

Sustainable Cosmetics and the Purchase Intention of Brazilian Consumers

Cosméticos Sustentáveis e a Intenção de Compra de Consumidores no Brasil

Beatriz dos Anjos Furtado^{1 2}

Abstract

This paper aims to identify the main aspects that Brazilians consider when purchasing sustainable cosmetics. Sustainable cosmetics encompass beauty, perfumery and hygiene products with concern for formulation, health, disposal, environment and social aspects. This sector is one of the most profitable in Brazil, standing out as the fourth largest one in the world. Sustainable cosmetics have guidelines to be followed in accordance with the Biodynamic Certification Institute. They are present among the natural, organic and free from non-renewable raw materials component specifications. According to the reference, an explanatory model on which aspects are consumer influencers was generated and the applied questionnaire was based on it. 529 responses with open questions were collected in Brazil. After the frequency analysis, it was verified that certain aspects respond to the proposed model that contains the dimensions "Environmental consumption attitude", "Well-being", "Health", "Reference groups" and "Perceived attributes" as preponderant ones. Among the results, quality, health, environment, price, packaging and testing on animals aspects predominated as main purchase intentions. Such aspects correspond to internal and external factors that lead to the purchase behavior. These findings may help to awaken more studies on the cosmetic sector in the area of sustainability in academia, and organizations could develop new products and marketing strategies for this segment.

Keywords: Sustainable cosmetics. Consumer behavior. Purchase intention.

Resumo

Esse artigo tem como objetivo identificar os principais aspectos que os brasileiros consideram ao comprar cosméticos sustentáveis. Os cosméticos sustentáveis englobam produtos de beleza, perfumaria e higiene com preocupação sobre a formulação, saúde, descarte, o meio ambiente e a vertente social. Esse setor é um dos mais rentáveis do Brasil, destacando-se como o quarto maior do mundo. Os cosméticos sustentáveis têm

¹ Universidade Federal de Juiz de Fora, Brasil. ORCID: <https://orcid.org/0000-0001-9663-8137> E-mail: beatriz.anfurtado@gmail.com

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diretrizes que devem estar em conformidade com o Instituto Biodinâmico de Certificações; apresentam-se dentre as especificações componentes naturais, orgânicos e livre de matérias-primas não renováveis. Considerando-se a revisão da literatura, gerou-se um modelo explicativo de quais aspectos são influenciadores nos consumidores que baseou o questionário aplicado. Foram coletadas 529 respostas com questões abertas no Brasil. Após a análise da frequência, foi verificado que certos aspectos respondem ao modelo proposto que contém as dimensões “Atitude de consumo ambiental”, “Bem-estar”, “Saúde”, “Grupos de Referência” e “Atributos percebidos” como preponderantes. Dentre os resultados obtidos, os aspectos qualidade, saúde, meio ambiente, preço, embalagem e teste em animais preponderaram como principais intenções de compra. Tais aspectos correspondem aos fatores internos e externos que guiam ao comportamento de compra. Esses achados podem auxiliar a despertar mais estudos sobre o setor cosmético na área de sustentabilidade na academia, podendo as organizações desenvolverem novos produtos e estratégias de marketing para esse segmento.

Palavras-Chave: Cosméticos sustentáveis. Comportamento de consumo. Intenção de compra.

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1 Introduction

Products considered as tangible goods have components and substances that constitute their structure. Knowledge on the product components, particularly those considered as cosmetics, has awakened interest in the consumer market. The consumers' interest in information on the harmfulness or on the capacity of cosmetics to be harmful to human health shows itself to be increasingly higher over the years (Tozzo, Bertocello, & Bender, 2012; Zenone & Dias, 2015).

The concern about cosmetics, by bearing in mind the environmental issue in addition to the health one, has raised other questionings in society. In addition to the concern about the environment, the social aspect of production also emerges. In the 1972 and 1987 scenarios, in the United Nations Conference and in the Brundtland Report, respectively, the term sustainable development is coined with attention to the economic development concerned with life quality for the current generation and the future ones (Dias, 2015; Zenone & Dias, 2015).

