Study of the consumers of ready-to-drink juices and fruit nectars

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Abstract

Juices and fruit nectars are an important segment of the beverage market in Brazil. The aim of this study was to analyze and characterize the profile of consumers of ready-to-drink juices and fruit nectars. A semi-structured questionnaire was applied to 389 patrons, intentionally and conveniently, when they approached the shelves. The chi-square test was applied to associate sociodemographic variables and consumption profile of the beverages with the type of establishment. Logistic regression models were developed to evaluate the variables associated with nectar acquisition. The level of education and knowledge about the beverages were significantly related. Practicality was the main reason that led respondents to consume these drinks, followed by quality and price, with the latter being associated with the level of education. Nectar was the most purchased option, and this choice was associated with increasing age and education, price and practicality. The consumption of juices and nectars with no added sugar was lower compared with traditional beverages. The information in the labels of these beverages was not sufficiently clear, for most of the participants. The most mentioned brand by the interviewed was the one with better sensory preference, regardless of flavour and the blinded or informed analysis.

Keywords: beverages; fruits; consumer; labelling; sensory.

Practical application: The consumers do not know the difference between juices and fruit nectars. Quality and price were the main reasons that lead consumers to choose these beverages. The most mentioned brand in this study was the one with better sensory preference.

1 Introduction

Due to the fast pace of life in today's society, consumers have shown interest in acquiring more and more practical products (Silva et al., 2005). There is also a growing concern about the health and lifestyle of the population, as reflected by the search for healthier foods and drinks (Voorpostel et al., 2014). To please more consumers, industries have invested in the development of new products that have these characteristics, using marketing strategies for media coverage to influence consumer choices (Endo et al., 2009). Within the context of this global trend, consumers have sought more practical alternatives to beverages by considering more than taste and innovation (Ferrarezi et al., 2010). Also, beverage companies have invested in fruit processing to add value to their products to meet the current demand of the population.

Therefore, even if the interest in the product is unchanged, the purchase intention can increase if a health benefit is expected by the consumer (Tuorila et al., 1998), as in the case of fruit beverages.

A non-existent segment by the end of the 1990s, ready-for-consumption juices are gaining more space on the shelves and have a great market growth potential. According to the Federation of the National Survey of the São Paulo State Industries (FIESP), through the Brazilian Institute of Public Opinion and Statistics (IBOPE), 27% of the products that most aroused consumer desire when released on the market were juices (FIESP, 2010). Juices and nectars are an important segment of the beverage market in Brazil. In 2012, Brazilians consumed 1.06 billion litres of these beverages, which represents a R$ 3.8 billion movement in the economy (Abreu, 2013). In 2013, there was a 12.5% increase in the purchase of such products compared to the previous year (Associação Brasileira de Embalagem, 2014). Moreover, the industry has very significant prospects. Whereas the soft drink market grows by an average of 2% per year, the juices and nectars market grows by approximately 9% (Aaker, 2007).

However, even considering the vast potential of the Brazilian market, there are few studies that address the behaviour and profile of consumers of juices and fruit nectars in Brazil. When applicable, these studies address only one type of flavoured drink, which restricts the evaluation of the entire market (Ferrarezi et al., 2013; Turra et al., 2011). To date, only one study published recently in this country considers the assessment in relation to all juice flavours. However, this study deals only with the consumer market characterization and does not include a sensory analysis of products (Carmo et al., 2014).

The effect of information can be measured in different ways, including by comparing groups of consumers who received product information to those who did not receive information about

the product (Cox et al., 2012; Lee et al., 2015b). Thus, sensory analysis can be evaluated when the consumer is subjected to a blind assessment and an informed assessment.

Consumer behaviour studies are essential to understand what it takes to consume or not a particular product and what factors are involved in the process of buying a food. Thus, market research is a useful tool to elucidate the behaviour of consumers of food (Kotler & Keller, 2013).

Another fact to be noted is that both juices and nectars that are ready for consumption are available in Brazilian supermarkets, but the difference between these products is not described on the packaging. Therefore, there is still much to be explored in relation to the consumer market of juices and fruit nectars ready for consumption in Brazil.

Based on the above information, this study aimed to analyze and characterize the profile of consumers of juices and/or fruit nectars by associating the sociodemographic variables, behaviour and level of knowledge about the beverages between two different markets. In addition, the study aimed to evaluate the effect of brand information of these beverages on the preference of the consumers through a blind and informed sensory analysis.

