

Influence of Environmental Values on Purchase Intention of Selected Personal Care Products Among Consumers

Atienza, Julius Paolo M.^{#1}, Arturo, Mary Rose D.^{*2}, Bautista, Antoinette N.^{#3},

Bonguit, Pauline Gail G.^{#4}

College of Commerce and Business Administration, University of Santo Tomas, Manila, Philippines

España Boulevard, Sampaloc, Manila, 1008 Metro Manila, Philippines

juliuspaolo.atienza.comm@ust.edu.ph

maryrose.arturo.comm@ust.edu.ph

antoinette.bautista.comm@ust.edu.ph

paulinegail.bonguit.comm@ust.edu.ph

Abstract

Personal care products or PCPs are one of the emerging water contaminants and environmental pollutants in the world. These environmental concerns are opening the eyes of the consumers to adopt greener lifestyle practices and switch to more sustainable habits. The rising go-green consciousness has pushed industries handling personal care products to redefine sustainability. This study's primary objective is to examine Filipino non-green consumers' purchase intention of personal care products, specifically, the PCP categories of dental and oral care, hair care, and skincare, based on their environmental values. Accordingly, we will further investigate how brand perception modifies purchase intentions of personal care products. The 397 qualified respondents used for the analysis are currently residing in the Greater Manila Area, which consists of Metro Manila and the nearby provinces of Cavite, Rizal, Laguna, and Bulacan. The preliminary reliability results generated from the pilot test showed that Cronbach's alpha values for all constructs exceeded the acceptable value of 0.7. The study used Pearson's product-moment correlation coefficient, and multiple regression analysis to measure the relationships of the variable. The results provide a better understanding of how environmental values and characteristics of these non-green consumers can help businesses enhance how they should cater to this type of consumers, which, in turn, can help improve brand performance.

Keywords: Environmental Values, Purchase Intention, Brand Perception, Personal Care Products

I. INTRODUCTION

Environmental values are an essential variable to consider when determining the impact of customer purchase intentions for personal care goods. According to Miller et al. (2015), environmental values are “an individual's willingness to protect the environment as a predictor variable between this measure and the person's environmental behavior.” (Iwata, 2002; Onel & Mukherjee, 2016). The four types of values (Biospheric, altruistic, egoistic, and hedonic) have been comprehensively examined and proven effective in predicting environmental beliefs and actions (Steg et al., 2014). Self-transcendence values (Biospheric and Altruistic) an individual's concern for the environment and people. Individuals with high biospheric values are more inclined to purchase products with eco-friendly packaging or features. In contrast, altruistic people are more likely to buy products that benefit others. On the other hand, Self-enhancement values (Hedonic and Egoistic) prioritize personal resources and enjoyment. Consumers who prioritize their egoistic or hedonic values, for example, are less likely to behave pro-environmentally unless they will profit by doing so (Bouman et al., 2018).

Consumers' environmental interests, values, and behavioral characteristics are becoming more critical as firms worldwide strive to become more sustainable brands. The preference for green products and increased environmental consciousness led to a growth in the number of new green brands, notably in the personal care sector. Santos (2017) states Filipino consumers with experience with green products can affect product purchase intentions of products. However, it does not correlate entirely with them being environmentally responsible. Their purchase habits are dependent on their intellect and personal experience when choosing a product.

Green purchase behavior (GPB) can be considered one of the significant contributors to environmental sustainability. Indeed, there can be a shift in consumers' purchase preferences, and behavior as more green products are introduced in the market, also commonly marketed as products that help reduce the negative impact on the environment (Quoquab and Mohamad, 2017). The concept of brand perception comes into play, especially when bringing environmental values and customer purchasing intentions together. According to Castillo (2018), Filipino consumers prefer brands that carry social status and are a conversation starter to other people. On the other hand, some Filipinos prefer budget-friendly brands as financial difficulties are a factor.

The personal care industry is valuable to gauge consumer purchase intentions as consumers frequently buy personal care products. Every consumer's purchase decision and behavior lie in their knowledge, values, and attitudes. This study will focus on understanding the influence of non-green consumers' environmental values on their purchase intention of green personal care products.

