

## Behavior Multigenerational Comparative Study: Eco-Fashion Purchase Behavior

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### Abstract

*Ecological impact and environmental sustainability in commerce has been a growing concern among both governments and consumers across geographies and industries. Fashion industry is one of the sectors getting pressure to change from both regulators and consumers. As consumer's environmental awareness increases, so does the demand for eco-fashion all over the place, including Indonesia. Eco-label has become a tool for brands to communicate their commitment in sustainability. This study compares the green purchase behavior between generation X, Y and Z behavior in the eco-fashion market. The data was collected by an online survey distributed to generation X, Y and Z eco-fashion consumers. Data was analyzed by PLS-SEM and the Multi-Group Analysis (MGA). The result indicated that although behavior eco-label had influence on product attribute and perceived consumer effectiveness, both product attributes and environmental attitudes do not have a statistically significant effect on ecological affection. This study also showed that behavior generations X, Y, and Z had no significant differences in eco-fashion green purchase behavior.*

### Keywords

Eco-fashion; eco-label; multigenerational comparison; green purchase



## I. Introduction

In the last few decades, maintaining a healthy and safe environment has become worldwide attention. Currently, Indonesians have started adopting a sustainable lifestyle among others by using environmentally friendly products (Dewi, 2019). According to the Vice Chairman of the West Java Chamber of Commerce for Small Micro and Medium Enterprise, the trend to switch to green products will be a trend in 2020 and beyond (Lukihardati & Azizah, 2019). All over the world, including in Indonesia, the fashion industry is one of the sectors that produce high levels of carbon emissions which is one of the biggest causes of environmental pollution worldwide (Nariswari, 2021; Parung, 2019). To minimize the effect of environmental pollution, the Indonesian government has demanded that the fashion and textile industry apply eco-fashion (Fauzia, 2019).

Consumers have been divided into generations based on the time they are born, such as generation X, Y, (millennials), and Z (Bencsik et al., 2016). Several studies have shown that generations have different attitudes toward green purchase behavior. Several studies in Indonesia show that generation X has lower environmental awareness and environmental attitude than the generations after them. It does not mean that they have no awareness and attitude towards the environment at all, but they have different ways to make a contribution for creating a better environment (Silvia et al., 2017; Lestari et al., 2020). Meanwhile, generations Y and Z have high awareness, concern, and affection, as well as a positive attitude towards the environment (Ahmed & Mustafa, 2019; Lestari et al., 2020). Generation Z is rated as the generation who takes a bigger role in solving environmental

issues than other generations (Dwidienawati et al., 2021). In making green purchases, generation Y tends to consider information from product attributes, such as design, price, and style (Parung, 2019). Meanwhile, generation Z is influenced by environmental issues, so they will choose products that won't damage the environment (Firmansyah et al., 2019). All generations are exposed to the issue of eco-fashion and with the differences in financial capability to buy eco-fashion that is usually sold with higher price, it is interesting to explore whether there are differences between generations in terms of eco-fashion green purchase behavior.

This study adopts the research model developed by Song et al. (2020) about the role of eco-labeling as an information on how the product is processed and produced in a sustainable way among generation Z consumers in China. As eco-fashion uses eco-label to inform their sustainability information, Song et al (2020) model is considered to be the right model. Several research conducted in Indonesia regarding eco-labels (Novita & Husna, 2020; Mufidah et al., 2018; Natakoesoemah & Adiarsi, 2020) have included only one or two mediating variables such as product attributes, PCE, environmental attitude, ecological affection and environmental concern. The Song et al. (2020) model is considered more comprehensive compared to the current studies in Indonesia. The difference between this study and Song et al (2020) are in the country, research focus, methods, and sampling techniques. In addition, there is a broader perspective of multigenerational research, as well as focus in the context of eco-fashion products purchase behavior.

## **II. Review of Literature**

As consumers cannot verify or authenticate the environmentally friendly materials or processes, therefore detailed product information is needed (Kirchoff, 2000). The information about eco-products in the labels can help consumers in identifying product attributes (D'Souza et al., 2006). Consumers have actually started to incorporate product attributes related to the environment into their product decisions. Schuitema & Groot (2014) stated that consumers buy environmentally friendly products focusing on product attributes such as quality, price and equity. In terms of ecological affection, it has also its relevance with product attributes. It gives a positive impact on ecological affection (Song et al., 2020). The results of research by Gutierrez and Seva (2016) also concluded that consumers experience positive emotions when buying environmentally friendly products. Consumers who have concern for the environment are starting to pay attention to environmentally friendly products by considering and attaching importance to buying these products. Supandini and Pramudana (2017), stated that the greater a person's sense of concern for the environment, the greater consumer interest in environmentally friendly products. Therefore, the following hypothesis can be drawn:

**H1:** Eco-label has a positive effect on Product Attributes

**H2:** Product Attributes have a positive influence on Environmental Attitude

**H3:** Product Attributes have a positive effect on Ecological Affection

**H4:** Product Attribute has a positive influence on Environmental Concern

Wang et al. (2019), found that labels that explain information related to being environmentally friendly in a product are able to increase PCE, because they can increase consumer understanding of the form of contribution made to the environment by buying the product. PCE can determine the level of environmental attitudes they have, the higher the PCE value a person tends to have more positive environmental attitudes than the lower PCE (Altinigne & Bilgin, 2014). Previous research has shown that PCE has a positive

effect on environmental attitudes. Furthermore, Antonetti and Maklan (2014) stated that participants who consume eco-label products feel proud of their purchase decisions. A person's PCE can be related to a sense of pride in his love for the environment. The strongest antecedent of caring behaviour towards the environment is PCE, which is the main predictor of behaviour awareness of the importance of protecting the environment (Roberts, 1996). Environmental concern is related to a person's belief (Antonetti & Maklan, 2014) and PCE is closely related to belief, which in the context of fashion, the higher a person's level of belief that their buying behaviour (towards environmentally friendly products) has an influence, the higher their interest in purchasing products sustainable fashion as a form of contribution to the environment (Neumann et al., 2020). Therefore, the following hypothesis can be drawn:

**H5:** Eco-label has a positive effect on PCE

**H6:** PCE has a positive effect on Environmental Attitude

**H7:** PCE has a positive effect on Ecological Affection

**H8:** PCE has a positive effect on Environmental Concern

Environmental attitude refers to a person's cognitive ability which is expressed through a natural evaluation process with a level of liking or disliking (Milfont & Duckitt, 2010). It's included in the attitude level in the emotional state, where environmental attitude is an antecedent of a person's emotional state (ecological affection) (Follows & Jobber, 2000; Schachter & Singer, 1962). There are two social movements that are often used as the topic of study and the reference to the success of social media movements in creating citizen digital activism in Indonesia, namely "Coins for Prita" and "Cases of Lizards vs. Crocodiles" (Lim, 2014). However, in recent years, there is a wave of new types of activism that is different from the social movements and campaigns that we are familiar with, namely 'quiet digital activism' (silent activism).<sup>2</sup>This silent digital activism also utilizes newer technologies and finds new strategies for organizing social and economic life. This new type of digital activism also seeks to change society more directly by giving individuals the ability to work and collaborate without depending on government or company infrastructure (Karatzogianni in Bo'do, S. et al 2019). Consumers who are aware of the importance of environmental issues, have confidence in ecological behaviour such as recycling clothes and buying environmentally friendly clothes (Jalil & Shaharuddin, 2019). By the same gesture, environmental concern is related to one's fundamental values or one's belief in environmental ethics, it is positively influenced by altruistic beliefs (Schultz, 2000; Stern et al., 1995). Therefore, the following hypothesis can be drawn:

**H9:** Environmental Attitude has a positive influence on Ecological Affection

**H10:** Environmental Concern has a positive effect on Ecological Affection

The desire of an individual to take action is influenced by a number of personality factors, one of which is a person's attitude. There are findings that a person's attitude affects buying behaviour by influencing one's thoughts and feelings (Hoyer & MacInnis, 2004). It is supported by the results of Razzaq et al. (2018) research which revealed that there is a significant and positive relationship between consumer environmental attitudes and green fashion. The sense of care and responsibility that an individual has for environmental and social issues turns out to have a positive impact on making green purchases (Kim & Choi, 2005). This is supported by Smith and Paladino (2010) and Chen and Chai (2010) research showing that environmental concern is the main driver in consumer green purchases. Not only that, Arnold and Reynolds (2009) show that moods, feelings, and related emotions are aspects of consumer behaviour on an individual's product consumption. A person tends to show a positive attitude towards the environment

if they have a high level of care and feelings of ecological affection, compared to someone who has a low level of care and affection (Laskova, 2007). This is supported by the research of Tamashiro et al. (2013) that ecological affection has a significant influence on green purchasing behaviour. Therefore, the following hypothesis can be drawn:

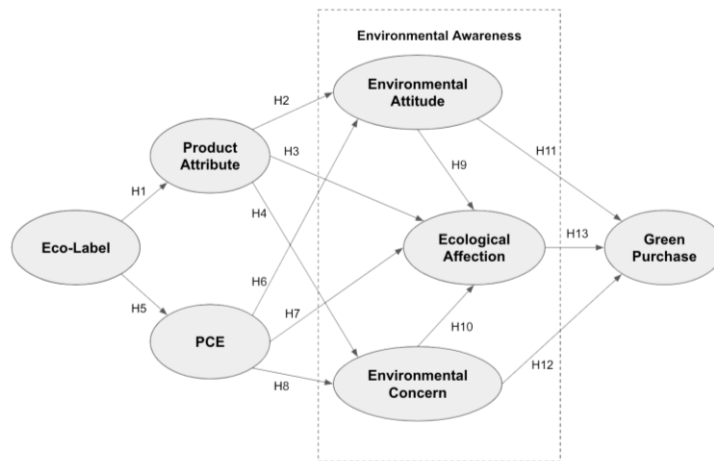
**H11:** Environmental Attitude has a positive influence on Green Purchase

**H12:** Environmental Concern has a positive effect on Green Purchase

**H13:** Ecological Affection has a positive effect on Green Purchase

Age group is one of the demographic data that will affect the level and structure of demand and sources of consumption (Buttner & Grubler, 1996). Beckman et al. (1992) state that young individuals tend to have broader knowledge and have a high level of awareness of the environment than the older population. This aligns with generation research in Indonesia by Ahmed & Mustafa (2019) and Lestari et al. (2020). Therefore, the following hypothesis states that:

**H14:** There is a significant difference in green purchase behaviour between generations X, Y, and Z.



*Figure 1. Research model and hypotheses*

### III. Research Method

This study used a quantitative method to identify the relationship between Eco-label, Product Attributes, Perceived Consumer Effectiveness, Environmental Attitude, Ecological Affection, Environmental Concern, and Green Purchase Behavior in the context of eco-fashion products between generation X, Y and Z in Indonesia by adapting measurement items from several sources and apply a 5-point Likert scale ranging from strongly disagree to agree.

The sample size is referred to Hair et al. (2011) who mention that the minimum sample size of PLS-SEM should be equal or greater than the following: (1) ten times the largest number of formative indicators used to measure a single construct or (2) ten times the largest number of structural paths directed on certain latent constructs in the structural model. In this study, there are 4 largest numbers of structural paths that lead to the ecological affection variable. Therefore, the researchers took a sample of 40 from each generation group, so the total sample from three generations are 120 Indonesians who live in Greater Jakarta (Jakarta, Bogor, Depok, Tangerang, Bekasi) and have purchased eco-fashion products with eco-label on them. The sampling method uses convenience and snowball sampling, because the data of eco-fashion users are not available.

The data is analyzed by Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS version 3.0, because it has ability in estimating complex models with various constructs and indicator variables. PLS-SEM also has the ability to analyze small size samples, because only a small number of populations use eco-fashion in Indonesia, particularly in the Greater Jakarta area. Multi Group Analysis (MGA) is used to determine the differences between the three groups of generations X, Y, and Z.

## IV. Results and Discussion

### 4.1 Reliability and Validity

Reliability and validity are measurement tools to show data accuracy and consistency, so this study can be declared feasible (Hair et al., 2011). The validity of the reflective measurement model uses convergent validity and discriminant validity. In convergent validity, it is necessary to test the Average Variance Extracted (AVE) and loading factor. The AVE value should be higher than 0.50 to describe the accepted level of validity (Hair et al., 2011). While the recommended loading factor value above 0.70 is acceptable (Chin et al., 2003). Based on the test results, Table 1 shows the factor loading and AVE value for 25 items are higher than the threshold. Table 2 shows the results of the discriminant validity test according to the Fornell-Larcker criteria, it is accepted if the AVE value of each latent variable is higher than the highest squared correlation of one latent variable with other latent variables (Hair et al., 2011), therefore it can be concluded all items are valid. Composite reliability and Cronbach's Alpha are used to test reliability. The value of composite reliability should be higher than 0.70, while the value of Cronbach's Alpha should be higher than 0.6 (Hair et al., 2011). Table 2 shows the reliability of all constructs.

**Table 1.** Reliability and Convergent Validity

Constructs	Item	Factor Loading	Cronbach's Alpha	Composite Reliability	AVE
Eco-Label	EL 2	0.799	0.689	0.827	0.615
	EL 3	0.779			
	EL 5	0.774			
Product Attributes	PA 1	0.759	0.651	0.811	0.59
	PA 2	0.823			
	PA 4	0.718			
PCE	PCE 1	0.833	0.809	0.887	0.724
	PCE 2	0.879			
	PCE 4	0.841			
Environmental Attitude	EAT 1	0.781	0.791	0.863	0.611
	EAT 2	0.851			
	EAT 3	0.754			
	EAT 4	0.737			