2 Material and methods

2.1 Type of research and population

To understand the consumer profile of juices and fruit nectars ready for consumption, a quantitative and descriptive field research was performed. The population studied was composed of consumers who frequented two markets in the city of Vitória (Espírito Santo, Brazil). The selected markets have different characteristics; market A is a hypermarket located in an upper middle-class neighbourhood of the city, and market B is a supermarket located in a middle-class neighbourhood. The contact method used to survey participants was a personal interview. The approach used for this research was to survey the data, which were collected using a semi-structured questionnaire.

2.2 Sample calculation and selection of the study population

To calculate the sample size, the totality of residents in Vitória (348.268.000 inhabitants - estimated data for 2014) was considered, according to the most recent data released by the Brazilian Institute of Geography and Statistics - IBGE (Instituto Brasileiro de Geografia e Estatística, 2014). The population was considered heterogeneous (split 50:50), with a sampling error of 5% (Gomes, 2013). Thus, the total number of participants to be interviewed was 383 people, and the actual number interviewed was 389 volunteers (200 in market A and 189 in market B).

The selection of interviewed participants was convenient and intentional. The researchers positioned themselves at the entrances to the juice and fruit nectar sales, where they approached the consumers when the consumers approached the shelves. The researcher invited the respondent to participate, briefly presented a Consent and Informed Term sheet and then presented the questionnaire. The survey was conducted from October 2014 to January 2015 on different days and times to cover a diverse selection of participants.

2.3 Development and implementation of the questionnaire

The questions in the semi-structured questionnaire addressed demographic data and both qualitative and quantitative data on the consumption of ready-for-consumption juices and fruit nectars. In addition, observation criteria during the interview were used. Care was taken that the questions did not contain any information about specific products, brands and prices to avoid influencing the information to be obtained and the consumer buying trial. Additionally, no information was given about the nutritional value of the products and their health effects.

A pilot test was performed by applying the questionnaire to a group of 20 to 30 people to evaluate the clarity of the questions and the application time. After the pilot, it was observed that all questions were sufficiently clear, and the interview reached the proposed optimal study time, which was a maximum of three minutes.

2.4 Evaluation of the influence of the brands

The brands and flavours of juices and/or fruit nectars most cited in previous questionnaires were tested (tasted) in the Laboratory of Technical Dietetics of the Health Sciences Center of the Federal University of Espírito Santo. Consecutive sorting-preference tests were applied (Minim, 2006): one blind type (no information about the brand of product) and one informed type (in which the brands were identified during the evaluation). The samples were served identified with coded numbers, randomly, under white lighting, in individual booths, and under refrigeration temperature (± 6 °C).

2.5 Statistical analysis

The data collected from the questionnaires were tabulated in Microsoft Excel and analyzed using the software SPSS version 21.0 and $p < 0.05$ values were considered significant.

Frequencies of sociodemographic characteristics and variables associated with consumption were evaluated using the Pearson's Chi-square test, in each market. Also, possibles associations between these variables were evaluated by the same test, with calculating the Odds Ratio (OR) and Confidence Interval (CI) of 95%, for all analysis.

In addition, a logistic regression analysis was applied by the enter method to evaluate the variables associated with the consumption of nectars (gender, marital status, years of education, age, price, quality, convenience and other reasons for purchase), and variables with a p value <0.20 were entered into the final model.

For the sorting-preference test, the results were analyzed using the Friedman test with the Newel and MacFarlane table. The differences between the sums of orders greater than or equal to the critical value indicate that there is a difference between the samples at a 5% probability.

2.6 Ethical care

This study followed the standards of the Code of Ethics of Market Research of the ICC (International Chamber of Commerce, 2008) and was approved by the Research Ethics Committee (CEP) of

the Health Sciences Center of the Federal University of Espirito Santo (CAAE nº: 32275014.2.0000.5060). This study was presented to those responsible for the two markets and was approved by a letter of consent.

3 Results and discussion

The sociodemographic profile analysis of consumers (Table 1) showed that there was prevalence of females in both establishments, with no significant differences between the assessed markets. According to Fonseca et al. (2011), despite the modernity of food habits, women continue to be mostly involved in food family demands, such as shopping and organizing the menu.

