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Beauty Goes Green: Effects of Eco-Label and Price Sensitivity on Filipino Gen X and Z's Sustainable Purchasing Behaviour

Nina Isabel R. Bautista[1]*, Jillian Shamira L. Palmiano[2], Alyanna Raiza O. Reyes[3], Ysabel Maria Louise P. San Juan[4], Antonio E. Etrata, Jr.[5]
University of Santo Tomas, Manila, Philippines
Corresponding Author: Nina Isabel R. Bautista
ninaisabel.bautista.comm@ust.edu.ph

A R T I C L E I N F O

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A B S T R A C T

Several companies have adopted sustainability as a business approach to protect the social, ecological, and economic environments. This study aims to determine the influence of eco label and price sensitivity on green purchasing behavior of Filipino Gen X and Z consumers and to identify their perception towards them. An online questionnaire was distributed to 385 respondents, and the data gathered for this quantitative study were analyzed through descriptive statistics, t-test, and multiple linear regression. Results show that only price sensitivity significantly affects the purchasing behavior of Gen X. While both eco-label and price sensitivity significantly affects Gen Z's purchasing behavior. Moreover, the presence of an eco-label influences their buying behavior since they are more knowledgeable of its relevance in products.

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INTRODUCTION

The cosmetics industry is one of the industries that is rapidly growing at present. This is due to the products that they provide to the consumers and how important it is in one's daily life. Having this said, the cosmetics industry needs to have an effort to continuously improve its offering given that many individuals depend on it. Furthermore, it is evident that this industry has a very competitive market environment hence, they also have the pressure to constantly innovate and adapt to changes in society in order for them to remain relevant in the ever-growing market. With that, during the 21st century, the cosmetics industry went through several changes and one of which was adopting sustainability (Kapoor et al., 2019). Aside from applying sustainability to their offerings, these companies also started using these initiatives to differentiate themselves from the rest and also position themselves as a company that has adopted sustainability.

Moving forward, this research will be focusing on the effect of the presence of eco-labels & price sensitivity on Filipino Generation X and Z due to the fact that further studies have found that these factors are what affect their purchasing behavior. To further elaborate, eco-labels are the symbol or logo on the product that depicts that the product is sustainable and safe for the environment, therefore, it can be considered a green product. While price sensitivity is the level of awareness and response consumers exhibit when they discover differences in the prices of goods or services.

With that, the research aims to strengthen the said findings and contribute further recommendations in the Eastern context. According to Tan et al. (2019), most research on consumer behavior with regard to eco-friendly products is studied from the context of Western countries. To be more specific, this paper's objective is to first, determine the influence of the presence of eco-labels and price sensitivity on the purchasing behavior of Gen X & Z. Also, to identify how the presence of eco-label & price sensitivity can help in further innovations in the cosmetic industry; and lastly, to be able to discover and propose specific and effective marketing strategies for green cosmetic products.

THEORETICAL REVIEW

"Determinants of Green Product Buying Decision among Young Consumers in Malaysia"

The researchers have utilized the framework from the study by Tan et al. (2019) as reference, which aimed to analyze the factors that can possibly influence the green product buying behavior of young Malaysian consumers. According to the aforementioned study, given that there are various environmental issues, individuals tend to interpret and respond differently even though these issues are somehow similar to one another. Moreover, it was stated that a consumer's buying behavior is closely associated with a person's attitude, perception of values, and intention when it comes to green products, whether intrinsic or extrinsic in nature. In the said study's framework, five (5) factors were determined such as environmental consciousness, eco-label, attitude, green advertising, and price sensitivity. With its alignment to the

study, the researchers used the factors which turned out to be significant, which are eco-label and price sensitivity, to identify which among the two (2) can affect the purchasing decision of Gen X and Z.

H1: Eco-labelling of products significantly influences the purchase behavior of Gen X and Z

H1.1: Eco-labelling of products significantly influences the purchase behavior of Gen X on green cosmetic products.

H1.2: Eco-labelling of products significantly influences the purchase behavior of Gen Z on green cosmetic products.