	EAF 1	0.853			
Ecological Affection	EAF 2	0.883	0.851	0.909	0.769
	EAF 3	0.895			
	EC 2	0.897			
Environmental Concern	EC 3	0.865	0.853	0.911	0.772
	EC 4	0.875			
	GPB 1	0.765			
	GPB 2	0.777			
	GPB 3	0.818			
Green Purchase Behavior	GPB 4	0.782	0.89	0.916	0.645
	GPB 5	0.802			
	GPB 6	0.872			

AVE = Average Variance Extracted

**Table 2.** Correlation and Discriminant Validity

Constructs	Alpha	CR	AVE	EL	EAF	EAT	EC	GPB	PCE	PA
<b>EL</b>	0.689	0.827	0.615	<b>0.784</b>						
<b>EAF</b>	0.851	0.909	0.769	0.389	<b>0.877</b>					
<b>EAT</b>	0.791	0.863	0.611	0.508	0.536	<b>0.782</b>				
<b>EC</b>	0.853	0.911	0.772	0.425	0.593	0.587	<b>0.879</b>			
<b>GP</b>	0.890	0.916	0.645	0.613	0.647	0.608	0.573	<b>0.803</b>		
<b>PCE</b>	0.809	0.887	0.724	0.564	0.577	0.655	0.522	0.628	<b>0.851</b>	
<b>PA</b>	0.651	0.811	0.590	0.475	0.404	0.551	0.456	0.451	0.548	<b>0.768</b>

CR = Composite Reliability

## 4.2 Hypothesis Testing

To see the significance of the path coefficient, it can be estimated by calculating the t-statistic compared to p-value, where the t-statistic should be higher than 1.96 and the p-value should be higher than 0.05 to state the hypothesis positively has a significant effect. Table 3 shows, there are 11 supported hypotheses and there are 2 not supported hypotheses (H3 and H9) because the t-statistic and p-value are less than the threshold. The Multigroup Analysis test was conducted to examine the difference in green purchase behaviour between generation X, Y, and Z in Indonesia. Researchers conducted 3 stages of grouping (Gen Z and Gen X, Gen Y and Gen Z, Gen Y and Gen X), because multigroup analysis could not run simultaneously on 3 groups.

**Table 3.** Path Coefficient, T-statistic, and P-values

	<b>Path Direction</b>	<b>Path Coefficients</b>	<b>t-statistic</b>	<b>p-Values</b>	<b>Conclusion</b>
H1	Eco-label --> Product Attributes	0.475	5.309	0.000	Accepted
H2	Product Attributes --> Environmental Attitude	0.275	3.109	0.002	Accepted
H3	Product Attributes --> Ecological Affection	0.006	0.058	0.954	Rejected
H4	Product Attributes --> Environmental Concern	0.244	2.102	0.036	Accepted
H5	Eco-label --> PCE	0.564	6.401	0.000	Accepted
H6	PCE --> Environmental Attitude	0.504	6.277	0.000	Accepted
H7	PCE --> Ecological Affection	0.307	2.725	0.006	Accepted
H8	PCE --> Environmental Concern	0.388	3.756	0.000	Accepted
H9	Environmental Attitude --> Ecological Affection	0.120	1.163	0.245	Rejected
H10	Environmental Concern --> Ecological Affection	0.360	3.602	0.000	Accepted
H11	Environmental Attitude --> Green Purchase	0.305	4.35	0.000	Accepted
H12	Environmental --> Green Purchase	0.166	2.147	0.032	Accepted
H13	Ecological Affection --> Green Purchase	0.386	5.463	0.000	Accepted

Only 2 (two) hypothesis that contradict with Song et al (2020) study: (1) Hypothesis 3 (Product attributes have a positive effect on Ecological Affection). The results contradict previous research by Song et al. (2020) that state product attributes have a positive impact on ecological affection. The contradiction can be explained by Momberg et al. (2012) study that has the same result as this study. Momberg et al (2012) show that although consumers have environmental knowledge, product attributes of eco-fashion such as materials and other environmental features are not recognized by consumers. Consumers do not consider the importance of models, quality, design, and other product attributes as environmentally friendly when the attributes do not create positive feelings towards the environment; (2) Hypothesis 9 (Environmental Attitude has a positive influence on Ecological Affection). Song et al. (2020) mention that environmental attitudes have a positive impact on ecological affection. However, among Indonesian, although consumers have a positive attitude towards the environment, it does not mean that they will perform ecological behavior such as recycling or other behavior that has an action to improve the environment. There should be another influence to transform attitude to ecological affection.