The discussion on the sustainable development also focus on the sustainable consumption that aims to promote improvements in the

consumption aspect. Such consumption takes ecologically correct products and behaviors of consumers committed to sustainability into account (Gollo, Silva, Locatelli, & Rangel, 2015). Sustainability, according to Elkington (2004), is a term that complements sustainable consumption, considering that there should be quality maintenance of the economic, social and environmental aspects.

Due to the increasingly popular sustainable consumption, a higher number of consumers begins to notice the sustainable products bias, even though it is still in a shy manner (Gollo, Silva, Locatelli, & Rangel, 2015). In organizations, the solution for the stakeholders' requirements is to innovate and to try to satisfy the clients' needs. Among the most profitable sectors in Brazil, the cosmetic one stands out as the fourth largest sector in the world. Around R\$102,3 billion per year is traded on hygiene, beauty and perfumery items (Brazilian Association of the Personal Hygiene, Perfumery and Cosmetics Industry, ABIHPEC, 2019).

In the case of the cosmetic sector, the demand on sustainability is notorious. The organizations that focus on sustainability have tried to abstain from using petroleum derived substances and they are investing more in natural inputs, with greater sustainable appeal (Ladeira, Santini, & Araújo, 2015). A new product, which can be a new option of sustainable consumption, concerns not only about more natural compositions in its formula. There is also the valuing of ethical and social issues, in addition to the total banning of tests on animals, for instance.

In addition to the ethical and environmental issues, there are different factors that lead to the cosmetic purchase with sustainable bias. Packaging, composition, health and beauty are some examples of aspects to be considered in the foreign literature (Cervellon & Carey, 2011; Ghazali, Soon, Mutum, & Nguyen, 2017). Based on this finding, this paper aims to answer the following question: "What are the main aspects that Brazilians consider when purchasing sustainable cosmetics?"

The objective of this research was to identify the main aspects considered when purchasing sustainable cosmetics. This paper background is in its embryonic stage in which the studies on the relationship of environmental factors of this kind of consumption and the consumer behaviour are. To understand who these sustainable product consumers are and to indicate factors that determine such purchase have been an important focus of studies in the marketing area (Tamashiro, Silveira, Mantovani, & Campanário, 2014). The blank intended to be filled in is to include the main researches on sustainable cosmetics and to test them in the Brazilian context.

This research presents the following parts after this introduction: theoretical framework, explaining the sustainability in organizations, sustainable cosmetics and buying factors; methodological aspects; results and discussion; and final considerations.

2 Theoretical Framework

2.1 Sustainability in Organizations

Sustainability covers the tripod aspects, in accordance with Elkington (2004): environmental, social and economic, and sustainability is evaluated by numbers and indicators. As to what regulates the sustainable development, the goal of achieving economic growth without forgetting the social and environmental sides is found. In this development proposition, a balance is sought and, by means of strategies and practices, a behavior change is proposed so that there is better life quality in the long run (well-being) (Feil & Schreiber, 2017).

As to the economic aspects of the sustainable development, Amato Neto (2015) and Laasch and Conaway (2016) categorize sustainability as weak and strong. Weak sustainability includes only meeting the entrepreneurial needs, and subsequently sustainability itself, without modifying structures, for example; and strong sustainability sees the need of disruptive change towards the existing structures.

What was meant only as legal enforcement, reduction of environmental impact, image improvement before the consumer and society (some of the *stakeholders*) and profit generation (Philippi, Sampaio, & Fernandes, 2017), is now considered as an integral part of the consumer decision-making. Thus, the business reformulation with sustainability principles comes into play.

The drivers of such reformulation may be the *stakeholders'* needs, new markets, convergence of the global crisis, internet and transparency in addition to new institutional powers. Laasch and Conaway (2016) show that among the main elements considered in the definition of entrepreneurial responsibility we keep *stakeholder* in mind, followed by the social and economic dimension, the voluntary assumption of responsibility, and lastly the environmental dimension. One of the purposes to satisfy the *stakeholders* is to optimize the value to him.

