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# ORGANIC PRODUCTS IN BRAZIL: CHARACTERISTICS OF A CONSUMPTION PATTERN IN 1999 AND 2024

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# ORGANIC PRODUCTS IN BRAZIL: CHARACTERISTICS OF A CONSUMPTION PATTERN IN 1999 AND 2024


## ABSTRACT

This article aims to investigate changes in consumer behavior toward organic products in Brazil between 1999 and 2024 via a comparative approach across these two periods. The study was initially conducted in 1999 with a sample of 121 consumers at the Organic Products Fair in Parque da Água Branca, São Paulo, one of the oldest and most significant fairs in the country. In 2024, the research was replicated at the BioBrazil Fair, also in São Paulo, involving 300 consumers. The methodology of structured questionnaires with both open and closed frequency questions was used to assess variables such as purchase, motivations for consuming organic products, price perception, and logistical aspects of the marketing/ distribution process. The data were randomly collected in both periods, ensuring the representativeness of organic consumers in São Paulo, Brazil's largest metropolis. The questionnaire covered topics such as consumer perceptions of organic production, key factors influencing purchases (e.g., health, pesticide-free products, and sustainability), and their willingness to pay for these products. The comparative analysis between 1999 and 2024 revealed significant changes in consumer demographics and motivations. In 1999, most consumers were loyal to organic consumption, with 86% stating that they consumed “always,” whereas in 2024, this number dropped to 20%, indicating a wider range of consumption frequencies. Additionally, in 2024, there was an increase in the proportion of consumers who purchased organic products “occasionally” (41%) or “rarely” (32%). In 1999, health was the primary reason for organic consumption, mentioned by 65% of consumers. By 2024, while health concerns remain important, the number of consumers citing health concerns as the primary motivation dropped to 42%, with an increase in environmental sustainability concerns (from 3% in 1999 to 10% in 2024) and greater appreciation for attributes such as taste, durability, and product quality. The perception of organic product prices remained high, with 91% of consumers agreeing that organic products are more expensive than conventional products. The results indicate a clear change in consumer behavior, with reduced loyalty and more varied motivations for organic consumption. The willingness to pay high premiums for organic products decreased in 2024, with most consumers willing to pay up to 30% more for organic products, unlike in 1999, when many were willing to pay premiums of over 30%. The study’s conclusions highlight the need for adapting marketing and commercialization strategies to attract new consumer profiles, especially younger consumers, who value attributes beyond health, such as sustainability and superior quality. Furthermore, the study suggests that economic accessibility remains a key challenge for the expansion of the organic product market in Brazil.



**Keywords:** Organic consumption; Consumer behavior; Sustainability; Willingness to pay

## 1) INTRODUCTION

Consumer behavior is influenced by several variables, and time is one of the main factors that affect purchase decisions and consumption patterns (Solomon, 2016). The present study aims to compare the profile and consumption patterns of consumers of organic products in Brazil in two periods: 1999 and 2024. This comparison is based on the initial study by Cerveira & Castro (1999), which analyzed consumers in the city of São Paulo.

Consumption patterns have changed over the years, driven by issues such as sustainability, health and increased environmental awareness (Cunha et al., 2011). The analysis of consumer behavior allows companies to identify business opportunities, especially in the organic products market, which has a growing appeal for consumers concerned with health and environmental preservation issues (Damázio et al., 2020).

Recent studies indicate that consumers of organic products tend to be motivated by a combination of rational and emotional factors, such as the desire to consume healthier foods with less environmental impact (Kushwah et al., 2019). However, factors such as high prices and the limited availability of products continue to be barriers to regular consumption (Teixeira & Garcia, 2013). For companies, understanding consumer motivations and perceptions about the price and willingness to pay of organic products is essential for developing effective marketing and advertising strategies.

The main objective of this study was to identify the frequency of purchase of organic products and the factors related to consumer loyalty. It is intended to explore the motivations and perceptions of consumers regarding the price and willingness to pay of organic products, comparing the results obtained in 1999 with the data from 2024.

In addition to this main objective, other specific objectives were proposed in which it was verified whether:

**1:** Consumer loyalty significantly differs between 1999 and 2024.

**2:** The motivations for organic consumption differ between 1999 and 2024.

**3:** The perception of price and willingness to pay for organic products changed between 1999 and 2024.

This study provides *insights* into changes in consumer behavior over 25 years, updates the understanding of the organic market and assists in the development of more effective marketing strategies for this sector.

## 2) LITERATURE REVIEW

The concept of the "consumption pattern" is widely discussed in the academic literature, especially in studies involving consumer behavior. According to Solomon (2016), the consumption pattern refers to the consistent habits and behaviors that characterize how consumers choose, buy and use products and services over time. This concept encompasses several dimensions, such as purchase frequency, types of products purchased, and the motivations underlying purchase decisions.

In the context of the consumption of organic products, consumption patterns are influenced by a few factors, including cultural, economic, social and psychological factors. As noted, by Liu et al. (2021), consumers often associate organic foods with health, sustainability and well-being. These factors shape the organic consumption pattern over time, especially in markets where interest in sustainability grows. Consumers of organic products have unique consumption patterns, often motivated by environmental and health concerns. Kushwah et al. (2019), the main motivations for the consumption of organic products include the perception that these foods are healthier, free of pesticides, and better for the environment. In addition, there are barriers, such as the high price and limited availability of products, which may restrict the regular consumption of organic products. In Brazil, the consumption of organic products has expanded significantly in recent decades, although factors such as information asymmetry

and cost are still obstacles, as observed by Teixeira & Garcia (2013). The consumption pattern in the country is characterized by a greater concentration of consumers in urban regions, especially in cities such as São Paulo, where initiatives such as organic fairs help connect producers and consumers (Mooz & Silva, 2014).

Globally, consumer perceptions of organic products have evolved rapidly. Studies have shown that the appeal of organic products is strongly linked to the perceptions of health benefits and environmental sustainability. In European and North American countries, consumers generally associate organic products with high quality and food safety (Ayuni & Rennie, 2012).

Liu et al. (2021) reported that, in China, for example, consumers see organic products as part of a healthy lifestyle, although trust in organic certifications is essential to sustain this consumption. In the United States and Europe, this trust is also a critical factor, with consumers demanding transparency and traceability regarding the origin and production methods of food (Kushwah et al., 2019).

In Brazil, the perceptions of consumers of organic products have different characteristics and are strongly influenced by socioeconomic issues and the lack of accessible information. Teixeira & Garcia (2013) found that many consumers still have doubts about what truly defines a product as organic, pointing to a significant gap in communication between producers and consumers.

In addition, the price factor is often cited as a barrier to the growth of the organic market in Brazil. Many consumers view organic products as premium (and expensive), accessible only to a more affluent segment of the population (Abadía Barrero & Ruiz Sánchez, 2010). However, as certifications become more common and the benefits of organic products are more widely publicized, there is an increase in demand, even among lower-income social classes, who are looking for healthier alternatives (Zen & Brandão, 2018).

