



Study of the influence of ecological culture on the consumption of beauty products by men: A quantitative analysis

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ABSTRACT

In contemporary society, there has been a noticeable shift towards the adoption of cosmetics by men. However, it is evident that only a limited number of companies have integrated environmentally conscious marketing strategies into the promotion and sale of such products. This research endeavor seeks to elucidate the intricate relationship between Ecological Culture and the consumption of beauty products among male university students. The study employs rigorous statistical analysis to explore the extent to which ecological culture influences men's preferences for beauty products, revealing a moderate effect with a bilateral significance level of 0.002. This investigation underscores the significance of comprehending and incorporating ecological culture into the realm of men's beauty product consumption. The findings emphasize the imperative nature of considering ecological factors when making responsible purchases of such commodities. By shedding light on this connection, this research contributes valuable insights into the evolving landscape of the beauty product industry, urging both academia and businesses to further explore sustainable marketing strategies to cater to the ecological preferences of their male clientele.

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1. Introduction

Currently, there has been a substantial surge in the utilization of cosmetic products, particularly those comprising organic constituents. This trend can be attributed to the contemporary consumer's heightened sense of responsibility and awareness regarding environmental conservation. Consequently, an essential inquiry emerges: How does the ecological consciousness intersect with men's beauty products among university students in Lima in the year 2022?

In light of this query, the primary aim of the present research is to elucidate the correlation between ecological consciousness and men's beauty product consumption among university students in Lima in the year 2022. To augment and contextualize this overarching objective, we have delineated pertinent concepts that serve to enhance our comprehension of the subject matter under investigation.

As posited by [Dahlgard and Mi Dahlgard-Park \(2006\)](#), the concept of organizational culture (OC) emerged during the late 1970s, marking a significant departure from previous considerations. As the field of Administration matured within companies, it brought with it a heightened commitment to societal values. This commitment fundamentally reshaped the entire organizational framework of that era, as it necessitated a deep-rooted acknowledgment of the external context in which an organization operated.

Furthermore, [Martínez \(2009\)](#) contended that the nature of this culture within companies is inherently relative, given that customs are not universally homogeneous but often emanate from subgroups with distinct ideologies. Additionally, the pivotal role of effective leadership within the organizational climate cannot be understated, as leaders assume responsibility for guiding and providing support in both favorable and adverse circumstances that may manifest ([Estrada et al., 2009](#)).

As [Millán \(2019\)](#) expressed, the consumer is not constantly rational when making a purchase, because uncertainty is a vital and influential factor in the choice to acquire a product or service. Therefore, many of these decisions are made on impulse and not by satisfying a real need. However, digital marketing has taken a key role when acquiring a product, since the personalization that exists in

digital advertising, attracts customers much more easily than in previous times.

The cosmetics sector is characterized by a wide array of beauty and personal hygiene products, with a focus on fostering its expansion (Todd, 2004). In the contemporary landscape, this sector has demonstrated remarkable versatility, driven by evolving consumer preferences, customs, and notably, the proliferation of diverse product offerings, including, but not limited to, hair shampoos.

Furthermore, Herzovich (2018) asserted that the personal care industry, encompassing cosmetics, is currently undergoing substantial transformations. It is departing from conventional practices and increasingly catering to an underserved demographic – male consumers.

In summation, the cosmetics industry is not a recent phenomenon intrinsically tied to the present era; rather, its origins can be traced back to ancient times. During these historical epochs, there existed a profound understanding of cosmetic products and their manifold benefits, encompassing both aesthetic and health-related aspects.

2. Related works

Fortunati et al. (2020) articulated the primary objective of their study, which encompassed an extensive examination of the evolution of cosmetics from its inception to the contemporary era. Their research also delved into the intricate aspects of the modern consumer, who exhibits a dual concern for personal aesthetics and a heightened sense of environmental responsibility. Additionally, their investigation entailed a comprehensive analysis of the cosmetics industry, employing a quantitative research methodology that involved surveying a sample of 330 individuals. Notably, within this sample, 24% represented male respondents, indicating a comparatively limited engagement of this demographic with cosmetics.