Moreover, the results of the study will be beneficial to the following:

To the academe, specifically, the University of Santo Tomas College of Commerce and Business Administration, re-evaluate the department's learning competencies based on the current practices in the business industry. The data on the consumer's behavior and beliefs regarding the environment will be vital in shaping future business leaders toward a sustainable marketplace.

Industry professionals can use this study to differentiate their products from competitors by integrating green marketing strategies. There is a demand for these companies to integrate and promote sustainable practices into their plans. By understanding consumer values and purchase intention, practitioners get to align their marketing strategies that can help in strengthening brand perception.

The study data will help the Personal Care industry to assess their business practices- offering eco-friendly products. Strengthening their offerings, aligned to sustainable practices that can help address the country's environmental concerns and encourage them to be socially responsible brands by making sustainable strategies in the future.

II. LITERATURE REVIEW

A. Environmental values

Values guide a person's attitudes and beliefs that serve as standards by which a person's actions (Bouman and Zawadzki, 2020). Yet, individuals treat values differently by prioritizing one value over another (Schwartz, 2012), making every individual possess a specific value structure. People who behave environmentally express their value of respect towards nature by having a positive attitude toward buying ecological products, recycling, and participating in activities that seek environmental protection.

A study by Tadaki et al. (2017) defined Environmental values as the relationship of people to their environment that can affect their environmental decision-making. Knowing the outcomes of an environmental issue, taking initiatives, and participating in pro-environmental activities are more likely linked to people who have solid environmental values, according to the VBN theory (Jang et al., 2017). However, people encounter barriers in engaging with pro-environmental actions since their values represent motivations (Simpson et al., 2021).

Marketing researchers have studied the environmental value aspects of consumer behavior, which often get categorized as pro-environmental behavior (Ertz et al., 2016; Li et al., 2019; Peterson et al., 2021). Many factors, including values, increase consumers' tendency to engage in green consumption (Wu and Yang, 2018). Value orientations help identify different market segments, which shall help create diverse marketing strategies.

Analyzing these values helps identify one's concern for the environment and how it may lead to a green lifestyle behavior (Sony and Ferguson, 2017). Environmental matters have types, and it varies depending on where a person's environmental concern is coming from. It can be based on self-interest (egoistic values), social altruism (altruistic values), or respect for natural habitats and species (biospheric values). Past environmental research further classifies these values into two types: self-transcendence values and self-enhancement values.

Self-transcendence values include biospheric and altruistic values (Stern et al., 1998; De Groot and Steg, 2008; Steg et al., 2014, Bouman et al., 2018). Self-transcendence values typically focus on a person's interests of others and the environment. These values usually are positively related to pro-environmental behavior.

Self-enhancement values include egoistic and hedonic values (Stern et al., 1998; De Groot and Steg, 2008; Steg et al., 2014, Bouman et al., 2018). Contrarily, self-enhancement values are associated with self-interests and usually do not result in pro-environmental behavior.

Similar conclusions were arrived at in a study where they found out that self-transcendent participants are more environmentally conscious (Muralidharan & Sheehan, 2018). However, other research has also indicated that the self-transcendence values and self-enhancement-pro-environmental behaviors have a weaker influence on societies with lower self-expression values and economic development (Chan, 2020).

B. Purchase Intention

It was defined in the previous studies as the consumer's intent and probability in eventually acquiring goods or services (Martins et al., 2018, Jo, 2018, AL-Haddad et al., 2020). It is cited in the study of Dabbous & Barakat (2019) that purchase intention is linked to a consumer's cognitive behavior. It is further supported by Kunja & GVRK (2018) that consumers' perception and knowledge can indicate to purchase an offering. Thus, purchase intention was given great importance in past research as a valuable predictor of the actual buying action (Watanabe et al., 2020).

In addition, some studies introduced the concept of green purchase intention (Wang et al., 2019, Sreen et al., 2017). The notion is similar, except that green purchase intention (GPI) mainly focuses on consumers' environmental values (Suki, 2016). However, Wang et al. (2019) define it as the desire to buy green products. These green products are deemed to be environment-friendly offerings (Sreen et al., 2017). Despite all the differences, it all boils down to the positive relationship between purchase intention and the probability of actual purchasing (Martins et al., 2018).

