

Generation Z's Purchasing Intention of Cruelty-free Cosmetic Products: The Moderating Role of Environmental and Animal Welfare Concerns

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To cite this article (APA): Bonifacio, R. A., Bauí, A. F., Uy, M. Y. T., Bandojo, A. J., & Etrata, A. (2024). Generation Z's Purchasing Intention of Cruelty-free Cosmetic Products: The Moderating Role of Environmental and Animal Welfare Concerns. *International Business Education Journal*, 17(1), 118–132. <https://doi.org/10.37134/ibej.Vol17.1.10.2024>

To link to this article: <https://doi.org/10.37134/ibej.Vol17.1.10.2024>

Abstract

Numerous brands worldwide offer cruelty-free products due to consumers' increasing support against the unethical practice of animal testing and the demand for sustainability in the cosmetics industry. However, there was a considerable gap between the use of environmental and animal welfare concerns as the moderating variable to attitudes, social influence, and awareness of consumers to issues and their effect on the purchasing intention of cruelty-free cosmetic products. This paper determined if environmental and animal welfare concerns moderated the factors affecting Generation Z's purchasing intention of cruelty-free cosmetic products. The study used a descriptive-correlational research design and purposive sampling method. Google Form survey questionnaires were distributed and answered by 221 respondents aged 18 to 26 living in the National Capital Region. Furthermore, Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to examine the hypotheses. The findings emphasized that environmental and animal welfare concerns significantly moderated the effect of attitude, consumer awareness, and social influence on the purchasing intention of cruelty-free cosmetic products. The study concluded that Generation Z prioritized brands committed to ethical production and environmental impact over other factors affecting the purchasing intention of cruelty-free cosmetics, advocating a reconsideration of animal testing practices. This environmental consciousness allowed brands to align with shifting consumer preferences, with practical implications for enhancing market appeal and brand image and loyalty. Moreover, lawmakers could leverage study insights to refine regulations, promoting ethical practices in the Philippine cosmetic industry.

Keywords:

Environmental and Animal Welfare Concerns, Cruelty-Free, Cosmetic Products, Purchasing Intention, Generation Z

INTRODUCTION

Sustainability has significantly influenced various industries, including the cosmetic industry, prompting consumer demand for sustainable and ethically produced products (Rocca et al., 2022). The cosmetic industry encompasses a diverse range of categories, including makeup,

skincare, haircare, perfumes, toiletries, deodorants, and oral cosmetics, as identified by Petruzzi (2023). However, the cosmetics industry faces increasing pressure from consumers and advocacy groups to phase out the use of animals in product testing (Magano et al., 2022). Despite global pressure, about 80% of countries still permit animal testing for cosmetics, and some governments have imposed bans or strict regulations on cosmetic animal testing (Sreedhar et al., 2020). However, the ASEAN Cosmetic Directive, followed by the Philippines, does not explicitly prohibit it (Morel et al., 2023), so the Philippines still allows animal testing on cosmetic products.

A 2019 IPSOS report for Humane Society International found that cruelty-free claims significantly influence Filipino consumers' purchasing decisions (Humane Society International, 2019). This shift towards "cruelty-free" products aligns with Generation Z's preference for sustainable brands, driven by their environmental and social values (Firstinsight, 2020, as cited in Gomes et al., 2023). This demographic expects brands to adopt sustainable practices and has expressed a strong desire to safeguard the environment, with 82% in Southeast Asia favoring products from ethical brands (In-Cosmetics, 2020). This behavior aligns with the United Nations' Sustainable Development Goals for Life on Earth, emphasizing ethical production practices and ensuring sustainable consumption and production patterns.

The existing body of research predominantly treats environmental and animal welfare concerns as independent variables (Magano et al., 2022; Vania & Ruslim, 2023) rather than exploring their potential moderating effects. Thus, the study aims to determine if environmental and animal welfare concerns moderate consumers' attitudes, social influence, and awareness of animal testing issues and their effect on purchasing intention of cruelty-free cosmetic products. This study is crucial in understanding Generation Z's buying behavior regarding cruelty-free cosmetics in Metro Manila. Moreover, since the existing body of research in the country is focused on skin whitening products and claims rather than consumers' purchasing intention on cruelty-free products, this research fills the aforementioned gap, providing insights into the cosmetic industry players to target this demographic effectively. Furthermore, the findings can inform legislators and brands, aiding the formulation of policies promoting animal welfare and prompting them to enact legislation against animal testing.