Furthermore, this research effort served to discern distinctive consumer profiles and behaviors through the assessment of various variables. In summative reflection, the study's outcomes revealed four pivotal variables that significantly influence consumer choices when purchasing cosmetic products: product effectiveness, composition, brand credibility, and product longevity.

In conclusion, this report enriches the current research by furnishing pertinent insights into the categorization of variables by consumers based on their perceived significance, thereby contributing valuable information to the ongoing investigation.

Bom et al. (2019) undertook a company project with the objective of venturing into the commercialization of cosmetic products through a strategically devised business plan. This initiative aimed to make a substantial contribution to the advancement of the beauty sector while concurrently generating a significant number of employment opportunities. To achieve this objective,

the researchers conducted a descriptive quantitative research study, primarily focused on discerning customer preferences. The research methodology employed the widely utilized structured survey technique. The survey was administered to a population comprising 3,690 individuals aged between 15 and 69 years, from which a sample of 367 respondents was drawn.

The research findings indicated that the implementation of this proposed business venture would have a notable positive impact on the national economy. It would significantly reduce unemployment rates and foster economic development by capitalizing on the knowledge acquired through the study. The authors concluded that the viability of this entrepreneurial endeavor in the beauty industry hinged on the effective application of sound marketing strategies, which could potentially yield substantial revenue.

In summary, this article provides a robust foundation for the current research, offering valuable insights that could facilitate the future realization of an entrepreneurial concept. Specifically, it addresses the unmet needs of an underserved demographic, namely, the male population in Lima.

Robi and Zapata (2021) aimed to design a shampoo without salt, with a chocolate aroma and properties for hair care in men and women. The methodology was exploratory and quantitative due to the need to obtain numerical data for the analysis of the proposed business plan. For the population, individuals from various sectors of the city of Guayaquil were considered, while for the sample simple random sampling was used, from which a total of 85 people resulted. In the applied survey it was evidenced that 61% of individuals prioritize the benefits and quality of the product, above the price, whose result was 23%. This brings to the research an international notion of the positive viability involved in producing these innovative products, which minimize the use of harmful chemicals and maximize the use of nutrients for hair care.

Bartlett and Ghoshal (1998) aimed to devise a commercial plan for the manufacture of natural soaps based on inputs native to the indigenous region of Guatemala, applying a descriptive, quantitative method and conducting an online survey to a sample made up of 110 people, segmented into two parts, 50% between 18 and 45 years and the remaining 50% with 45 years and more, this sample was determined by the non-probabilistic method. As a result, it is known that 29% of respondents are over 55 years old, while 10.09% are under 24 years old. In this sense, it is concluded that by 2022 the sale of beauty products will grow by 16.7%, with the US being the main consumer globally. In addition, according to the study, the business plan is viable since it finds a favorable environment due to the acceptance of future North American customers, due to the quality of the product made of native plants and oils; organic ingredients that safeguard the protection of the

environment. In short, this report provides a significant contribution to this research, since it gives an innovative vision of undertaking in this sector, taking advantage of the great biodiversity that Peru has, naturally in the eastern part of the territory.

[Sivathanu \(2019\)](#) held as his objective the validation of a business project by subscription, dedicated to the distribution and commercialization of cosmetics for the care of the skin. To do this, the descriptive, experimental, and quantitative method was implemented based on statistical measurements, using an analysis from surveys, and interviews. Obtaining as results, a general diagnosis of the environment dedicated to the sector, promoting methods of income and abundant growth, only in this way arise in the cosmetic sector and in advance contribute with jobs. In conclusion, to implement this innovative business idea, it is essential to have actions that cover an exhaustive study of marketing, commercialization, and human and technological resources. Finally, this provides knowledge about the feasibility of manufacturing and marketing beneficiary inputs for the skin.