H2: Gen X and Z's price sensitivity significantly influences the purchase behavior on green cosmetic products.

H2.1: Gen X's price sensitivity significantly influences the purchase behavior on green cosmetic products.

H2.2: Gen Z's price sensitivity significantly influences the purchase behavior on green cosmetic products.

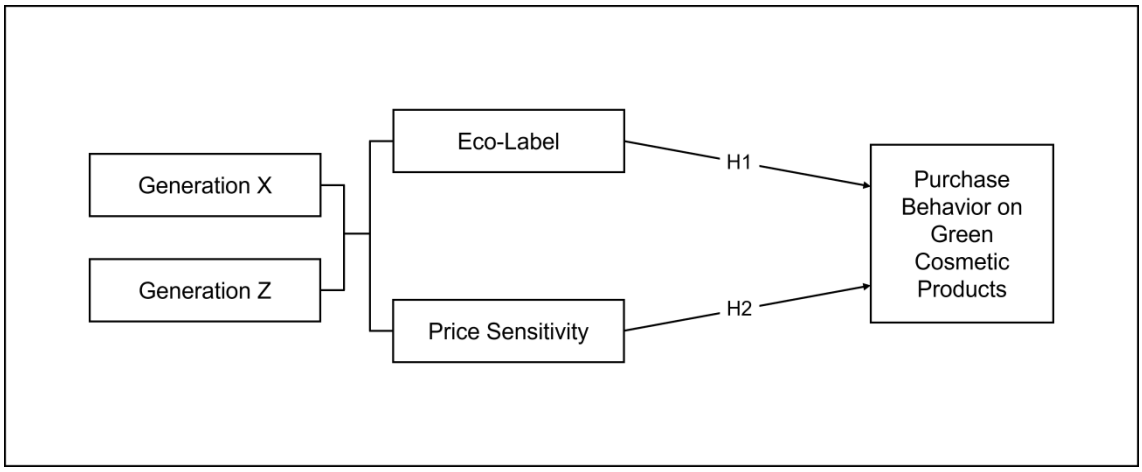

Figure 1. Comparative Framework on the Effects of Eco-Label and Price Sensitivity between Gen X and Z's Purchasing Behavior

The model above shows a comparison on the results between two (2) generations, Gen X and Gen Z, about how eco-label (IV1) and price sensitivity (IV2) individually affects (represented by individual arrows) their purchase behavior on green cosmetic products (DV). Eco-label is a product's way of communicating to the consumers through its symbol that the product being offered is safe for the environment and is produced by the company through eco-friendly and sustainable processes (Song et al., 2019). With price sensitivity, according to Hsu, et al. (2017), this poses a great influence on a consumer's choice to either purchase an offering or to look for an alternative.

METHODOLOGY

The researchers used quantitative correlational approach research in order to accurately analyze the data and at the same time, provide an interpretation of the result. To be more specific, the study is a descriptive quantitative research since it focused on describing the characteristics of the

researchers' chosen population. As for the correlational approach, the said method of research establishes a connection between two or more variables within the same population (Apuke, 2017). Furthermore, the purposive sampling method was utilized to determine the respondents of the research. In accordance with Business Research Methodology (n.d.), it is most effective when there are a limited number of people that can serve as primary data sources as per the scope of the research like its design, aim, and objectives.

The survey respondents came from the National Capital Region (NCR). They belong to either Gen X, born from years 1965 to 1980, or Gen Z, those born from years 1997 to 2004. Those respondents that came from Gen Z but were born from 2004 onwards were not qualified as they are still under the legal age as of the time of the study. Additionally, the respondent should be a cosmetic product user and is aware of the sustainable efforts done by cosmetic companies. Given NCR's total population, the Raosoft Sample Size Calculator was used in order to determine the total number of qualified respondents for this study which gave a result of 385 respondents.

