlate to green consumption value (recycled products, biodegradability, driving habits/oil dependency, consumer purchase, and reduction in electricity).

**Limitations:** Limitations related to this study were also discussed as its opportunity for further research.

**Contribution:** These findings will empower people to understand how our value will create green consumption behavior, and it will derive following sustainable buying behavior.

**Keywords:** *Green Consumption Values, Green Consumption Behavior, Z Generation*

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## 1. Introduction

Currently, various environmental issues are caused by increased production and human consumption activities. One of the issues is the high amount of plastic waste generated from human consumption activities. Based on the data of SIPN (*Sistem Informasi Pengelolaan Sampah Nasional*) in 2020, West Java, Indonesia, became the third-highest plastic waste-producing province (after Central Java and East Java) in Indonesia. In 2020 alone, 4,963,792 tonnes of waste were produced, and 14.8% (73.4641 tonnes) of it was plastic waste. These issues have become specific concerns of companies. They have an urgency to manage waste through a waste management system (Chaturika & Kalpani, 2020).

Because of this, the Divers Clean Action (DCA) launched the *#NoStrawMovement* campaign as a definite measure to reduce the high amount of plastic straw waste. The unavailability of plastic straws in numerous multinational companies and local small and medium enterprises (i.e., cafes and restaurants) made consumers more aware of using environmentally friendly products. Based on a

survey conducted by the Zero Waste Indonesia Alliance on respondents aged 20-25 years, it was found that 91% of respondents stated that they had used environmentally friendly products. Meanwhile, 9% of respondents said they have never used environmentally or environmentally friendly goods. The types of environmentally friendly products used are reusable straws, bamboo toothbrushes, reusable menstrual pads, and other recycled goods (Pradita, 2021).

Previous studies have shown that educated people have a conscious interest in purchasing environmentally friendly products (Astuti, 2019), among which educated groups are college students. Several reasons that made college students have a more conscious interest in buying environmentally friendly products are that they are already informed about the occurring environmental issues. They understood that the use of environmentally friendly products could be a way to protect the environment. They are informed about environmental preservation and conservation from college lectures and classes (e.g., Joint Preparation Stages class), and their engagement in environmental-related student activities (e.g., Earth Day, Earth Hour, and nature lover communities).

One of the factors in purchasing environmentally friendly products is green consumption values, which is 'one's tendency to express the value of environmental protection through 'one's purchases and consuming behaviors (Haws, Winterich, & Naylor, 2014). Several studies have been conducted to identify the relationship between green consumption values and green consumption behavior, with previous studies that discussed green product purchases showing differing results. A study that was conducted in England and Portugal found a positive relationship between green consumption values and environmentally friendly product purchases (do Paço, Shiel, & Alves, 2019). Meanwhile, a study that was conducted in Indonesia by Magfira and Indrawati (2017) found a high percentage rate of green consumption values, but the respondents are not used to purchasing environmentally friendly products in their daily lives. In a study about green product usage, the results showed that several sub-aspects of green product usage in college students are still in the "low" category (Prasetyani, 2012). While preliminary data for this study showed an average rate of 8.39 when participants were asked to give a rating on a scale of 1-10 about how important it is for them to use green products.

Preceding studies have recognized the significance of using generational cohorts in consumer behavior. Generation Z individuals were born within a specific time range and at a specific place, born from 1995 to 2010. The particular generation cohort has been selected since it is a group of individuals that now live on their own and must make the necessary consumption decisions. Gen Z, as these, will be the future parents and the educational, political, social, and financial elites that will shape the sustainable consumption and development policies of future societies (Kamenidou, Mamalis, Pavlidis, & Bara, 2019).

The differing results of previous studies, in addition to the different results between the previous study and the preliminary data for this one, showed that it is necessary to conduct a study regarding this difference, especially in the generation Z context. The green business also has a big impact on SMEs (Small and Medium Enterprises). At the same time, SMEs were faced with the challenge of minimal knowledge of the use of strategy to promote consumer buying behavior (Naab & Bans-Akutey, 2021). This study aimed to identify the correlation between green consumption values and green consumption behavior in the Z generation, specifically in university students.