As articulated by [Smith and Brower \(2012\)](#) in their scholarly article, their research endeavor was dedicated to elucidating the intricate relationship between eco-friendly marketing (MKT) and the decision-making processes of consumers belonging to the millennial generation in Trujillo. To achieve this aim, they employed a correlational, quantitative, and cross-sectional research methodology.

The research population encompassed all individuals from Trujillo who fell within the demographic of generation "Z," aged between 21 and 35 years. Employing a probabilistic sampling technique, a sample of 382 young consumers of beauty products was meticulously selected. The primary data collection tool employed for this study was a structured questionnaire.

The synthesis of the research findings revealed a positively inclined relationship between the two variables. It was discerned that a substantial portion of the sample, constituting 34%, exhibited a willingness to purchase beauty products that aligned with ecological principles, provided they were offered at a reasonable price and demonstrated high quality. Notably, the authors underscored the importance of not merely considering these eco-friendly characteristics as recruitment strategies but as fundamental cultural aspects within cosmetic organizations. The significance of this research contribution resides in its capacity to enhance our comprehension of the contemporary expectations and demands of young consumers vis-à-vis cosmetic companies. It emphasizes the growing importance of activities that prioritize environmental sustainability in this context. [Castañeda and Aparco \(2020\)](#) explored the relationship between eco-friendly marketing and consumers' inclination to purchase cosmetics in Lima. The research methodology employed a non-experimental design, adopting a descriptive-correlational approach at the

quantitative level. The primary data collection instrument employed for this study was a survey.

Given the impracticality of surveying an infinite population, the researchers opted to define a manageable sample size of 70 individuals. This sample was carefully selected to ensure it represented a cross-section of the population.

The study's findings yielded a significant insight: there exists a mutual influence between the studied variables. This influence was identified through rigorous data analysis facilitated by systematic software tools such as SPSS.

In summary, the noteworthy contribution of this research study lies in its elucidation of the burgeoning ecological awareness within the realm of the beauty industry. It sheds light on the increasingly integral role of eco-friendly marketing in shaping consumer behavior and preferences in the cosmetic market.

[Möller-Leimkühler \(2002\)](#) proposed the objective of studying the concordance of society's paradigms with respect to male beauty and the effect that this ideology generates in men of a certain age in the city of Lima. The methodology was descriptive, cross-sectional, non-experimental, and quantitative. The instrument used consisted of conducting a survey of a sample composed of 240 men from Lima. The dimensions used by the author were the manly transformation, the environment it consumes, and the image it projects. The result shows that 75% consider their personal appearance extremely relevant. The author concluded that Peruvians include this aspect in their daily lives and if not, it is due to factors such as the economic and beauty standards established by society. This scientific article contributes to the research of a better notion of the paradigms of male beauty and the positions of men in Lima in the face of this reality.

[Tanure and Duarte \(2005\)](#) presented the purpose of analyzing how the organizational climate affects the collaborators who market beauty products, linked to the male gender of the Lima macro-region. The methodology used by the author is quantitative since it has been elaborated with numerical data, also using descriptive statistics. For this report, the survey was used, one of the most common, due to its high efficiency in obtaining information. The author concludes that this variable directly influences the workers who market beauty products, generating competitiveness. The contribution to this study allows us to understand how relevant it is to have a good climate in the organization for the correct performance of workers and with it there are greater sales of the assorted products marketed.

According to [Briones and Antezana \(2019\)](#), to analyze how CSR influences the behavior of the consumer based in Lima, with respect to cosmetic articles. The methodology was quantitative, cross-sectional, non-experimental, and correlational. For the sample size, which resulted in 385 individuals, simple sampling was used, since the population using at least one cosmetic product in Lima is complex to consider. In addition, the instrument

chosen consisted of the elaboration of a questionnaire that allows a more efficient analysis. As a result, a good relationship was obtained, due to the 49.35% of people surveyed, who consider as greatly beneficial, the fact that the companies that manufacture these products, conduct corporate actions in contribution to society. This scientific article contributes to this research, the notion of importance that the Lima consumer gives to cosmetic products, and the responsible actions conducted by the companies that produce and market them.