LITERATURE REVIEW

Attitude towards cruelty-free cosmetic products

In the Theory of Planned Behavior, a consumer's intention to take part in behavior is influenced by their attitude towards the behavior, which is influenced by the behavioral assumptions about the expected behavior results and how consumers assess the results (Çoker & Linden, 2020). Wuisan and Februadi (2022) supported this idea that attitude is formed from the attributes surrounding the behavior and how positive or negative a consumer perceives the attributes. In fact, attitude was the most influential factor in purchasing cosmetics products with cruelty-free claims (Grappe et al., 2021).

Consumer awareness of ethical and environmental issues of animal testing

Schwartz's Norm Activation Theory (1977) posits that an individual's intention to behave prosocially is shaped by awareness of consequences and ascription of responsibility. Increased consumer awareness about ethical behavior toward human welfare and the environment fuels ethical consumerism (Gillani & Kutuala, 2018), which increases the demand for green products

(Ogiemwonyi & Harun, 2020). This growth is due to social media as it is a convenient way to disseminate information that quickly leads to higher awareness, the importance of ethical consumption (Chatterjee et al., 2021), exposure to malpractices, and the exchange of opinions and concerns. As a result, new cosmetic ingredients are required to pass an environmental protection criterion in the cosmetic industry due to the consumers' increasing awareness of sustainability and environmental protection (Amberg & Fogarassy, 2019).

Social influence on cruelty-free cosmetic products

Social influence refers to social pressures or norms that are perceived subjectively by an individual, which influence them to comply or make decisions with specific behaviors (Wilson & Edelyn, 2022). These social pressures may come from diverse groups and individuals (Uddin & Khan, 2018). The subjective norms (influence groups or individuals) are one of the drivers of the intention to purchase cruelty-free personal care products (Amalia & Darmawan, 2023).

Environmental and animal welfare concerns as a moderator

Environmental concern refers to the individual's awareness of environmental problems and attempts to address problems or express a desire to contribute directly to their solution (Sadiq et al., 2021). Environmental issues, humanitarian crises, and animal endangerment are caused by animal testing and illegal mining. Thus, animal testing harms the ecosystem and biodiversity (Jain, 2015, as cited in Yadav, 2020). Having a high level of environmental concern projects engagement in environmentally friendly practices as one's concern leads to the approval of green consumption (Yadav & Pathak, 2017). This concern for environmental issues is the leading factor behind the public's purchase of environmentally friendly products (Malik & Singhal, 2017).

Environmental concern has been utilized as a moderator in numerous studies. According to Sadiq et al. (2021), the high environmental concern only reduces the Innovation Resistance Theory's value and image barriers to eco-friendly cosmetic purchase intention. Sreen et al. (2021) also uncovered that individuals who harbor a deep concern for the environment are more inclined to develop a strong affinity for natural products, leading to increased consumption. Conversely, those who show low concern toward environmental issues tend to oppose the consumption of such products and exhibit lower brand affinity. De Canio et al. (2021) discovered that environmental concern positively influences purchase intentions for sustainable packaged goods when consumers perceive the producer's commitment to sustainability. However, environmental concern does not play a moderating role in the relationship between preference for sustainable retailers and purchase intentions for sustainable packaged goods. As for Cachero-Martínez (2020), environmental concern was able to moderate the relationship between attitude and purchase intention and WOM intention. In the field of advertising, it was cited by Nabilla (2019) that the ad's functional appeal works for people with high environmental concerns, while the ad's emotional appeal is better for those with low levels of concern. This means that environmental concerns moderated the advertisements, which affect the respondents' green purchasing intention. In contrast to Gómez-Carmona et al. (2022), participants with low environmental concern gave lower ratings to positive environmental ads compared to those with high concern, finding the arguments promoting responsible consumption unsuitable.