## **2. Literature Review**

### ***Green Product***

#### ***Green Product Definition***

In this study, the definition of green Product used is from the Commission of the European Communities, namely green Product refers to products that use resources with minimal impact and risk (Suki and Suki (2019). When collecting data, the researchers also included these definitions in the online questionnaire (Google Form), so that respondents could better understand the green Product referred to in this study.

### *Green Product Criteria*

In this study, the criteria used to identify whether a product is green or not is to use the Indonesia Green Product method. This is done by looking at the statement on the Product or packaging in the form of information about the product's composition, how to use it, or how to handle it when it is no longer used. Some examples of green products included by researchers in the online questionnaire are toothbrushes made of bamboo, straws made of bamboo or stainless straw, cloth bags for shopping, reusable drinking bottles, environmentally friendly fuel (e.g. Pertamina, Pertamina Turbo, etc.), and eco-friendly makeup/skincare (examples of eco-friendly makeup/skincare brands: The Body Shop, Love Beauty and Planet, Innisfree, Sukin, Sensatia Botanicals, Trilogy, and Skin Dewi).

### *Green Consumption Values*

Haws et al. introduced the concept of green consumption values by defining it as "the tendency to explore environmental protection values through one's buying and consumption behavior" (Haws et al., 2014). They develop and explore methods to understand the differences between consumers who value environmental preservation and consumers who do not value it in terms of consumer behavior. Therefore, the construct of green consumption values summarizes a person's tendency to express the value of environmental protection through his buying and consumption behavior. Thus, consumers with more vital green consumption values are generally more oriented toward protecting resources and purchasing responsibly (do Paço et al., 2019).

### *Factors Affecting Green Consumption Value*

Several factors influence the emergence of a person's green consumption value. These factors include demographic factors and environmental factors. Things related to demographics are income, age, gender, and education. In this case, in one study, it was found that female consumers, consumers with higher incomes, and consumers with higher education levels were indicated to have higher levels of green consumption value and were more likely to engage in certain types of purchasing behavior for environmentally friendly products (D'Souza, Taghian, Lamb, & Peretiakko, 2007).

For environmental factors, matters related to the environment are family, reference group, and peer influence. It was found that family, reference groups, and peer influence (that is, friends and co-workers) significantly influence a person's orientation in protecting resources and purchasing behavior of environmentally friendly products (Suki & Suki, 2019; Wibowo, 2017).

### *Green Consumption Behavior*

Green consumption behavior is generally associated with consuming that does not cause pollution or damage the natural environment. It also includes concerns about the sustainability of resources for future generations, avoiding overconsumption by choosing recyclable products with high durability, high quality, and ecological label, as well as reducing resource and energy consumption (do Paço et al. (2019).

This definition is similar to Ecologically Conscious Consumer Behavior (ECCB) or environmentally conscious consumer behavior (Prasetyani, 2012). Ecologically Conscious Consumer Behavior (ECCB) is the behavior of someone who buys a product or service that is perceived to positively impact the environment.

When a person has a high level of Ecologically Conscious Consumer Behavior (ECCB), it means that he will display consumption behavior that has a positive impact on the environment consistently in everyday life. Conversely, when a person has a low level of Ecologically Conscious Consumer Behavior (ECCB), he or she does not display consumption behavior that positively impacts the environment in daily life. While someone with a moderate level of Ecologically Conscious Consumer Behavior (ECCB), it means that one time he displays, one time he does not display consumption behavior that positively impacts the environment in everyday life.

### *Ecologically Conscious Consumer ' Behavior's (ECCB) Indicators*

Ecologically Conscious Consumer Behavior (ECCB), which has the same meaning as green consumption behavior, describes indicators of environmentally conscious consumer behavior. Roberts and Bacon (1997) divide Ecologically Conscious Consumer Behavior (ECCB) into six indicators, namely:

1. Recycled Products The use of recycled products prolong the use time of the product, thereby minimizing waste.
2. Biodegradability: Use of biodegradable products (products that can biodegrade safely and relatively quickly into natural raw materials and re-integrate into the environment).
3. Driving Habits/Oil Dependency: Use vehicles to a minimum to save energy or reduce fuel oil.
4. Small Wattage Bulbs: Save electricity by using energy-saving lamps.
5. Consumer Purchase: Purchase of products based on environmental considerations during the buying process.
6. Reduction in Electricity: Reducing the amount of electricity consumption through the use and purchase of household appliances wisely

### *Factors Affecting Green Consumption Behavior*

One factor influencing a person's green consumption behavior is the product factor. In this case, things related to the Product are price, quality, product information, and marketing communication. It was found that price and product quality positively impact consumer behavior in choosing environmentally friendly products (Biswas & Roy, 2015). Furthermore, it was also found that information on environmentally friendly products is the main determinant of purchasing behavior for environmentally friendly products (Cheung & To, 2019). Marketing communication (such as environmentally friendly advertising) only produces a weak influence on purchasing behavior (do Paço et al., 2019).