3. Methodology

The research methodology employed in this study aligns with the foundational principles of basic research. This approach has been cultivated throughout the course of human history, driven by the innate curiosity to explore the origins of natural phenomena. It hinges upon meticulous observation, the acquisition of new knowledge, and a profound commitment to rigorous contemplation. Furthermore, it is widely regarded as an indispensable catalyst for scientific advancement.

At the level of research methodology, this study adopts a correlational framework. This choice is grounded in the proximity of the conceptual domains of the variables under examination, suggesting the potential for reciprocal influence. As elucidated by Snyder (2019), the core objective of correlational research is to scrutinize the associations between the variables in question. This entails the formulation and testing of correlational hypotheses, culminating in the utilization of statistical techniques to delineate the extent of correlation.

In concurrence with Navalta et al. (2019), the overarching aim is to precisely ascertain the degree of interconnectedness among the variables pertinent to the research project. This quantification is achieved through the application of hypothesis testing and the judicious employment of statistical methodologies, ultimately facilitating the demarcation of correlations.

The research design used to conduct this study is non-experimental since it will not be manipulated and there is no intention of modifying the study variables so that it influences the other, but that it will be studied, and information will be obtained as the events occur. As Snyder (2019) pointed out, there is no continuous influence between the study variables, so they cannot be manipulated in any sense. In addition, it is cross-sectional, because the analysis covers 2022, collecting the data in that specific time. As Snyder (2019) argued, in these studies a given moment is emphasized. A study is cross-sectional when the variables are examined in a synchronized manner, in a single instant, ceasing to matter the time with respect to the development of the events (Bowling and Ebrahim, 2005).

The research is designed for the use of the quantitative approach, its purpose is the collection and analysis of data, which will be corroborated by

numerical and statistical analysis. This method is sustained by measuring characteristics of social events, which come from a conceptual framework related to the problem studied and the relationship that exists deductively between variables. This approach collects and analyzes the data to respond to the questions raised within the research, then they must be evaluated with hypotheses raised previously; it also uses descriptive and inferential statistics.

The chosen population comprised all University of Technology and the Professions (UTP) students in Lima. Snyder (2019) stated that the population is a totality of elements. In addition to the above, it is an agglomerate of individuals or things that one wishes to know in depth. The sample considered is made up of 72 male students enrolled in the different headquarters of the UTP, with the selected criterion of belonging to the Faculty of Administration. It is a part of a whole, from which all the necessary information is extracted that will allow the analysis to be developed and later, the most precise results.

Non-probabilistic sampling will be used for convenience, which turns out to be a technique of choosing the elements without prior analysis and arbitrarily. Sampling is a means that facilitates the selection of the units of a certain study, which are part of the sample, in order to collect data of great importance for the ongoing investigation. As Snyder (2019) pointed out; refers to the selection of individuals without obeying unpredictable possibilities, and is adapted to the researcher's approach.

The survey serves as a pivotal tool for effectively acquiring research results. Its primary function is to collect information from the individuals participating in the study sample. These individuals provide responses that reflect their perceptions, attitudes, and discernment pertaining to the subject under investigation. The survey instrument employed in this research is the questionnaire, a significant means of eliciting responses to a predetermined set of inquiries.

This methodological approach comprises a structured form designed to gather responses pertinent to the research problem. Notably, it is adaptable for application to both individuals and groups of respondents who meet specific criteria. Importantly, this method allows for data collection without the direct presence of the researcher, as exemplified in this particular case where surveys were distributed via mail to pre-selected recipients.

As depicted in Table 1, it is discernible that the reliability score registers at 0.676. This numerical value indicates a commendable level of reliability within the context of the sample comprising 72 students.

Table 1: Reliability statistics

Reliability statistics	
Cronbach's alpha	Number of elements
.676	24

4. Results

Data from 72 UTP business administration students were extracted through an applied survey, from which the following was achieved.

4.1. Descriptive results

In accordance with the data presented in Table 2 and Fig. 1, it is observed that 4.2% of the surveyed students express a low level of ecological consciousness. Conversely, a majority of 52.8% report having a moderate level of ecological awareness, while 43.1% indicate a high level thereof.