As some of the points to satisfy the consumers, Fenker, Diehl, Alves, & Kalinowski (2015) propose the change of the risk situation of resource shortage and pollution minimization, by means of reducing the consumption of non-renewable resources, such as petroleum and its derivatives, besides using more renewable resources, and mitigation of degradation forms. In such a context, the cosmetic market of sustainable bias is perceived as one of the ways out in the search of new products that pollute less and use less renewable resources.

2.2 Sustainable Cosmetics and Purchase Factors

Individuals appreciate not only the product formulation in sustainable cosmetics, such as the “ingredients” or the packaging, but also the social issues – improvement in working conditions, employment generation for the community, improvements of labor force are examples of valuing the human capital inherent to the demands on the products. As to the improvements, the sustainable cosmetics enrich the natural elements of the region as well (Portal G1, 2019).

In order to conceptualize what a green product is, certain characteristics are included: made with renewable or recyclable raw materials, have light packaging, biodegradable and serve multiple purposes (Tamashiro, Silveira, Mantovani, & Campanário, 2014). Another characteristic is not to involve slave labor in its total production. There is also another nomenclature, *Slow Beauty*, which takes natural cosmetics, vegans, used with greater “awareness”, without tests on animals and organics into account (Morais, 2019).

Regarding the explored elements and with export potential from Brazil, there are different national oils such as the buriti oil, the Brazil nut oil, in addition to the cupuaçu butter, the muru-muru butter and honey, for example. Fonseca-Santos, Corrêa and Chorilli (2015) state that this kind of product brings advantages such as to use recyclable materials, to make the use less toxic to the environment and to health. In Brazil, the Biodynamic Institute (Instituto Biodinâmico, IBD, 2014) bears the guidelines to certify natural and organic beauty products and their raw materials. The Institute regulates standards to certify organic cosmetics. Some conventional companies in the Brazilian market have offered whole product lines with such purpose. Others with more natural options, have not only make-up and hair products, but also toothpaste and body cream.

With individuals showing such greater interest in sustainable cosmetics, it is up to the organizations to predict their willingness and the market demands. To predict the purchase intent can be understood as part of the consumer behavior study. As it is demonstrated in Table 1, there are different aspects in the literature, which respond to the purchase intention.

In a study on the purchase of sustainable cosmetics, Furtado and Sampaio (2018) identified five factors that may influence the purchase intention: environmental consumption attitude, well-being, health, reference groups and perceived attributes. In relation to researches on sustainable cosmetics and related issues, different authors who address distinct dimensions were identified. Subsequently, each scientific work was

analysed in accordance with its content and with its relation to this research theme.

Table 1. Purchase intention factors of sustainable cosmetics

Dimensions	Aspects	Authors
Consumption attitudes	Habit change	Lages and Vargas Neto (2002); Grohmann <i>et al.</i> (2012); Santos <i>et al.</i> (2014)
	Ecological awareness and ethics	Ribeiro and Veiga (2011); Moser (2015); Pudaruth, Juwaheer and Seewoo (2015); Ghazali <i>et al.</i> (2017)
Well-being	Vanity	Cervellon and Carey (2011); Strehlau, Claro and Laban Neto (2014)
	Cosmetic use	Strehlau, Claro and Laban Neto (2014); Liobikiene and Bernatoniené (2017)
Health	Health importance	Lages and Vargas Neto (2002); Cervellon and Carey (2011); Grohmann <i>et al.</i> (2012); Tozzo, Bertencello and Bender (2012); Isaac (2016); Ghazali <i>et al.</i> (2017)
	Health awareness	Michalidou and Hassan (2008)
Reference Groups	Social media influence	Sampaio (2012); Clarkson <i>et al.</i> (2016); Medeiros <i>et al.</i> (2017)
	Family and friends' influence	Kim and Chung (2011); Sampaio (2012); Ghazali <i>et al.</i> (2017)
	Acquaintances' influence	Sampaio (2012); Ghazali <i>et al.</i> (2017); Medeiros <i>et al.</i> (2017)
Perceived attributes	Price	Santos <i>et al.</i> (2014); Ladeira, Santini and Araújo (2015); Moser (2015); Isaac (2016); Matic and Puh (2016); Liobikiene and Bernatoniené (2017); Singhal and Malik (2018)
	Convenience and availability	Isaac (2016); Matic and Puh (2016); Liobikiene and Bernatoniené (2017); Singhal and Malik (2018)
	Quality	Ladeira, Santini and Araújo (2015); Matic and Puh (2016)
	Packaging	Bedante (2004); Ribeiro and Veiga (2011); Tamashiro <i>et al.</i> (2014); Ladeira, Santini and Araújo (2015); Matic and Puh (2016); Singhal and Malik (2018)

Source: Furtado and Sampaio (2018, p. 6).