### *Antecedents of Green Consumption Behavior*

The antecedent of green consumption behavior is purchase intention which includes the three constructs of the Theory of Planned Behavior. It was found that all three significantly influence consumers' intention to buy environmentally friendly (Choi & Johnson, 2019; Yadav & Pathak, 2016). However, only attitudes toward green product purchasing and subjective norms toward green product purchasing have a significant effect (Choi & Johnson, 2019).

Furthermore, another study conducted by Priatna (2019) with student respondents found that the majority of students had a strong intention to use environmentally friendly products. This indicates that most students are ready to use environmentally friendly products. Students' attitudes toward behavior, subjective norm, and perceived behavioral control fall into the positive category: favorable, approving, and facilitating. The most positive determinant is perceived behavioral control, namely the student's belief in the willingness to find out about environmentally friendly products into a control belief. It is strong and makes it easier for students to use environmentally friendly products, followed by confidence in their ability to distinguish environmentally friendly and non-environmental products, and easy information about environmentally friendly products.

Then, students also strongly believe that there is social pressure for students from the environment and society to use environmentally friendly products. In this case, parents become strong normative referents who want students to follow their expectations and behavior in using environmentally friendly products and followed by a desire to follow the behavior of using environmentally friendly products displayed by their friends. Finally, students' belief that using environmentally friendly products is more secure than using non-environmentally friendly products becomes a strong behavioral belief among other behavioral beliefs.

### *Consequences of Green Consumption Behavior*

Postpurchase evaluation is a consequence that appears after consumers make a purchase (green consumption behavior), namely when consumers have had experience with the Product or service

chosen and decide whether it has met (or may even exceed) their expectations or not (Solomon, Stanley, & Ufuoma, 2017).

When conducting a postpurchase evaluation, the things that are evaluated from a consumer perspective are consumer satisfaction (for example, does the Product provide pleasure or perform its intended function?), product disposal (for example, how is the final Product disposed of and what are the environmental consequences of this action? ), and alternative markets (for example, are there alternative products that are more profitable?) (Solomon et al., 2017).

After conducting a postpurchase evaluation, if the consumer feels that the Product is in accordance with his expectations and there is no other alternative product that is more profitable, then this will lead to sustainable consumption behavior related to reducing consumption of natural resources, changing lifestyles, and consumption. Environmentally friendly products to meet the needs of present and future generations (sustainable consumption behavior) (Biswas & Roy, 2015). Therefore, at this stage, consumers can return to the purchase intention stage to finally consume (purchase and or use) other green products or carry out consumption behavior in a sustainable manner.

### 3. Research Methodology

A quantitative non-experimental design with a correlational method was used in this study. The study consists of two variables: green consumption values as the independent variable and *green consumption behavior* as the dependent variable.

To measure the variables, the GREEN scale by Haws et al. (2014) was used to measure green consumption values, while the adapted version of *Ecologically Conscious Consumer Behaviour* (ECCB), originally from (Straughan & Roberts, 1999) and adapted by Prasetyani (2012), was used to measure green consumption behavior.

The GREEN scale consists of six favorable items using a 7-point likert scale, ranging from 1-7 (1 meaning "strongly disagree", 7 meaning "strongly agree"). The GREEN scale reliability was measured and showed a 'Cronbach's coefficient alpha of 0.839 (very high reliability). Expert judgment was conducted to obtain validity and showed a S-CVI rate of 0.945 (valid and able to represent the intended construct). Confirmatory Factor Analysis was also used to measure validity, and showed that the GREEN scale met every criteria to labeled as a fit scale ( $p$ -value = 0.083; GFI = 0.98; CFI = 0.99; RMSEA = 0.059).