The consumption patterns of organic products are strongly influenced by cultural, economic and social factors, both in Brazil and in other parts of the world. The perceptions of health benefits and sustainability are the main motivations for consumers, although barriers such as high price and information asymmetry still limit regular consumption. In Brazil, the expansion of the organic market depends largely on improved communication between producers and consumers, in addition to reducing prices and increasing accessibility.

## 3) METHODOLOGY

The current research was initially based on the results of another study: a study structured in 1999 to survey the profile and consumption pattern of Brazilian consumers, who frequented a commercialization channel well known at the time, to demonstrate what such characteristics would be for subsidizing the market, until then incipient, for adjustments in the offer of products on the basis of the desires and desires of the consumer of the time. In this instance, the consumer's definition of what he perceived as organic food production was surveyed. Next, the characteristics of the individual consumers of organic products (socioeconomic profile) are outlined. Finally, the consumption pattern of this individual when he or she makes the purchase decision of these products was identified. The space defined at the time of the research was in Água Branca Park, in the city of São Paulo, where an organic product fair is located, organized by the Organic Agriculture Association with the collaboration of the São Paulo state government. Preference was given, at the time, for the research to run in this fair because it is the oldest in the country, established in the municipality of São Paulo, the largest Brazilian city in terms of consumption of organic products in Brazil (Mooz & Silva, 2014) and for having a well-defined consumer audience.

With respect to the objectives of the current study, in addition to the data from the 1999 study, three variables were established that provide preliminary indications of the behavior and motivations of organic consumers: the **loyalty** of organic consumers; data on **motivation** to

purchase these products; and **perceptions of** particular aspects of the sales process, such as logistics, supply, packaging and prices.

With respect to the **loyalty** variable, we sought to identify information on the frequency with which organic products were purchased, when and how consumption began and the perceptions of these products. The **motivation** variable was how the consumer became aware of the existence of this assortment of products and what made the choice to purchase them. With the **perception** variable referring to the commercial aspects of organic production, the following questions were asked about a) the acceptable price differential of organic products in relation to nonorganic products, seeking to assess the perception of price, and b) the reasons that lead these consumers to purchase nonorganic products and the frequency with which they do so.

In the 1999 study, approximately 600 consumers attended the market weekly (according to data from the association at the time). At the time, 121 consumers considered at work, the sample population, participated in the study. Considering a sampling error of 8%, with a confidence margin of 92%, the survey was conducted between March 1998 and July 1998. The respondents were chosen at random via the same approach. The surveys were conducted via a questionnaire with open and closed questions. The open-ended questions addressed issues that prioritize the perception of everyone on the subject, such as, for example, opinions about what would be an organic product in the view of the respondent. The closed-ended questions of preestablished choice focused on addressing issues related to an evaluation standard for the consumer, such as asking what they thought of the packaging adopted for organic products (with the metric being between excellent and very poor).

In the current study, the collection site, called the BioBrazil Fair, was the largest and only organic consumer fair in Brazil, given that the AAO fair recently stopped operating at the 1999 study site. in June 2024 in the District of Anhembi, in the municipality of São Paulo, conducted by the company Francal Feiras, from 06/12/2024 to 06/15/2024. Data collection was performed with the consent and approval of the CEP/CONEP system under number CAAE 78106624.1.0000.5404. The survey was presented to consumers who were participating in the fair and who provided consent for the study. The researcher himself conducted the approach in a cordial and random manner, explaining the study and the acceptance of consumer participation if he/she considers himself/herself an organic consumer.

With evidence suggesting that temporal issues may affect the profile and consumption pattern of organic consumers (Abadía Barrero & Ruiz Sánchez, 2010; Ayuni & Rennie, 2012; Damázio et al., 2020), the current study uses the same methodological structure as the previous study does, fully replicating the method and considering only another collection period, the year 2024, to update the information regarding the population and sample to be collected. In the latter case, a sampling error of 5% is considered with the use of a more improved formula for sampling, as demonstrated by Cochran et al. (1954). With this new calculation, it is estimated, based on a population of 600 consumers, that a sample of 234 individuals will be analyzed. Finally, data were collected from 300 organic consumers.

With the results obtained in this study, a comparison was performed with the data of the first study in 1999, revealing the differences between the profiles and consumption patterns of these consumers of organic products and establishing an understanding of the influence of time (25 years) of these organic products. attributes of the consumer, updating for the organic market, such information is very important for its development.

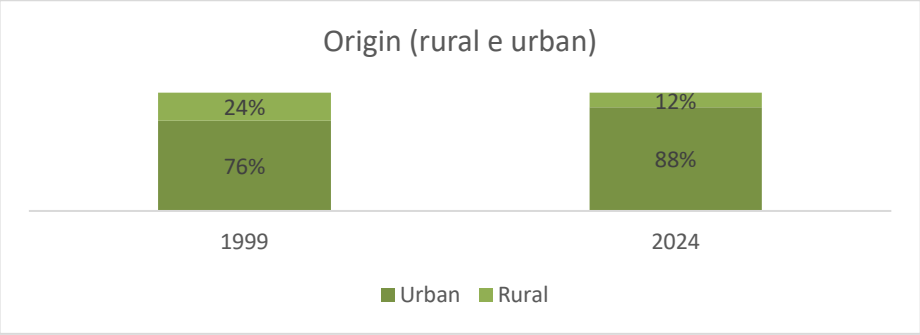
## 4) ANALYSIS AND DISCUSSION OF RESULTS

### 4.1) Organic consumer profile: Comparative between 1999 and 2024

Cerveira & Castro (1999) analyzed various characterizations of the profile and behavior of organic consumers via the same metrics, both in 1999 and 2024.

According to the figure below, in 1999, the proportion of respondents of rural origin was 24%. In 2024, this proportion decreased to 12%, representing a significant decrease of 50% in rural representation. The proportion of respondents of urban origin increased from 76% in 1999 to 88% in 2024. This shows an increase of 12 percentage points in the proportion of urban respondents.

Figure 1 - Distribution of respondents of urban and rural origin

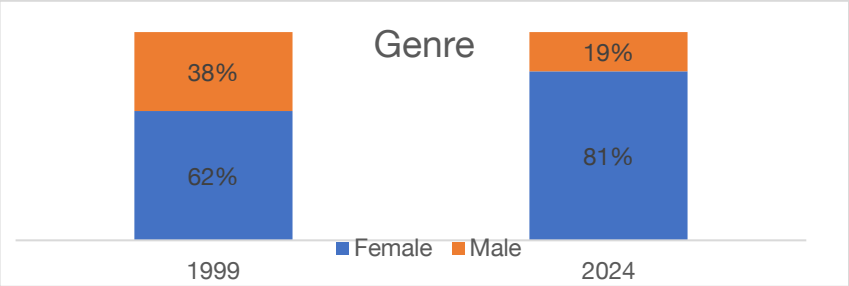



Source: survey data adapted from (Cerveira & Castro, 1999).

The increase in urban representativeness, as shown in Figure 1, suggests possible urbanization of the respondents over time, considering that both surveys (from 1999 and 2024) were conducted in the city of São Paulo. This may reflect demographic changes or adaptations to global urbanization trends.