In Table 2, the studies and their country of origin are presented, as well as the object and the main findings, which agree to this research theme, sustainable cosmetics.

Table 2. Result of theoretical framework studies

Author	Research country	Object of study	Relationship
Bedante (2004)	Brazil	Purchase intention of ecologically packed products	Positive: Packaging matters when purchasing
Cervellon and Carey (2011)	Monaco and Canada	Green cosmetic consumption	Negative: Environment protection, functionality identification of natural cosmetics and health benefits
Clarkson <i>et al.</i> (2016)	Brazil	Influence of digital marketing on <i>low poo</i> cosmetics	Positive: Media and quality influence. Negative: price does not influence.
Ghazali <i>et al.</i> (2017)	Malaysia	Repurchase of personal care organic product	Positive: preference for green products, concern about environment and health. Negative: subjective norms do not influence.
Grohmann <i>et al.</i> (2012)	Brazil	ECCB scale validation in Brazil	Positive: concern about environment, health when purchasing. Price, convenience, quality and packaging influence.
Isaac (2016)	Brazil	Organic cosmetics, natural and sustainable	Positive: concern about health. Friends, price and quality influence. Negative: environment is not a priority. Availability does not influence.
Kim and Chung (2011)	USA	Purchase intention of personal care organic products	Positive: priority to green products, concern about appearance. Relative and friends' influence on the decision.
Ladeira, Santini and Araújo (2015)	Brazil	EECB in the conscious consumption of cosmetics	Positive: price and quality influence the purchase.
Lages and Vargas Neto (2002)	Brazil	Consumer ecological awareness	Positive: concern about environment and health influence.
Liobikienė and Bernatoniė (2017)	Lithuania	Green purchase determinants: green cosmetic case	Positive: cosmetics help consumers, concern about health. Price, convenience and quality influence.
Matić and Puh (2016)	Croatia	Purchase intention of natural cosmetics	Negative: there are other reasons to buy such as safety and ethical concern, not health.
Medeiros <i>et al.</i> (2017)	Brazil	Purchase intention of ecological products	Positive: media and acquaintances influence the purchase.

Michaelidou and Hassan (2008)	Scotland	Health and food safety versus organic food	Positive: preference to green products. Negative: there are other reasons to buy such as safety and ethical concern.
Moser (2015)	Germany	Green purchase background	Positive: price, convenience, quality influence. There is ecological awareness when buying.
Pudaruth, Juwaheer and Seewoo	Mauritius Islands	Purchase of ecological cosmetics and beauty products	Positive: there is ecological awareness when buying.
Ribeiro and Veiga (2011)	Brazil	Proposition of a sustainable consumption scale	Positive: There is ecological awareness when buying. Packaging concern when buying.
Sampaio (2012)	Brazil	Purchase intention of organic food	Positive: Media, family and acquaintances influence the purchase.
Santos <i>et al.</i> (2014)	Brazil	Attitude and intention of sustainable product purchase	Positive: concern about generating losses to the environment, price influences.
Singhal and Malik (2018)	India	Social issue concerning the consumption of green cosmetics	Negative: price does not influence the purchase, as well as availability and packaging.
Strehlau, Claro and Laban Neto	Brazil	Vanity versus self-esteem	Positive: appearance concern and cosmetic use help the consumers.
Tamashiro <i>et al.</i> (2014)	Brazil	Consumption of green cosmetic products versus ecological concern and affection	Positive: concern about causing losses to the environment, packaging influences.
Tozzo, Bertencello and Bender (2012)	Brazil	Biocosmetics and organic cosmetics in Brazil	Positive: concern about health influences.

