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Consumer Perception of the Alternative Use of "Organic Packaging" in Food Products

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HIGHLIGHTS

- Growing demand for products in line with the proposal for organic cultivation
- The Worldwide trend is in reducing waste and minimizing environmental impacts.
- Profile of the consumer market of organic foods in the South and Southeast regions of Brazil.
- Reducing environmental impact is the main reason for preferring "organic packaging" to conventional packaging.
- Family income is not a determining factor for purchasing organic packaging.
- Schooling positively influenced the probability of preferring organic packaging.

Abstract: Currently, the market for organic products is in growing demand, and consumers seek to be in tune with the proposal of organic cultivation. The main reasons for this demand are related to the environment and health. Therefore, in the same proportion, there are studies in the literature addressing the subject. Thus, packaging has become an important vehicle for food, with the emergence of alternative materials to the use of conventional plastic. This study reports, within the profile of the consumer in the South and Southeast regions of Brazil, the probability of the consumer to purchasing organic packaging, as an alternative, for food products. For the present study, 328 questionnaires were used, consisting of 17 open and multiple-choice questions that addressed socioeconomic issues, consumption of organic and conventional foods, and the probability of using organic packaging. The profile of the consumer of organic products is predominantly women, with a postgraduate degree, between 31 and 40 years old and with a family income of 4 to 6 minimum wages. About organic packaging, there is a high probability that the consumer will purchase it with or without adding cost to the final value.

Keywords: Alternative packaging; Biodegradable packaging; Consumer behavior; Organic food.

INTRODUCTION

Organic food is considered a special agri-food good, consisting of the following characteristics: healthy food, preservation of the environment and social and economic relationship among the desires of the consumer, producer and rural worker. Therefore, some characteristics are aligned with sustainable agriculture principles, such as the protection of natural resources, and the subsistence and autonomy of social groups involved in production. Consequently, there is an opportunity to establish economic and social development, respecting environmental and ecological factors [1].

Therefore, the search for food from more sustainable production systems, such as those linked to organic production, is a trend that has been strengthening worldwide. The interest in the consumption of organic products increases as movements in favor of sustainable development emerge and with the knowledge and dissemination of the pesticides risks pose to health.[2]

Among the reasons for this growth, consumers concerns about health stands out, proving the ideology related to health and the environment in organic food [3,4].

In the literature, there is an increase in studies related to the consumption of organic food, in which are discussions about the consumption relation involving the purchase of organic food, quality, labeling, availability, environmental concern, biosphere value, health concern, appearance, expiration date, certification and packaging.[1,5–8]

Therefore, packaging in its context and functions is essential to organic food in terms of its protection against contaminants as well as mechanical damage. It is an integral part of this new trend and has been exerting major changes in industries. The principles of organic production involve reducing impacts on the environment. And it is well known that the composition of traditional packaging is mostly not sustainable [9]

According to the principle of IFOAM (*International Federation of Organic Agriculture Movements*), the packaging of organic products should have minimal impacts on the food or the environment. As a recommendation, these should be packaged in reusable, recyclable, recycled or biodegradable packaging when possible [10]

Disposable plastic products, such as food packaging, are widespread throughout the marketing system, but due to the non-biodegradability of most of these products, once discarded at random, they will cause environmental pollution, being a concern in the short and long term, also known as "white pollution". Therefore, more countries are restricting the use of single-use plastic products.[11]

Although plastic is quite convenient as a packaging material, due to its low value, high mechanical strength, convenience in molding, and heat sealing, its use can cause adverse effects to the environment. Currently, its production has reached 380 million tons, of which 40% is for packaging applications.[12]

[13] they reiterate that plastic, over the years, has become one of the world's largest commodities and consequently the largest product of pollution, generating great environmental impact. Where they accumulate in landfills and leaching into water systems and oceans.

The fact that plastic materials are not produced by a renewable resource and have an extensive life in the environment has resulted in global concern, encouraging the development of products that play the role of conventional plastic but are produced with renewable raw material and are biodegradable without leaving toxic residues in the soil [14]. Therefore, it is suggesting demands in the food industry for alternative packaging materials that ensure good quality and have less effect on nature.

In September 2015, the UN (United Nations) concluded the Sustainable Development Goals (SDGs) that must be met by 2030, involving all 193 member countries. The SDG aims to make the world fairer, more sustainable, and free of inequalities. Among the goals and targets, there is a great prospect of substantially reducing waste generation through prevention, reduction, recycling, and reuse [15]

A material is considered biodegradable when it is possible to decompose naturally, that is, its biodegradation. When a product is developed with Clean Technology, it refers to environmentally friendly practices and technologies, thus reducing environmental impacts. Thus, an "organic package" is developed from natural, organic and renewable inputs. It has a clean technology during its production and in the end, it is biodegradable. In this way, the culture of sustainable production in the organic agriculture chain is adhered to.

The ability to perceive consumption is directly related to the ability of the observer to interact with the environment, receive, interpret and transmit information. In this way, in the packaging, the consumer identifies, observes and organizes the objects according to the perception they have, having in the end the identification of functions and qualities and transmitting characteristics of product reliability. In the decision

purchase processor of a product, the packaging appears as a relevant item in terms of the perception of the product [16]

In view of the growing interest in the organic products market, this study aims to identify the context and consumption expectations in the use of "organic packaging" in food products.