In the figure below, we observe another characteristic: the gender distribution of respondents for the years 1999 and 2024. In 1999, the proportion was 62% for female respondents and 38% for male respondents, indicating greater participation of women at the time. In 2024, this trend was even more accentuated, with women representing 81% of the respondents and men representing only 19%, indicating a significant increase in female predominance over time.

Figure 2 - Gender distribution in 1999 and 2024



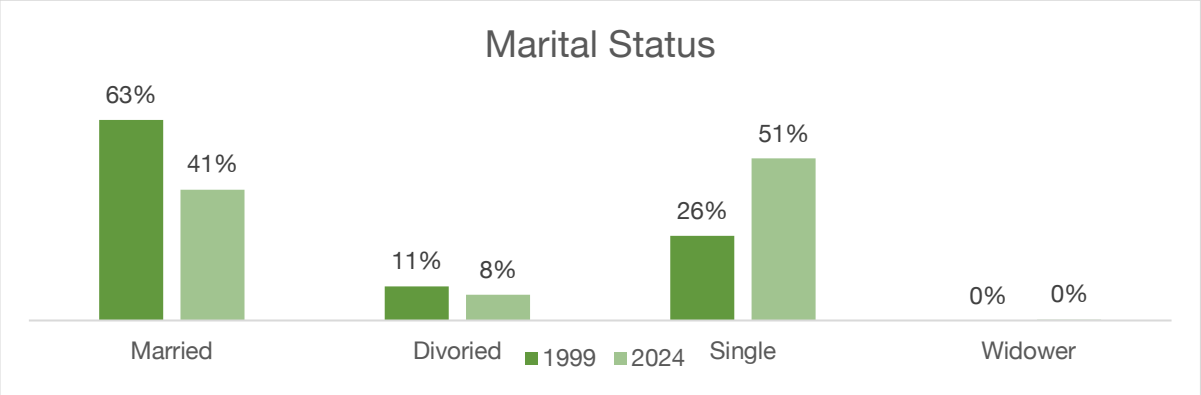

Source: survey data adapted from (Cerveira & Castro, 1999).

This increase in female representation may reflect a change in the topics of interest or in the target groups of the research, possibly indicating greater inclusion or focus on issues that attract or disproportionately affect women. The change may also be influenced by different strategies in data collection or by a change in the availability and willingness of women to participate in research, indicating a bias in data collection.

The following figure shows the distribution of the marital status of the respondents in the years 1999 and 2024 for the categories "Married/Stable union", "Separate or divorced", "Single" and "Widower". In 1999, most respondents were married or in a stable relationship (63%), followed by singles (26%) and those separated or divorced (11%), with no respondent being widowed. In 2024, a significant change is observed: 51% of respondents are still married

or in a stable relationship, while 8% are separated or divorced, 41% are single, and there are still no widowers among the respondents.

Figure 3 - Distribution of marital status among organic consumers

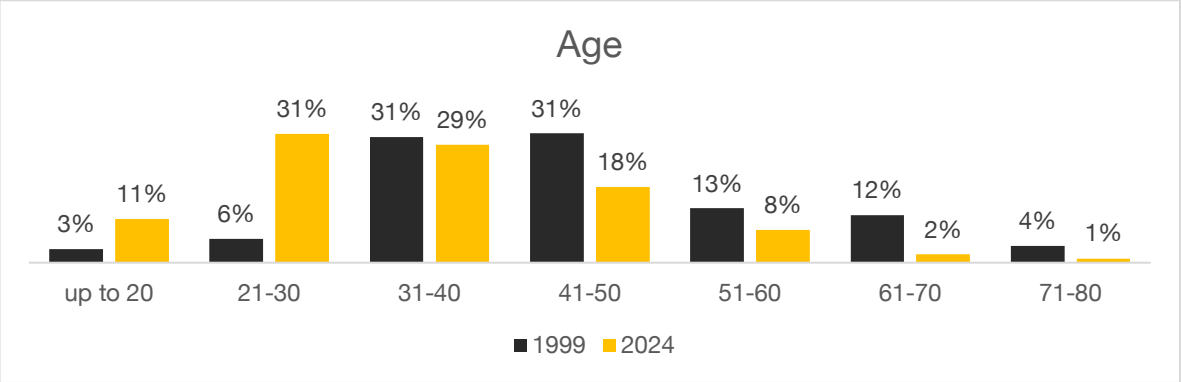



Source: survey data adapted from (Cerveira & Castro, 1999).

This change in the distribution of marital status over 25 years (see Figure 3) may reflect broader societal changes in norms and attitudes toward marriage and relationships. The reduction in the number of married people or those in a stable relationship, together with the substantial increase in the proportion of single people, suggests a trend of prolonging singleness or choosing not to enter formalized relationships. In addition, the small proportion of separated or divorced people in 2024, compared with 1999, may indicate greater stability in relationships or a lower incidence of divorce.

The next figure provides a detailed view of the age distribution of respondents in the years 1999 and 2024, illustrating changes in the demographic profile of consumers of organic products. In 1999, the 31–40 years and 41–50 years age groups dominated, representing 31% of the respondents each. These ranges suggest that the average consumer of organic products was predominantly middle-aged adults. In 2024, there was a significant change, with the 21--30 age group becoming the most represented age group, with 31% of the respondents. In addition, there was a visible decrease in older age groups, such as those aged 51--50 years, which fell from 31% to 18%; those aged 51--60 years, which decreased from 13% to 8%; and those aged 61 years. -70 years, which decreases from 12% to 2%.

Figure 4 - Distribution of the age range among organic consumers



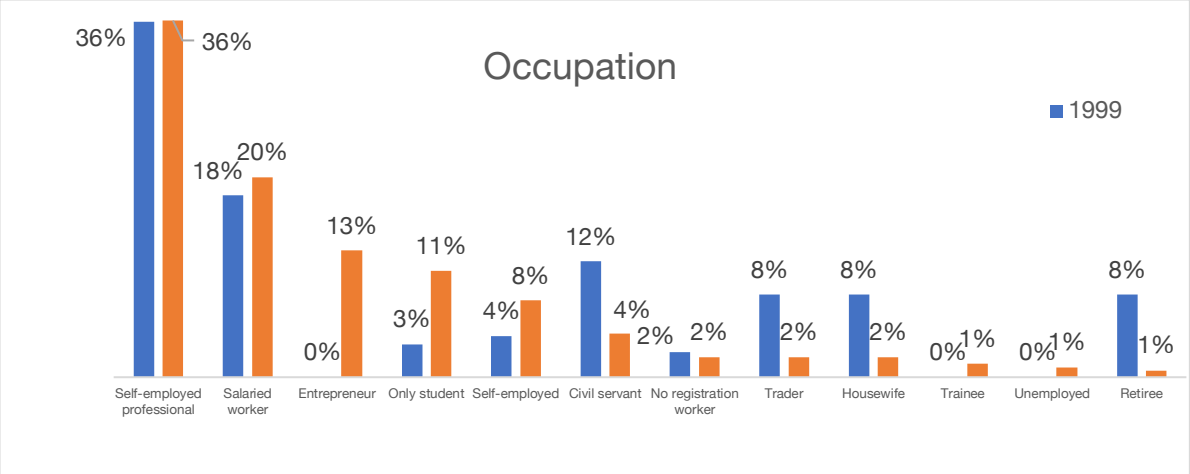

Source: survey data adapted from (Cerveira & Castro, 1999).