In light of these findings above, these statements from various studies can support the proposed use of environmental and animal welfare concerns as a moderator since none of the published studies about green cosmetic products have attempted to utilize this topic to the relationship of the independent and dependent variables of this study. These environmental and

animal welfare concerns are termed “altruism” by Magano et al. (2022). Thus, the hypotheses are developed below:

H1: Environmental and animal welfare concerns moderate the effect of attitude on the purchasing intention of cruelty-free cosmetic products.

H2: Environmental and animal welfare concerns moderate the effect of consumer awareness on the purchasing intention of cruelty-free cosmetic products.

H3: Environmental and animal welfare concerns moderate the effect of social influence on the purchasing intention of cruelty-free cosmetic products.

METHODOLOGY

This paper is a quantitative study used a descriptive-correlational research design. Purposive sampling was used to qualify each respondent to ensure that specific inclusion and exclusion criteria were followed. The study required 18 to 26-year-olds (part of Generation Z) who live in Metro Manila and are aware of cruelty-free cosmetic products and brands. There are 19 statement questions from the five constructs of this study. These statement questions were developed by adapting and adopting questions from two separate studies: Grappe et al. (2021) and Magano et al. (2022). The 10-times rule in PLS-SEM was employed to acquire the sample size estimation. The study’s inner model, which consists of 19 total statement questions, was multiplied by 10 to get a minimum sample size of 190 respondents.

During the data collection procedure, the respondents fully consented to answering the questionnaire following R.A. No. 10173, the Data Privacy Act. The researchers used Google Forms and provided potential respondents with a hard copy of the survey’s QR code to scan while they were on the school site to expedite the data collection. To prevent the respondents’ neutral response, the researchers employed a 4-point Likert scale from Strongly Disagree (1) to Strongly Agree (4). The entire survey questionnaire was tested for validity and reliability as some variables consisted of adapted questions. Content validity testing by five experts in the field of study was executed to ensure the accuracy of the statement questions for each construct. A pilot study was conducted with 25 participants to ascertain the reliability and internal consistency of the statements through computing Cronbach’s alpha.

The researchers analyzed the data collected from the respondents using descriptive (e.g., frequency and percentage) and inferential statistics. Due to the moderator, the researchers used the Partial Least Squares - Structural Equation Model (PLS-SEM) to evaluate the hypotheses. Specifically, the researchers employed moderated analysis to investigate the moderating effect of animal welfare and environmental concerns on the independent and dependent variables. PLS-SEM is the typical statistical tool for studies exploring relationships between latent variables.

RESULTS AND DISCUSSION

The results from 221 respondents who qualified with the criteria were presented in this part. The gathered data was used to analyze the moderating role of environmental and animal

welfare concerns on the relationship of Generation Z’s purchasing intention on cruelty-free cosmetic products and independent variables, attitude towards cruelty-free cosmetic products, consumer awareness of ethical and environmental issues of animal testing, and social influence on cruelty-free products.

Table 1 shows the demographic profile of 221 respondents. Most respondents identified as Female (77.8%) and Single (95.5%). The age distribution of the respondents varied, with the highest frequency observed in the 21-year-old category (31.7%). Regarding occupational, most respondents identified as Students (79.2%). The respondents reported diverse monthly allowances or incomes. The most common allowance or income bracket was Php 10,001 above, accounting for 24.0% of the sample. As for the location, Manila City had the highest representation (33.5%), followed by Quezon City (21.3%) and Marikina City (10.4%).

Table 1: Demographic characteristics of the respondents (n = 221)

Demographic	Category	F	%
Sex	Female	172	77.8
	Male	49	22.2
Civil Status	Single	211	95.5
	Married	5	2.3
	Prefer Not To Say	5	2.3
Age	18	16	7.2
	19	17	7.7
	20	22	10.0
	21	70	31.7
	22	59	26.7
	23	12	5.4
	24	9	4.1
	25	7	3.2
Occupation	26	9	4.1
	Full-Time Employee	12	5.4
	Part-Time Employee	9	4.1
	Self-employed	5	2.3
	Working Student	15	6.8
	Student	175	79.2
Monthly Allowance/Income	Unemployed	5	2.3
	Php 1,000 – 2,000	39	17.6
	Php 2,001 – 4,000	45	20.4
	Php 4,001 – 6,000	49	22.2
	Php 6,001 – 8,000	20	9.0
	Php 8,001 – 10,000	15	6.8
Location	Php 10,001 above	53	24.0
	Caloocan City	9	4.1
	Las Piñas City	6	2.7
	Makati City	11	5.0
	Malabon City	2	.9
	Mandaluyong City	9	4.1
	Manila City	74	33.5
Marikina City	23	10.4	

