

CONSUMER BEHAVIOR AND FACTORS THAT AFFECT SATISFACTION AND RISK PERCEPTION OF PURCHASES OF OWN BRAND FOOD PRODUCTS

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ABSTRACT

In view of increased competition, combined with political, economic, social and technological uncertainties, the Brazilian retail sector has been going through a transformation process led, on the one hand, by market pressure itself, and on the other hand, by the permanent struggle for survival. From this point of view, foreign and Brazilian retailers saw the own brand segment as a viable marketing alternative for maximizing their turnover and meeting consumer needs and wishes. In that sense, this research aimed to identify factors that affect risk perception of purchases of own brand food products. Using an exploratory and quantitative approach, structured electronic questionnaires were applied using Google Docs. SPSS software was used for data analysis with a convenience sample of 250 individuals. This allowed the application of multivariate analysis techniques. Factors that were generated from applied analyses allowed us to conclude that risk elements are perceived differently, according to each analyzed category.

Keywords: Retail; Own brands; Perceived purchase risk; Satisfaction.

1. INTRODUÇÃO

Increased competition, combined with political, economic, social and technological uncertainties, has not only put companies in an environment of intense pressure, but has also interfered directly in their performance, independent of their size or segment. In this context, the Brazilian retail sector experienced a strong, growing influx of foreign investments, which increased in the 1990s after the opening process of the world economy. Motta and Silva (2006) report that the activity of large industries in non-durable goods began and developed throughout the 20th century. They state that it was during this period that companies such as Procter & Gamble, Unilever, Colgate, Johnson & Johnson, Kraft Foods and Coca-Cola took firm hold in several countries, making their presence felt in the homes and minds of consumers.

Mulhern (1997) states that retail, considered one of the biggest and most diverse sectors, was going through a revolution that had been changing simple negotiation into a sophisticated and automatized way of managing that involves different areas, from logistics and stock control to operational procedures and marketing. Verbeke and Viaene (1999) highlight that the main changes that occurred were of a technological, demographic, sociocultural and competitive nature.

Other factors have a direct effect on the environment of product distribution from industry to end consumer, such as: concentration of power in the hands of industry and trade; the appearance of the Internet as a consumer ally; and the Brazilian Consumer Protection Code, which has allowed for a qualitative change in consumers, making them more demanding regarding their choices.

According to Coughlan, Anderson, Stern, and El-Ansary (2002), the current retail sector is extremely competitive and oriented toward innovation, besides being shaped by an increasing variety of institutions and being constantly affected by a strongly dynamic environment. In the specific case of retail supermarkets, competition has become increasingly fierce and the struggle for survival more aggressive. The emphasis is on better provision of services with price reduction, which is lowering profitability rates in the sector.

Own brand products are seen in the context of this competition, as they are less and less considered to be cheap, low-quality products, thus becoming quality products with competitive prices. These findings motivated the formulation of the following research question: What are the factors that most affect satisfaction and purchase risk perceived by university consumers of own brand products? Based on this question, the objective of the present research was to identify factors that affect

satisfaction and risk perception of purchases of own brand food products among university students. The following own brand food products were considered for this research: yogurt, bread and juice.

This study represents an opportunity to broaden discussion about own brands in one of the most important segments of the Brazilian economy. According to the Associação Brasileira de Supermercados (ABRAS, 2013), the Brazilian supermarket sector grew for the ninth consecutive year in 2012. Also according to this organization, national supermarkets increased their nominal sales 8.3% and real sales 2.3%. In absolute terms, the sector invoiced 243 billion reais in 2012, against 224.3 billion in 2011. In addition, understanding risks associated with choices and the reasons for satisfaction can help managers to improve company performance and also foster greater academic knowledge in the field. The next section brings to light the main concepts addressed in the literature review.

2. LITERATURE REVIEW

In this section, the main concepts related to the topic studied are discussed, such as: overview of the Brazilian retail sector, own brands in retail and risk perception during the purchase process.

2.1 Overview of the Brazilian retail sector

The studied literature presents a variety of concepts related to retail. However, it was found that one of the concepts most used in Brazilian academic work was the one proposed by Parente (2007, p. 22), which defines it as "all activities that comprehend the sales process of products and services in order to meet the personal needs of end consumers." In addition, the concept proposed by Levy and Weitz (2000, p. 27) is very often referred to, and it completes the previous concept by stating that its main purpose is associated with adding value to products and services provided to consumers for their personal use or that of their families.