Regarding marital status, more people with a partner (married or common-law marriage) were observed in establishment A, and more people were unmarried (widowed, single or divorced) in establishment B, with p < 0.05 (Table 1). A likely cause for this result is that establishment B is located near an educational institution. This evidence is corroborated by the results of the age analysis, in which both places had a higher proportion of adults, and establishment B also had a higher percentage of adolescents and the elderly (Table 1).

Regarding education range, there was a significant difference between the two establishments (Table 1). It was evident that market A had the highest proportion of people with college degrees and that in market B, more people had completed high school. This fact can be explained by the characteristics and location of the markets. Market A, a hypermarket, is located in a small shopping mall with a food court and other services,

with a great and continuous movement of people. In contrast, market B, a supermarket, has an increased movement of people only during peak hours or on saturdays and is located near an educational institution with young people still in college.

Regarding the acquisition of beverages, fruit nectar was the most selected product in both markets. However, in market A, there was a greater selection of juices compared with in market B (Table 2). Abreu (2013) stated that as the purchasing power of the population increases, there is a tendency for the juice consumption levels to approach the standards of developed countries such that the consumption of these products will also increase.

In the final model of the logistic regression analysis, the variables associated with the acquisition of nectar were increased age (OR = 1.03 and p = 0.007), years of study (OR = 0.84 and p = 0.001) and product price (OR = 7.79 and p <0.001) and practicality (OR = 3.52 and p <0.001) (Table 3).

When consumers were asked whether there was any difference between the juice and nectar, most participants in both markets responded affirmatively (Table 2). However, more consumers from market B (47.6%) stated that there was no difference between the products compared to 25.5% of consumers in from market A. Table 4 shows an evident association between the level of education and the responses to the difference between juices and nectars, indicating that the higher the education level, the higher the knowledge about the distinction between and/or definition of juices and fruit nectars.

When asked, "What is the difference between juices and nectars?", over 75% of consumers in both markets gave an incorrect response (Table 2). There was only a significant association between the level of education and the success in answering this question in market B (Table 4), in which people with lower education levels were not able accurately to define the difference between the products. Turra et al. (2011) showed that 70% of respondents did not know the difference between juice and nectar and that 90% considered it important to know this differentiation.

According to the Ministry of Agriculture, Livestock and Supply of Brazil - MAPA (Brasil, 2009), fruit juice is defined as a non-fermented beverage that is not concentrated, not diluted for consumption and is obtained from mature and healthy fruit, or part of the plant of origin, by appropriate technological processing, subjected to treatment that maintains its presentation and conservation up to the moment of consumption. Nectar can be characterized as a non-fermented beverage obtained from water dilution of the edible part of the plant or its extract, with added sugar, intended for direct consumption (ready to consume). According to the Brazilian Institute of Consumer Defense - IDEC (Instituto Brasileiro de Defesa do Consumidor, 2014), the MAPA does not establish an official methodology to identify the amount of fruit in beverages, which, in the case of nectars, should range from 20% to 40%; however, there is a law restructuring project that will require larger percentages of fruit in the years 2015 and 2016. Those answers that most closely approximated the current legislation were considered correct, even if the answers were said informally.

Table 1. Sociodemographic profile of the interviewed consumers of juices and fruit nectars in markets A and B (Vitória - ES, 2015).

	Market A (n=200)		Market B (n=189)		p* value
	n	%	n	%	
Gender					
Female	122	61.0	124	65.6	0.346
Male	78	39.0	65	34.4	
Marital status					
With a partner	123	61.5	86	45.5	0.002
Without a partner	77	38.5	103	54.5	
Scholarity					
Elementary school	13	6.5	39	20.6	
High school	79	39.5	103	54.5	<0.001
College degree/ post-graduaded	108	54.0	47	24.9	
Age					
Teenager	7	3.5	15	7.9	
Adult	171	85.5	146	77.2	0.048
Elderly	20	10.0	28	14.8	
Not informed	2	1.0	0	0.0	

*Chi-square test, considering the Odds Ratio and confidence interval of 95%; p<0.05 is consider significant.

Table 2. Consume profile of juices and fruit nectars in markets A and B (Vitória - ES, 2015).