The Multigroup Analysis (MGA) test was conducted to examine the difference in green purchase behavior between generation X, Y, and Z in Indonesia. Researchers conducted 3 stages of grouping (Gen Z and Gen X, Gen Y and Gen Z, Gen Y and Gen X), because multigroup analysis could not run simultaneously on 3 groups. Based on the result of the Multi Group Analysis test (Table 4), there is no significant difference between generations X, Y and Z in terms of green purchase behavior. This means that the role of generations has no effect on eco-fashion purchase behavior. These results do not support



the theory of generation that mentioned differences in characteristics between each generation toward green purchase behavior, especially in generation Z which has the most different characteristics and consumer behavior from the previous generation (Dwidienawati et al., 2021). This can be concluded that the issue of the environment has drawn all generations to have a similar attitude and behavior toward purchasing green products, in this case eco-fashion.

**Table 4.** Multi-Group Analysis test between generations

Path	Gen Z - Gen X		Gen Y - Gen Z		Gen Y - Gen X		Conclusion
	Path Coefficients -diff	p-Value	Path Coefficients- diff	p-Value	Path Coefficients- diff	p-Value	
<b>EAF -&gt; GP</b>	0.114	0.473	-0.123	0.477	-0.009	0.934	Not significant
<b>EAT -&gt; EAF</b>	-0.182	0.569	0.403	0.246	0.221	0.389	Not significant
<b>EAT -&gt; GP</b>	0.125	0.502	-0.168	0.376	-0.043	0.829	Not significant
<b>EC -&gt; EAF</b>	0.018	0.964	0.194	0.540	0.212	0.340	Not significant
<b>EC -&gt; GP</b>	-0.200	0.351	0.279	0.177	0.080	0.666	Not significant
<b>EL -&gt; PA</b>	-0.006	0.977	0.064	0.665	0.058	0.766	Not significant
<b>EL -&gt; PCE</b>	0.027	0.908	-0.130	0.394	-0.103	0.639	Not significant
<b>PA -&gt; EAF</b>	-0.022	0.948	-0.283	0.294	-0.305	0.183	Not significant
<b>PA -&gt; EAT</b>	0.121	0.512	0.095	0.608	0.216	0.303	Not significant
<b>PA -&gt; EC</b>	0.318	0.306	-0.046	0.840	0.272	0.351	Not significant
<b>PCE -&gt; EAF</b>	-0.079	0.749	-0.124	0.668	-0.204	0.478	Not significant
<b>PCE -&gt; EAT</b>	0.031	0.830	-0.233	0.208	-0.202	0.277	Not significant
<b>PCE -&gt; EC</b>	-0.410	0.114	0.244	0.345	-0.165	0.487	Not significant

Data exploration is conducted by running MGA based on monthly income which is classified into two income groups according to Regional Minimum Wage for Jakarta and its surroundings in 2021. Group Income 1 is respondents with income < 4,500,000 per month (below the minimum wage), while Group Income 2 is respondents with income > 4,500,000 per month (above the minimum wage). Based on the results of the MGA test (Table 6) between the two income groups, there are three constructs that show significant differences between the two income groups which are EC PA, EC PCE, and PA EC. This shows that eco-label plays an important role in influencing product attributes and PCE among the income group. This result strengthens the findings of Armah (2001) that shows a direct relationship between income levels and the probability of using eco-labels. Based on the results of the respondents' profile for each income (Table 5), it shows that consumers with income > 4,500,000 per month, regardless of their generation, are willing to buy more expensive eco-fashion products with higher frequency compared with consumers with income < 4,500,000. This is supported by research by Bautista (2019), that a person's finances affect their green purchase behavior.



**Table 5.** Respondents' profile

Characteristics of Respondents	Category	Generation X (1960-1980)		Generation Y (1981-1995)		Generation Z (1996-2010)	
		Respondent	%	Respondent	%	Respondent	%
Income	< 1,500,000	2	4%	2	4%	9	23%
	1,500,001 - 4,500,000	3	7%	12	27%	12	30%
	4,500,001 - 10,000,000	10	22%	9	20%	<b>14</b>	35%
	10,000,001 - 15,000,000	9	20%	<b>13</b>	29%	4	10%
	> 15,000,000	<b>21</b>	47%	9	20%	1	3%
Average spending on Eco-fashion Products	< 500,000	<b>14</b>	31%	<b>16</b>	36%	<b>20</b>	50%
	500,000 - 750,000	10	22%	14	31%	10	25%
	750,000 - 1,000,000	7	16%	7	16%	9	23%
	> 1,000,000	<b>14</b>	31%	8	18%	1	3%
Frequency of Buying Eco-fashion Products Every 6 Months	1 - 2 times	<b>38</b>	84%	<b>36</b>	80%	<b>35</b>	88%
	3 - 4 times	5	11%	7	16%	4	10%
	> 4 times	2	4%	2	4%	1	3%