According to the Theory of Planned Behavior (TPB) proposed by Ajzen (2018), three kinds of beliefs guide behavior: normative belief (about others, third parties), behavioral belief (about some behavior) and control belief (factor that prevents or helps behavior). The TPB also considers that the physical and social environments, values, prejudice and even information exposure affect behavior (Ajzen, 2019). By observing Figure 1, the beliefs and factors which guide the individual can be understood.

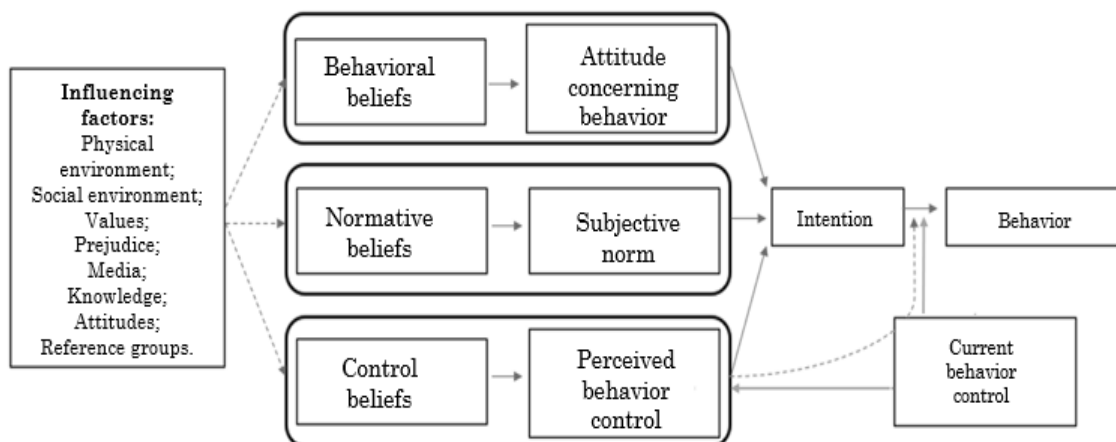


Figure 1. Theory of Planned Behavior Diagram

Source: Adapted from Ajzen (2019).

Liobinkienė and Bernatoniene (2017), in their study on category determinants of green purchase behavior in Lithuania, propose a model based on the theory and on the bibliographic review. Internal factors, such as attitudes and values, social factors, such as social and family pressure, and external factors such as price, convenience and quality are some examples of influencers.

With the identification of influencing aspects in the bibliographic review, in the theory by Ajzen (2018) and with the categories of the Lithuanian authors (Liobinkienė & Bernatoniene, 2017), a theoretical model relating all data and explaining the factors about sustainable cosmetics is proposed. The model will guide the development of the questionnaire to be applied.

3 Methodological Aspects

According to Koller, Couto and Hohendorff (2014), the study of themes that still do not have a total consensus between the authors and the academia is suggested. The papers used to provide grounds for the present theoretical framework are, in their majority, 18 studies and 3 dissertations.

Difference is found in the typology of the data collection in the papers included in the framework, varying among focal groups, interviews and surveys, and there are also different groups of factors and groups of variables studied by the authors.

After the grounding of Table 1 framework, from Ajzen's diagram (2018) and from Liobinkienė and Bernatoniene's categories (2017), there was the identification of a theoretical model with the factors that influence the sustainable cosmetics purchase intention. After this proposition, an open questionnaire was created and it was, subsequently, applied to the sustainable cosmetic consumers.

The sample was a non-probabilistic one and via accessibility. Due to the difficulty in mapping a physical space in which consumers of this kind of product are, they were contacted via social network groups. The questionnaire had two filter questions: "Are you over 18?" and "Did you buy or did you consume any sustainable cosmetic product in the last 6 months?". It was applied to Brazilians via Google Forms, Google platform of online questionnaires, *Facebook* groups about *no* and *low poo*, hair restoration and organic to natural cosmetics in addition to *Instagram* and *Whatsapp*.

The collection happened in August 2018 and, after excluding the filling out errors, it had the participation of 529 respondents from 158 municipalities; there were no respondents only from Acre, Amapá, Piauí and Roraima States. The questions were dealt with in on the WordArt Website for the frequency.