C. The Moderating role of Brand Perception

Defining how a consumer perceives a brand differs from another research. A recently published book by Pogorzelski (2018) expounded on the concept of brand perception, mentioning a brand embedded in consumers' minds. It reflects how a specific brand effectively conveys its message, and its target audience perceives and attaches to it. It also shows the self-cognition of an individual may be linked to a brand's attributes, benefits, personalities, or other secondary associations that will most likely be a reason for the consumer to affiliate themselves with the brand. It can even translate to recommending the brand to others and anticipating other product offerings of the brand (Boger, Kotteman & Decker, 2019)

Previous studies also explained Brand Perception by dividing it into two dimensions, warmth and competence. These dimensions will increase the likelihood of purchase and brand loyalty (Kervyn et al., 2012; Hess, A.C., and Melnyk, V. 2016) an evaluation from the consumer's "split-second" perspective of a brand (Cuddy et al., 2008; Hess, A.C., and Melnyk, V. 2016). Warmth is illustrated as reflecting a person's intention and interaction with other people. These traits linked to heat include honesty, generosity, popularity, fairness, humor, happiness, and sociability (Bennett, 2019). On the other hand, competence is the capability of a person and effectiveness to perform one's intention (Huang et al., 2020). These traits are yet to be associated with competence which includes confidence, independence, competitiveness, intelligence, capability, skill, efficiency, creativity, knowledge, and determination (Bennett, 2019). These dimensions can also help create an insight into a certain brand by activating the corresponding association of the consumers towards the brand through marketing activities, company image, and development of products (Hess, A.C., and Melnyk, V. 2016).

Brand Perception is used differently in recent studies; however, it is often used to moderate between consumers' norms, values, principles, purchasing habits, and consumer behavior towards products and services. A study from Javed, Degong Qadeer (2019) measures brand perception by the significance of trust given by a consumer through the company's ethical motives depending on consumers' value. Another study by Raji, Rashid, & Ishak (2019) used the promotional pricing of brands and how it affects consumers' perspectives on purchasing an automobile. Aligning the promotional price and which brand conducted such promotion affects their perception of the value it projects (Abdul, 2019).

Another factor used to measure a brand is the credibility of its products. It may be through the ingredients or materials used, quality, and other factors consumers use to evaluate products directly relating to their intent to purchase. Sekhar et al. (2021) conducted a study on the brand credibility of organic food products. Measuring a consumer's perspective on healthiness, quality, and sensory properties, links to a brand's credibility and thus positively relates to purchasing intention.

D. Personal Care Products

Personal Care Products (PCPs) are composed of a wide range of products such as cosmetics, toiletries, dental and oral care, hair care, and skincare, to name a few. (Wang & Chu, 2016; Wang & Wang, 2016). These products are utilized in everyday usage to enhance one's life of all ages in terms of personal hygiene and beautification (Ebele et al., 2017; Shaaban & Alhajri, 2020). Increased consumer preference for green products and enhanced environmental awareness has resulted in an increased number of new green brands (Paparoidamiz and Tran, 2019), particularly in the personal care category. The rise in the usage of personal care products is mainly rooted in the belief that these products can address various hygiene-related problems (Klaschka, 2016a). International report for personal care products last July 2020 has predicted that the personal care industry will gain more robust demand as the sector is considered recession-proof. However, as PCPs help improve human life, it is also known to impact the environment negatively. Due to the poor wastewater treatment, chemicals in the PCPs are mixed with bodies of water, causing the contamination of the aquatic ecosystem (Montes-Grajales et al., 2017; Wang & Wang, 2016).

Despite the environmental implications, greenwashing is prominent in this sector despite the environmental implications as companies continuously practice it. The personal care sector gained 62%, the average highest greenwashing sector cited by Kahraman & Kazançoğlu (2019). Consumers' environmental values are examined to know whether they respond to this.