**Table 6.** Multi-Group Analysis test by income

Path	Path Coefficients-diff (Income 1 - Income 2)	p-value (Income 1 vs Income 2)	Income 1 (< 4.500.000)			Income 2 (> 4.500.000)		
			Path Coefficients	t-Value	p-Value	Path Coefficients	t-Value	p-Value
<b>EAF -&gt; GP</b>	0.159	0.266	0.473	4,223	0.000	0.314	3,417	0.001
<b>EAT -&gt; EAF</b>	0.280	0.932	0.135	0.480	0.631	0.108	0.927	0.354
<b>EAT -&gt; GP</b>	0.101	0.489	0.376	3,160	0.002	0.275	3,151	0.002
<b>EC -&gt; EAF</b>	-0.294	0.282	0.167	0.668	0.504	0.460	4,900	0.000
<b>EC -&gt; GP</b>	-0.183	0.266	0.076	0.552	0.581	0.258	2,555	0.011
<b>EL -&gt; PA</b>	0.393	0.003	0.742	11,115	0.000	0.348	3,048	0.002
<b>EL -&gt; PCE</b>	0.265	0.035	0.763	11,094	0.000	0.498	4,695	0.000
<b>PA -&gt; EAF</b>	-0.279	0.358	-0.167	0.565	0.572	0.113	1,102	0.271
<b>PA -&gt; EAT</b>	0.245	0.192	0.469	3,007	0.003	0.224	2,216	0.027
<b>PA -&gt; EC</b>	0.498	0.047	0.626	3,346	0.001	0.128	0.924	0.356
<b>PCE -&gt; EAF</b>	0.119	0.673	0.387	1,561	0.119	0.268	2,104	0.035
<b>PCE -&gt; EAT</b>	-0.028	0.865	0.464	3,079	0.002	0.493	5,169	0.000
<b>PCE -&gt; EC</b>	-0.366	0.131	0.105	0.517	0.605	0.471	4,172	0.000

Another finding from the characteristic results of respondents, these three generation groups mostly buy eco-fashion products from brands that often conduct environmental campaigns, such as H&M, SukkhaCitta, Sejauh Mata Memandang, and other brands. This supports Laroche et al. (2001) statement that messages in a campaign or advertisement about environmentally friendly clothing products that are associated with environmental problems can increase purchasing decisions for environmentally friendly clothing products and can increase recycling behavior. In other words, regardless of generation, eco-fashion buying behavior can be influenced through consumer income, and is supported by the dissemination of appropriate information, where the information will create environmental concerns, attitudes, and feelings to purchase behavior in accordance with the results of the previous hypothesis.

## V. Conclusion

Generational differences are important for businesses to determine the best way to reach customers of different ages and behaviors. However, the results of this study indicate that there is no difference in green purchase behavior of eco-fashion products between Indonesian generations X, Y, and Z. There are differences between Indonesian and Chinese in terms of the influence of Product Attributes and Environmental Attitudes to Ecological Affection. Although Indonesian consumers might be aware of Product Attributes and have positive attitudes toward the environment, the consumers might not be moved to practice ecology behavior. There should be subjective norms that force consumers to act in ecology behavior.

The implication of the study to green business is explained as follows (1) Environmental Attitude and Environmental Concern are green purchase predictors that are influenced by Product Attributes and Perceived Consumer Effectiveness. Businesses need to pay attention to product attributes in terms of environment-related quality to the model that consumers want, such as considering what environmental impacts are caused if consumers buy the product. (2) A factor that drives green purchase is ecological affection or the positive or negative feeling toward the environment. Ecological affection is influenced by PCE and Environmental Concerns. Products must be able to relate their purpose to improve the quality of the environment because consumers buy eco-fashion products to express their concern for the environment (Junior et al., 2018). (3) Eco-label is an important factor to encourage perceived consumer effectiveness and product attributes. To increase consumer effectiveness and product attributes, eco-fashion businesses should consider eco-labeling as the source of information about products so it will create a perception about the environmental value that consumers believe in and increase the benefits of product attributes on the environment, especially since there are not many eco-label products in Indonesia. (4) The study shows that income also creates different eco-fashion purchase behaviors. Businesses can do 2 (two) strategies, first to focus on high income regardless of their generation or focus on differentiating the products according to the generation's income bracket with the second or third brand.