4 Results and Discussion

By analysing the theories and the theoretical framework, the factor model that guide the sustainable cosmetic purchase intention included 3 factors: internal, external and social, and 5 aspects: environmental consumption Attitude, Well-Being, Health, Reference Groups and perceived Attributes (Figure 2).

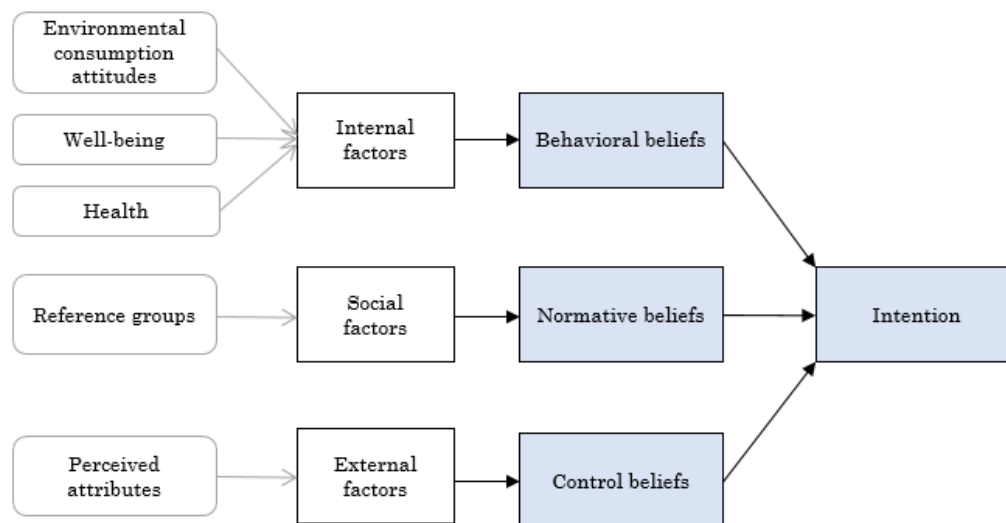


Figure 2. Purchase intention model

According to the demographic questions of the research questionnaire, the consumers' profile is, in its majority, female (492 respondents), up to 34 years old (413 respondents). Most of them have higher education (271 respondents) and an income up to two minimum wages (285 respondents).

The first question was “What main characteristic do you value when buying a sustainable cosmetic/?” 95 words were identified, with 840 repetitions. In Table 3, the 10 most mentioned words by the respondents are observed, being quality the most frequent one. Other characteristics were environment, price, the formulation ingredients and packaging.

Quality, the most frequent word, can be understood in different ways. From performance, satisfaction, appearance to experience of consumers, that may vary according to each individual demand. Solomon (2011) states that quality may be a comparison of the individual between expectation and the performance concerning a product. Quality, price, packaging mentioned in question 1 are found in the perceived attributes of the model (Table 1) and environment, test on animals and health as the inherent internal factors of the individual.

Table 3 – 10 most frequent characteristics

Rank	Characteristic	Frequency
1	Quality	182
2	Environment	76
3	Test on Animals	66
4	Price	57
5	Natural Background	33
6	Packaging	30
7	Health	30
8	Vegan	29
9	Ingredient	28
10	Sustainable	22

The concern about the environment was previously confirmed (Ghazali *et al.*, 2017; Grohmann *et al.*, 2012; Lages & Vargas Neto, 2002; Moser, 2015; Pudaruth, Juwaheer & Seewoo, 2015; Ribeiro & Veiga, 2011; Santos *et al.*, 2014). The health was also reaffirmed in this paper as relevant when purchasing sustainable cosmetics (Cervellon & Carey, 2011; Ghazali *et al.*, 2017; Grohmann *et al.*, 2012; Isaac, 2016; Lages & Vargas Neto, 2002; Tozzo, Bertoncetto & Bender, 2012).

The second question was “What brand of this kind of product do you use most?”. 135 words and 796 repetitions were extracted. The most frequent brands were Lola, Natura and Salon Line (Table 4). Among the 10 most frequent brands, all are Brazilian. Among the other mentioned words, there are foreign and conventional brands in the market, such as Tresemmé and Johnson, which are already made in Brazil.