After an analysis of the historical evolution of Brazilian retail, it is possible to observe that it started with the first coast populations, which were oriented toward sugar export. However, a first approach to the self-service concept came out at the end of the Second World War, when products were displayed in small markets and grocery stores, but the customers only indicated the products to salesmen, who then picked them up. The self-service concept was developed for the first time in California, and according to Rosenbloom (2002), this innovation made possible the provision of better quality products at lower cost and better prices for consumers.

Retail is one of the sectors that creates the most jobs and moves money in the country. In 2010 only, 6,466,840 formal employment positions were created, according to the Ministry of Labor General Record on Employment and Unemployment (CAGED/TEM, as per its acronym in Portuguese). According to statements by the Instituto para o Desenvolvimento do Varejo (IDV, 2014), the importance of retail for the Brazilian economy has been increasingly prominent and acknowledged, as in addition to being the greatest source of formal employment in the country, the sector has significant figures for growth and consistent indicators of modernization, especially over the last four years.

Among the different types of retail premises, **self-service food retail** represents 86.1% of all sales in the country, according to IDV. In that sense, given the increasing weight of this sector in the Brazilian economy, an understanding of own brands expansion can have significant consequences for the whole food chain. This phenomenon of own brand expansion is presented in the next section.

2.2 Own brands retail around the world

With the advent of globalization and increased competition, own brands became more and more prominent and grew around the world. They compete for their share in the market with leader brands, and their increased presence is more evident in some countries than in others. Own brands are seen, among other factors, as a self-defense mechanism against retailers' dependence on suppliers. According to Kumar and Steenkamp (2008), an own brand is each and every brand that belongs to a retailer or distributor and that is only available in their premises.

Quelch and Harding (1996) state that, as a result of several structural aspects, the sales volume of own brand products in European retail chains is larger than in the United States. One of the aspects pointed out by the authors is regulation of television in Europe, which does not allow as much brand exposure as in the United States. In addition, the degree of market concentration in Europe is higher, and bargaining power with manufacturers is also greater than in the American market. In the United States, for instance, the five biggest retail chains hold 21% of market share, whereas in Europe this share reaches 62%.

The market share of own brand products in Europe hovered at about 50% of supermarket total sales in 2011, and in England the volume reached 60%, according to a special report on own brands (Information Research, Inc. [Iri], 2011). That said, we notice that there is a more organized structure in the European market when it comes to own brands, whereas this market is still developing in Brazil. According to Associação Brasileira de Marcas Próprias e Terceirização (ABMAPRO, 2014), own

brands are still growing in Brazil. In 2011, they reached about 22.5 million households, which accounts for 53% of Brazilian homes.

Puerta (2006) believes that own brands represent an opportunity for wholesalers to broaden their product and services mix by creating and offering exclusive rights and lower prices, which becomes a major competitive differentiation, especially for their consumers - small and medium retailers. In that sense, strategic decisions for marketing mix involve the creation of a combination of product, price, point of sale and promotion that meets the needs of the target market to a great extent (Ferrell, Hartline, Lucas, & Luck, 2000). The choice of brands to be offered is a strategic decision of the product mix. McGoldrick (2002) highlights the development of own brands in the assortment of sales point and points out that own brand products have played a key role in the development of some retailers. This phenomenon illustrates the retailers' increase of power and the sophistication of marketing.

Despite the fact that own brands have been under discussion, their creation is not so recent, especially in Europe and United States, where they are actually in an advanced stage. In the United States, there are even companies that specialize in assisting and intermediating contact between retailers and manufacturers. Daymon is one of these companies. They specialize in sales and marketing of own brand products (Goldberg & Wing, 2007). The use of own brands is quite recent in Brazil. However, own brands are seen as a cheaper option with poorer quality compared to major brands, but this concept has been changing.

American supermarkets, whose own brand sales represent an average of 14% of total sales, have an average benefit of 2% of total sales, before income tax. On the other hand, European supermarkets such as Sainsbury's and Tesco, with respective 54% and 41% of sales coming from own brands, have an average profitability of 7% of total sales before income tax (Quelch & Harding, 1996).