The instrument used for the quantitative data collection of this study was a researcher-made questionnaire. It underwent the validity and reliability test wherein for the reliability, the researchers conducted a pilot test wherein the value for Cronbach's alpha (CA) turned out to be just in between .70 and .90 which signifies that the questionnaire is reliable. The data was collected through an online distribution of the survey questionnaires. It was sent across different messaging platforms and was posted on several social media sites.

As for the statistical analysis, Descriptive statistics was deployed by getting the mean and standard deviation of each factor. The means of the data will be interpreted as follows: 5.16 - 6.00 (Strongly Agree), 4.33 - 5.15 (Agree), 3.50 - 4.32 (Slightly Agree), 2.67 - 3.49 (Slightly Disagree), 1.84 - 2.66 (Disagree), and 1.00 - 1.83 (Strongly Disagree). Moreover, a t-test was also utilized to determine whether there were significant differences between the two generations, Gen X and Gen Z. Lastly, multiple linear regression was used to investigate the probable relationship or impact of a certain set of predictors and a dependent variable (Plonsky & Ghanbar, 2018).

RESULTS

Table 1. Demographic of the Respondents (n = 385)

	Generation X		**Generation Z**	
	f	%	*f*	%
Gender				
Female	148	78.31	171	87.24
Male	41	21.69	25	12.76
Civil Status				
Single	64	33.86	195	99.49
Married	106	56.08	1	0.51

Separated	10	5.29		
Divorced	2	1.06		
Widowed	7	3.70		
Socio-Economic Class				
AB (Middle-Upper Class)	82	43.39	91	46.43
C1 (Lower Middle Class)	72	38.10	74	37.76
C2 (Skilled Working Class)	14	7.41	16	8.16
D (Working Class)	18	9.52	10	5.10
E (Lowest Level of Income)	3	1.59	5	2.55
Educational Attainment				
Associate's Degree	6	3.17	1	0.51
Bachelor's Degree	117	61.90	66	33.67
High School Diploma	12	6.35	70	35.71
Master's Degree	18	9.52	2	1.02
Some College, No Degree	36	19.05	57	29.08

The number of respondents were identified through the purposive sampling wherein according to the population of the study is chosen based on their qualifications depending on the design, aim, and objectives of the study (Purposive Sampling, 2023). The researchers also took into consideration the time constraints hence, the number of respondents attained. This is also in accordance with Business Research Methodology (n.d.), stating that researchers choose a representative sample of their population which results in saving more time and money.

Based on the data gathered, it was revealed that most of the respondents were female for both Gen X and Z, accounting to 148 (78.31%) and 171 (87.24%), respectively. As for the civil status, 106 (56.07%) from Gen X are married while 195 (99.49%) from Gen Z are single. Moreover, the majority of both Gen X and Z belong to SEC AB with a total of 82 (43.39%) and 91 (46.43%), respectively. Furthermore, the highest educational attainment of 117 respondents (61.90%) coming from Gen X is a Bachelor's degree as compared with the high school diploma of 70 respondents (35.71%) from Gen Z.

Table 2. Independent Sample T Test

	Generation	**Mean**	**Std. Deviation**	**t**	**p**
Eco-Label	Gen X	4.079	1.0735	-2.91	.004*
	Gen Z	4.383	.9765		
Price Sensitivity	Gen X	4.316	.7472	-2.75	.006*
	Gen X	4.316	.7472		

Table 2 shows the two (2) factors mainly influencing the purchasing behaviors of Gen X and Z which are eco-label and price sensitivity. The results reveal that there is a significant difference in the two (2) factors between the two (2) generations. To interpret the mean, we used the following range of score for each response option in the 6-point Likert scale:

- 5.16 - 6.00 (Strongly Agree);
- 4.33 - 5.15 (Agree);
- 3.50 - 4.32 (Slightly Agree);
- 2.67 - 3.49 (Slightly Disagree);
- 1.84 - 2.66 (Disagree); and
- 1.00 - 1.83 (Strongly Disagree).