This transition in the age distribution over 25 years may indicate a change in consumption habits and a greater acceptance of organic products among younger generations, possibly driven by a growing awareness of health and sustainability. The growing preference

of young people for organic products may reflect greater exposure to information on health and environmental benefits, amplified by marketing and education campaigns aimed at this audience. These demographic trends are crucial for organic producers and sellers, as they suggest an expanding market opportunity among young adults, who will likely continue to influence the market as they age. The adaptation of marketing strategies to meet the preferences of this demographic group, with a focus on innovation and sustainability, may be key to capturing and maintaining this segment of emerging consumers.

The next figure shows the occupational distribution of individuals in the surveys conducted in 1999 and 2024, with some notable trends and changes. In both years, the proportion of self-employed professionals remained constant at 36%, highlighting the stability of this group. Among the most striking changes, there is a significant appearance of businessmen in 2024, with 12% of respondents, which was not recorded in 1999. In addition, there was a decrease in the percentage of civil servants, from 13% to 8%, and in retirees, which also decreased from 8% to 1%.

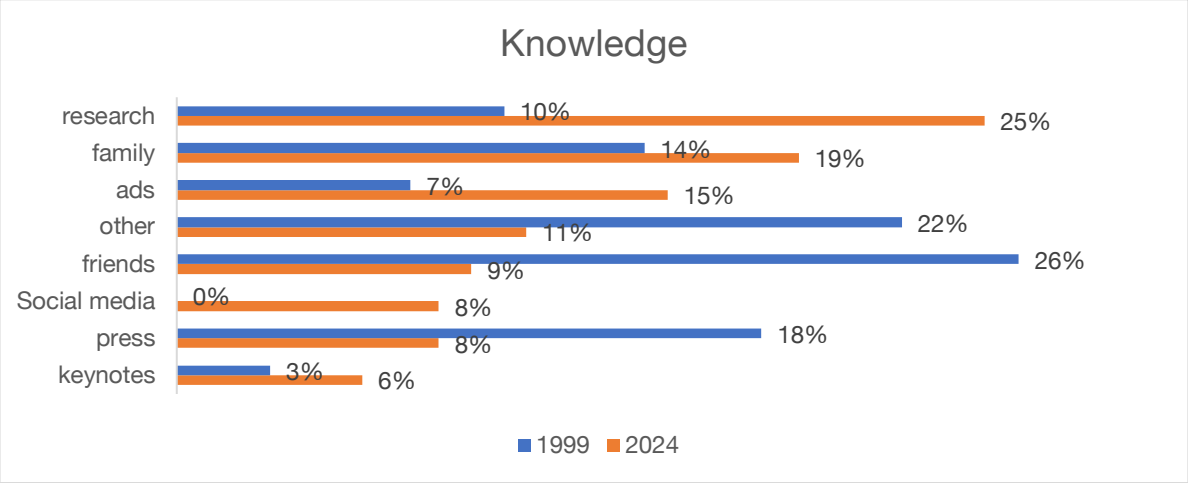
Figure 5 - Occupational distribution among organic consumers




Source: survey data adapted from (Cerveira & Castro, 1999).

The constant presence of self-employed professionals and the significant emergence of other occupations may reflect a change in the types of occupations that are interested in organic products, possibly due to an increase in the autonomy and purchasing power of these groups. The decrease in civil servants and retirees may indicate a change in the access or preferences of these populations, perhaps influenced by economic issues or by the location and nature of the fairs where the data were collected. Importantly, the research site in 1999 was at Parque da Água Branca, known for its concentration of organic consumers at the time, whereas in 2024, the research took place at Parque do Anhembi, a trade fair space with different characteristics. This selection bias may have influenced the respondents' profiles in each period, highlighting the need to consider how the location and context of the surveys might affect who responded and the data collected.

Figure 6 - Distribution of knowledge origins among organic consumers

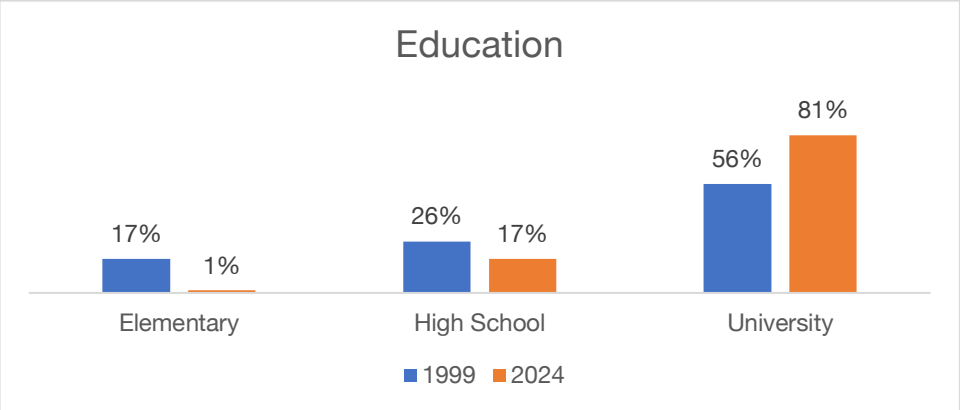



Source: survey data adapted from (Cerveira & Castro, 1999).

Figure 6 illustrates the sources through which consumers obtained knowledge about organic products in the years 1999 and 2024, revealing changes in the channels of information over time. One of the most interesting changes is the significant increase in the "studies/research" category, which rose from 10% in 1999 to 25% in 2024, indicating greater academic involvement or interest in formal research on organic products. Another highlight is the emergence of social networks as a source of knowledge, which in 2024 will represent 8% of the responses. In 1999, this media did not exist, reflecting the evolution and influence of digital platforms in the dissemination of information in the current world. Other traditional sources, such as "family" and "friends", still retain significant importance, albeit with a slight decline compared with 1999. The role of "advertisement" as a source of knowledge increased, from 7% to 15%, suggesting an increase in the commercial promotion of organic products. The decreases in "lectures" and "print media" as primary sources are also indicative of the shift to more digital and interactive platforms.

The figure shows the evolution of the education level of consumers of organic products between 1999 and 2024. The greatest change is observed in the "Higher Education" category, where the proportion of respondents jumped from 56% in 1999 to 81% in 2024. This increase suggests that an increasing number of consumers of organic products have a university degree, which may indicate a correlation between higher educational level and choice for organic foods, perhaps due to a greater awareness of health and sustainability issues.