	Market A (n=200)		Market B (n=189)		p*
	n	%	n	%	
What consumers are buying?					
Juice	45	22.5	9	4.8	
Nectar	145	72.5	170	89.9	<0.001
Others	10	5.0	10	5.3	
What is the difference between juice and nectar?					
Yes	149	74.5	99	52.4	<0.001
No	51	25.5	90	47.6	
People who correctly defined the answer					
Yes	49	24.5	38	20.1	0.353
No	151	75.5	151	79.9	
Is the product for own consumption?					
Yes	174	87.0	175	92.6	0.700
No	26	13.0	14	7.4	
Anyone else will consume?					
Yes	164	82.0	161	85.2	0.397
No	36	18.0	28	14.8	
Who else will consume?					
Family	137	68.5	133	70.4	
Friends	27	13.5	28	14.8	0.681
Others	36	18.0	28	14.8	
Frequency of consume					
Daily	18	9.0	19	10.1	
Weekly	78	39.0	74	39.1	0.001
Monthly	80	40.0	48	25.4	
Rarely	24	12.0	48	25.4	
Local of consume					
At home	178	89.0	180	95.2	0.023
Outside home	22	11.0	9	4.8	
How did you know the brand?					
Midia	14	7.0	3	1.6	
Pamphlet	2	1.0	4	2.1	
Market	150	75.0	170	90	0.001
Indication	16	8.0	5	2.6	
Others	18	9.0	7	3.7	
Consume no-added-sugar products?					
Yes	73	36.5	39	20.6	<0.001
No	127	63.5	150	79.4	
Preference of beverages					
Water	143	71.5	143	75.6	
Juice/nectar	44	22.0	33	17.5	0.532
Soda	13	6.5	13	6.9	
Buying motive					

*Chi-square test, considering the Odds Ratio and confidence interval of 95%; p<0.05 is consider significant. NA: not applicable (consumers who do not read labels).

Table 2. Continued...

	Market A (n=200)		Market B (n=189)		p*
	n	%	n	%	
Price	25	12.5	67	35.4	
Quality	72	36.0	26	13.8	<0.001
Practicality	87	43.5	78	41.3	
Others	16	8.0	18	9.5	
Reading labels					
Yes	114	57.0	70	37.0	<0.001
No	86	43.0	119	63.0	
The informations in labels are clear?					
Yes	59	29.5	44	23.3	
No	56	28.0	24	12.7	<0.001
Others (NA)	85	42.5	64	31.1	

*Chi-square test, considering the Odds Ratio and confidence interval of 95%; p<0.05 is consider significant. NA: not applicable (consumers who do not read labels).

Table 3. Association between acquisition nectars ready for consumption and sociodemographic variables and buying motive, according to multivariate logistic regression, with consumers in the markets (Vitória - ES, 2015).

Category	Crude Odds Ratio	CI 95%	p value	Adjusted Odds Ratio	CI 95%	p value
Gender						
Female	1.4	0.83 - 2.34	0.20	1.12	0.63 - 1.98	0.70
Male				1.0		
Marital status						
With partner	0.86	0.51 - 1.43	0.56	0.81	0.44 - 1.48	0.49
Without partner				1.0		
Age	1.02	1.00 - 1.04	0.011	1.03	1.00 - 1.05	0.007
Years of study	0.83	0.75 - 0.91	<0.001	0.84	0.75 - 0.93	0.001
Buying motive						
Quality	1.0			1.0		
Price	10.55	3.92 - 28.39	<0.001	7.79	2.82 - 21.44	<0.001
Practicality	3.24	1.80 - 5.82	<0.001	3.52	1.90 - 6.51	<0.001
Others	2.73	1.03 - 7.23	0.043	2.04	0.76 - 5.67	0.17

CI 95%: confidence interval of 95%.

In both establishments, most consumers were acquiring the product for their own consumption. However, they reported that in addition to their own consumption, other people such as family and friends would consume the beverage. Acquisition of the product for other occasions such as parties and meetings was also reported (Table 2).

Regarding the frequency of use, market B had an evident increase in weekly consumption compared to market A, which had a more frequent monthly consumption (Table 2). 39% of respondents in both establishments had a weekly consumption, but a smaller portion of consumers (9 and 10% in markets A and B, respectively) had a daily consumption. A study in the city of Viçosa (Minas Gerais, Brazil) showed that the most frequent consumption of juices and fruit nectars was 3 to 5 times a week (Carmo et al., 2014).

The results also showed an evident association between the frequency of consumption and gender only in the market B, with higher frequency of consumption for women. This might be connected to the main concern of women to consume healthier products; i.e., the exchange of soda for fruit nectar is believed to be a healthier option. This statement was reported by the interviewed participants during the survey. The frequency of consumption was also associated with the age of those interviewed in market B, in which adults were the highest consumers of these products (Table 4).