The third question was “Why did you choose to use this kind of product?”. Among 1348 repetitions, 270 words were identified. The three most frequent ones were quality, environment and health. Words such as animals, price and skin were some of the mentioned reasons (Table 5). Among the answers of such question, some of them can be highlighted such as the respondent 8 one “From the sustainable feature: packagings and

exfoliating products which use seeds instead of microplastic. From the convenience one: the price is affordable and I can easily find it”.

Table 4. 10 most frequents brands

Rank	Brands	Frequency
1	Lola	138
2	Natura	95
3	Salon Line	54
4	Skala	54
5	Boticário	46
6	Yamasterol	42
7	Granado	41
8	Cativa Natureza	25
9	Phebo	18
10	Inoar	16

Table 5. 10 most frequent reasons

Rank	Reason to use	Frequency
1	Quality	140
2	Environment	93
3	Health	68
4	Product	67
5	Animals	59
6	Hair	53
7	Price	36
8	Better	35
9	Skin	31
10	Result	20

In addition to the concern about the environment, the quantity of respondents paying attention to the cruelty cause and to tests on Guinea pigs is 5%. Respondent 15 emphasizes: “Because they are animal cruelty-free, and my main concern is for this cause”. The term *cruelty-free* was

present in the answers and it is one of the findings by Pudaruth, Juwaheer and Seewoo (2015) as motivators of sustainable cosmetic purchase.

Another concern shown by the respondents is for health. According to respondent 273, “Concern for my well-being and for the well-being of persons around me”. Health is one of the main factors of the respondents’ concern, and there are answers with research information (Rocha *et al.*, 2018). Current data of cosmetic use, in addition to possible health burden, demonstrate that there is knowledge or at least curiosity about this kind of product.

According to the theoretical framework and to the questions in the questionnaire, the internal and external factors are possibly the most influencing ones on the purchase intention of sustainable cosmetics. Quality, environment, health, packaging are some of the aspects considered by the respondents and confirmed in the literature.

5 Final Considerations

Based on the objective of this paper, to identify the main aspects that Brazilians consider when purchasing sustainable cosmetics, 5 aspects were found in the literature and they are represented in Figure 2 model. With the questionnaires, the internal and external factors prevail as possibly more relevant in the consumers’ purchase intention. Inherent aspects to such factors such as quality, packaging, environment, health and test on animals were identified in the questionnaires.

The Brazilian brands were the most mentioned ones by the questionnaire respondents. More recent brands in the market are shown as the most relevant ones, such as Lola, Cativa Natureza and Inoar, whereas more traditional brands have created product lines with sustainable bias, such as Boticário, Yamasterol and Granada.

According to the findings, the respondents appreciate the product quality with sustainable bias without forgetting the benefits to their health and to the environment. A result that is in accordance with the Brazilian

studies (Table 1) is the concern about packaging. Brazilians have had greater interest in sustainable cosmetics, and have motivation behind the consumption, regarding themselves or the environmental and social biases. The price also had its prominent role in the results and it may be a factor which is also considered at the moment of the sustainable cosmetic purchase.

Among the present research contributions, the relevance of cosmetics with sustainable bias for the Brazilian consumers of this segment is in evidence. As a managerial implication, the organizations that invest in production and marketing strategies for the consumers can generate a short-term and a long-term value. Besides, the organizations can generate competitive advantages when they are concerned about the environment management, not only as *greenwashing*, which is the environmental marketing accomplished without really taking care of the environment, i.e., in a misleading way.

With respect to the academic contributions, new aspects to be studied regarding this consumption segment are observed: attributes, health and environment. This research showed that these aspects are present in an unison way as purchase influencers of this kind of cosmetic. Thus, suggestion for future research stands out, the deepening on these aspects identified as influencers.

As a limiting factor, the quantitative of the sources of the questionnaire application is in evidence, and it is only online and via social networks. In addition to such restriction, the resharing need and the delay in receiving the answers are present, as they occur via internet. As a future step of this research, there will be questionnaire application with validated scales as a way to empirically verify the factors.

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