As can be seen in Table 3 and Fig. 2, regarding the care of the environment, 4.2% of respondents consider that it is at a bad level. While 12.5% say it has a regular level and 83.3% report a good level. On the other hand, concerning the awareness of society,

6.9% indicate a bad level; also, 27.8% indicate that it has a regular level, and 65.3% that it has a good level. Finally, in relation to corporate social responsibility, 5.6% of students consider that it has a bad level. Another 54.2% report that it has a regular level; however, 40.3% indicate that the level they have is good.

As detailed in Table 4 and Fig. 3, 2.8% consider men's beauty products to be at a bad level. In addition, 88.9% indicate that they have a regular level and 8.3% consider that it presents a good level.

Table 2: Ecological culture variable

Variable 1: Ecological culture			
		Frequency	Percentage
Valid	Bad	3	4.2
	Regular	38	52.8
	Good	31	43.1
	Total	72	100.0

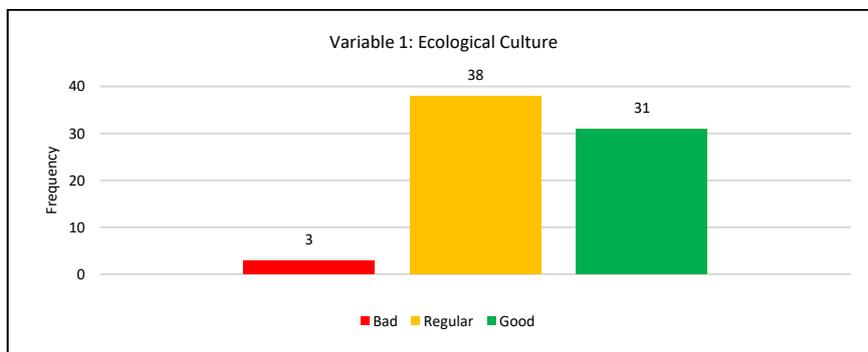


Fig. 1: Ecological culture variable

Table 3: Dimensions of the ecological culture variable

Scales	Dimension 1: Caring for the environment		Dimension 2: Awareness of society		Dimension 3: Corporate social responsibility	
	Frequency	%	Frequency	%	Frequency	%
1=Bad	3	4.2	5	6.9	4	5.6
2=Regular	9	12.5	20	27.8	39	54.2
3=Good	60	83.3	47	65.3	29	40.3
Total	72	100	72	100	72	100

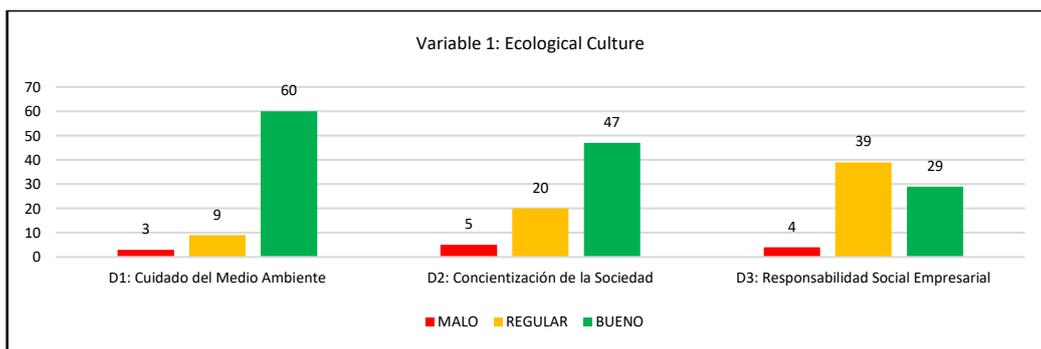


Fig. 2: Dimensions of the variable ecological culture

Table 4: Beauty products of men variable

Variable 2: Men's beauty products			
		Frequency	Percentage
Valid	Bad	2	2.8
	Regular	64	88.9
	Good	6	8.3
	Total	72	100.0

As detailed in Table 5 and Fig. 4, referring to fall arrest shampoos, 5.6% of the university students

surveyed consider that it is at a bad level. On the other hand, 54.2% state that it has a regular level, and 40.3% at a good level. On the other hand, regarding moisturizers, 5.6% are at a bad level; in addition, 73.6% indicate a regular level, and 20.8% that it has a good level. Also, concerning body scrubs, 15.3% report that it has a bad level. In addition, 65.3% maintain that it has a regular level; and 19.4% that the level is good.