According to Mahoney (2014) results obtained from a study conducted by Deloitte Consulting with 4,015 American adults about own brands in the United States showed that the participation of private labels in the shopping basket has grown substantially, with a share of 17.5% in value and 21.2% in volume, resulting in a participation of 5% in the results of general retail between 2011 and 2013, most notably in the pharmaceutical retail segment, for which the share was 9% in that period. Globally, the average consumption of own brands in the category of high turnover industrialized goods is 16% (as opposed to 46% in Switzerland), whereas in Brazil this figure remains at 5%. Table 1 summarizes the main reasons for retailers to adopt and invest in own brands.

Table 1 - Reasons for buying own brands (%)

Reasons	World	Asia Pacific	Europe	North America	Middle East/Africa
Lower price compared to private labels	45	41	59	64	55
Good value for money	28	26	43	43	25
Similar quality to private labels	22	18	48	48	29

Source: Adapted from ABRAS (2014) and Nielsen Company (2011)

Still referring to the results of Deloitte Consulting, Mahoney (2014) pointed that own brands gained even more prominence in the United States during recession, and currently 88% of consumers state they purchase these brands; 71% of respondents believe they are spending less in supermarkets. In Brazil, own brands grew 21% in 2011 compared to 2010. It is also possible to notice great growth in own brand organic foods, which grew 62% (Nielsen Company, 2011). Also in 2011, own brands reached over 22.4 million households, which represents 53.2% of Brazilian homes. Products such as toilet paper and cookies remained as the most purchased (Nielsen Company, 2011). Brazil is peculiar when it comes to own brands. The country has different characteristics concerning aspects associated with brand loyalty, as shown in Table 2.

Table 2 - Three main attributes that build brand loyalty

Country	Loyalty attributes		
Brazil	1-Quality	2-Brand confidence	3-Price
China	1-Quality	2-Efficiency	3-Familiarity
India	1-Quality	2-Price	3-Innovation
Malaysia	1-Quality	2-Price	3-Brand confidence
Mexico	1-Quality	2-Price	3-Efficiency

Source: Nielsen Company (2011)

Unlike in the past, when they meant good price and little quality control, own brands are now regarded as good quality products and gain even more importance in Brazil, where attributes like confidence and quality are more appreciated by consumers, as shown in the Table 2. According to data available from the Brazilian association of supermarkets (ABRAS, 2014), there is not a clear relationship between the increase of price and a switch to own brands. Consumer behavior and profiles

are very different. In Brazil, if there is a price increase, 42% of people keep buying the same private labels. However, they test out own brands.

Data also show that nearly half of Brazilian households (49.1%) bought at least one own brand product in 2013. Of the percentage of households that bought them, 36.5% are from upper classes and 29.8% belong to the middle class. The reason for lower classes not holding the largest share is in line with the one given by many experts. They highlight the fact that lower classes are not able to make experiments, which makes them more loyal to brands they already consume, because if they have any sort of problem with these products, they will not afford to replace them, therefore they prefer not to take risks. Besides, consuming well-known brands confers status. The following section discusses consumer satisfaction with own brands.

2.3 Consumer satisfaction with own brands

There are countless types of consumer satisfaction with products and services. Among them, we can mention global satisfaction, loyalty, perceived value, and perceived non-compliance, to name a few. Global satisfaction can be understood as a global assessment of the degree of compliance with customer needs for a product or service (Oliver, 1977). This satisfaction indicator makes it possible to see whether a product or service meets consumer needs. As for own brands, after the purchase of milk or detergent from a retailer, consumer global satisfaction will vary and depend on expectations before purchase and the results obtained after use.

Loyalty is defined as consumer commitment to keep using a service from a provider on a regular basis (Oliver, 1977). This satisfaction indicator is intrinsically connected to global satisfaction. In other words, when consumers are very satisfied with a product or service purchased, they tend to keep using it deliberately. Loyalty and perceived value after purchase also concern own brands. Consumers will continue buying the product if the perceived value is high and if the product gives a sense of reliability.

Concerning perceived value, which is the assessment of the cost-effective relationship perceived by consumers regarding purchased products or services (Fornell, Johnson, Anderson, Cha, & Bryant, 1996), we can say that this assessment of consumer satisfaction is important in order to build loyalty and reliability. Perceived non-compliance is defined as the assessment made by the consumer subjectively comparing their expectations and perceptions of performance of the services received (Oliver, 1977). This type of assessment of consumer satisfaction is also related to global satisfaction. In the context of own brands, consumers can purchase a detergent from a retailer brand and then assess

the expected and actual performance, that is, before and after the purchase and use of the product. This comparison creates a level of satisfaction that will either make them purchase the product again (high level of satisfaction) or make them dissatisfied and buy another brand (low level of satisfaction). In the next section we analyze the factors that affect the purchase risk and how it is perceived by consumers.