Table 3. Descriptive Statistics for Generation X (N = 189)

	Mean	**Std. Deviation**	**p**	**Interpretation**
Eco-Label	4.079	1.0735	.004*	*Slightly Agree*
Price Sensitivity	4.316	.7472	.006*	*Slightly Agree*

***Significant at p < 0.05**

Tables 3 and 4 describe the perception of the respondents from Gen X and Z for each factor, represented by their level of agreement through the interpretation of each mean score. To run through each one, Table 3 shows that for Gen X, there are *significant differences* in all the factors given that all p-values are less than 0.05. As the results reveal, Gen X *slightly agrees* both for eco-label (μ=4.079) and price sensitivity (μ=4.316).

Table 4. Descriptive Statistics for Generation Z (N = 196)

	Mean	**Std. Deviation**	**p**	**Interpretation**
Eco-Label	4.383	.9765	.004*	*Agree*
Price Sensitivity	4.533	.8053	.006*	*Agree*

***Significant at p < 0.05**

Similar to the previous table, Table 4 also shows that there is a significant difference on the two (2) factors of green purchasing behavior for Gen Z. However, Gen Z exhibits a different level of agreement as the results reveal that Gen Z *agrees* that eco-label (μ=4.383) and price sensitivity (μ=4.533) contribute to their green purchasing behavior.

Table 5. Regression Analysis for Generation X

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.024	.261		7.741	.000
Eco-Label	.150	.078	.218	1.918	.057

Price Sensitivity	.416	.084	.420	4.946	.000*

Dependent Variable: Purchase Behavior on Green Cosmetic Products

In line with Table 5, a multiple regression was utilized to predict which of the two (2) factors influences the purchase behavior of Gen X. A significant regression equation was found ($F(5,183) = 23.503$, $p < 0.00$) revealing that the Gen X's purchase behavior is equal to 2.024+0.416Pr, where Pr is price sensitivity. This means that the respondents' predicted purchase behavior increases by 0.416 for every unit increase in price sensitivity. On the other hand, eco-label was found to be *insignificant* in affecting the purchase behavior of Gen X.

Table 6. Regression Analysis for Generation Z

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.537	.258		5.970	.000
Eco-Label	-.170	.078	-.211	-2.185	.030*
Price Sensitivity	.469	.091	.480	5.176	.000*

Dependent Variable: Purchase Behavior on Green Cosmetic Products

Moving forward with the purchasing behavior of Gen Z, Table 6 displays the results of multiple regression that was used to predict which of the two (2) factors are significant. With a p-value of less than 0.05, both eco-label and price sensitivity were determined to affect the purchasing behavior of Gen Z. A significant regression equation was found ($F(5,190) = 35.106$, $p < 0.00$) revealing that Gen Z's purchase behavior is equal to 1.537-.170EL+0.469Pr, where *EL* is eco-label and *Pr* is price sensitivity.

DISCUSSION

The study finds that H1.1, the statistical results depict that eco-labels do not produce a significant effect on the purchasing behaviour of Gen X due to the fact that the statistical value resulted in an insignificant value which means that eco-labels bear no importance and impact when it comes to the purchasing behavior of Gen X. According to Brand et al. (2022), one of the possible reasons as to why Gen X is not aware of the sustainable initiatives nowadays could be the fact that throughout most of their lives, environmental issues for instance; climate change, pollution, and the like did not receive as much media attention and public interest during their time contrary to how it is given attention as they do today. Meanwhile, based on the results for Gen Z consumers, it is found that eco-labels are one of the main factors that affect their purchasing behavior. Having that information, sub-hypothesis H1.2 affirms that Gen Z consumers agree that eco-labels are essential in green cosmetic products based on the results. In line with this, according to Brand et al. (2022), Gen Z are impacted by eco-label more

significantly as compared to Gen X. This is due to the fact that Gen Z consumers are more aware and knowledgeable of what they are and what their relevance to green products is. Moreso, they are also known for being multi-taskers and are the ones who have high levels of tolerance and understanding.