Muntinlupa City	6	2.7
Navotas City	2	.9
Parañaque City	5	2.3
Pasay City	5	2.3
Pasig City	9	4.1
Quezon City	47	21.3
San Juan City	5	2.3
Taguig City	6	2.7
Valenzuela City	2	.9

Table 2 presents the behavioristic profiles of the respondents. The findings reveal a notable awareness of cruelty-free cosmetic brands among respondents, suggesting a growing consciousness and appreciation for cruelty-free options in the cosmetic market. Human Nature emerges as the most recognized brand, with a percentage of 15.26%. As for Intended Cosmetic Categories, skincare products emerge as the most popular choice, with over 21% of respondents expressing an interest. In addition, regarding the preferred Cruelty-Free Cosmetic Products, facial wash (12.41%), soap (11.17%), and lipstick (10.33%) are the top three cruelty-free cosmetic products respondents intend to use. Moreover, regarding Spending Preferences on Cruelty-Free Cosmetic Products, the majority (46.6%) are willing to spend between Php 80 and Php 280.

Table 2: Behavioristic characteristics of the respondents

Behavioristic	Category	F	%
What is/are cruelty-free cosmetic brand/s, international or local, that you know in the market?	Human Nature	170	15.26
	Alba Botanica	12	1.08
	Colourette Cosmetics	146	13.11
	Dr. Sensitive	83	7.45
	e.l.f Cosmetics	80	7.18
	Ellana Cosmetics	62	5.57
	Fresh Formula	64	5.75
	Happy Skin	138	12.39
	Le Labo	29	2.60
	Luxe Organix	150	13.46
	Mrs. Myers Clean Day	9	0.81
What cosmetic category will you intend to use?	The Body Shop	125	11.22
	Others	46	4.13
	Haircare products	157	16.58
	Make-up products	129	13.62
	Perfume products	147	15.52
	Skincare products	201	21.22
	Toiletries and deodorant products	146	15.42
What cruelty-free cosmetic product/s that you intend to use?	Oral care products	167	17.63
	Cologne	97	6.73
	Concealer	135	9.36
	Deodorant	132	9.15
	Eyeliners	88	6.10

	Eyeshadow	91	6.31
	Facial Wash	179	12.41
	Foundation	129	8.95
	Lipstick	149	10.33
	Perfume	145	10.06
	Soap	161	11.17
	Toner	120	8.32
	Others	16	1.11
How much will you spend on cruelty-free cosmetic products	Php 80 – Php 180	50	22.6
	Php 181 – Php 280	53	24.0
	Php 281 – Php 380	45	20.4
	Php 381 – Php 480	22	10.0
	Php 481 – Php 500	36	16.3
	Php 581 above	15	6.8

Evaluation of measurement model

In evaluating the measurement model, the researchers employed Cronbach’s alpha to gauge reliability, and convergent validity was assessed through factor loading, composite reliability, and average variance extracted (AVE). Additionally, the researchers conducted assessments to determine discriminant validity, employing the square root of average variance extracted (AVE) and Heterotrait-Monotrait (HTMT) ratios.

Table 3 shows the latent variable coefficients used to assess the construct reliability, internal consistency, and convergent validity of the sets of indicators. Composite reliability and Cronbach’s alpha are commonly used in evaluating construct reliability (Roldan & Sanchez-Franco, 2012; Kock, 2017). The Cronbach’s alpha (CA) values must be at least .70 for the construct to have acceptable reliability and at least 0.8 to indicate good reliability. Also, the composite reliability (CR) must be at least 0.8 to demonstrate good internal consistency (Nunnally, 1978; Fornell & Larcker, 1981; Nunnally & Bernstein, 1994).