## References

- Ahmed, Z. I., & Mustafa, K. (2019). Regime-dependent effects on stock market return dynamics: Evidence from SAARC countries. *Asian Development Policy Review*, 7(2), 111-132.
- Altinigne, N., & Bilgin, F. Z. (2014). The Relationship between Perceived Consumer Effectiveness and Environmental Attitudes of University Students. *International Marketing Trends Conference*, 13. <http://archives.marketing-trends-congress.com/2014/pages/PDF/172.pdf>
- Antonetti, P., & Maklan, S. (2014). Feelings that make a difference: How guilt and pride convince consumers of the effectiveness of sustainable consumption choices. *Journal of Business Ethics*, 124(1), 117–134.
- Arnold, M. J., & Reynolds, K. E. (2009). Affect and retail shopping behavior: Understanding the role of mood regulation and regulatory focus. *Journal of Retailing*, 85(3), 308–320.
- Bautista, R. A. (2019). Green Behavior and Generation: A Multi-Group Analysis Using Structural Equation Modeling. *Asia-Pacific Social Science Review*, 19(1), 1–16. [https://animorepository.dlsu.edu.ph/faculty\\_research/3354/](https://animorepository.dlsu.edu.ph/faculty_research/3354/)
- Bencsik, A., Horváth-Csikós, G., & Juhász, T. (2016). Y and Z Generation at Workplaces. *Journal of Competitiveness*, 8(3), 90-106.
- Bo'do, S. et al. (2019). Social Media, Public Sphere and Movement Discussion of Urban Farming in Indonesia. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*. P. 250-261.
- Chen, T. B. & Chai, L. T. (2010). Attitude towards the environment and green products: Consumers' perspective. *Management Science and Engineering*, 4(2), 27-39.
- D'Souza, C. &. (2006). Green products & corporate strategy: An empirical study on the influence of environmental labels on consumers. *Corporate Communications: An International Journal*, 11, 162-173.
- Dewi, D. S. (2019). Sustainable Living, Tren Gaya Hidup Ramah Lingkungan 2019. *Tirto*. <https://tirto.id/sustainable-living-tren-gaya-hidup-ramah-lingkungan-2019-ephY>
- Dwidienawati, D., Abdinagoro, S. B., Gandasari, D. & Tjahjana, D. (2021). Do generation Y and Z really concern about environmental issues? *IOP Conference Series: Earth and Environmental Science*”, 729.
- Fauzia, M. (2019). Indonesia Punya Potensi Bisnis Sustainable Fashion, Ini Alasannya. *Kompas*. <https://money.kompas.com/read/2019/09/03/064100026/indonesia-punya-potensi-bisnis-sustainable-fashion-ini-alasannya>
- Firmansyah, F., Purnamasari, P. E., Djakfar, M. (2019). Religiusitas, Lingkungan dan Pembelian Green Product pada Konsumen Generasi Z. *Jurnal Ekonomi Dan Bisnis Islam*, 15(1), 57-70.
- Follows, S. B., & Jobber, D. (2000). Environmentally responsible purchase behaviour: a test of a consumer model. *European Journal of Marketing*, 34(5/6), 723–746.
- Gutierrez, J., & Seva, R. (2016). Affective responses in the purchase of consumer eco products. *DLSU Business & Economics Review*.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152.
- Hines, J. M., Hungerford, H. R., & Tomera, A. N. (1987). Analysis and Synthesis of Research on Responsible Environmental Behavior: A Meta-Analysis. *The Journal of Environmental Education*, 18(2), 1–8.
- Hoyer, W. D. & MacInnis, D. J. (2004). *Consumer Behavior*. Boston: Houghton Mifflin.