2.4 Risk in purchasing own brand products

For manufacturers, the main assets are investments in high-quality production and advertising or other marketing campaigns in order to increase brand equity. The objective of all these efforts is clear communication of brand image, as manufacturers expect that consumers will rely on the chosen brand. Manufacturers expect to increase the gap between perceived value and perceived risk in the choice of the brand, and increase consumers' belief that price and/or brand name is an efficient heuristic for the choice of the brand (Hoch, 1996; Richardson, Peres, Wanderley, Correia, & Melo, 2008).

For retailers, the main assets are economies of scale in distribution and promotion at the local level. Retailers use their economies of distribution in two ways: first, by making manufacturers' efforts in promotion less efficient (for instance by not allowing passing through discounts or by charging installments of allocation or promotion), and at the same time offering consumers alternatives to national brands for all staples. Through the exploitation of economies of scale in distribution, retailers expect to obtain higher margins in both sales of own brands and distribution of national brands by manipulating the price difference and shelf space for all categories of products (Hoch, 1996).

Risk can be perceived in various types of purchases, through catalogs, on the Internet, and in stores, among others. As for catalog purchases, according to Festervand, Snyder and Tsalikis (1986), after comparing catalog purchases and those made in retail stores, the former was considered to be riskier in three ways: financial, performance and time/convenience.

Emphasis on product and brand selection instead of store selection is common in marketing literature. However, consumers often select a retail sponsorship (that is, a specific type of retailer) before considering specific brands. In this context, at a national level, we can mention retailers such as Carrefour, Pão de Açúcar, and Dia, among others, who create familiarity and consumer loyalty through the strength of their names, thus attracting consumers to their own brands.

Perceived risk can be identified in many ways, such as fear of a product not being able to present the desired qualities, or uncertainty regarding its performance, or even a feeling that the purchase of a certain brand can be socially disapproved. Besides, in the context of perceived risk, there

is a significant difference between consumers who are likely or unlikely to purchase own brand products. Unlikely consumers tend to fear and believe that own brands are of poor quality; they believe that purchasing own brand products can result in devaluation or financial loss; in addition, they may also believe that this results in a perception that the individual who consumes this product is in a lower social condition (Dick, Jain & Richardson, 1995).

The greater the equality in perception of quality between own brands and national brands, the lower the perceived risk between them. Familiarity with the brand reduces risk perception, that is, the more familiar an own brand, the smaller the difference between this brand and a national one in terms of perceived risk, regardless of the category of products (Mieres, Martín & Gutiérrez, 2006). Loyal consumers will trust the chosen store and will become familiar with the own brands, so loyalty to a store results in a greater probability of success of own brands (Hidalgo, Manssur, Olavarrieta, & Farías, 2007).

Retailers who allow for greater participation of consumers, innovation and brand orientation tend to achieve greater success with own brands and therefore are more likely to have loyal consumers and good financial performance with their own brand (Huang & Huddleston, 2009). It is observed that price still plays an important part in influencing consumer behavior regarding own brand products, but it is important to observe the target public profile in order to define brand positioning. Positioning own brand products based on price only may not result in a competitive advantage for retailers (Toledo, Giraldi & Prado, 2007). The methodological aspects of the research are presented below.

3. RESEARCH METHODOLOGY

For this study, quantitative research was carried out by applying closed questions and a five-level Likert scale. Quantitative research is focused on objectivity. We can also infer that this type of research is influenced by positivism, according to which reality can only be understood based on the analysis of raw data, obtained with the help of standardized and neutral instruments. Quantitative research employs mathematical language to describe the causes of a phenomenon, the relationship between variables, etc. (Fonseca, 2002).

This type of research was chosen in order to measure and understand the reasons for purchasing own brands, perceived risks of this choice and factors that create satisfaction with own brands through logic rules, deductive reasoning and also human experience. This study adopted a convenience non-random sample, which reduces the possibility of generalization from drawn

conclusions. As it is convenience non-random selection research, it can be considered to have an exploratory feature, despite being quantitative. Exploratory information collection can be carried out through interviews, observation or information/data research in secondary databases, documents, etc.