MATERIAL AND METHODS

Seeking to better understand the context of the consumption of organic products (and thus the organic packaging associated with them) and what the expectation of consumers to purchase packages of organic origin, an exploratory survey was carried out, based on the application of a questionnaire (open and multiple-choice questions) aimed at consumers in the South and Southeast regions of the country.

In the questionnaire, two dimensions were explored: the first related to the profile of the consumer of organic products and their consumption preferences; and the second, the consumption possibilities of an organic package. The questionnaire was available through a digital platform and distributed through social networks.

Sample number

The questionnaire applied in the study was limited to the South and Southeast regions of Brazil. Since it has the highest concentration of organic food production and consumption [4]The sample size calculation was performed according to Equation 1, at a 95% confidence level, observing a population of 118,000,000 inhabitants (referring to the number of inhabitants of the selected regions). Using a heterogeneous population distribution.

$$n = \frac{S^2.p.q.N}{e^2} \quad (1)$$

Which:

S = confidence level chosen, expressed in number of standard deviations.
p = 0.5 (percentage with which the phenomenon occurs - percentage of the elements of theshow favorable to the attribute studied).
q = 0.5 complementary percentage, i.e. (100 - p) - percentage of the elements of the unfavorable sample.
N = population size;
e = maximum error allowed.

Therefore, according to Equation 1, the suggested sample size was 365 responses.

The questionnaire was validated by a group of 10 people of different knowledge, who investigate the understanding of the questions and the options of answers avaliable. The project was previously submitted to the ethics committee and approved under the registration CAAE 52121121.6.0000.5237.

Data collection

Data collection was carried out between the months of March and June 2022, and the questionnaire was applied through the digital platform "Microsoft®" Forms, distributed among "WhatsAPP®" applications and e-mails, being shared among academic groups, business groups and communities in general (seeking consumers of vegetables, whether conventional or organic). In total, the form contained 16 questions, about the knowledge of consumption and expectations of using organic packaging in food products.

The questionnaires were filled out by the participants, who also received the Informed Consent Form (ICF) and the Declaration of Majority (over 18 years old).

The first questions of the form request information about the region of the country where the respondent lives. If the participants were not from the south and southeast regions, a thank-you message was sent to them and the questionnaire was enclosed.

Word cloud

The word cloud or tag cloud is *a* visual representation of the frequency and value of words. Therefore, for better exemplifying and aiding understanding, a cloud of words with expressions related to what the participants of this study exposed in the questionnaire will be developed as motivation for preference for organic and conventional packaging.

Data analysis

After data collection, the results were tabulated and grouped into spreadsheets generated in *Microsoft Excel®.* The grouped data were analyzed using the Jamovi *program*®.

Cronbach's Alpha coefficient was used to evaluate the reliability of the collected data, according to Equation 2.

$$\alpha = \frac{k}{k-1}\left(1 - \frac{\Sigma_{i=1}^{k} S^2 i}{S^2 t}\right) \quad (2)$$

Which:
k: corresponds to the number of items (questions) of the questionnaire.
S^2i: is the variance of each item;
S^2t: corresponds to the total variance of the questionnaire (sum of the evaluators' variances).

The values of this measure vary between zero and one, and the higher the value, the greater the reliability of the research [17]. Soon:

0 to 0.21 -small reliability;

0.21 to 0.4 - reasonable reliability

0.61 and 0.81 - substantial reliability

0.81 to 1 - near-perfect reliability

After applying the questionnaire in social networks, 328 valid answers were obtained, excluding other states and under 18 years of age, obtaining an error of 5.41%.

Reliability

The reliability generated by *Cronbach's Alpha* coefficient resulted in a value of 0.771, thus indicating substantial reliability. According to [18], the lower reliability limit is 0.7, however for exploratory searches it can be considered above 0.6. Therefore, there is reliability of the research.

RESULTS AND DISCUSSION

Profile of consumers interviewed

Of the participants in this study (Table 1), 70% of the respondents were female. The age group of the respondents observed was 31 to 40 (36%), predominantly of the mature public. The main household income was 4 to 6 minimum wages, making up 31% of respondents. Regarding schooling, 74% of the participants have at least a bachelor's degree. The survey had a higher participation in the southeast region with 88% of responses and 12% in the south region.

According Souza and coauthors [19], the profile of the Brazilian consumer of organic products, according to an exploratory bibliographic study, is characterized by the majority being female aged between 30 and 60 years of age. Also, according to bibliometric analysis, most consumers have a higher level and with regard to family or individual income, a relative pattern was not observed, that is, there is no direct relationship between income level and organic food consumption; however, most can be grouped into income variations from 4 to 8 minimum wages per family and 2 to 4 minimum wages per individual.

Already Sampaio and coauthors [1] developed a study with 54 articles published in journals and 63 in scientific events. They concluded that the profile of the Brazilian consumer of organic food is characterized as well educated (with a degree), demanding, is in a phase of life considered adult, and is, in most cases, between the social classes A1, A2, B1, B2, according to the IBGE criterion of Brazil, where, the economic classification criterion is classified by letters A, B, C, D, and E. Therefore, some groups have subcategories: A (A1, A2), B (B1, B2), and C (C1, C2). In view of this classification, group A1 is the highest class (better quality of life and higher purchasing power), while group E indicates the lowest class. Regarding the values of organic consumers, they value a healthy life, are concerned with the environment and the ecological issues, and are interested in their own well-being and that of others, presenting positive attitudes towards the purchase of organic food. They were also able to verify that most of the publications analyzed come from Higher Education Institutions (HEIs) located in the South and Southeast regions of Brazil.