The ECCB scale consists of 24 items which have six indicators (sub-aspects), which are *recycled products, biodegradability, driving habits/oil dependency, small wattage bulbs, consumer purchase, and reduction in electricity*. The scale used a 4-point likert scale, ranging from 1-4 (1 meaning "never", and 4 meaning "always"). The ECCB scale reliability was measured and showed a 'Cronbach's coefficient alpha of 0.781 (high reliability). Expert judgment was conducted to obtain validity and showed a S-CVI rate of 1 (valid and able to represent the intended construct). Confirmatory Factor Analysis was also used to measure validity and showed that the ECCB scale met every criterion to be labeled as a fit scale (CFI = 0.86; RMSEA = 0.064). The scales were distributed online by using *Google Forms*.

The population for this study were active college students (i.e. still in college and have not graduated) from one of the state universities in West Java that enrolled in 2017, 2018, 2019, and 2020 and came from the Faculty of Medicine, Math and Natural Science, Social and Political Science, and Agriculture were used as the samples of this study. Additional inclusion criteria are that they have purchased green Products at least on time in the last three months.

Probability sampling with two-stage cluster random sampling was used. Using .05 standard deviation and .01 bound of error, the amount of sample needed was at least 200 participants. The final number of participants for this study was 202 participants. When all of the data was collected, descriptive statistics were used to analyze the demographic and supporting data, while nonparametric Spearman's

rho test was used to measure the correlation between the variables due to the data not being distributed normally.

#### 4. Results and Discussions

Table 1. Participant's Demographic and Supporting Data

Item	Data	n	Percentage
<b>Gender</b>	Male	59	29,21%
	Female	143	70,79%
<b>Age</b>	18	41	20,3%
	19	51	25,25%
	20	51	25,25%
	21	42	20,79%
	22	15	7,43%
	23	2	0,99%
<b>Faculty of Origin</b>	Social and Political Science	81	40,1%
	Math and Natural Science	58	28,71%
	Agriculture	33	16,34%
	Medical	30	14,85%
<b>Year Enrolled</b>	2017	33	16,34%
	2018	56	27,72%
	2019	46	22,77%
	2020	67	33,17%
<b>Monthly Allowance (in Rupiahs)</b>	< 500.000	66	32,67%
	500.001 – 1.000.000	67	33,17%
	1.000.001 – 1.500.000	33	16,34%
	1.500.001 – 2.000.000	22	10,89%
	> 2.000.000	14	6,93%
<b>Last Purchasing Date</b>	November 2020	9	4,46%
	December 2020	38	18,81%
	January 2021	65	32,18%
	February 2021	90	44,55%
<b>Purchased Product(s)</b>	Cloth bags	119	23,71%
	Environmentally friendly fuel	115	22,91%
	Reusable drinking bottle or tumbler	103	20,52%
	Environmentally friendly makeup/skincare products	94	18,73%
	Stainless steel straws	51	10,16%
	Bamboo toothbrushes and straws	16	3,18%
	Others	4	0,8%

The study consists of mostly female participants (70.79%), with the ' ' participant's ranging from 18-23 years old, with most participants aged 19 and 20 years old (25.25% each). The participants of this

study came from four faculties and four years of enrollment, with most participants came from the Faculty of Social and Political Science (40.1%) and enrolled in 2020 (33.17%). Most participants have a monthly allowance in the Rp500,001 – Rp1,000,000 range (33.17%), with the most purchased green Product being cloth bags (23.71%).

Table 2. The 'Participants' Green Consumption Values Result

	Mean	SD	Category (Frequency)		
			Low	Medium	High
<i>Green Consumption Values</i>	33,67 (High)	5,051	1	47	155

The results in Table 2 showed that most participants have a high rate of green consumption values, and the rest have a medium and low rate of green consumption values. A high rate of green consumption values indicates that most participants deemed it as important to think, consider, and act to protect the environment when they purchase and consume products or resources, a medium rate indicates that they deemed it as less important to think, consider, and act to protect the environment when they purchase and consume products or resources, and low rate indicates that they deemed it as not important to think, consider, and act to protect the environment when they purchase and consume products or resources.

In addition, the mean for green consumption values of this study is 33.67, which is in the "high" category. This indicates that generally, students deemed it important to think, consider, and act to protect the environment when they purchase and consume products or resources. The results of this study are in line with the one by Magfira and Indrawati (2017) which showed that green consumption values are in the "good" and even almost reached "the great" category in adult participants.