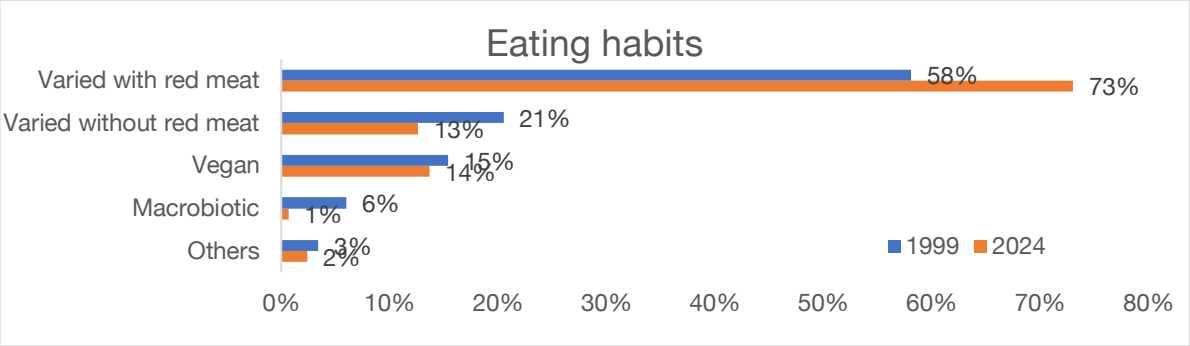
Figure 7 - Distribution of education among organic consumers




Source: survey data adapted from (Cerveira & Castro, 1999).

In contrast, there is a decrease in the most basic levels of education. "Elementary" education decreased from 17% to just 1%, and “High school” decreased from 26% to 17%. These changes reflect a more educated consumer profile in the organic products market in 2024, possibly due to changes in marketing strategies and in the availability of information on the benefits of organic products, which are more accessible and understandable to individuals with higher education in addition to other factors external to the market, such as the universalization of higher education carried out as a public policy throughout the 2000s.

Figure 8 – Distribution of eating habits among organic consumers



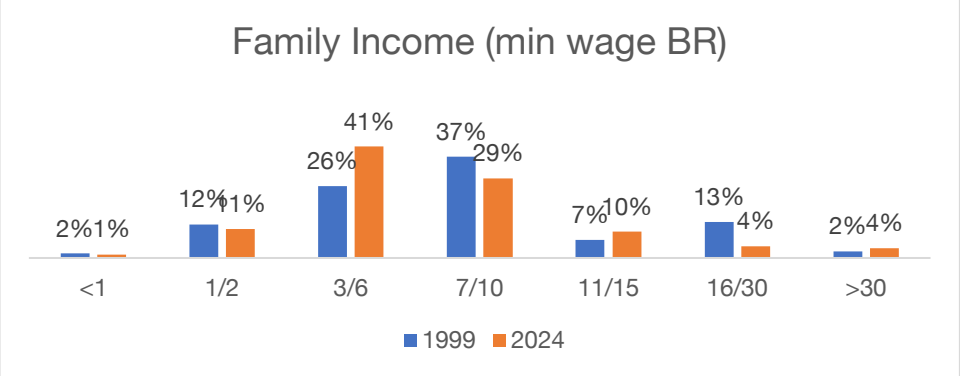

Source: survey data adapted from (Cerveira & Castro, 1999).

Figure 8 provides a detailed analysis of the eating habits of consumers of organic products in 1999 and 2024, revealing significant changes in consumption patterns. Notably, the category "varied diet including red meat" increased from 58% in 1999 to 73% in 2024, indicating that a greater proportion of organic consumers include red meat in their diet. This highlights an important distinction: interest in organic products is not necessarily aligned with alternative diets such as vegetarianism or veganism but with a search for quality and other characteristics, albeit with adherence to conventional eating habits.

In addition, the percentage of individuals following a "Diverse diet without red meat" decreased from 21% to 13%, whereas the percentage of vegetarians/vegans remained relatively stable, from 15% to 14%. This may indicate that, despite a growing awareness of health and sustainability, most consumers of organic products do not necessarily adopt meatless diets.

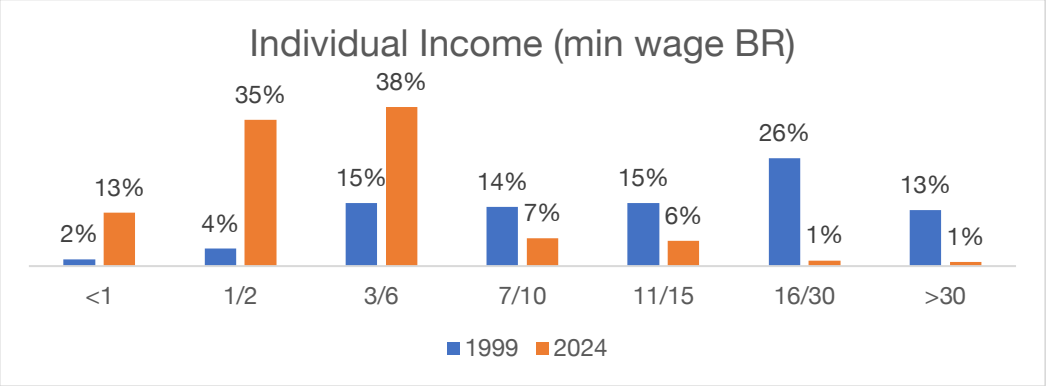
Figures 9 and 10 below show "Family Income" and "Individual Income", respectively, in terms of minimum wages. They present a detailed view of the evolution of the economic profile of consumers of organic products between 1999 and 2024.

Figure 9 - Distribution of family income among organic consumers




Source: survey data adapted from (Cerveira & Castro, 1999).

Figure 10 - Distribution of individual income ranges among organic consumers




Source: survey data adapted from (Cerveira & Castro, 1999).

Figure 9, "Family Income", compares the distribution of the family income of consumers of organic products between 1999 and 2024, revealing significant changes in the economic profiles. There is a small decrease in the proportion of families earning less than 1 minimum wage. The range of 1--2 times the minimum wage remained practically stable, with a slight reduction from 12%--11%. There was a significant increase in the income bracket of 3--6 times the minimum wage, which rose from 26% to 41%, and a decrease in the income bracket of 7--10 times the minimum wage, which ranged from 37% to 29%. This growth suggests that a growing share of the lower-income middle class is opting for organic products. In addition, families earning 11--15 times the minimum wage also experienced an increase from 7% to 10%. However, the highest income brackets, from 16 to 30 minimum wages, decreased from 13% to 4%, and more than 30 minimum wages slightly increased, indicating that the organic products market continues to attract high-income consumers. income, but with an increase proportional to a greater median income. These changes in the distribution of family income among consumers of organic products suggest that the market is becoming more accessible to the middle class while maintaining its appeal among more affluent consumers.

The comparative analysis between the individual income data of consumers of organic products in the years 1999 and 2024 (Figure 10) reveals a transformation in the economic profiles. This change shows how the consumer base of organic products has evolved, with an apparent democratization of access to these products. In 1999, the income distribution was more concentrated in the middle- to high-income brackets, with 26% of consumers earning between 16 and 30 minimum wages and 13% earning more than 30 minimum wages. These higher income brackets show a drastic reduction in 2024, with only 1% of consumers in each of these brackets. Such a change suggests that organic products, previously seen as luxury goods, are becoming more accessible or of interest to a broader population base. There was an impressive increase in the lowest- and middle-income groups from 1999--2024. For example, consumers earning less than 1 minimum wage grew from 2% to 13%, and those earning 1 to 2 minimum wages jumped from 4% to 35%. The range of 3--6 times the minimum wage also significantly increased, from 15% to 38%. These changes indicate that organic products are being consumed by a more diverse portion of the population, which includes a greater proportion of people with lower and middle incomes.