Table 1. Profile of the participants in this research

	Characteristic	Percentage of responses (%)
Region	Southeast	88.8
	South	11.2
Gender	Female	70
	Male	30
	Other	1
Age Group	From 18-30 years	25
	From 31-40 years	36
	From 41-50 years	20
	From 51-60 years	11
	From 61-70 years	7
	Over 70 years	1
Schooling	Elementary school	0
	Incomplete high school	1
	Complete high school	11
	Incomplete graduation	13
	Full graduation	19
	Postgraduate studies	55
Household income	Up to 1 minimum wage	4
	From 1 to 3 minimum wages	29
	From 4 to 6 minimum wages	31
	From 7 to 10 minimum wages	21
	11 minimum wages or more	15

In European countries, such as Greece, Malissiova and coauthors [20], studied organic food consumers in 13 regions of the country through a questionnaire, and they observed that most of the participants were between 20 and 30 years old, female, who lived in the urban area, with higher education and a monthly income of more than €1000 (approximately R$5237.00). It is important to highlight that the minimum wage in 2022 was €663 (R$3422.98). Of the respondents, only 34% consume regularly.

Organic Food Consumption, Diet and Frequency of Consumption

Regarding the habit of consuming organic foods, 77% of the interviewees consume organic products. Among, them, 54% correspond to the female audience. A result similar to Porto and coauthors [18], which in its research characterizing organic consumers, stated that the relevant number of female scans may be associated with the fact that women are more attentive to family health, well-being and healthy habits, besides the fact that it is responsible for feeding all the residents of the house, since purchase, choose preparation of food consumed by the family. Also agreeing, with the fact that this study points to 64%, the number of women responsible for buying in your home (Table 2).

Of the respondents who reported consuming organic products, according to schooling, 90% had a school degree (Table 3). According to Souza and coauthors [19], the fact that most consumers have a higher education level certainly explains the relation between higher education level and perception of food consumption, environment and health.

Table 2. Responsible for food purchasing according to gender.

Gender	Responsible for food purchase		General Total
	No	Yes	
Female	6.10%	63.72%	69.82%
Male	3.96%	25.61%	29.57%
Other	0.00%	0.61%	0.61%
General Total	**10.06%**	**89.94%**	**100.00%**

According to family income, it was observed that the highest public of organic consumption patients have an income of 4 to 6 minimum wages (with approximately 23% of the respondents) (Table 3).

Table 3. Consumers of Organic Products according to Education and Family Income

Characteristic		Percentage (%)
Education Level	Elementary school	0,4
	High school complete	8,3
	High school incomplete	0,8
	Undergraduate degree complete	18,9
	Undergraduate degree incomplete	15,4
	Post Graduation	56,3
Family income	Up to 1 minimum salary	3,0
	1 to 3 minimum wages	21,3
	4 to 6 minimum wages	22,9
	7 to 10 minimum wages	18,0
	11 minimum wages or more	12,2

Zoldan and coauthors [21], in their study, observed a direct relation between societies of greater economic and social development and the search for products of organic origin. Similarly, according to Stefano and coauthors [22], organic consumption is restricted to a small portion of the population with high income, while the low-income population still uses traditional agriculture to obtain their food. This author stresses the importance of an increase in the income of the population and the awareness of the benefits linked to the consumption of organic products. Lima and coauthors [23], demonstrated that the predisposition to consume organic foods is not associated with greater purchasing power, as observed by this research.

In the present study, it was observed that organic consumers are not those with the highest family income, since 23% are between 4 and 6 salaries, followed by 1 to 3 salaries (21%), 7 to 10 salaries (18%), 11 salaries (12%) and finally 1 salary (3%). Of these consumers, the highest frequency was up to 3 times a week (29.5%) and 1 time a week (26.8%). The age group that gets the highest consumption of organic products is between 31 and 40 years old (26%), followed by 18 to 30 years old (21%).

Of the participants who consume organic, 83% are considered carnivores. The frequency of predominant consumption varies from 1 time a week (23.2%) to up to 3 times a week (23.6%) (Table 4).

Places to Buy Organic Products

It was observed (Figure 1), that organic products are mostly purchased in supermarkets and neighborhood grocery stores (29.8%), after free fairs (26.4%) and hortifrutis and specialized market (22.2%) by consumers in the South and Southeast of Brazil. This srudy had greater representation by the southeast region (Table 1).

Table 4. Frequency of consumption of organic foods in relation to the diet of the respondents

Frequency of Consumption	**Carnivore**	**Vegetarian**	**Vegan**	**Other**	**General Total**
1 Time per month	20.9	0.4	0.0	3.1	24.4
1 Time per week	23.2	1.6	0.0	2.0	26.8
Up to 3 times a week	23.6	3.5	0.4	2.0	29.5
Daily	15.0	1.2	0.0	2.4	18.5
I don't eat organic food	0.4	0.0	0.0	0.4	0.8
General Total	83.1	6.7	0.4	9.8	100.0

A similar observation, but not representative, of the Pohl and coauthors [24] study in Santa Maria (RS) points out that the main places of purchase were mostly in supermarkets (60.1%), following fairs (53.2%), and specialty stores (25.1%).

However, Andrade and coauthors [25] found in their study in Belo Horizonte (MG) that fairs or specific places of commercialization of fruits and organic vegetables were the preferred places of sale by 69.9% of

the interviewees, followed by large supermarkets (14.8%) and small and medium-sized markets (15.3%). The authors pointed out the ease of access, the habit and the greater variety of organic foods offered by the establishment as the three main reasons for the choice of the place of sale by the consumer.