As presented in Table 3, in terms of construct reliability, results revealed that the Cronbach Alpha (CA) of Attitude toward Cruelty-free Cosmetic products (.739), Consumer Awareness of Ethical and Environmental Issues of Animal Testing (.735), Social Influence on Cruelty-free Cosmetic Products (.815), Environmental and Animal Welfare Concerns (.771), and Purchasing Intention of Cruelty-free Cosmetic Products (.863) met the criterion for good reliability. Similarly, the composite reliability (CR) of Attitude toward Cruelty-free Cosmetic products (.836), Consumer Awareness of Ethical and Environmental Issues of Animal Testing (.835), Social Influence on Cruelty-free Cosmetic Products (.891), Environmental and Animal Welfare Concerns (.854), and Purchasing Intention of Cruelty-free Cosmetic Products (.908) fit the criterion for good internal consistency of the research instrument.

Results also showed that the collection of indicators used in the study instrument satisfied the requirements for convergent validity. The constructs are significant, as shown by the factor loadings of all indicators, which vary from .625 to .916 and have a p-value of less than .001. Convergent validity is achieved if the item loadings are at least 0.5, and the p-values are less than .05 (Hair et al., 1987; Hair et al., 2009; Kock, 2017). Convergent validity demonstrates that participants understand the items or questions in each construct in a manner intended by the authors of the questions (Kock, 2017). Meanwhile, one metric used to assess

convergent validity is item loading, which is the correlation between items and constructs (Amora et al., 2016; Kock, 2017).

Additionally, according to Hair et al. (2011), the construct is considered valid if the average variance extracted (AVEs) exceeds 0.50. The average variance extracted (AVE) calculates each construct’s variance from its elements with the measurement error (Chin, 1998; Amora et al., 2016). Findings indicated that between .561 and .732 is the range of average variance extracted from AVEs, suggesting that the research instrument has an acceptable validity.

Table 3: Latent variable coefficients

Constructs	Items	Item Loading	p-value	Cronbach’s Alpha	Composite reliability	Ave. Variances Extracted
Attitude toward Cruelty-free Cosmetic products				0.739	0.836	0.562
	ATT1	0.787	<0.001			
	ATT2	0.674	<0.001			
	ATT3	0.794	<0.001			
	ATT4	0.738	<0.001			
Consumer Awareness of Ethical and Environmental Issues of Animal Testing				0.735	0.835	0.561
	CA1	0.739	<0.001			
	CA2	0.82	<0.001			
	CA3	0.797	<0.001			
	CA4	0.625	<0.001			
Social Influence on Cruelty-free Cosmetic Products				0.815	0.891	0.732
	S11	0.847	<0.001			
	S12	0.798	<0.001			
	S13	0.918	<0.001			
Environmental and Animal Welfare Concerns				0.771	0.854	0.597
	EAC1	0.751	<0.001			
	EAC2	0.637	<0.001			
	EAC3	0.833	<0.001			
	EAC4	0.852	<0.001			
Purchasing Intention of Cruelty-free Cosmetic Products				0.863	0.908	0.712
	PI1	0.801	<0.001			
	PI2	0.916	<0.001			
	PI3	0.888	<0.001			
	PI4	0.761	<0.001			

Tables 4a and 4b show the discriminant validity assessment for the instrument based on two key criteria: the square root of Average Variance Extracted (AVE) and the Heterotrait-

Monotrait (HTMT) Ratios. Fornell and Larcker (1981) set the values on the main diagonal (representing the square root of the AVEs) must be higher than the off-diagonal elements, which correspond to the inter-construct squared correlations. Furthermore, HTMT ratios lower than 0.85 to demonstrate robust discriminant validity. The results on these tables substantiate that the research instrument of this study possesses satisfactory discriminant validity, which guarantee that the researchers can confidently place meaningful insights and greater trust in the study’s outcomes and conclusions.