According to the research conducted by Ghazali, Soon, Mutum, & Nguyen (2017), when it comes to organic PCPs, consumers have a positive attitude in repurchasing them. It is further supported by Lazaric et al. (2019) as one's environmental values significantly impact sustainable consumption. In the personal care industry context, green products typically feature attributes that reflect moral values (Luchs, Naylor, Irwin, & Raghunathan, 2010), such as promoting products that claim to have lesser environmental impacts and application of sustainability in packaging and ingredients. These attributes are critical in the field of green personal care products. The buying process for these products can be by different drivers, mainly referring to consumers' values and knowledge about such products. (Hwang and Chung, 2019; Sadiq et al., 2020)

III. METHOD

The study employed a quantitative correlational research design to assess the hypothesized relationships empirically. A pilot test was carried out to identify potential problems in the scale and ensure that the survey questionnaire is understandable for the respondents to understand. The sampling frame of the study is the non-green consumers, aged 18-30, both male and female, who buy and use personal care products in their daily lives but have not tried eco-friendly options of dental and oral care, hair care, and skincare products. Questionnaire survey forms were fully distributed online through Google Forms to people living in the Greater Manila Area, which consists of Metro Manila and the nearby provinces (Bulacan, Cavite, Laguna, Rizal). 512 participants consented to partake in the study. To ensure that only qualified participants will take part, the researcher set a condition by placing two filter questions at the beginning of the questionnaire. However, 115 respondents could not qualify, resulting in a dataset consisting of 397 respondents, which were collected and used for final data analysis. To measure the degree of correlation between the respondents' self-transcendent and self-enhancement values and their purchase intention, the study used Pearson's product-moment correlation coefficient to calculate the relationship between the two variables. Multiple regression analysis was done to understand further the

underlying implications of the environmental values, namely egoistic value, altruistic value, hedonic, and biospheric value. Brand perception, as a moderator, is expected to be responsible for a part of the relationship between environmental values and purchase intention. This was measured through regression with moderation analysis to test its significance. The statistical relationship from the survey shall produce either a positive correlation, a negative correlation, or no correlation. This research design shall improve understanding if environmental values play a role in purchasing eco-friendly alternatives for personal care products, specifically dental and oral care, hair care, and skincare products.

IV. RESULTS AND DISCUSSION

The Pearson correlation coefficient was performed in testing the relationship between environmental values and intention to purchase green personal care products (H1). Based on the analysis results in Table 1, there is a degree ($r = .396$) of correlation between self-transcendence value and purchase intention. Self-enhancement and purchase intention also show a degree of correlation ($r = .101$). Thus, associates those environmental values have a significantly low positive relationship to the consumers' intent to purchase green personal care products.

TABLE 1. CORRELATION AMONG ENVIRONMENTAL VALUES AND PURCHASE INTENTION

	STV	SEV	PI
STV			
SEV	-.038		.396**
PI	.396**	.101*	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Multiple regression analysis was used to test the relationship between environmental values and Intention to purchase green personal care products (H2, H2a, H2b). Table 2 shows that there is a significant regression equation was found ($F(2, 394) = 40.406, p < 0.00$), with adjusted R^2 of 0.166. The respondents' predicted purchase intention is equal to $0.821 + 0.608T + 0.124E$, where T is self-transcendence, and E is self-enhancement. Therefore, the respondents' predicted purchase intention increases by 0.608 for every one unit increase in self-transcendence values and 0.124 for every one unit increase in self-enhancement values.

TABLE 2. PREDICTION OF THE PURCHASE INTENTION FOR SELF-TRANSCENDENCE VALUES AND SELF-ENHANCEMENT VALUES

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	.821	.420		1.954	.051
STV	.608	.070	.400	8.713	.000
SEV	.124	.049	.117	2.541	.011

Dependent Variable: PI

Note: $R_{adj}^2 = 0.166, (N = 397, p = 0.00)$

The researchers assumed that the relationship between environmental values and purchase intention is moderated by brand perception (H3). The regression with moderation was used to test this hypothesis displayed in Table 3. The result showed that the regression coefficient of the interaction terms between environmental values and purchase intention was 0.286, and the regression result was highly significant ($p = 0.20$). Thus, proving the relationship between environmental values and purchase intention is significantly moderated by brand perception.