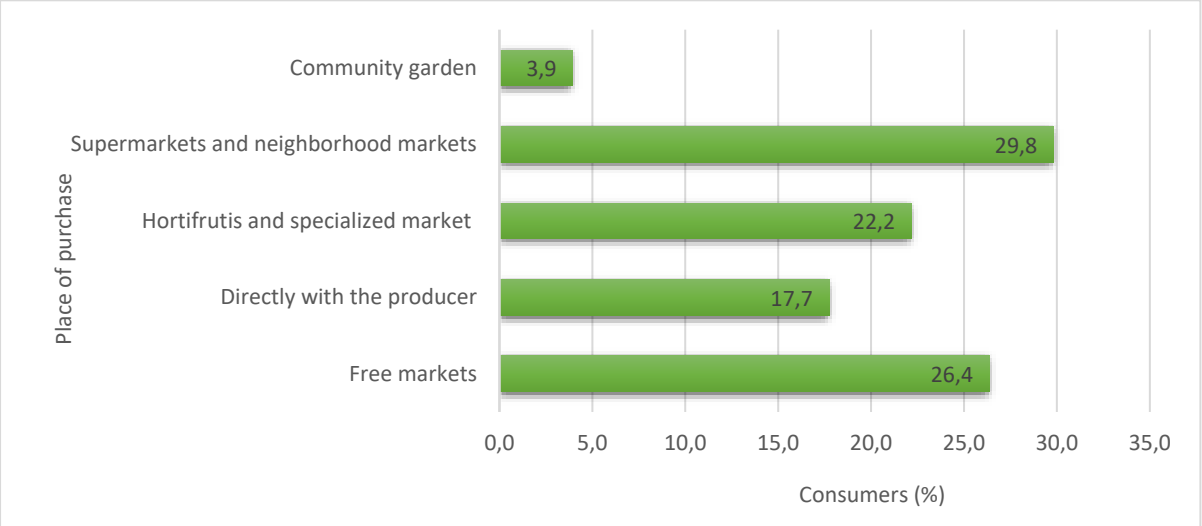


Figure 1. Places to buy organic food

Packaging for organic products

In order to identify a possible consumer market of packaging produced with 100% of fully organic raw material, 6 questions were elaborated in order to observe the possibility of purchase the “organic packaging” with or without adding value, the exchange of traditional packaging by the organization and the reasons it would lead to purchase the developed product.

It was observed that 86% of the total consumers interviewed would probably buy an organic product packed with an organic package entirely produced with organic raw material (considering there is no additional cost for the use of this packaging). When a cost of 2% was inlaid, that is, the consumer would pay an additional 2% in the price of the final product for this type of packaging, the purchase intention decreased, with a decrease in the "Most likely" with 42.7%, and reduction in the "Extremely probable". However, the number of respondents remains a majority with an intention to purchase at 73.2% and is a significant value for packaging support with additional cost. (Table 5).

Considering only consumers of organic products, it was observed that there was a decrease in the probability of purchasing the product with ab additional cost of approximately 20% in the option "Extremely probable", with an increase in the "Very probable" of 11%, as observed among consumers as a whole (Table 5). The intention of buying by the public of assiduous or non-organic consumers is great, even having a reversal of the chosen option when having an additional cost.

Table 5. Probability of purchasing a product (organic or not) with organic packaging according to the consumption of organic foods

Possibility to Acquire	No Cost		With Additional Cost	
	Organic Consumption (%)		Organic Consumption (%)	
	No	Yes	No	Yes
Extremely likely	9.8	45.1	3.7	26.8
Very likely	7.3	23.8	10.7	32.0
Reasonably likely	4.0	6.4	4.3	11.6
Very unlikely	0.6	2.1	2.7	4.9
Not at all likely	0.9	0.0	1.2	2.1

According to gross family income, respondents with incomes from 4 to 6 minimum wages (15%) and 1 to 3 minimum wages (14.6%) stated that it was "Extremely likely" to purchase the product (Table 6) without additional cost. When asked the probability of buying a product (organic or not) packed with organic

packaging with additional cost to the final price, there was a decrease in consumers with income sums of 4 to 6 minimum wages (7.62%) and 1 to 3 minimum wages (7.62%) who answered that it was "Extremely probable", as well as all incomes in this option. However, with additional cost, there was an increase in the option of "Very probable" among all incomes, with higher responses between 4 and 6 salaries (13.72%) followed by 1 to 3 (10.98%) and 7 to 10 salaries (10.06%). Even with additional value of 2%, the possibility of the consumer in purchasing the product is great.