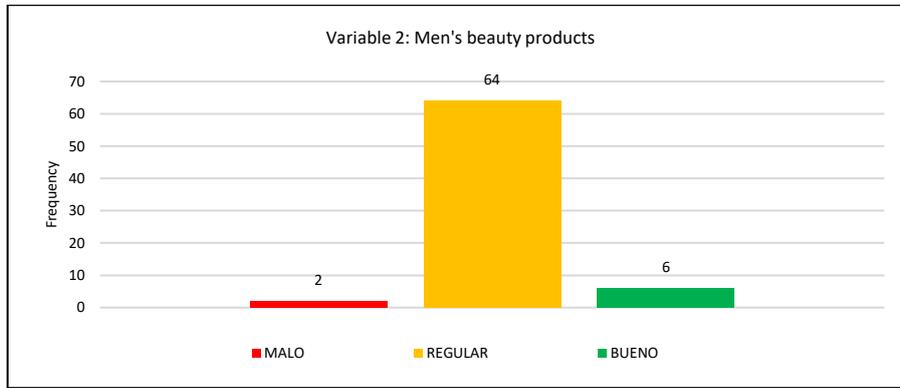


Fig. 3: Beauty products of men variable

Table 5: Dimensions of the variable of beauty products of men

Scales	Dimension 1: Anti-fall shampoos		Dimension 2: Skin moisturizers		Dimension 3: Body scrubs	
	Frequency	%	Frequency	%	Frequency	%
1= Bad	4	5.6	4	5.6	11	15.3
2= Regular	39	54.2	53	73.6	47	65.3
3= Good	29	40.3	15	20.8	14	19.4
Total	72	100	72	100	72	100

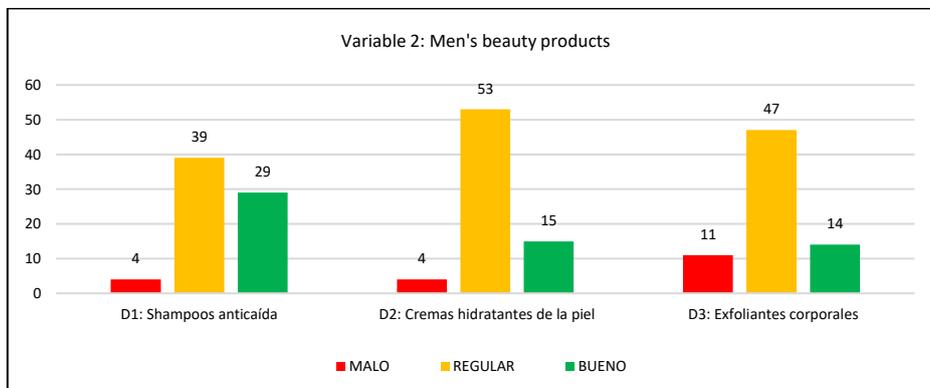


Fig. 4: Dimensions of the variable of beauty products of men

4.2. Correlational results

4.2.1. General hypothesis

H0: Ecological culture is not positively related to men's beauty products in university students in Lima, 2022.

Ha: Ecological culture is positively related to men's beauty products in university students in Lima, 2022.

In Table 6, a bilateral significance of $0.002 < 0.05$ is identified, that is, the alternate hypothesis is approved, which means that there is a concordance between the two variables. In addition, the correlation is regular with 0.361.

4.2.2. First specific hypothesis

H0: Ecological culture is not related to fall-hair loss shampoos in university students in Lima, 2022.