In both establishments, consumers reported mostly consuming these beverages at home. However, compared with market B, market A had more consumers who consumed these products outside the home (Table 2).

There was a significant association between the location of consumption and the gender of the interviewed participant in

Table 4. Association between sociodemographic profile and consume variables of juices and fruit nectars in each evaluated market (Vitória - ES, 2015).

Variables	MARKET A (n=200)								MARKET B (n=189)							
	Gender (%)		Marital status (%)		Scholarity (%)		Age (%)		Gender (%)		Marital status (%)		Scholarity (%)		Age (%)	
	Female	Male	With partner	Without partner	Elem./high school	College/Post-graduation	Teen./elderly	Adult	Female	Male	With partner	Without partner	Elem./high school	College/Post-graduation	Teen./elderly	Adult
What consumers are buying?																
Juice	13.0	9.5	12.5	10.0	8.5	14.0	1.5	21.0	1.6	3.2	3.2	1.6	2.6	2.1	0.0	4.8
Nectar	44.0	28.5	46.5	26.0	36.0	36.5	12.0	60.5	61.4	28.6	39.2	50.8	69.8	20.1	21.7	68.3
Others	4.0	1.0	2.5	2.5	1.5	3.5	1.0	4.0	2.6	2.6	3.2	2.1	2.6	2.6	1.1	4.2
Is there any difference between juice and nectar?																
Yes	46.5	28.0	48.5	26.0	30.5*	44.0*	12.0	62.5	33.3	19.0	26.5	25.9	33.9*	18.5*	11.1	41.3
No	14.5	11.0	13.0	12.5	15.5*	10.0*	2.5	23.0	32.3	15.3	19.0	28.6	41.3*	6.3*	11.6	36
Correctly defined the answer																
Yes	13.0	11.5	17.0	7.5	9.5	15.0	4.4	18.0	12.2	7.9	10.6	9.5	12.2*	7.9*	5.8	14.3
No	48	27.5	44.5	31.0	36.5	39.0	14.1	63.2	53.4	26.5	34.9	45.0	63.0*	16.9*	16.9	63
Frequency of consume																
Rarely	8.0	4.0	7.0	5.0	6.5	5.5	2.0	10.0	20.1*	5.3*	10.6	14.8	19.6	5.8	7.4*	18*
Daily	4.0	5.0	6.0	3.0	4.5	4.5	1.0	8.0	7.9*	2.1*	4.2	5.8	7.4	2.6	0.5*	9.5*
Weekly	24.0	15.0	23.0	16.0	16.5	22.5	5.0	34.0	21.7*	17.5*	18.0	21.2	30.2	9.0	11.6*	27.5*
Monthly	25.0	15.0	25.5	14.5	18.5	21.5	6.5	33.5	15.9*	9.5*	12.7	12.7	18.0	7.4	3.2*	22.2*
Buying motive																
Price	6.0	6.5	9.0	3.5	7.0	5.5	2.5	10.0	23.3	12.2	15.3	20.1	30.2*	5.3*	8.5	27.0
Quality	20.0	16.0	21.5	14.5	15.5	20.5	4.5	31.5	7.9	5.8	7.9	5.8	11.1*	2.6*	3.2	10.6
Practicality	29.5	14.0	28	15.5	19	24.5	6.0	37.5	28.6	12.7	19	22.2	25.4	15.9*	8.5	32.8
Others	5.5	2.5	3.0	5.0	4.5	3.5	1.5	6.5	5.8	3.7	3.2	6.3	8.4*	1.1*	2.6	6.9
How did you know the brand?																
Midia	4.5	2.5	2.0	2.3	2.0	5.0	1.0	6.0	1.6	0.0	0.5	1.1	1.1	0.5	0.0	1.6
Pamphlet	0.0	1.0	1.0	0.5	0.0	1.0	0.0	1.0	1.6	0.5	1.1	1.1	1.6	0.5	0.5	1.6
Market	46.0	29.0	44.5	37.8	35.5	39.5	12	63	58.2	31.7	41.3	48.7	67.7	22.2	21.7	68.3
Indication	6.0	2.0	3.1	2.3	5.0	3.0	1.5	6.5	2.1	0.5	2.1	0.5	2.1	0.5	0.5	2.1
Others	4.5	4.5	3.1	3.3	3.5	5.5	0.0	9.0	2.1	1.6	0.5	3.2	2.6	1.1	0.0	3.7
Local of consume																
At home	52.0*	37.0*	55.0	34.0	40.5	48.5	14.0	75	61.9	33.3	43.4	51.9	72.0	23.3	22.8	72.5
Outside home	9.0*	2.0*	6.5	4.5	5.5	5.5	0.5	10.5	3.7	1.1	2.1	2.6	3.2	1.6	0.0	4.8