Table 6. Probability of purchasing a product (organic or not) with organic packaging according to gross family income with and without additional cost to final price

	Extremely likely		**Very likely**		**Reasonably likely**	
	No charge	**With additional cost**	**No charge**	**With additional cost**	**No charge**	**With additional cost**
Up to 1 minimum wage	3.05%	1.22%	0.61%	1.22%	0.30%	1.22%
1 to 3 minimum wages	14.63%	7.62%	9.15%	10.98%	3.66%	6.40%
4 to 6 minimum wages	15.55%	7.62%	10.37%	13.72%	3.96%	5.49%
7 to 10 minimum wages	11.89%	7.62%	6.71%	10.06%	2.13%	1.83%
11 minimum wages or more	9.76%	6.40%	4.27%	6.71%	0.30%	0.91%

	Very unlikely		**Not at all likely**	
	No charge	**With additional cost**	**No charge**	**With additional cost**
Up to 1 minimum wage	0.00%	0.00%	0.00%	0.30%
1 to 3 minimum wages	1.22%	2.44%	0.30%	1.52%
4 to 6 minimum wages	0.91%	3.35%	0.30%	0.91%
7 to 10 minimum wages	0.00%	0.91%	0.30%	0.61%
11 minimum wages or more	0.61%	0.91%	0.00%	0.00%

Boobalan and coauthors [5] study comparing the USA and India as a consumer market of organics, concluded that consumers in developing economies are willing to invest in environmentally friendly products for causes similar to consumers in developed countries. However, the value variable can affect the purchasing decision in developing countries.

Valle and coauthors [26] in their research, they observed that even with concern about price, 51.4% of consumers showed willingness to pay R$0.50 to R$1.00 more for sustainable packaging, 31.8% would pay between R$0.50 or less for packaging.

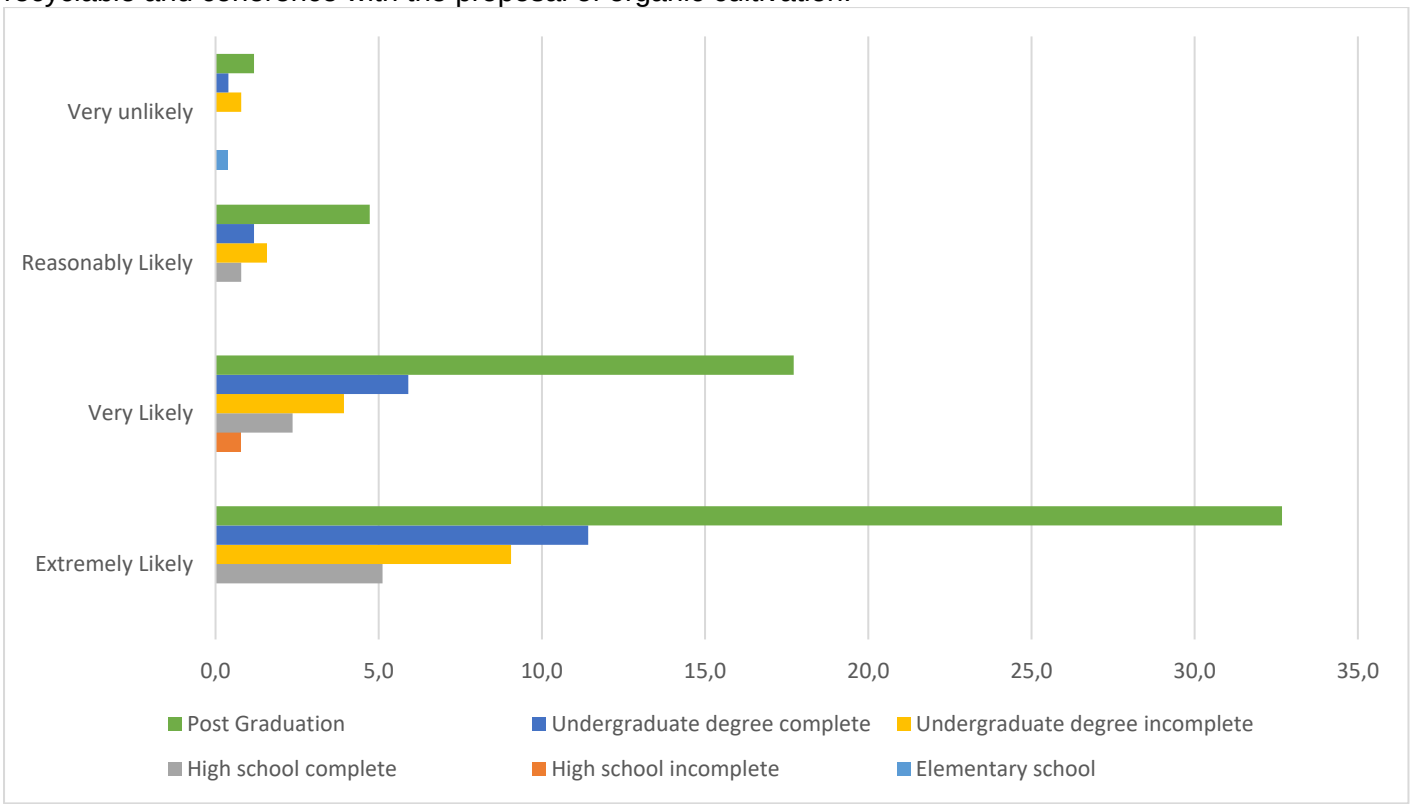
When compared to consumers of organic products with schooling (Figure 2), 58% answered that it was "extremely likely" to purchase the product at no additional cost. Of this total, 53% have at least higher education. If there is an additional cost, 41% said it is "very likely" to purchase this material, where 37% have a degree. Thus, a direct relation between schooling and the probability of the organic material is also perceived, without or with additional cost. Of these organic consumers who are responsible for the purchase (Table 7), they were able to corroborate this result, maintaining the "extremely probable" (53%), case without cost, and "Very likely" (37%) when there is an increase in the value of the product.

Thus, in general, the variable cost affects the intention of purchasing products having an organic packaging, however, maintains the purchase intention.