Ha: Ecological culture is related to fall-loss shampoos in university students in Lima, 2022.

In Table 7, it is evident that the bilateral significance of $0.008 < 0.05$, that is, the alternative hypothesis is approved, which refers to a correspondence between ecological culture and anti-

fall shampoos for men. On the other hand, the correlation coefficient is regular with 0.311 indicating a low correlation between the two.

4.2.3. Second specific hypothesis

H0: Ecological culture is not significantly related to skin moisturizers in university students in Lima, 2022.

Ha: Ecological culture is significantly related to skin moisturizers in university students in Lima, 2022.

In Table 8, a bilateral significance of $0.107 > 0.05$ is shown, that is, the alternative hypothesis is not approved, which means the non-existence of a link between ecological culture and skin moisturizers.

4.2.4. Third specific hypothesis

H0: Ecological culture is not valuable related to body scrubs in university students in Lima, 2022.

Ha: Ecological culture is valuable related to body scrubs in university students in Lima, 2022.

In Table 9, a bilateral significance of $0.072 > 0.05$ is evidenced, that is, the alternative hypothesis is rejected, which evidences the non-existence of a link between ecological culture and body scrubs.

Table 6: Correlation of the variables of ecological culture and the beauty products of men

Correlation of the ecological culture variable and the men's beauty products			
		V1: Ecological culture	V2: Men's beauty products
Spearman's Rho	V1: Ecological Culture	Correlation coefficient	1.000
		Sig. (bilateral)	0
		N	72
	V2: Men's Beauty Products	Correlation coefficient	.361**
		Sig. (bilateral)	.002
		N	72

** : The correlation is significant at level 0.01 (bilateral)

Table 7: Correlation of the variables of ecological culture and dimension shampoos anti-fall

Correlation of the Variable Ecological Culture and Dimension Shampoos Anti-fall			
		V1: Ecological Culture	D1: Anti-fall shampoos
Spearman's Rho	V1: Ecological Culture	Correlation coefficient	1.000
		Sig. (bilateral)	0
		N	72
	D1: Anti-fall shampoos	Correlation coefficient	.311**
		Sig. (bilateral)	.008
		N	72

** : The correlation is significant at level 0.01 (bilateral)

Table 8: Correlation of the variables of ecological culture and dimension skin moisturizers

Correlation of the variable ecological culture and dimension skin moisturizers			
		V1: Ecological culture	D2: Skin moisturizers
Spearman's Rho	V1: Ecological Culture	Correlation coefficient	1.000
		Sig. (bilateral)	0
		N	72
	D2: Skin moisturizers	Correlation coefficient	.191
		Sig. (bilateral)	.107
		N	72

Table 9: Correlation of the variables of ecological culture and dimension body scrubs

Correlation of the variable ecological culture and dimension body scrubs			
		V1: Ecological culture	D3: Body scrubs
Spearman's Rho	V1: Ecological Culture	Correlation coefficient	1.000
		Sig. (bilateral)	0
		N	72
	D3: Body scrubs	Correlation coefficient	.214
		Sig. (bilateral)	.072
		N	72

5. Discussion

The overarching research question, "How is ecological culture related to men's beauty products among university students in Lima in 2022?" was posed to investigate the general problem. The findings, as derived from both descriptive and inferential statistics, indicate a moderate correlation between these two variables. Additionally, the statistical significance, which stands at 0.002, is less than the conventional threshold of 0.05. This result validates the general hypothesis posited, suggesting a tangible association between ecological consciousness and the consumption of beauty products among male students at UTP in 2022. In line with these findings, [Fortunati et al. \(2020\)](#) corroborate that contemporary cosmetics consumers increasingly prioritize ecological well-being when making choices regarding beauty products. Nevertheless, it is noteworthy that, within a sample of 330 individuals, only 23.9% of respondents represented the male demographic within the cosmetic sector.