The high rate of green consumption values can be caused by environmental factors, which in this study could be explained by their age and educational background. Based on their developmental stage, the participants of this study are in the emerging adulthood stage (18-25 years old), in which they already understand and play their roles in society well (Santrock, 2014). Because of this, the participants are already able to think, consider, and act to protect the environment when they purchase and consume products or resources as a way to solve environmental issues.

The participants being college students is also a factor, due to them having a higher education. Previous studies have shown that higher-educated consumers tend to have a higher rate of green consumption value (D'Souza et al., 2007), and have a conscious interest in consuming environmentally friendly products (Astuti, 2019). In this study, the educational factor that encourages participants to have a high green consumption value are that they have a mandatory environmental-related class (Joint Preparation Stages) and they have access to environmental-related student activities (e.g. Earth Day, Earth Hour, and Nature Lover Communities).

In addition, the results showed that there is no significant difference in green consumption values based on the 'participants' gender and allowances. This result is different from the previous study, which stated that green orientation is related to femininity (Han, Hwang, & Lee, 2017); hence female consumers tend to have a higher rate of green consumption values (D'Souza et al., 2007). Based on additional qualitative measures, male 'participants' answers did not indicate that environmental protection activities are deemed to be only limited to one gender and the same also could be inferred from the 'females' answers, or in other words, both male and female participants deemed that it is important for them to protect the environment.

As for the allowance factor, based on the additional qualitative measure, the participants said that they knew that the price of a green product was initially high, but in the long term, if they kept using it, they would save more money. The participants that used green products the most are in the Rp500,000-Rp1,000,000 allowance category, closely followed by the > Rp500,000 category. These

results showed that monthly allowance is not a decisive factor nor an obstacle for participants to think, consider, and act to protect the environment when they purchase and consume a product or resources.

The main factors that made the participants have high green consumption values are family and peer influences. This statement is based on an additional qualitative measure that showed that numerous participants mentioned family and peer influence in considering whether they would purchase and consume green products or not. This is due to the participants being young adults (emerging adulthood) and currently in the intimacy vs. isolation stage, where the participants are trying to establish relationships with their peers or society in general in their social life so that they could build intimacy with them. In this case, the 'participants' peers would persuade the participants to be more aware of the occurring environmental issues (Suki & Suki, 2019), which in turn would make them have a high concern about the environment and shape the participants to act responsibly to protect the environment (Suki & Suki, 2019).

Table 3. Mean Score of Green Consumption Values Items of the Participants

Mean	Item
5,95	1. It is important to me that the products I use do not harm the environment.
5,93	6. I am willing to be inconvenienced in order to take actions that are more environmentally friendly.
5,63	2. I consider the potential environmental impact of my actions when making many of my decisions.
5,58	4. I am concerned about wasting the resources of our planet.
5,31	3. My purchase habits are affected by my concern for our environment.
5,28	5. I would describe myself as environmentally responsible.

The results for analyzing each 'item's mean scores for green consumption values (shown in Table 3) showed that the item "It is important to me that the products I use do not harm the environment" has the highest mean score, while the item "I would describe myself as environmentally responsible" has the lowest. These results indicate that the participants deemed it as important to make sure that the products that they use would not harm the environment, but they are not as environmentally responsible. A possible explanation for this would be that they use non-environmentally friendly products due to it being easier to access (the products are in convenience stores) and have cheaper prices.

Table 4. The Results of Green Consumption Behavior and its Indicators

	Mean	SD	Category (Frequency)		
			Low	Medium	High
Green Consumption Behavior	55,61 (Medium)	7,071	27	175	0
Recycled Products Indicator	16,59 (High)	2,336	2	60	140
Biodegradability Indicator	11,8 (Medium)	1,962	12	109	81
Driving Habits/Oil Dependency Indicator	12,23 (High)	2,004	6	100	96
Swall Wattage Bulbs Indicator	6,08 (High)	1,477	26	100	76
Consumer Purchase Indicator	7,56 (Medium)	1,847	59	114	29