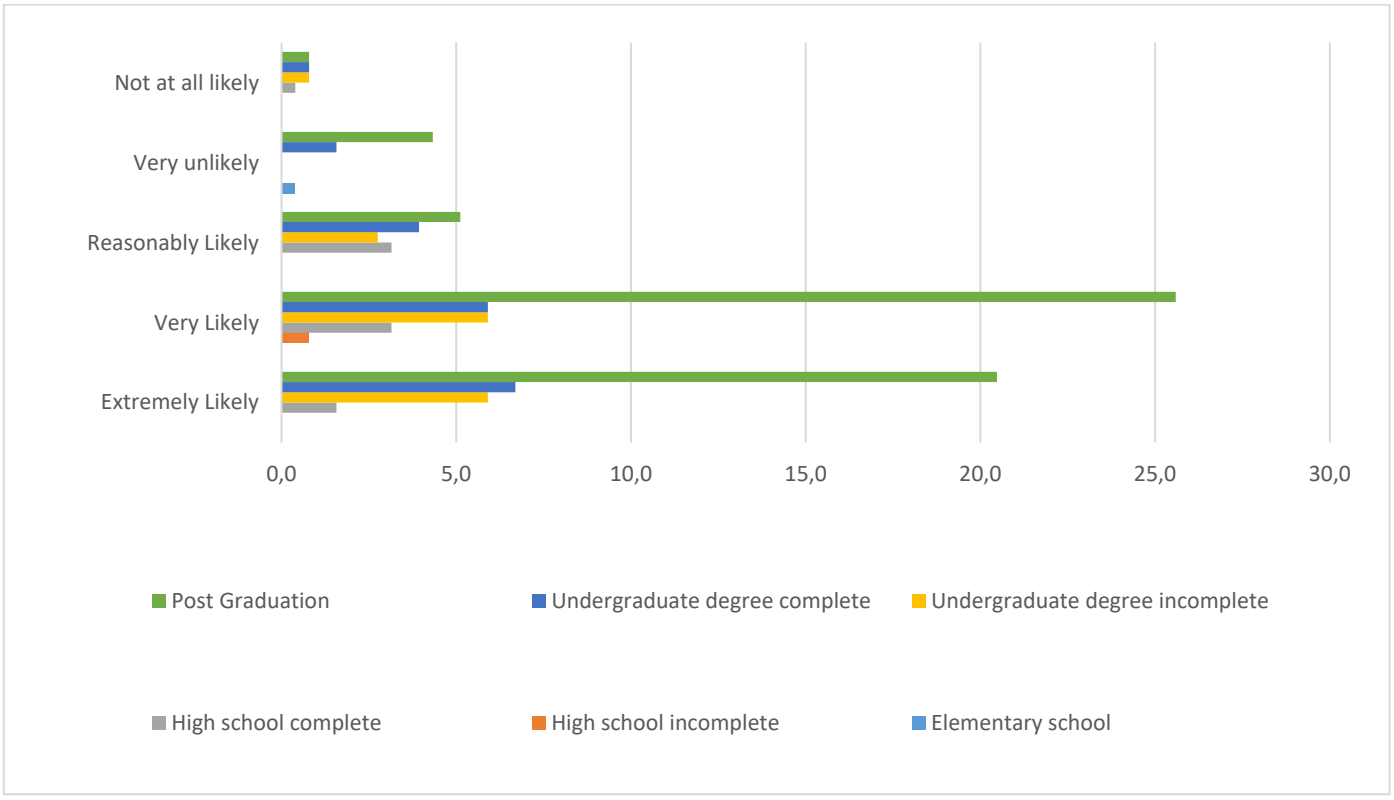
Regarding the importance of packing an organic product with organic packaging (Figure 3), it was observed both of those who are in the habit of consuming organic foods and those who do not have this habit, which approximately 42% answered that it was "Extremely important" to use organic packaging in organic products, followed by "Very important" (40%). As illustrated in Figure 5, organic users attribute a greater need to pack a product with organic material 33.8%, possibly due to the precepts that involve the consumption of an organic food.

The main reason for using organic packaging, both for those who consume organic and those who do not (Figure 4), was the reduction of the impact on the environment with 76% of the responses, followed by health concerns (20% of the answers). The preference for traditional packaging obtained only 1.5% of the

answers. Other reasons were pointed out by the participants as: migration of packaging components to food, recyclable and coherence with the proposal of organic cultivation.



(A)



(B)

Figure 2. Probability of the organic product consumer in purchasing a food packed with organic packaging without and with additional cost in relation to schooling

A. Probability of acquiring at no cost
B. Probability of acquiring at an additional cost of 2%

Table 7. Organic product consumer's probability of purchasing a food packaged with organic packaging without and with additional cost in relation to the responsibility for the purchase

	No additional cost (%)	With additional cost (%)
Extremely Likely	53,9	32,3
Very Likely	26,8	37,8
Reasonably Likely	7,9	13,0
Very unlikely	2,0	5,9
Not at all likely	-	1,6