The investigation centered on Specific Problem No. 1, guided by the research question: "How does ecological consciousness correlate with the use of anti-fall shampoos among university students in

Lima in 2022?" The findings reveal a weak correlation between ecological awareness and the utilization of anti-fall shampoos. The statistical significance, which registers at 0.008, falls below the conventional threshold of 0.05. This outcome confirms the validity of Specific Hypothesis No. 1, which posits that ecological consciousness is linked to the usage of anti-fall shampoos among male university students at UTP. Moreover, corroborating this research, a study conducted by [Robi and Zapata \(2021\)](#) with a sample of 85 participants demonstrated that male consumers exhibit a willingness to consistently purchase shampoos that offer hair care attributes. Consequently, it is justifiable to invest in these beauty and hair care products.

Regarding Specific Problem No. 2 and the associated research question, "How does ecological consciousness relate to the use of skin moisturizers among university students in Lima in 2022?" an examination utilizing descriptive and inferential statistics revealed a lack of correlation between ecological awareness and the use of skin moisturizers. The statistical significance, standing at 0.107, exceeds the customary threshold of 0.05, thus accepting the null hypothesis. This suggests that there is no discernible relationship between

ecological consciousness and skin moisturizer usage. In contrast, research by [Smith and Brower \(2012\)](#) found that 34% of their respondents assessed the ecological initiatives undertaken by companies. Their study also identified a moderate correlation of 0.522 between the preference for organic products and consumer choices in cosmetics in Trujillo. This underscores that moisturizers may not be strongly associated with environmental considerations.

Concerning Specific Problem No. 3 and the research question, "How does ecological consciousness relate to the use of body scrubs among university students in Lima in 2022?" the analysis of descriptive and inferential statistics yielded a similar result. There was no statistically significant correlation between ecological awareness and body scrub usage in 2022, as indicated by a significance level of 0.072, which exceeds the standard threshold of 0.05. However, [Möller-Leimkühler's \(2002\)](#) study found that 75% of respondents emphasized the importance of personal care for men. It should be noted that the inability to acquire such products is primarily due to economic constraints. This provides a deeper understanding of why body scrubs may not be strongly linked to ecological consciousness, as these products are not commonly purchased, and there are limited price alternatives for male consumers.

6. Conclusion

In the overarching research problem, the bilateral significance level registers at 0.002, which is less than the customary threshold of 0.05. This signifies the existence of a discernible relationship between organic culture and men's beauty products. However, the correlation coefficient stands at 0.361, indicating a moderate level of correlation between the two variables.

Regarding the investigation concerning the relationship between ecological culture and anti-fall shampoos, the significance level falls within the range of 0.008, which is less than 0.05, implying a significant relationship between these variables. The correlation coefficient for this association is 0.311, representing a moderate degree of correlation.

Conversely, the examination pertaining to ecological culture and skin moisturizers reveals a significance level of 0.107, surpassing the customary threshold of 0.05. This suggests a lack of a substantial link between these two variables, leading to the rejection of the alternative hypothesis.

Similarly, in the study concerning ecological culture and body scrubs, the significance level stands at 0.072, exceeding 0.05, indicating an absence of a substantial relationship between these variables, thus warranting the rejection of the alternative hypothesis.

It is increasingly advisable for male customers to consider the ecological practices implemented by cosmetic companies in the production and marketing of beauty products. Such considerations have the potential to stimulate greater interest

among male consumers in sustainable practices and environmental stewardship within the beauty industry.

Male consumers are encouraged to be discerning when selecting anti-fall shampoos with natural characteristics, given the limited variety available compared to options marketed to female consumers. This proactive approach can incentivize innovative businesses to cater to the specific needs of male hair care.

Furthermore, male consumers should adopt a more eco-conscious approach when purchasing skin moisturizers, despite the limited product variety tailored to their segment. Enhanced environmental awareness can heighten the significance of this consumer group's impact.

To broaden their choices and avail themselves of a wider range of exfoliating products, male consumers are advised to seek out a greater variety of properties and offerings. Recognizing the economic factor as a determining element in the purchase of such products, this approach can be instrumental in enhancing their product options.

Compliance with ethical standards

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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