The marked decrease in the participation of consumers in the higher income brackets may reflect a change in the perception and accessibility of organic products. This may be the result of greater availability, lower prices, or a change in consumption habits that favor products perceived as healthier and more sustainable, regardless of income range.

**4.2) Perception and pattern of organic consumption: comparisons between 1999 and 2024**

The analysis of changes in consumers' perceptions of organic products in terms of market characteristics between 1999 and 2024 reveals significant changes in several dimensions of market supply, as shown in the next table. These changes, although diverse, point to a continuous evolution and, in some cases, to the need for additional adjustments to align the offer with the growing expectations of consumers.

Table 01 - Consumers' perceptions of the market structure.

| Perception | Number of Sales Points | | Regularity of Supply | | Product Diversity | | Quality of the Packaging | |
|---|---|---|---|---|---|---|---|---|
| | 1999 | 2024 | 1999 | 2024 | 1999 | 2024 | 1999 | 2024 |
| Excellent | 8% | 21% | 30% | 24% | 36% | 29% | 35% | 38% |
| Fair | 19% | 24% | 50% | 41% | 50% | 40% | 63% | 38% |
| Poor | 28% | 33% | 16% | 18% | 8% | 13% | 2% | 10% |
| Very Poor | 38% | 13% | 3% | 6% | 6% | 7% | 0% | 4% |
| Don't know | 7% | 9% | 1% | 12% | 1% | 12% | 0% | 11% |

Source: survey data adapted from (Cerveira & Castro, 1999).

Table 01 shows an improvement in the perception of the number of sales points for organic products. In 1999, most evaluations were negative, with 66% of consumers classifying the situation as "poor" or "very poor". This perception changed significantly in 2024, with only 46% of reviews falling into these negative categories, while the rating of "excellent" rose from 8% to 21%. This suggests a greater capillarity of organic products in the market, possibly reflecting an expansion of points of sale and a better integration of these products into conventional distribution channels.

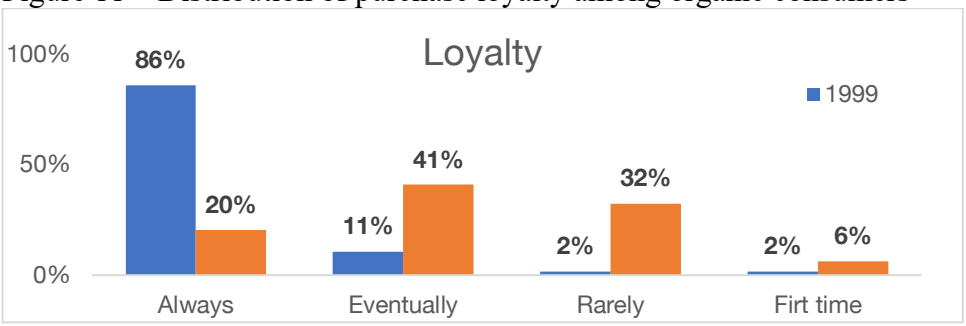
The regularity of supply seems to have remained stable, with a slight deterioration in the perception of the quality of this market feature. The "excellent" category slightly decreased, whereas the "poor" and "very poor" categories, together with the "don't know" category, increased. This may indicate that, despite the expansion of availability and points of sale, challenges remain related to the consistency of supply, which still does not fully meet consumer expectations.

With respect to product diversity, there was a slight increase in the perception of the "poor" and "very deficient" categories. This change can be attributed to the greater awareness and demand of consumers, who now have higher expectations regarding the variety of products available. This factor suggests that organic product suppliers and retailers may need to further diversify their portfolios to serve a more informed and demanding consumer base.

The quality of the packaging also showed interesting changes. There was an increase in the perception of "excellent" but a significant decrease in the category "fair", with a corresponding increase in negative evaluations ("poor" and "very poor"), in addition to the category "does not know". This phenomenon may reflect a growing demand for higher-quality and more sustainable packaging, an aspect that has gained relevance in the current context where sustainability can be a key value for many consumers.

When retaking the analysis of the hypotheses proposed in the current study, the hypothesis that consumer loyalty shows significant differences between 1999 and 2024 is confirmed. This hypothesis is confirmed by the figure of consumer loyalty to organic products provided below. The analysis of these data reveals a transformation in consumer behavior over this period.

Figure 11 – Distribution of purchase loyalty among organic consumers



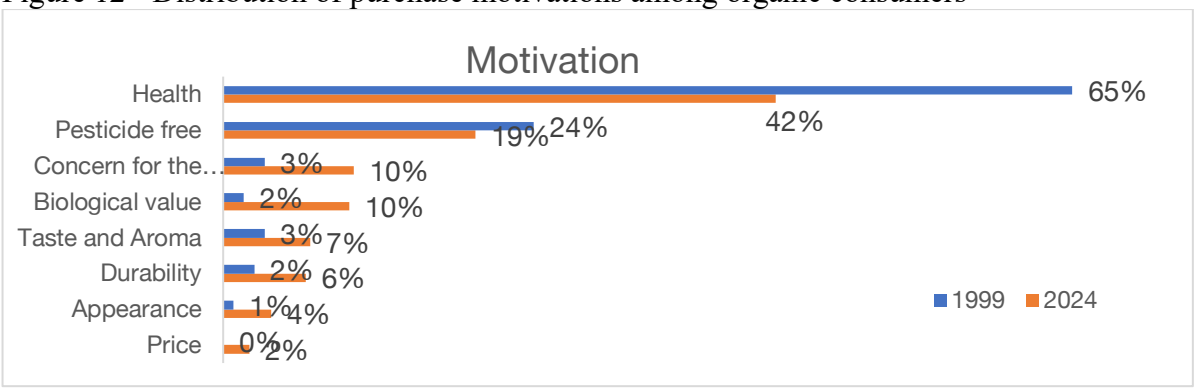

Source: survey data adapted from (Cerveira & Castro, 1999).

First, Figure 11 shows that, in 1999, many consumers (86%) said that they consumed organic products "always", indicating a high level of loyalty and regularity in the consumption of these products. Only a small fraction reported consuming it "eventually" (11%), "rarely" (2%) or being consuming it for the "first time" (2%). In contrast, in 2024, only 20% of consumers reported consuming organic products "always". There is a significant increase in the number of consumers who consume "eventually" (41%) or "rarely" (32%), and those experiencing it for the "first time" also grew to 6%.

This change in consumption frequency suggests a decrease in consumer loyalty over time. In 1999, the consumption of organic products appeared to be a well-established practice among a dedicated group of consumers. In 2024, however, there will be a dispersion in the consumption pattern, with fewer consumers engaging regularly and more consumers varying their purchase frequency.