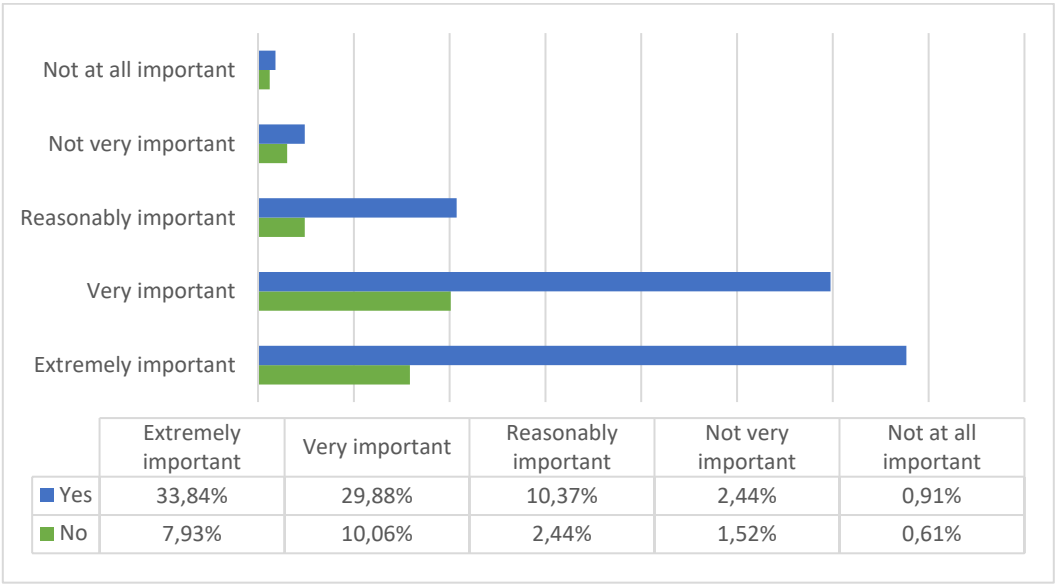


Figure 3. Importance of packing a food with organic packaging according to consumers who consume organic and those who do not consume.

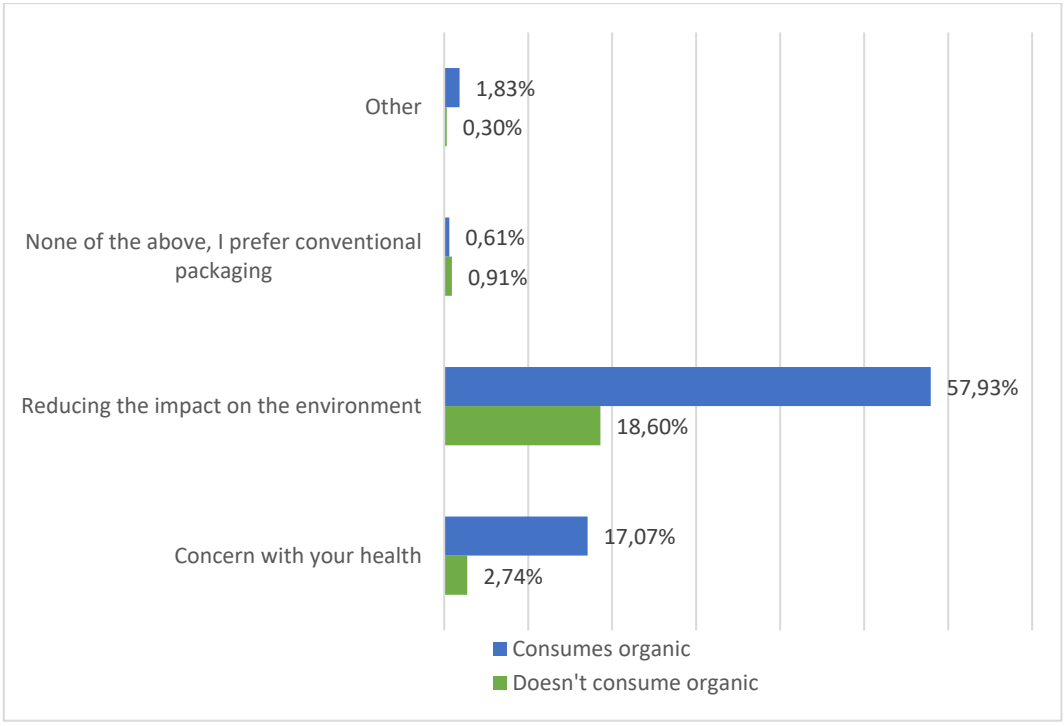


Figure 4. Reasons to use organic packaging

When asked about the reasons that would lead to prefer a conventional packaging for organic foods, 69.5% of respondents reaffirmed their preference for organic and non-conventional packaging, 12% of participants are satisfied with traditional packaging, 8% said that organic food does not need organic packaging and 9% specified other reasons for preference in traditional packaging, such as: packaging availability and final cost, final price as a determining factor, packaging to be reused at home, does not need to be organic but recyclable, packaging content (labels) and issues related to storage and food life. Thus, most of the open answers pointed to the value and final price of the product.