The sample totaled 256 university students with the help of Google Docs, which allowed for the application of an online questionnaire. However, six questionnaires were rejected (2.3% of the total), due to inconsistency of information, as individuals indicated the same answer for all questions or did not answer. For the data collection process, a structured self-applied questionnaire was used electronically. This questionnaire was based on similar research carried out by Silva, Merlo and Nagano (2012). For our study, the questions were adapted in order to suit the object studied, which was purchase risk of own brand products. Therefore, some factors previously described were considered, such as beliefs and behaviors studied by Fishbein and Ajzen (1975).

The study was divided into two parts. In part I, personal information from interviewees was collected, such as gender, age, course attended and city. In part II, statements were made about the studied topic (purchase risk of own brands), which were answered according to a five-level Likert scale, in which 1 means **totally disagree** and 5 means **totally agree**. Variables that presented favorable associations with studied own brand products were analyzed. To do so, a linear regression analysis was performed using SPSS and the Stepwise method.

Data obtained were analyzed with SPSS and various techniques such as multiple regression, which is the most common analysis method when there is a sole dependent variable related to two or more independent variables. Its main objective is to foresee changes in the dependent variable according to variations in independent variables (Hair, Anderson, Tatham, & Black, 2005). The multiple regression method was chosen due to the fact that a variable (consumer satisfaction) depended on some factors (independent variables). So, this method became common and important for carrying out this study. Besides this multivariate analysis method, correlation was also used, which aims to study linear relations between two sets of variables. The application of this analysis summarizes the information from each set of variables-answers in linear combinations aiming to maximize the correlation between the two sets (Mingoti, 2005). The analyzed variables are found in Table 3 as follows.

Table 3 - Dependent and Independent Variables

Independent variables	Dependent variables
Lealcomp - If I am loyal to the supermarket and buy their own brand.	Satisf – Global satisfaction with purchase of own brand products (1,2 or 3)
Qualrui - Own brand product with low price is of poor	-----

quality	
Valep - People who live with me think own brand products are worthwhile	-----
Familopin - It is important to me what my family thinks about me.	-----
Inseg - I feel insecure about buying own brand products because it is riskier	-----
Ljlimp - When the store is clean, I feel that own brand products are of good quality	-----
Achamim - It is important to me what people who live with me think about me.	-----

Source: Prepared by the authors

Results obtained in this study are presented and discussed in the next section.

4. RESULTS OBTAINED WITH FIELD RESEARCH

The profiles of 250 respondents of the questionnaire considered valid for this study are presented in the next section.

4.1 Profile of the studied sample

Of the 250 respondents considered in the analysis, 40% were male and 60% were female. It was a relatively young group, as 53% were between 21 and 24 years old, followed by 28% who were between 17 and 20, and 19% who were 25 or older.

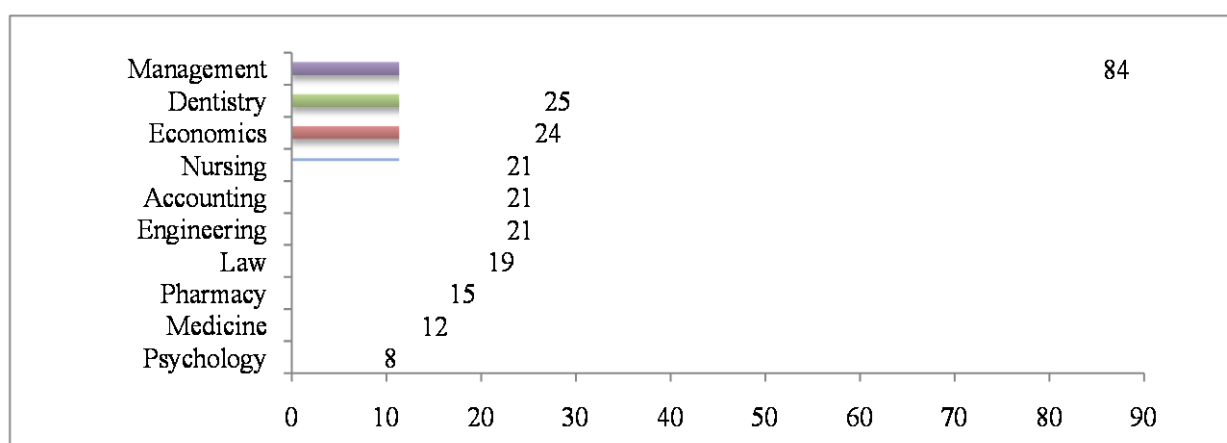


Chart 1 - Respondents by course (undergraduate)