Table 4a: Correlation between square roots of the average variance extracted (AVE)

Construct	Attitude	Consumer Awareness	Social Influence	Environmental and Animal Welfare Concerns	Purchasing Intention
Attitude	0.750				
Consumer Awareness	0.464	0.749			
Social Influence	0.327	0.205	0.856		
Environmental and Animal Welfare Concerns	0.597	0.435	0.407	0.773	
Purchasing Intention	0.630	0.380	0.382	0.660	0.844

Diagonal values are the square roots of AVE, and off-diagonals are inter-construct squared correlations.

Table 4b: Heterotrait-monotrait ratios

Construct	Attitude	Consumer Awareness	Social Influence	Environmental and Animal Welfare Concerns	Purchasing Intention
Attitude					
Consumer Awareness	0.648				
Social Influence	0.428	0.323			
Environmental and Animal Welfare Concerns	0.785	0.484	0.457		
Purchasing Intention	0.766	0.579	0.514	0.793	

Note: Ratios are Good if <0.900, best <0.850

Structural model and hypotheses

Table 5 presents various model fit and quality indices for the emerging structural model. These indices were crucial in determining the acceptability of the model. The Average Path Coefficient (APC = 0.189) and Average R-squared (ARS = 0.637) exhibit significant values (p-value < .05), indicating that the exogenous variables effectively predict and explain the variability in the endogenous variable within the model (Kock, 2017). Additionally, the Average Block VIF (AVIF = 3.217) and Average Full Collinearity VIF (AFVIF = 2.724) present ideal values, suggesting the absence of multicollinearity issues among latent variables in the model. Furthermore, other indices such as Simpson’s Paradox Ratio (SPR = 1.000), R-squared Contribution Ratio (RSCR = 1.000), Statistical Suppression Ratio (SSR = 1.000), Standardized Threshold Difference Sum Ratio (STDSR = 1.000), and Standardized Mean Absolute Residual (SMAR = 0.081) are within acceptable ranges (Kock, 2017). These findings indicate that the model aligns well with the data, with no apparent causality problems or hypothesized path reversals, affirming the model’s overall fit (Kock, 2017).

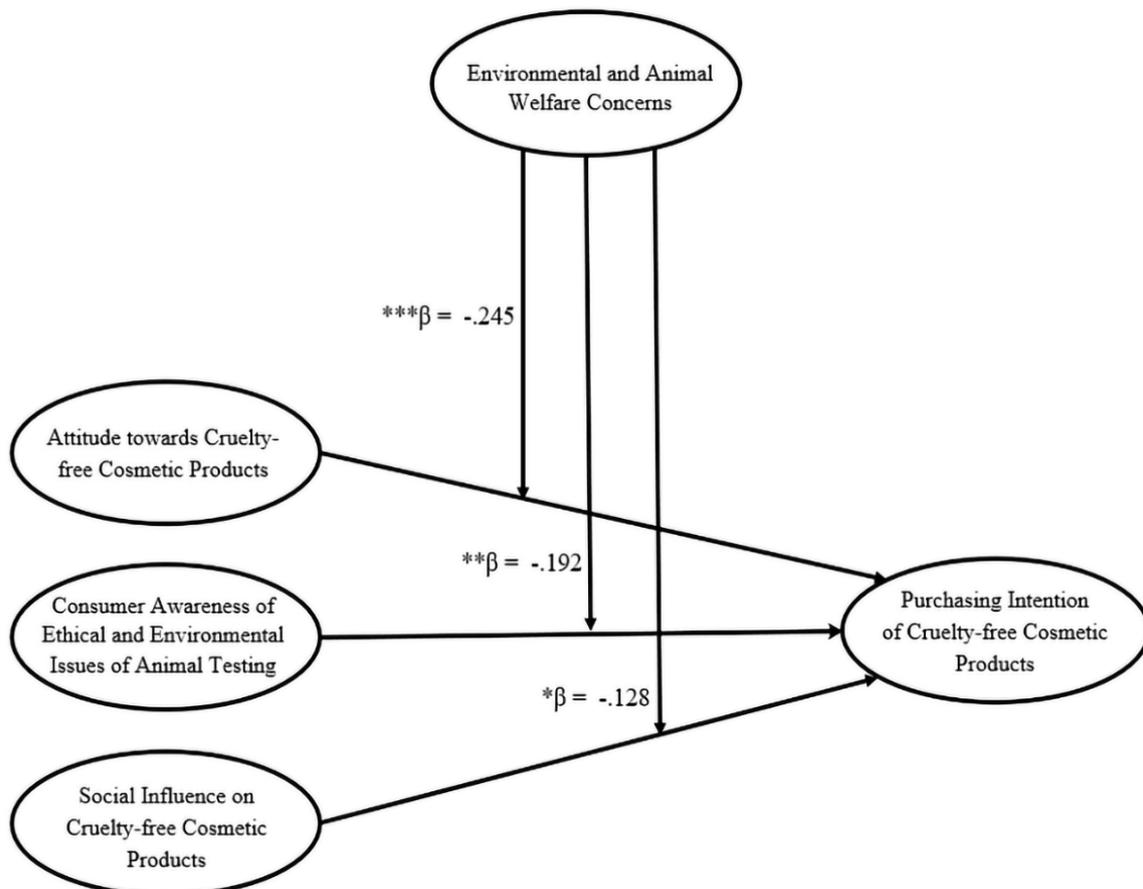
Table 5: Model fit and quality indices of the emerging model