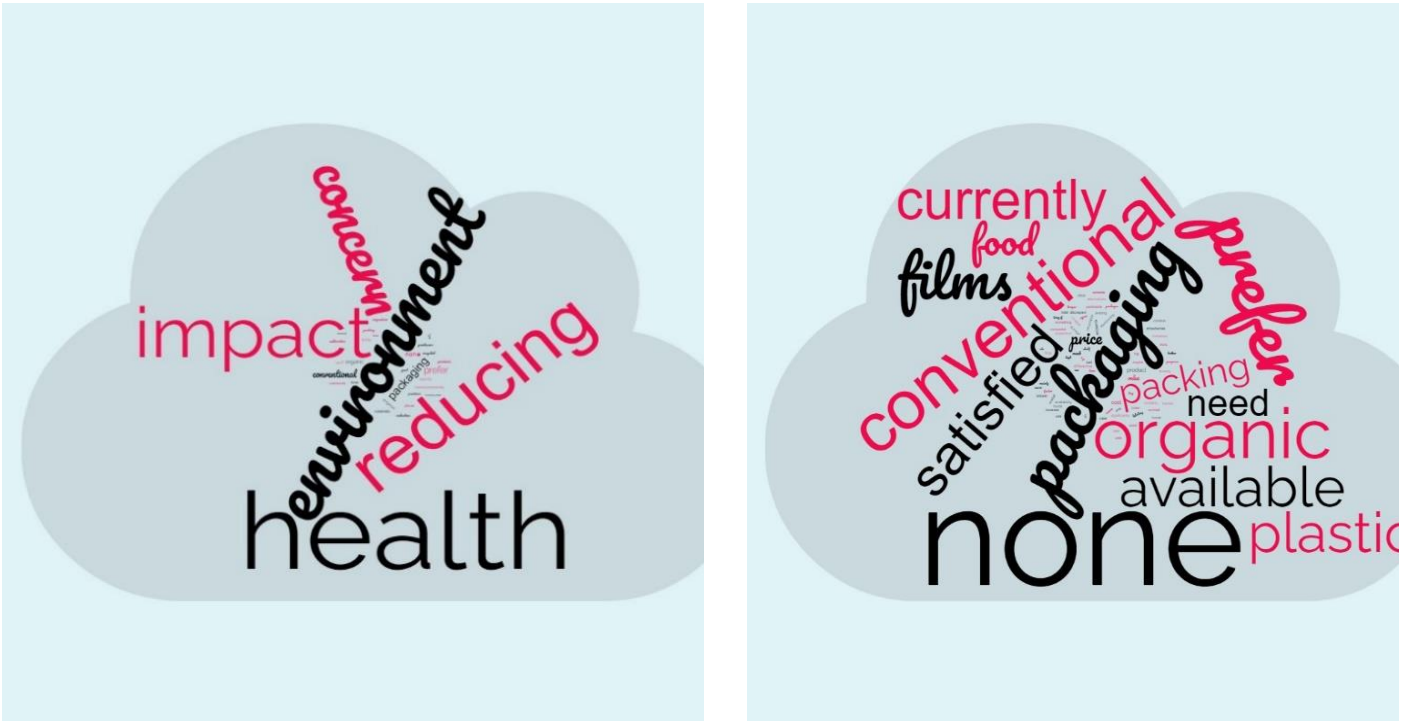
Valle and coauthors [26] assessed the consumer's perspective on sustainability and environmental impact, 68.8% of respondents paid attention to these issues, while 31.4% did not consider them when buying organic products. The results demonstrated a willingness to change from traditional to more sustainable packaging.

Approximately 15% of non-organic respondents said they still prefer organic packaging to replace the conventional case available. This is a positive point to be considered, because this consumer is not within the proposal of organic products, he opts for a biodegradable product. Thus, corroborating that, the main motivation for purchasing the packaging is the reduction of the impact on the environment.

Word cloud

The use of the word cloud can have several objectives, since highlights the terms or words searched on electronic sites and serves as a tool for study, teaching and learning. In some studies we can find as a tool for the analysis of qualitative data in the area of health and teaching for example [27]. Thus, in Figure 5 (5A and 5B) we can observe the main words or expressions answered by the participants in the open questions of the form, relating the motivation of the use of an organic package and the preference for a conventional one, respectively.

In Figure 5A, we observed words such as: reduction, impact, environment and health. This demonstrates consumer concern about environmental and health-related issues. Figure 5B is related to the preference for conventional packaging, and the answers received were, for example, organic, satisfied, packaging and price. Thus, we can infer that a part of the respondents still prefers to opt for organic packaging, however the price can and be the decisive point in the purchase of this material if offered above the conventional.



(A) **(B)**

Figure 5. Cloud of words expressing: (A) the reason and/or intention of buying organic packaging; (B) the reason for the preference for conventional packaging.

CONCLUSION

The questionnaire made it possible to evaluate the probability of the preference of organic packaging for food products as an alternative way for traditional plastic packaging.

The profile of the participants was a resident of the Southeast region of Brazil, mainly in the state of Rio de Janeiro, female, aged 31 to 40 years, family income from 4 to 6 minimum wages and with graduate studies.

The reduction of environmental impact was the main reason pointed out by the participants for the preference for organic packaging, following current trends for environmental preservation and sustainability. There is a growing demand for the consumption of products concerned with the environment and the quality of life of all those involved in the production chain, leaving health-related issues in second.

The predisposition of consumers, observed in this study, to purchase an organic packaging as an alternative to traditional ones was positive, even with additional cost to the final product. However, the question of the final value of the product was raised by some of respondents, which makes it a reason to be considered for the consumer not to consume the product.

The probability of organic packaging application is not related to consumers with higher purchasing power. Thus, as observed in other studies addressing organic foods. While the participant's schooling influenced the probability of preferring organic to traditional packaging. Thus, it can be infered that people with greater knowledge tend to perceive better the importance of waste reduction and the ability to enjoy the natural resources present on the planet without compromising their use for future generations.

These consumers have shown environmental awareness, with an interest in alternative packaging for food products. The exchange of traditional packaging for organic packaging would not only impact the reduction of waste by extending the life cycle of the materials used, but also the awareness of the entire chain, boosting the generation of innovations in the sector and social impact.

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