Source: Prepared by the authors

Chart 1 evidences that most respondents are doing a management course. The cities considered for the research were represented as follows: Ribeirão Preto, São Paulo (44%), Jaboticabal, São Paulo (29%), Uberlândia, Minas Gerais (18%) and São Paulo, São Paulo (9%).

4.2 Consumer perceptions regarding purchase risk own brands

In this section, an analysis of collected data was done in order to compare different perceptions of the three own brand products studied. Table 4 shows the global average scores of evaluations and also the median for each analyzed product:

Table 4 – Means and medians of analyzed variables

	Mean	Median
Product 1 - Yogurt	3.41	3.48
Product 2 - Bread	3.37	3.55
Product 3 - Juice	3.38	3.54

Source: Prepared by the authors

Yogurt, bread and juice obtained very similar average scores. The difference between them did not exceed 0.10. As for the median, which separates the first half from the second half of the sample, the difference between products was not significant, so the figures were very close to each other. For Product 1 (yogurt), the five best means found are presented in Table 5.

Table 5 – Average evaluations of yogurt category

Independent variable	Description	Mean
ImagCf1	When the store has a positive image, the product is reliable.	4.40
Ljlimp1	When the store is clean, I feel that own brand products are of good quality.	4.04
QualPr1	The quality of products is more important than price.	4.00
MPConf1	Publicized own brands convey more confidence.	3.79
Econom1	People who live with me think I am more economical when I purchase own brand products.	3.69

Source: Prepared by the authors

Respondents' opinions regarding yogurt was closely related to store image (mean 4.40). In addition, a considerable influence of store cleanliness was observed in the opinion about product quality (mean 4.04), that is, when the store is clean, more quality is attached to the product. For product 2 (Bread), the five best means found are presented in Table 6.

Table 6 – Best means for bread

Independent Variable	Description	Mean
ImagCf2	When the store has a positive image in the market, the product is reliable.	4.44
Ljlimp2	When the store is clean, I feel that own brand products are of good quality.	4.11
QualPr2	The quality of products is more important than price.	3.90
MPCnf2	Publicized own brands convey more confidence.	3.80
MPPreçb2	Own brand products have low prices.	3.74

Source: Prepared by the authors

Bread had means that were very close to those of yogurt. Respondents' opinions on product reliability are influenced by brand image in the market (mean 4.44). Besides, cleanliness and price have an influence on perception of product quality (mean 4.11 and 3.90 respectively). For Product 3 (juice), the five best means found are presented in Table 7.

Table 7 – Best means for juice

Independent Variable	Description	Mean
ImagCf3	When the store has a positive image in the market, the product is reliable.	4.44
Ljlimp3	When the store is clean, I feel that own brand products are of good quality.	4.08
QualPr3	The quality of products is more important than price.	3.90
MPCnf3	Publicized own brands convey more confidence.	3.82
MPPreçb3	Own brand products have low prices.	3.73

Source: Prepared by the authors

The results for juice are similar to those for bread. The five best means found for these two products were the same. Respondents' opinions on product reliability are influenced by brand image in the market (mean 4.44). Besides, cleanliness and price have an influence on perception of product quality (mean 4.08 and 3.90 respectively).

4.3 Consumer perceptions regarding yogurt, bread and juice

For **yogurt**, the correlations between two independent variables were analyzed (with 0.400 as minimum value) in order to be more consonant with reality. Results obtained are presented in Table 8.

Table 8 – Correlations between dependent variables analyzed

Yogurt			Bread			Juice		
	Qualrui1	Achamim1		Qualrui2	Achamim2		Qualrui3	Achamim3
Inseg1	0,539		Inseg2	0,411		Inseg3	0,537	
Familopin1		0,675	Familopin2		0,673	Familopin3		0,674

Source: Prepared by the authors

The independent variable Qualrui1 (Own brand product with low price is of poor quality) is strongly correlated (0.539) with the independent variable Inseg1 (I feel insecure to buy own brand products because it is riskier). Thus, the independent variable Achamim1 (It is important to me what people who live with me think about me) is also strongly correlated (0.539) with Familopin1 (It is important to me what my family thinks about me).