- International Organization for Standard. (2019). Environmental Labels. <https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100323.pdf>
- Jalil, M. H., & Shaharuddin, S. S. (2019). Consumer Purchase Behavior of Eco-Fashion Clothes As a Trend to Reduce Clothing Waste. *International Journal of Innovative Technology and Exploring Engineering*, 8(2), 2278-3075.
- Junior, S. S. B., Gabriel, M. L. D., & Silva, D. (2018). "The influence of environmental concern and purchase intention in buying green products", *Asian Journal of Behavioral Studies*, Vol. 3, No. 12, pp. 183-193.
- Kim, Y. & Choi, S. M. (2005). Antecedents of Green Purchase Behavior: An Examination of Collectivism, Environmental Concern, and Pce. *Advances in Consumer Research*, 32, 592-599. <https://www.acrwebsite.org/volumes/9156/volumes/v32/NA-32>
- Laroche, M., Bergeron, J. & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18(6), 503-520.
- Laskova, A. (2007). Perceived consumer effectiveness and environmental concern. In: *Proceedings of the 13th Asia Pacific Management Conference*, Melbourne, Australia, 206-209.
- Lestari, C. I., Ariestya, A. & Dewi, H. L. C. (2020). Pola Hubungan Antara Green Marketing Communication, Environment Consciousness, & Purchase Decision pada Produk Pakaian dan Air Minum Dalam Kemasan Plastik pada Masyarakat Metropolitan Generasi Boomers, X, Y, dan Z. (Unpublished Manuscript). Universitas Multimedia Nusantara.
- Milfont, T. L. & Duckitt, J. (2010). The environmental attitudes inventory: A valid and reliable measure to assess the structure of environmental attitudes. *Journal of Environmental Psychology*, 30(1), 80–94.
- Momberg, D., Jacobs, B., & Sonnenberg, N. (2012). The role of environmental knowledge in young female consumers' evaluation and selection of apparel in South Africa. *International Journal of Consumer Studies*, 36(4), 408–415.
- Mufidah, I., Jiang, B. C., Lin, S. C., Chin, J., Rachmaniati, Y. P. & Persada, S. F. (2010). Understanding the Consumers' Behavior Intention in Using Green Ecolabel Product through Pro-Environmental Planned Behavior Model in Developing and Developed Regions: Lessons Learned from Taiwan and Indonesia. *Sustainability*, 10(5), 1423.
- Nariswari, S. L. & Wisnubrata. (2021, March 1). Ini Brand Lokal yang Mengusung Konsep Sustainable Fashion. *Kompas*. <https://lifestyle.kompas.com/read/2021/03/01/192850520/ini-brand-lokal-yang-mengusung-konsep-sustainable-fashion?page=all>
- Natakoesoemah, S. & Adiarsi, G. R. (2020). The Indonesian Millenials Consumer Behaviour on Buying Eco-Friendly Products: The Relationship Between Environmental Knowledge and Perceived Consumer Effectiveness. *International Journal of Multicultural and Multireligious Understanding*, 7(9), 292-302.
- Neumann, H. L., Martinez, L. M., & Martinez, L. F. (2020). Sustainability efforts in the fast fashion industry: consumer perception, trust and purchase intention. *Sustainability Accounting, Management and Policy Journal*, 12(3), 571-590.
- Novita, D. & Husna, N. (2020). Peran ecolabel awareness dan green perceived quality pada purchase intention. *Jurnal Manajemen Maranatha*, 20(1), 85-90.
- Parung, C. A. (2019). How do the Indonesian ecologically conscious millennials value upcycled clothing? *IOP Conference Series: Materials Science and Engineering*, 703.
- Razzaq, A. A. (2018). The Impact of Fashion Involvement and Pro-Environmental Attitude on Sustainable Clothing Consumption: The Moderating Role of Islamic Religiosity.

SAGE Open, 8(2).

- Roberts, J. A. (1996). Green consumers in the 1990s: Profile and implications for advertising. *Journal of Business Research*, 36(3), 217–231. [https://doi.org/10.1016/0148-2963\(95\)00150-6](https://doi.org/10.1016/0148-2963(95)00150-6)
- Schachter, S. & Singer, J. (1962). Cognitive, social, and physiological determinants of emotional state. *Psychological Review*, 69(5), 379–399.
- Schuitema, G. &. (2014). Green consumerism: The influence of product attributes and values on purchasing intentions. *Journal of Consumer Behaviour*, 14(1), 57-69.
- Schultz, P. W., Shriver, C., Tabanico, J. J., & Khazian, A. M. (2004). Implicit connections with nature. *Journal of Environmental Psychology*, 24(1), 31–42.
- Silvia, L., Gabriela, D. & Kristanti, M. (2017). Analisa Eco-friendly Attitudes Dan Eco-friendly Behavior Terhadap Eco-friendly Intention Green Hotel Di Indonesia. *Jurnal Hospitality dan Manajemen Jasa*, 5(2).
- Smith, S., & Paladino, A. (2010). Eating clean and green? Investigating consumer motivations towards the purchase of organic food. *Australasian Marketing Journal (AMJ)*, 18(2), 93–104.
- Song, Y., Qin, Z., & Qin, Z. (2020). Green marketing to Gen Z consumers in China: Examining the Mediating Factors of an Eco-label-Informed Purchase. *SAGE Original Research*, 10(4), 1-5.
- Stern, P. C. (1995). The New Ecological Paradigm in Social-Psychological Context. *Environment and Behavior*, 27(6), 723–743.
- Tamashiro, S., Silveira, J. A., Merlo, E. M., & Ghisi, M. (2013). The relationship between ecological knowledge, ecological concern, ecological affection, subjective norms and the green purchase behavior in Brazil. *African Journal of Business Management*, 7(34), 3297-3314.
- Wang, H., Ma, B., & Bai, R. (2019). How Does Green Product Knowledge Effectively Promote Green Purchase Intention? *Sustainability*, 11(4), 1193.