TABLE 3. MODERATING EFFECT OF BRAND PERCEPTION TO ENVIRONMENTAL VALUES AND PURCHASE INTENTION

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	

(Constant)	4.546	.035		128.712	.000
EV_cent	.601	.085	.339	7.062	.000
BP_cent	.123	.053	.113	2.307	.022
Interaction	.286	.122	.114	2.333	.020

Dependent Variable: PI

Note: Radj2=0.113, (N = 397, p = 0.00)

Font Size	Appearance (in Time New Roman or Times)		
	Regular	Bold	Italic
8	table caption (in Small Caps), figure caption, reference item		reference item (partial)
9	author email address (in Courier), cell in a table	abstract body	abstract heading (also in Bold)
10	level-1 heading (in Small Caps), paragraph		level-2 heading, level-3 heading, author affiliation
11	author name		
24	title		

V. CONCLUSION

The results of this study attest to the importance of studying environmental values and how it can affect Filipino consumers' purchase intention of PCPs. Several of the findings replicate results reported previously in studies of environmental attitudes. Despite environmental values displaying a low positive relationship with purchase intention, Filipinos' concern for environmental issues should not be totally disregarded since STV and SEV positively correlated with purchase intention. Thus, it is important to continue to determine the roles of these environmental values in crafting better strategies on how we can communicate environmental advocacies more effectively. For now, the reported findings do tell that brand perception poses a highly significant influence on how Filipinos purchase their PCPs. It is now up to these brands on how they can highlight the benefits of nature or others in appealing to the consumers' STV, rather than using individualistic messages that appeal to consumers' SEV.

It is acknowledged that values, culture, intention, and perception provide the lens through which our understanding of environmental problems is framed, it is through our understanding of these problems that we are able to provide the solutions that seem reasonable and will be effective. Over the past years, research on environmental values and their impact on business operations has increased. The findings have provided useful insight into how businesses can help address and communicate the different environmental issues at hand. Yet, such studies like this research are only the beginning. Everyone is still being called upon to develop more studies, create more environmental programs, and learn to create more effective environmental messages to fully assess how consumers' perceptions can impact businesses and the planet. Such applied work can only be effective with empirically tested psychological theories and principles.

Based on the findings of this study and the study's limitations, several suggestions for future research are made. An online survey was utilized to obtain responses from various locations in the Greater Manila Area; only people who had access to the internet were able to participate in this study. Thus, future research could use an online and offline survey to compensate for the weakness of each method. It is also highly encouraged to target participants in rural areas where the choices of environment-friendly PCPs are limited.

This study only targeted the non-green consumers of selected PCPs. Thus, future research can explore the comparison between non-green consumers and green consumers of the selected PCP products. Another suggestion is to explore other categories of PCPs, such as feminine hygiene and beauty products. As the current study is limited to dental and oral care, hair care, and skincare products. The researchers find it valuable to explore other factors influencing consumers' purchase intentions toward personal care products and even specify brands to measure results even more effectively.

Future research can also gear to help small green product retailers understand how consumer values influence attitudes toward small green businesses. It could suggest strategies or practices that can help these businesses in increasing consumers' purchase intention and enhance store displays. Additional research may add more mediating and moderating variables to investigate customers' awareness of green products and services among a particular group of people, revealing a more in-depth relationship. Furthermore, the variables found in the study may not be sufficient; therefore, additional variables may be examined in the future, or the same variables could be examined through other methodologies for future research as well.

Due to the limitations of conducting the study in the middle of a COVID-19 pandemic, it is also recommended to expand the number of respondents to conduct a more wide-scale study, not only focusing on a certain number of respondents from selected areas in the Philippines. Tapping communities in the lower economic class can also provide more insights into how this specific community can be persuaded to switch to more eco-friendly options. If practitioners consider these recommendations, the brands they handle may have a competitive advantage in the marketing landscape.