*Results in bold with asterisc are significant, considering the Odds Ratio and confidence interval of 95% (Chi-square test at 5% probability).

the market A (Table 4); mostly women consumed the product both at home and outside the home, possibly because of their greater concern with food and lifestyle.

It was also shown that most consumers of both establishments did not consume juices and/or fruit nectars with no added sugar. However, among those who consumed these beverages, the majority were from market A (Table 2). There was an association, only in market A, between the consumption of these beverages and gender, and women were more likely to consume no-added-sugar beverages compared with men (Table 4). Nunes & Gallon (2013) also showed that females were more interested and consumed more low-calorie products, lower in fat and sodium. This might be associated with women's greater concern with health and body aesthetics.

Food preferences seem to play an important role in food choice. Therefore, a preference for unhealthy food can be part of the reason for a person's unhealthy diet even though they may know about the relationship between food and health (Honkanen & Frewer, 2009).

Water was the most cited consumer-preferred beverage, followed by juices/fruit nectars and then soda (Table 2). In a study performed in the city of Juiz de Fora (Minas Gerais, Brazil), juices were indicated as the preferred beverage, whereas water occupied second place and, as in the current study, soda was in third place (Endo et al., 2009). Such evidence might be related to a portion of the population having a growing concern over health due to increases in diseases associated with diet and lifestyle.

When asked about the reasons that led them to purchase the product, practicality was the reason most often cited in both markets (43.5% A and 41.3% B), followed by quality for the market A (36%) and price for market B (35.4%) (Table 2). The preference for quality or price suggests that people with higher socioeconomic status have a greater concern for the quality of food consumed, whereas people with lower socioeconomic status are more concerned about price. Furthermore, it is suggested that the education level of the people interviewed might be associated with a higher socioeconomic level (unanalyzed data), putting in priority, quality and practicality over price.

When asked about the place where the participants had first encountered the brand that they were acquiring, it was noted that their own market was the main place where people were aware of the existence of the product (Table 2) This finding suggests that the advertising of such products is still retracted and that only leading market brands gain exposure by means of greater contact, such as television. Other brands are known only at the point of sale.

The label is an important health and food safety tool providing instructional information on how to use, how to store food products, differentiate individual products and provide consumers information about brands and foods needed to make informed purchasing choices (Mackey & Metz, 2009). Regarding reading labels, it was noted that in the market A, a greater proportion of consumers read and analysis the labels of juices and nectars before buying (Table 2). In this market, there was an association between this variable and the level of education, indicating that the greater the years of study (and the level of study), the greater

the interest and concern about reading the information on food labels (Table 4).

For Miller & Cassady (2015) nutrition knowledge could support the use of nutrition information on food label use in at least three ways. First, prior knowledge could enable consumers to pay attention to important information on a food label, and to ignore marketing features that do not reflect salient nutritional qualities, which in turn minimizes information overload. Second, prior nutrition knowledge can facilitate comprehension of, and memory for, food label nutrition information. Third, prior nutrition knowledge could support the application of the comprehended and remembered information to food choice.

It was noted that in the market A compared to market B, most consumers reported a lack of clarity regarding the labels (Table 2). In the same market, an association was also observed between gender and perception of clarity of the information provided on the labels for those who read it (Table 4). Most of the women said that the labels should be clearer in terms of the present nomenclature. This evidence is in accordance with the study of Nunes & Gallon (2013) performed in Caxias do Sul (Rio Grande do Sul, Brazil), which showed a partial understanding of labels by the interviewees due to lack of clarity of the information presented therein. This fact goes against the real goal of labels, which are designed to be elements of communication between the products and consumers, thus providing information in a clear and truthful manner about what people are consuming (Carneiro et al., 2013).

When asked about the preferred flavours, the answers were grape (37.5%), orange (18%), mango (11.05%), peach (10.08%) and passion fruit (7.2%).