After these analyses and conclusions of correlations found, a regression analysis was performed with data obtained from answers concerning Product 1 (yogurt). Then, we have the following regression model for yogurt: $Satisf1 = 2.330 + 0.262 Lealcomp1 - 0.230 Qualrui1 + 0.206 Valep1 + 0,127 Familopin1$. Family opinion and those who live in the household have an influence on satisfaction with yogurt (Valep1 and Familopin1), because according to matters related to beliefs and behavior as explained by Fishbein and Ajzen (1975), people are influenced by social pressure (family, friends, acquaintances, etc.), which often makes them behave in a specific manner in terms of purchasing.

An inverse relationship between poor quality and low price was observed with own brand yogurt, that is, consumers are not influenced by the idea that an own brand product with low price is of poor quality. The regression model presented an adjustment of the straight line measured by r^2 equal to 0.280; r equal to 0.529; adjusted r^2 equal to 0.269, which can be considered adequate, as this is research carried out in the social sciences field, in which the number of variables is generally large, making it difficult to better adjust the regression straight line. Also, the number of answers obtained, although they meet the needs of the questionnaire, may have reduced the adherence of the straight line. Therefore, in this case, 26.9% of variation in global satisfaction with Product 1 (yogurt) is explained by variations of these four independent variables previously mentioned.

For **bread**, the correlations between two independent variables were analyzed (with 0.400 as minimum value) in order to be more consonant with reality. The independent variable Qualrui2 (Own

brand product with low price is of poor quality) is strongly correlated (0.411) with the independent variable Inseg2 (I feel insecure to buy own brand products because it is riskier). Thus, the independent variable Achamim2 (It is important to me what people who live with me think about me) is also strongly correlated (0.673) with Familopin2 (It is important to me what my family thinks about me). After these analyses and conclusions of correlations found, a regression analysis was performed with data obtained from answers concerning Product 2 (bread). Then, we have the following regression model for bread: $Satisf2 = 3.117 + 0.217 Lealcomp2 - 0.180 Inseg2 + 0.137 Ljlimp2 - 0.105 Qualrui2$.

These results show that the main independent variables (Lealcomp2, Inseg2, Ljlimp2, and Qualrui2) influence the change in the dependent variable and even better define the final score of **Global satisfaction with Product 2 (bread).** Cleanliness of the store affects consumer satisfaction with the purchase of own brand bread. When the environment is well ventilated and pleasant, consumers tend to perceive better quality in the product.

The regression model presented an adjustment of the straight line measured by r^2 equal to 0.208; r equal to 0.456; adjusted r^2 equal to 0.195, which can be considered adequate, as this is research carried out in the social sciences field, in which the number of variables is generally large, making it difficult to better adjust the regression straight line. Also, the number of answers obtained, although they meet the needs of the questionnaire, may have reduced the adherence of the straight line. Therefore, in this case, 19.5% of variation in global satisfaction with Product 2 (bread) is explained by variations of these four independent variables previously mentioned.

For **juice**, the correlations between two independent variables were also analyzed (with 0.400 as minimum value) in order to be more consonant with reality.

The independent variable Qualrui3 (Own brand product with low price is of poor quality) is strongly correlated (0.537) with the independent variable Inseg3 (I feel insecure to buy own brand products because it is riskier). Based on this relation, we can say that low price influenced purchase risk of own brand products and respondents feel insecure when own brand juice is sold at a price considered low for the market.

Thus, the independent variable Achamim3 (It is important to me what people who live with me think about me) is also strongly correlated (0.674) with Familopin3 (It is important to me what my family thinks about me). Based on this relation, it is possible to say that there is a correlation between the opinion of respondents' families and the people who live with them, as many students live in university residences or share apartments with colleagues and consider these people as their families. After these analyses and conclusions of correlations found, a regression analysis was performed with data obtained from answers concerning product 3 (juice). Then, we have the following regression

model for juice: $\text{Satisf3} = 2.511 + 0.247 \text{ Lealcomp3} - 0.187 \text{ Qualrui3} + 0.116 \text{ Achamim3} + 0.135 \text{ Valep3}$.