REFERENCES

1. Böger, D., Kottemann, P. and Decker, R. (2018), "Parent brands' influence on co-brand's perception: a model-based approach", *Journal of Product & Brand Management*, Vol. 27 No. 5, pp. 514-522. <https://doi.org/10.1108/JPBM-08-2017-1555>
2. Bouman, T., Steg, L., & Kiers, H. A. L. (2018). Measuring Values in Environmental Research: A Test of an Environmental Portrait Value Questionnaire. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.00564>
3. Castillo Jr, F. G. (2018). Consumer buying behavior: The multicultural influence in the Philippines. *The International Journal of Business Management and Technology*, 2(2), 71-75.
4. Ertz, M., Karakas, F., & Sarigöllü, E. (2016). Exploring pro-environmental behaviors of consumers: An analysis of contextual factors, attitude, and behaviors. *Journal of Business Research*, 69(10), 3971-3980.
5. Ghazali, E., Soon, P. C., Mutum, D. S., & Nguyen, B. (2017). Health and cosmetics: Investigating consumers' values for buying organic personal care products. *Journal of Retailing and Consumer Services*, 39, 154-163. doi:10.1016/j.jretconser.2017.08.002
6. Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis*. Upper Saddle River, New Jersey: Prentice-Hall.
7. Hwang, J., Chung, J.E., 2019. What drives consumers to certain retailers for organic food purchase: the role of fit for consumers' retail store preference. *J. Retailing Consum. Serv.* 47, 293–306.
8. Javed, M.K., Degong, M. and Qadeer, T. (2019), "Relation between Chinese consumers' ethical perceptions and purchase intentions: A perspective on ethical company/brand management strategies", *Asia Pacific Journal of Marketing and Logistics*, Vol. 31 No. 3, pp. 670-690. <https://doi.org/10.1108/APJML-10-2017-0254>
9. Peterson, M., Minton, E. A., Liu, R. L., & Bartholomew, D. E. (2021). Sustainable Marketing and Consumer Support for Sustainable Businesses. *Sustainable Production and Consumption*, 27, 157-168.
10. Pogorzelski, J. (2018), "Perceptual Branding", *Managing Brands in 4D*, Emerald Publishing Limited, Bingley, pp. 9-58. <https://doi.org/10.1108/978-1-78756-102-120181003>
11. Quoquab, F., & Mohammad, J. (2017). Managing Sustainable Consumption: Is It a Problem or Panacea? In *World Sustainability Series* (pp. 115–125). Springer International Publishing. https://doi.org/10.1007/978-3-319-45081-0_7
12. S. Santos, K. E. (2017). Purchasing habits of students toward Green Marketing in Nueva Ecija, Philippines. *International Journal of Environment, Agriculture and Biotechnology*, 2(5), 2770–2774. <https://doi.org/10.22161/ijeab.2.5.63>
13. Sadiq, M., Adil, M., Paul, J., 2020. An innovation resistance theory perspective on purchase of eco-friendly cosmetics. *J. Retailing Consum. Serv.* <https://doi.org/10.1016/j.jretconser.2020.102369>.
14. Simpson, B., Maguire, M., & Schermer, J. A. (2021). Predicting pro-environmental values and behaviors with the supernumerary personality inventory and hope. *Personality and Individual Differences*, 181, 111051. doi:10.1016/j.paid.2021.111051
15. Sony, A. and Ferguson, D. (2017), "Unlocking consumers' environmental value orientations and green lifestyle behaviors: A key for developing green offerings in Thailand", *Asia-Pacific Journal of Business Administration*, Vol. 9 No. 1, pp. 37-53. <https://doi.org/10.1108/APJBA-03-2016-0030>
16. Steg, L., Perlaviciute, G., Van Der Werff, E., and Lurvink, J. (2014). The significance of hedonic values for environmentally relevant attitudes, preferences, and actions. *Environ. Behav.* 46, 163–192. doi: 10.1177/0013916512454730
17. Wang, X., & Chao, C.-H. (2019). Nostalgia decreases green consumption: The mediating role of past orientation. *BRQ Business Research Quarterly*. <https://doi.org/10.1016/j.brq.2019.03.005>
18. Wang, L., Wong, P.P.W. and Narayanan Alagas, E. (2020), "Antecedents of green purchase behaviour: an examination of altruism and environmental knowledge", *International Journal of Culture, Tourism and Hospitality Research*, Vol. 14 No. 1, pp. 63-82. <https://doi.org/10.1108/IJCTHR-02-2019-0034>
19. Wu, B., & Yang, Z. (2018). The impact of moral identity on consumers' green consumption tendency: The role of perceived responsibility for environmental damage. *Journal of Environmental Psychology*, 59, 74-84.