When asked about the most remembered brands, 27 brands were cited by consumers in both markets. The three brands most prominent were: brand A (38.0%), brand B (11.3%) and brand C (3.8%). However, brand B is a soy-based beverage and

Table 5. Results of the sum of the orders from sorting-preference test for grape, orange and mango flavours nectars of the most cited and acquired brands during the interviews (Vitória - ES, 2015).

Samples (flavour/brand)	Sum of orders (blind analysis)	Sum of orders (informed analysis)
Grape flavour		
Brand A	64[a]	61[a]
Brand D	94[b]	86[b]
Brand E	82[ab]	93[b]
Orange flavour		
Brand A	72[a]	67[a]
Brand D	89[a]	89[b]
Brand E	79[a]	84[ab]
Mango flavour		
Brand A	77[a]	74[a]
Brand D	59[a]	61[a]
Brand E	104[b]	105[b]

Least significant difference: 21; Number of trials: 40; Pairs of sum of orders followed at least by one letter, in the same column (for each flavour), do not differ by Friedman test at 5% probability.

consequently does not fall in the category of juices and nectars. Possibly, this brand was one of the most cited due to frequent advertising in television media. An interesting fact was that approximately 7.7% of the participants interviewed did not remember any brand because what mattered was only the price of the product. The same was observed by Lee et al. (2015a), who reported that price was the main factor that influenced the intention to purchase fruit juices in the Chinese market. However, it was observed that only 24.5% of the interviewed participants were in fact buying the brand they had cited as the most remembered. Brand A, the one most remembered by consumers, also invests massively in television commercials and other advertising. In the present study, the authors also noted that consumers who do not have a specific assessment of a product usually rely on the brand as a quality indicator.

In the study of Carmo et al. (2014), the same brand A was also the most frequently cited as most preferred by respondents. However, in this study, the most purchased brands were brands D and E, which, at the time, were on sale in the markets. According to Silva (2014), the brand is a name, term, sign, symbol or design that identifies the product and along with the packaging has a significant role in the decision to purchase a product. The brand is still considered an indicator of quality, especially for those consumers who have not tasted the product. For Watkins et al. (2016) a brand is regarded as more than a name given to a product; it encompasses a whole set of physical and socio-psychological attributes, emotions and beliefs, and it is often these symbolic meanings of consumer goods and brands that consumers use to build and maintain their identity.

Thus, the three most cited (remembered) brands and the three most acquired brands (brands A, D and E) during the study were selected for the blind and informed sensory analysis. For each brand, the most cited and preferred flavours, such as grape, orange and mango, were tasted.

Analysis of the results of the informed and blind sensory analysis (Table 5) showed that the brand A was preferred in all evaluations for all tastes, regardless of access to information on the product and brand. However, it was noted that when the evaluators tasted the beverages without information about the product, brand D was less preferred, particularly for the grape and orange flavours. However, when the evaluators were informed about which brand they were tasting, brand E became less preferred, even more so than brand D. When the mango flavour was tasted, in addition to brand A, brand D was also preferred. In contrast brand E was the least preferred, independent of access to information about the brand of products. Ferrarezi et al. (2013) observed that in addition to price, the brand and the information provided on the product influenced the intention of buying orange juice in Brazil. The brand is usually associated with the quality of a product, but in this case, the criterion of choice was also associated with the flavour of the beverage.

4 Conclusions

Marketing strategies, especially nutritional marketing, can influence the purchasing decisions of consumers. However, the level of education, age, gender and even income (data not analyzed) are important variables in the buying process. It was evident that regardless of social class or age, practicality is the primary motivation for consuming juices and nectars. However, what determines the buying decision and the brand choice was, in most cases, the price, which is also related to the education level of those interviewed. Fruit nectar was the most consumed product, and women purchased most of the product. Women were also the most likely to analyze the labels and packaging, noting the need to improve the information, particularly the information concerning the fruit content existence, presence of additives, sweeteners and detailed descriptions. Brand A, which invests more in advertising, was linked to a product with better sensory acceptance for all flavours tasted. For the other brands, acceptance was dependent on the beverage's flavour. It is the role of the beverage industries to provide clear and understandable information for the entire consumer population. However, due to a lack of studies in this area and a lack of information and clarity in the legislation, more investment is needed for research of both the beverage industry and more consumer markets.

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