Sequentially, H2 and sub-hypothesis H2.1 point out that Gen X and Z's price sensitivity significantly influences the purchase behaviour of green cosmetic products. The study results indicate that Price greatly influences their purchase behaviour as per the statistical result of .000 for both generations. Hence, we can conclude that price plays a vital role in the intention of Gen X and Z of purchasing green products seeing that it is a main factor for both generations. This is in line with the study of Hsu, et al. (2017) and Yue, et al. (2020) that proves price to have a substantial influence on consumers' purchasing behaviour on products and their choice of purchase. Moreover, according to the study of Bhavana, 2018, Gen Z consumers are also the ones who are always ready to utilize and research new green solutions that are cost effective and at the same time make reasonable choices. They value products that are affordable, environmental friendly, and those products that are not tested on animals. They are deeply concerned about the social issues prevailing in the society. As per Brand et al. (2022), their motivation to buy green products seems to be stronger and they are willing to pay a premium for sustainability attributes. Meanwhile, Gen X consumers embody higher purchasing power, due to a higher disposable income compared with other generations. Thus, they are more attentive towards product characteristics while at the same time they take a higher degree of accountability, as well as evaluating aspects such as quality, price, opinions, and environmental issues; making them more cautious when conducting new purchases (Brand et al., 2022 & Navas et al., 2021). Given this, if a product will increase its price, Gen X and Gen Z consumers are more likely to divert their purchase decision. Moreso, not all eco-conscious consumers are prepared to shell out more money for eco-friendly goods. As with green products, they are typically price-sensitive, and the price factors influence their purchasing behaviour (Erdil, 2018). In support of this, as stated by Chaudhary & Bisai (2018), price sensitivity can also serve as a key barrier to green consumption in view of the fact that highly price-sensitive consumers are greatly influenced by the price changes.

CONCLUSIONS AND RECOMMENDATIONS

The findings indicate that price sensitivity is the only factor that influences Gen X's sustainable purchasing behaviour. This means that the said generation is considered to be price-sensitive, especially in situations where they need to decide whether to buy a green cosmetic product. While for Gen Z, both price sensitivity and eco-label are crucial upon purchasing a green cosmetic product. To further differentiate, Gen Zs are the ones who are more willing to purchase products even at a premium price if this purchase results in saving the environment. Meanwhile, for Gen X, it is evident that affordability is their priority rather than the environmental impact. This study has provided new insights regarding the green purchasing behaviour of Gen X and Z and what

factors significantly affect their buying behaviour. Accordingly, carefully considering how eco-label and price sensitivity of consumers may contribute to the improvement and further innovation of the cosmetics industry would help formulate effective marketing strategies. Thus, the researchers make the following recommendations; primarily, marketers need to focus their marketing efforts towards Gen Z and increase their efforts and create strategies that curate the preferences of Gen X since based on the result of the study in sub-hypothesis H2.2; Price Sensitivity and Eco-label are the factors that significantly affect Gen Z's buying behaviour and only price sensitivity affects Gen X's buying behaviour. Consequently, since the cosmetics industry is expected to grow exponentially over the years, it is an opportunity for companies to improve their strategies and their R&D team should look into determining the right price for their customers since according to H2 and H3, it is pivotal in the decision making of both generations. Lastly, cosmetics businesses can use this study as a basis for how to improve their operations to become sustainable such as maximizing the use of eco-labels to assure consumers that they are buying a product that is environmentally safe.

FURTHER STUDY

With the study being limited to Generations X and Z, the researchers recommend that a similar study be conducted targeted to different generation cohorts or different variables. Consequently, adding a mediating variable can also be looked into by future researchers to obtain new insights regarding the relationship among the variables. To determine whether there is a significant difference in consumers' purchasing behaviour, future studies may contain and examine the same variables with consumers from various cultural backgrounds since this study focused on the purchasing behaviour of Filipino consumers. Moreover, the results of the present study can help future researchers to identify what improvements can be made by companies in order to improve their operations to make them more sustainable and to meet the changing preferences and needs of consumers. The aforementioned recommendations will help researchers to identify which factors significantly influence the purchasing behaviour of different generations belong to different cultural backgrounds.

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