The analysis of the main motivations for the consumption of organic products also reveals changes between 1999 and 2024, confirming the hypothesis that the reasons that drive the choice of organic products have evolved over time. The figure below provides a detailed perspective of these changes, indicating a shift in consumer priorities and values over 25 years.

Figure 12 - Distribution of purchase motivations among organic consumers




Source: survey data adapted from (Cerveira & Castro, 1999).

The evolution in motivations for the consumption of organic products between 1999 and 2024 suggests a change in the positioning of these products in the market, indicating a potential transformation of products initially valued primarily for their health benefits and for being free of pesticides to be perceived as differentiated products. This perception is reinforced by the increase in motivations related to biological value, durability, concern for the environment, taste, aroma and appearance, pointing to a broader appreciation of the qualitative and exclusive characteristics of organic products.

In 1999, the consumption of organic products was strongly motivated by health, with 65% of consumers citing this factor as paramount. However, in 2024, there was a decrease in this motivation to 42% (Figure 12), in addition to a diversification of reasons for consumption, with a decline in the predominance of health as the only motivation and a significant increase in other categories. For example, the biological value, which encompasses aspects such as nutritional quality, increased from 2% to 10%. This may indicate that consumers are beginning to perceive organic products not only as a healthy choice but also as a choice of superior quality in many aspects.

In addition, the greater appreciation of attributes such as taste, aroma and durability can be seen as indicators that consumers are treating organic products as *gourmet* or premium items. They are willing to invest in these products not only for their intrinsic health qualities but also for an expectation of greater pleasure and satisfaction in consumption, as well as greater longevity and efficacy of the product.

The indicator "concern for the environment" reflects a significant trend in the consumption of organic products that deserves special attention in the analysis of consumer motivations between 1999 and 2024. In 1999, only 3% of consumers indicated that concern for the environment was the main source of motivation for the purchase of organic products. By 2024, this number had grown to 10%, indicating a considerable increase in environmental awareness among consumers of organic products.

These increases can be seen as a reflection of a broader change in the market, where consumers not only expect products to be produced with high quality and wholesomeness but also demand transparency and accountability from brands regarding their environmental practices. This implies that producers and suppliers of organic products have an opportunity, as well as a responsibility, to highlight and improve not only the quality of their products but also their sustainable practices, ensuring that these practices are in line with consumer expectations and contributing to a value proposition that encompasses product quality and environmental ethics.

The analysis of data on consumers' willingness to pay more for organic products between 1999 and 2024 reveals a change in price perception and willingness to pay, as shown in the following table. This evolution suggests that the perception of the value of organic products, and consequently the willingness to invest in such products, has become more complex and diversified over time.

Table 2 – Consumer willingness to pay.

| Willingness to pay | 1999 | 2024 |
|---|---|---|
| 0% | 13% | 3% |
| 5% | 15% | 5% |
| 10% | 14% | 19% |
| 15% | 6% | 16% |
| 20% | 12% | 31% |
| 25% | 5% | 10% |
| 30% | 8% | 9% |
| +30% | 27% | 8% |
| Total | 100% | 100% |

Source: survey data adapted from (Cerveira & Castro, 1999).

In 1999, the data presented in Table 2 show a distinct polarization in consumer attitudes regarding willingness to pay for organic products: an important segment (28% of responses) was willing to pay a minimum premium (between 0% and 5% more) by organic products,

indicating a perception that the benefits of these products did not justify a significantly higher cost. In contrast, 27% of consumers were willing to pay a substantial premium (more than 30% above the price of conventional products), reflecting a strong commitment to the values associated with organic products. In 2024, the distribution of willingness to pay became less polarized and more distributed across various price ranges: the proportion of consumers willing to pay a minimum premium decreased significantly, indicating a greater appreciation of the attributes of organic products or a greater awareness of the costs associated with their production. There is an increase in the willingness to pay moderate premiums (10% to 30% more). This may reflect a more balanced perception of the value of these products, where a greater number of consumers recognize and are willing to pay for specific benefits, without, however, considering them unattainable luxuries. The willingness to pay a very high premium (over 30%) decreased dramatically (from 27% to 8%), suggesting that while consumers value organic products, there is a price limit beyond which they are unwilling to pay. go. This can be interpreted as a maturation of the market, with consumers seeking a balance between value and cost (price).

This shift in willingness to pay suggests that consumers in 2024 have a more nuanced understanding of organic products, evaluating them on a broader spectrum of price and quality rather than simply categorizing them as niche or luxury products. The reduction in the willingness to pay extremes and the greater uniformity in the distribution of responses may indicate a broader integration of organic products in the conventional market and a more generalized acceptance of their prices as justifiable for the benefits offered.

This analysis confirms the hypothesis that the price perception and willingness to pay for organic products have changed significantly, reflecting a market that has evolved from a clear division between highly committed and cautious consumers to a more continuous and diverse spectrum of consumers who balance price and value more holistically.

Regarding price perception, the figure below illustrates a change in the way in which consumers perceive the cost of organic products compared with that of conventional products between 1999 and 2024.

Figure 13 - Price perceptions among organic consumers


Source: survey data adapted from (Cerveira & Castro, 1999).

In 1999, a vast majority (82%) of consumers perceived organic products as more expensive than conventional products. This perception increased even more in 2024, with 91% of consumers agreeing with this statement. Moreover, the proportion of consumers who do not perceive organic products as more expensive dropped from 18% in 1999 to only 9% in 2024 (Figure 13). The perception of a more expensive product, with a higher price, has increased over these decades.

**4.3) Summary of the profile and consumption pattern of organic consumers between 1999 and 2024**

With all these characteristics mapped out in this new study, it is possible to elaborate a profile of a "standard consumer" by which it is interesting for advertising campaigns and even for specific and business actions. However, it is worth recalling the 1999 study in which Cerveira & Castro (1999 p.14) presented a "standard consumer" of the time:

> [...] Consumers of organic products are very loyal in their adherence to organic products, [...] For the most part, this group of consumers determined about organic products through friends [...] consumers of organic products is their quality in terms of health. Therefore, they declare that they are products without contamination by pesticides and thus are more natural and healthier. In general, they consider that the marketing of the product and its characteristics are good, but they complain about the lack of a greater number of purchase points. These consumers believe that they pay a higher price for these products than they would for conventional products. In fact, they are willing to pay a higher price to be able to continue having these products in their diet. [...] attention is drawn to the fact that the concern of these consumers is limited almost exclusively to their interest in their health and that of their family, showing no greater concern with the environmental dimension of organic agriculture.

Based on the 1999 study, as well as the current study, it was possible to list in the table below the main characteristics of the "standard consumer", i.e., the median consumer of organic products, considering the most common characteristics presented in each study. Thus, it will be possible to observe the trend when the profile and behavior of this consumer change over time.