These results show that the main independent variables (Lealcomp3, Achamim3, Valep3, and Qualrui3) influence change in the dependent variable and even better define the final score of **Global satisfaction with Product 3 (juice)**. Family opinion and that of those who live in the household have an influence on satisfaction with yogurt (Valep3 and Familopin3), because according to matters related to beliefs and behavior as explained by Fishbein and Ajzen (1975) and previously described, people are influenced by social pressure (family, friends, acquaintances, etc.), which often makes them behave in a specific manner in terms of purchasing.

The regression model presented an adjustment of the straight line measured by r^2 equal to 0.200; r equal to 0.448; adjusted r^2 equal to 0.187, which despite being low can be considered adequate, as this is a research carried out in the social sciences field, in which the number of variables is generally large, making it difficult to better adjust the regression straight line. Also, although they meet the needs of the questionnaire, the number of answers obtained may have reduced the adherence of the straight line. Therefore, in this case, 18.7% of variation in global satisfaction with Product 3 (juice) is explained by variations of these four independent variables previously mentioned.

5. CONCLUSIONS

Worldwide expansion of globalization, along with changes in lifestyle and in perception of time, have led to a situation in which consumers no longer tolerate a number of conditions related to purchasing, such as products that are of poor quality, decayed or rotten, and too expensive, among others. The increase in retail purchase alternatives, combined with lack of time, have made own brand products a more appreciated option. This appreciation is reflected in the growth of the sector in recent years, and it has been developing in many ways: number of supermarkets across Brazil, revenue, jobs created, new brands, etc.

Therefore, the present study aimed to identify elements that create satisfaction and the purchase risks associated with own brand products, based on three products: yogurt, bread and juice. This type of study can show which elements create global satisfaction for this kind of products and what purchase risks are perceived by consumers at the time of purchase, providing possibilities for improving consumer perceptions.

The three products analyzed in the study (yogurt, bread and juice) had very similar results for the five best average scores, which makes it evident that own brand products have similar performance in some analyzed features. Among the best average scores, the most frequent categories for the three products were. Product reliability is influenced by brand image; a clean store is associated with good product quality; quality is more important than price; and publicized own brands convey more confidence.

As for worst average scores, similar results were obtained for the three. Among them, we can mention: loyalty to supermarkets associated with loyalty to own brand products; opinion of neighbors concerning this kind of product; purchase risk perceived for own brand products; the importance of the opinion of people who live in the same household; and own brand products are associated with poor quality. Therefore, we can infer that both for best and worst average scores, the own brand products analyzed in this study had very similar results, allowing for a more general analysis of respondent satisfaction and purchase risk associated with own brand products.

In correlation analyses, correlations were found for yogurt, bread and juice between insecurity in the purchase of low-priced own brand products that are associated with poor quality, presenting very similar figures for these products, which were respectively: 0.539; 0.411; and 0.537. It was observed that bread is less affected by price than yogurt and juice, as it belongs to a category of products for which there is not a great difference in perceived quality despite price variation.

In addition to this first correlation analysis, a correlation between the opinion of the family and the opinion of people who live in the same household was found for the three products, with the following respective scores: 0.675; 0.673; 0.674. These figures were very close and they allowed for a general analysis of the three products, for which the opinion of families and people who live with respondents are related; in other words, students often consider their roommates as their families.

Regarding data and analysis of regression, satisfaction with yogurt and juice is strongly influenced by family, friends and acquaintances, or people who are part of consumers' social networks. These people who are not in the purchase process influence both the purchase and the feeling of satisfaction after purchase. Besides, for these two products, low price is not associated with poor quality.

As for bread, the results differed a little. Store cleanliness has a great effect on satisfaction with this product, as consumers perceive better quality in the product. This occurs due to the category of the product, which is more perishable than the others; in addition, its packaging is generally more fragile (a thin plastic bag) than the other two (stronger plastic for the bottle of yogurt and a carton for juice).

Among the managerial implications of this study, we can mention broadening of the discussion about satisfaction and purchase risk of own brand products, which are increasingly gaining space on the shelves of supermarkets and in households. For future research, the author suggests that analyses of other own brand products be done, using the same methodology adopted for this research, in order to complement the results obtained so far. Moreover, a greater number of responses is recommended, so as to have better adherence of regression straight line and more explanatory power.

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Data do recebimento do artigo: 25/09/2014

Data do aceite de publicação: 06/03/2015