Measure	Estimate	Threshold	Interpretation
Average path coefficient (APC)	0.189, $p < .001$	$p < .05$	Significant
Average R-squared (ARS)	0.637, $p < .001$	$p < .05$	Significant
Average block VIF (AVIF)	3.217	≤ 3.3	Ideally
Average full collinearity VIF (AFVIF)	2.724	≤ 3.3	Ideally
Simpson's paradox ratio (SPR)	1.000	$= 1.00$	Ideally
R-squared contribution ratio (RSCR)	1.000	$= 1.00$	Ideally
Statistical suppression ratio (SSR)	1.000	$= 1.00$	Ideally
Standardized threshold difference sum ratio (STDSR)	1.000	$= 1.00$	Ideally
Standardized mean absolute residual (SMAR)	0.081	≤ 0.10	Acceptable

Emerging model

Figure 1 below illustrated the correlation between Attitude (H1), Consumer Awareness of ethical and environmental issues of animal testing (H2), and Social Influence (H3) with the purchasing intention of cruelty-free cosmetic products is notably influenced by environmental and animal welfare concerns. This moderation is statistically significant, as highlighted by the p-value ($p < 0.05$).

Figure 1: The emerging model



Note: *** significant at ≤ 0.001 ; ** significant at < 0.01 ; * significant at < 0.05

Table 6 unveils significant insights into the moderating impact of environmental and animal welfare concerns on the correlation between respondents' attitudes ($\beta = -0.245$, $p < 0.001$, $f^2 = 0.151$), consumer awareness ($\beta = -0.192$, $p = 0.002$, $f^2 = 0.108$), and social influence ($\beta = -0.128$, $p = 0.027$, $f^2 = 0.061$), and the Generation Z purchase intention of cruelty-free cosmetic products. Notably, all these relationships exhibit an inverse association.

Table 6: Hypothesis test result

Exo.	Endo.	Path Coeff. (β)	P - value	Effect Size (f^2)	Effect Size Interpretation (Cohen, 1988)**	Descrip.	Interpretation
H4:	ATT * EAC → PI	-0.245	<0.001	0.151	Medium	Significant	H4 is supported
H5:	CA * EAC → PI	-0.192	0.002	0.108	Small	Significant	H5 is supported
H6:	SI * EAC → PI	-0.128	0.027	0.061	Small	Significant	H6 is supported

*Cohens Effect Size: **0.02 – small, 0.15 – medium, 0.35 – large*

DISCUSSION

The study's findings illuminate the distinct characteristics of Generation Z in the context of purchasing intention within the cruelty-free cosmetic products market. Notably, this demographic exhibits a profound level of concern, prioritizing ethical practices in the supply chain and environmental impacts over traditional influencing factors. The study reveals that Generation Z is discerning and less susceptible to being swayed solely by their attitudes, awareness of ethical and environmental issues related to animal testing, and social influence when purchasing cruelty-free cosmetic products. This inclination suggests that, for Generation Z, a deep commitment to ethical production practices and positive environmental impacts carries more weight in their decision-making process compared to the influence of personal attitudes or external social pressures.