Table 03: More pronounced characteristics of the consumer profile and behavior in the 1999 and 2024 studies

| **Profile** | **Survey 1999** | **Survey 2024** |
|---|---|---|
| Genre | Female | Female |
| Origin | Urban | Urban |
| Marital Status | Married | Single |
| Age group | Between 31 and 50 years old | Between 21 and 40 years old |
| Professional occupation | Self-employed professional | Self-employed professional |
| Education | Graduate | Graduate |
| Knowledge | Friends | Research |
| Family income | 7 to 10 minimum wages | 3 to 6 minimum wages |
| Individual income | 16 to 30 minimum wages | 1 to 6 minimum wages |
| Food habits | Varied with red meat | Varied with red meat |
| Perceived problem in the market | Number of sales points | Product diversity |
| Price perception | High | High |
| Willingness to pay | More than 30% compared to the conventional equivalent | Between 10% and 30% of the conventional similar |
| Motivation of consumption | Mostly personal and family health | Health, but not as majority as 1999 |
| Loyalty | Always consume | Eventually consume |

Source: survey data adapted from (Cerveira & Castro, 1999).

## 5) CONCLUSION

This study provides valuable *insights* into the evolution of the consumption of organic products in São Paulo over 25 years, highlighting significant changes both in perceptions and in consumer behaviors between 1999 and 2024. The analyses performed point us to a transformation in the profile and pattern that follows the global trends of responsible consumption and environmental awareness.

**Consumer Loyalty:** A decrease in consumer loyalty was confirmed over the years studied. In 1999, consumption frequency was predominantly high, with a large majority of consumers buying organic products regularly. In 2024, there is a greater dispersion in the frequency of consumption, indicating lower loyalty. This result may be associated with a greater variety of options in the market, allowing consumers to make more varied and less frequent choices, for example, sustainable products, but not limited to the organic market (with certification, for example).

**Motivations for the consumption of organic products:** The motivations for the consumption of organic products were partially consistent with those of 1999, with personal health and the absence of pesticides still predominant in 2024. However, additional motivations related to environmental sustainability and premium attributes, such as superior taste, appearance and durability qualities, have emerged. This reflects a diversification in consumer expectations, who now value a broader range of benefits provided by organic products.

**Perception of Price and Willingness to Pay:** The willingness to pay more for organic products also evolved. Although many consumers in 2024 recognize and accept that organic products are more expensive, they show a limited willingness to pay a premium that does not exceed 30% of the price of conventional products. This contrasts with 1999, where a considerable segment was willing to pay premiums without defined limitations, reflecting a change in the perception of value and a possible awareness of the cost-effectiveness of organic products.

**Demographic Change and Implications for the Market**: The generational change of consumers and the change in demographic profiles, with an increase in younger and single individuals, suggest an adaptation of marketing and sales models to address these new consumer groups. The latter are more likely to value sustainable characteristics and premium attributes, directly influencing companies' product and communication strategies.

It is recommended that additional studies explore the influence of macroeconomic changes on the consumption of organic products, in addition to investigating the perceptions and behaviors of consumers in other regions and contexts, for a more comprehensive understanding of the evolution of the organic market. It would also be relevant to analyze the impact of digital marketing strategies on the engagement of younger consumers and on the promotion of long-term loyalty.

The main limitation of this study was the possible bias of data collection, as the information was obtained in specific locations with a high concentration of organic consumers. This may not reflect the full diversity of consumer profiles of organic products, such as less engaged consumers, potentially influencing general perceptions about price, quality and motivations.

The results of this study can be applied to improve the positioning strategies of organic products in the market, aiming to attract and retain different consumer segments. In addition, they can inform public policies that promote the production and consumption of organic products, supporting initiatives that promote sustainability and public health.

## 6) PRACTICAL INTERVENTION & CONTRIBUTION

The 25-year comparison pinpoints three actionable gaps for market actors. (i) Retailers should widen product ranges—especially ready-to-eat organics—to match the younger, urban profile identified. (ii) Price strategies must focus on premiums up to 30 %, the new ceiling revealed by the 2024 cohort; tiered pack sizes or private-label organics can hit this target. (iii) Communication should migrate from health-only arguments to a mixed narrative that couples sustainability with superior sensory quality, leveraging social-media channels now cited by 8 % of consumers as their primary information source. Implementing these measures may convert the current "occasional" customer (41 %) into repeat buyers, strengthening market share while advancing public-health and environmental goals.

## 7) BIBLIOGRAPHIC REFERENCES


Abadía Barrero, C. E., & Ruiz Sánchez, H. C. (2010). Self-attribution of responsibility: consumers of organic foods in a certified street market in Rio de Janeiro, Brazil. *Etnografica*, *14*(3), 549–565. https://doi.org/10.4000/etnogra

Ayuni, S. F., & Rennie, D. (2012). Consumer Perceptions Towards Organic Food. *Procedia - Social and Behavioral Sciences*, *49*, 360–367. https://doi.org/10.1016/J.SBSPRO.2012.07.034

Cerveira, R., & Castro, M. C. de. (1999). Consumidores de produtos orgânicos da cidade de São Paulo: características de um padrão de consumo. *Informações Econômicas*, *29*(12), 14.

Cochran, W. G., Mosteller, F., & Tukey, J. W. (1954). Principles of Sampling. *Journal of the American Statistical Association*, *49*(265), 13–35. https://doi.org/10.1080/01621459.1954.10501212

Cunha, C. F. da, Spers, E. E., & Zylbersztajn, D. (2011). Percepção sobre atributos de sustentabilidade em um varejo supermercadista. *Revista de Administração de Empresas*, *51*, 542–552.

Damázio, L. F., Coutinho, L. A. N., & Shigaki, H. B. (2020). Comportamento do consumidor em relação a produtos sustentáveis: uma revisão sistemática de literatura. *Revista Eletrônica de Ciência Administrativa*, *19*(3), 374–392. https://doi.org/10.21529/recadm.2020016

Kushwah, S., Dhir, A., Sagar, M., & Gupta, B. (2019). *Determinants of organic food consumption. A systematic literature review on motives and barriers*. https://doi.org/10.1016/j.appet.2019.104402

Liu, C., Zheng, Y., & Cao, D. (2021). An analysis of factors affecting selection of organic food: Perception of consumers in China regarding weak signals. *Appetite*, *161*(January). https://doi.org/10.1016/j.appet.2021.105145

Mooz, E. D., & Silva, M. V. da. (2014). Cenário mundial e nacional da produção de alimentos orgânicos. *Nutrire Rev. Soc. Bras. Aliment. Nutr*, *39*(1), 99–112. https://doi.org/10.4322/NUTRIRE.2014.009

Solomon, M. (2016). *O Comportamento do consumidor-: comprando, possuindo e sendo*. https://books.google.com.br/books?hl=pt-BR&lr=&id=n-1zCwAAQBAJ&oi=fnd&pg=PR1&dq=SOLOMON,+M.+R.+2016&ots=JW8M0vMo8Q&sig=RhXQlrSF_4uC3UIEwBYY4_13Wpw

Teixeira, I. L., & Garcia, L. A. F. (2013). Fatores Determinantes Da Demanda De Produtos Orgânicos No Município De Cascavel – Pr. *Revista Ciências Sociais Em Perspectiva*, *12*(23).

Zen, H. D., & Brandão, J. B. (2018). Análise da produção e comercialização de hortaliças orgânicas no estado de Nova York: um estudo de caso. *Revista Produção e Desenvolvimento*, *4*(2), 1–20.