Reduction in Electricity Indicator	18,5 (High)	3,196	10	81	111
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The results in table 4 showed that the green consumption behavior score for the participants of this study has an average of 55.61 (medium category) which means that they sometimes exercise consumption activities that positively impact the environment. A factor that has a role in making green consumption behavior in the medium category is the products related to price, quality, product information, and marketing communication. Based on the additional qualitative measure, the participants said that price, quality, and usefulness/function of the Product became a consideration when deciding to consume green product. This result is in line with a study conducted by Biswas and Roy (2015) and Khan and Mohsin (2017) that found that the price and the quality of the Product have a positive influence on consumer behavior, particularly in deciding to choose environmentally friendly products. It is caused by the cognitive decision-making that the participants made when they are deciding to consume green products, which in this case the participants would have to seek information first before they finally decide to consume (Solomon et al., 2017).

In addition, the purchase intention that is predicted to influence green consumption behavior is subjective norms, where friends and family encourage the participants to use environmentally friendly products. Based on the additional qualitative measure, some quite numerous participants said that they use environmentally friendly products because of their friends and family. This result is in line with a study by Priatna (2019), which found that family and society are strong control beliefs and made it easier for college students to use environmentally friendly products. However, this study did not measure the 'participants' purchase intention; hence it is not currently possible to identify the attitude toward behavior and the perceived behavioral control aspect of the participants of this study.

From the previously mentioned intention, the 'participants' green consumption behavior emerges. When the participant has purchased and consumed (green consumption behavior) the products, the resulting behavior would be sustainable consumption behavior, specifically towards natural resources, lifestyle changes, and environmentally friendly product consumption to fulfill current and future 'generations' needs (Biswas & Roy, 2015). In the case of this study, sustainable consumption behavior could emerge after the consumer made a post-purchase evaluation, which is when the consumer has experienced the chosen products or services and decides whether to purchase it again in the future (Solomon et al., 2017). Most participants have a medium green consumption behavior, which means that most participants in this study do not always show consuming behavior that positively impacts the environment. An explanation for this is that when the participants are making a post-purchase evaluation, they feel that the Product does not meet their expectations and the possibility of more beneficial alternatives. Because of this, the participants of this study are not yet exercising sustainable consumption behavior.

Table 5. Correlation test of Green Consumption Values and Green Consumption Behavior

Test	Sig	Correlation Coefficient	Note
'Spearman's rho	0.000	0.479	Medium Positive Correlation

The results in table 5 showed that there is a significant positive correlation between green consumption values and green consumption behavior on a medium correlation with a correlation coefficient of 0.479. This result is in line with a study conducted by do Paço et al. (2019), which showed that green consumption values positively influence one ' ' 's purchasing behavior with a correlation coefficient of 0.659. This result is also in line with a study by Haws et al. (2014), which showed that consumers with higher green consumption values make more responsible purchases and value the environment.

The positive correlation indicates that when the green consumption values are high, then the green consumption values would also be high, and vice versa. This means that when participants deemed it

important to think, consider, and act to protect the environment when they are purchasing and consuming products and resources, they will likely often or always purchase or consume products that positively impact the environment.

The demographic factors that are predicted to play a significant role in developing the green consumption values of the participants are age and educational background. The participants of this study are in the emerging adulthood stage, in which they have understood and played their roles in society well (Santrock, 2014). In addition, the participants consist of college students, which are characterized by their scientific nature, or in other words, that they are objective, systematic, and rational.

Based on the additional qualitative measure, family and peers influence the 'participants' consideration when they decide to purchase or consume a product. Influence from word of mouth (WOM) should be a significant factor in purchasing behavior (Fakir & Miah, 2021). In addition, most participants are involved in a conservation program, such as reusing used paper to take notes in class, buying refillable bottles for liquid soap and shampoos, using used bottles as pots for plants, using used cardboard boxes to store things, and turning off electronic devices when it is not being used. do Paço et al. (2019) stated that one of the factors that contribute to making green consumption values high is their involvement in conservation activities (e.g., activities related to disposition, recycling, preserving, resource conservation, and attitude towards packaging). When one is not really involved in the previously mentioned activities, they will be less influenced by pollution issues and less concerned about social issues.

For those reasons, the green consumption values of the participants are shaped, which would then influence their intention to consume (purchase and use) green products. When the intention is strong, the participants will purchase or use green products, and when they do this, the factors that they will consider the most are price, quality, and the product's usefulness/functions.