Furthermore, the study's hypotheses (H1, H2, and H3) support the observed moderation effect of environmental and animal welfare concerns on the relationship between specific factors and the purchasing intention of cruelty-free cosmetic products. Hypothesis 1 (H1), focusing on the moderation effect of environmental and animal welfare concerns on attitudes, is substantiated by the data revealing that Generation Z's profound environmental concerns significantly impact the connection between their attitudes and the intention to purchase cruelty-free cosmetics. This aligns with the pertinent research, where environmental concern moderated relationships between various independent and dependent variables, strongly reinforcing the current study's findings (Sreen et al., 2021). One notable study was conducted by Cachero-Martínez (2020), wherein they discovered that environmental concern moderates the relationship between attitude and purchase intention and WOM intention of organic products.

Moreover, the study's results affirm this hypothesis regarding Hypothesis 2 (H2), which posits that environmental and animal welfare concerns moderate the relationship between consumer awareness and purchasing intention. Generation Z's heightened environmental consciousness effectively moderates the influence of consumer awareness on their intention to purchase cruelty-free cosmetic products, underscoring the paramount importance of ethical and environmental considerations in shaping their decision-making process. A practical application

of this was demonstrated in the study of Nabilla (2019), wherein they posited that an advertisement should focus on its functional appeal as it works for people with high environmental concerns. However, caution must be noted in its use as Gomez-Carmona et al. (2022) discovered that people with low environmental concerns gave lower ratings to positive environmental ads.

Similarly, Hypothesis 3 (H3) gains empirical validation, exposing that environmental and animal welfare concerns play a moderating role in shaping the influence of social factors on purchasing intention. This discovery emphasizes that Generation Z's steadfast dedication to ethical and environmental values profoundly shapes the efficacy of social influence in guiding their decisions to purchase cruelty-free cosmetic products. This result corroborated to the study of De Canio et al. (2021) as they found out that environmental concern has positively moderated the purchase intentions for products that are sustainably packaged when they perceive the producer's sustainability commitment. Furthermore, the study of Sadiq et al. (2021) as they revealed that the high environmental concern of their respondents reduced the value and image barriers of the Innovation Resistance Theory, which make them to have an intention to purchase eco-friendly cosmetic products.

CONCLUSION

The results revealed that the nuance role of environmental and animal welfare concerns as a moderator caused an inverse relationship among the respondents' attitudes, consumer awareness, and social influences regarding cruelty-free cosmetic products, specifically affecting purchase intention. With these results, it can be concluded that Generation Z prioritizes the commitment of brands in the cosmetic industry to ethical production processes and their environmental impact over the three mentioned factors affecting the purchasing intention of cruelty-free cosmetic products.

Cruelty-free cosmetic products appear to be growing and are appealing to Generation Z because of the growing demand for cruelty-free options on cosmetic products and the consciousness of the disadvantages of animal testing in the cosmetic production process. Therefore, brands in the cosmetic industry need to seize this opportunity since the trend of acceptance and adoption of cruelty-free cosmetic products is positive. Embracing cruelty-free practices fulfills the ethical expectations of Generation Z and aligns with a broader societal movement towards sustainable and cruelty-free alternatives in the cosmetic industry.

The researchers proposed that companies, brand owners, and marketers in the cosmetic industry, and policymakers should reevaluate the existing practice of animal testing since Generation Z is inclined to safeguard the environment and animal welfare due to the negative impact of animal testing on the welfare of animals and the environment. Companies can focus, emphasize, and capitalize on their values, such as having cruelty-free practices to increase brand image and loyalty and positively impact consumer choices. Lawmakers can use the insights of this study as a reference in improving and developing the current regulations to promote animal welfare and ethical practices by banning animal testing within the cosmetic industry in the Philippines. Moreover, marketers can use these newfound insights by leveraging popular platforms (e.g., TikTok, Instagram, and Facebook) to demonstrate their commitment to ethical practices in producing cosmetic products to enhance their appeal in the market.

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