When they use a green product, they would make a post-purchase evaluation, in which they evaluate whether the product that they have purchased or used met their expectations or not (Solomon, 2017). Based on the additional qualitative measure, the participants stated that after they consume green products, a feeling of reassurance and confidence that the act that they have committed would not damage the environment emerges. They also said that they would choose to use green products as much as they could. This is in line with the result for the item "It is important to me that the products I use do not harm the environment" which has the highest mean score. However, the participant also admits that they still use non-environmentally friendly products due to them being easier to purchase (the availability in convenience stores) and the lower price, so in general, most participants in this study have not shown that they have sustainable consumption behavior.

Table 6. The Correlation between Green Consumption Values and Each Green Consumption Behavior Indicators

	'Spearman's rho						
	1	2	3	4	5	6	7
1. <i>Green Consumption Values</i>	1						
2. <i>Recycled Products</i>	0,22**	1					
3. <i>Biodegradability</i>	0,27**	0,20**	1				
4. <i>Driving Habits/Oil Dependency</i>	0,25**	0,24**	0,37**	1			
5. <i>Small Wattage Bulbs</i>	0,16*	0,18*	0,84	0,27**	1		
6. <i>Consumer Purchase</i>	0,35**	0,30**	0,20**	0,27**	0,18**	1	
7. <i>Reduction in Electricity</i>	0,41**	0,29**	0,27**	0,29**	0,30**	0,46**	1

\*\* $p < 0,01$

\* $p < 0,05$

Based on the results shown in table 6, reduction in electricity is the only indicator positively correlated on a medium level with a correlation coefficient rate of 0.415. Reduction in electricity is defined as the reduced amount of electricity usage through the wise use and purchase of household appliances. Based on the additional qualitative measure, when the participants are at their home, they are used to turning off electrical appliances/lightbulbs/AC when it is not in use and this became a habit for them even when they are not currently resided in their home (i.e. when they live in a dorm or boarding houses).

In addition, *small-wattage bulbs* are the only indicator that is not correlated with green consumption values. Small-wattage bulbs are defined as the act of saving electricity through the use of energy-efficient lightbulbs (small wattage). Generally, this indicator is related to the act of saving energy and should have been positively correlated with green consumption values (Haws et al., 2014). The difference with the result of this study could be explained by the fact that the parents and the boarding house or dorm caretaker are the ones who buy the lightbulbs in the house or board house/dorm. Hence, the participants are simply using the already installed lightbulb, which would make the participants deem it as not necessary to think, consider, or act to protect the environment using small-wattage lightbulbs.

## 5. Conclusion

To summarize, there is a positive correlation on a medium level between green consumption values and green consumption behavior in students, class of 2017-2020. The average rate of green consumption values of the participants is in the "high" category (155 participants, with 47 in the "medium" category, and 1 participant in the "low" category) with a green consumption rate in the "medium" category (175 participants, with the remaining 27 participants in the "low" category).

The study also found that there is a positive correlation between green consumption values and some of the green consumption indicators, which are recycled products, biodegradability, driving habits/oil dependency, consumer purchase, dan reduction in electricity, while the small wattage bulbs indicator was found to not be correlated with green consumption values. People with high green values will think, consider, and seek environmentally friendly behavior when buying and consuming a product or resource. Thus, the frequency of consumption behavior (purchase and/or use) of products that positively impact the student environment is always or often. Additional results of this study showed that there is no significant difference between green consumption values and green consumption behavior based on gender, monthly allowance, and date of purchase.

### *Implication*

A Practical implication of this study may be drivers to the marketing study of green product consumption to motivate green buying behavior. It is also important to strengthen the value of the Z generation and their role as parents in future behavior. Policymakers and marketers also have to develop initiatives to enhance green buying behavior. It will also lead to sustainable green behavior in society.

### *Limitation and Study Forward*

This study has several limitations that can be considered and taken into consideration for further research. First, this study was conducted on a limited population. Second, the data in this study are participants' self-reports, so the truth in reporting depends on the honesty of the research participants. A suggestion that could be made for future studies is to consider using a wider population range to enrich the data, and using multiple-informant reports to get a more valid construction size. We can also conduct further research about the factors that could influence the emergence of green consumption values (i.e. factors that are related to the products and the environment).

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