A Work Project, presented as part of the requirements for the Award of a Masters Degree in Management from the Faculdade de Economia da Universidade Nova de Lisboa.

Which characteristics, behaviours and perceptions influence the consumption of Nestum private label brands?

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A Project carried out on the Children Consumer Behaviour Field Lab, with the supervision of:
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6th January, 2010

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Abstract

The aim of this research about cereal flakes category is to understand through the consumer characteristics, purchasing behaviour and perceptions about the product category, why some of consumers switch from Nestum to private label brands.

Through focus group with the young consumers and questionnaires to their parents, it was found that household income and family size are not the features that impact on private label purchasing intention and the price is not the key buying decision factor. Additionally, young consumers do not see each brand as unique, but their parents notice Nestum as being the best brand. It was demonstrated that the main myths about private label brands consumption are not applied in this product category.

Key Words: Brand; Cereals; Children; Parents.

Introduction

Nestum, a Nestlé brand, which belongs to the cereals and milk category; is a strong brand, very well recognized by the customers, it has built strong brand equity through the years by delivering a consistent quality and communication (Nestlé, 2009). The cereal flakes category specifically was developed for Nestum due to differences between the product and other products within the closest categories. Therefore, Nestum is not porridge nor a breakfast cereal but rather cereal flakes by this we mean it is not in powder form nor a cereal that we can individually eaten like *Chocapic* or *Estrelitas*, for example *(Nestlé, 2009).*

Nestum has a diversify range of flavours. Nestum Honey sells about 84% of the total Nestum's range; consequently my research will focus on this flavour. Nestlé offers alternative flavours such as Nestum Chocolate and Apple & Cinnamon, in order to cater different consumers' taste needs. Nestum Rice is the only one that is not flakes but rice flower. It is recommended for treating stomach flu's. More recently, Nestlé launched the wholegrain range, which includes three different flavours: Honey, 5 Cereals and Multifruits; this range is directed mainly to the young adults and adults who seek additional benefits.

Nestum as a brand is an "all family brand" due to the fact that consumption is made from young children to the grandparents, as mentioned by Nestum's brand manager. Considering the data given by Nestlé, children until five years old are the major consumers, with about 43% of the total volume sold. In spite of this evidence, the strategic **target is children aged between 6 and 10 years old**, who are in primary school; this age group represents around 27% of the total volume sold. The option of using the before mentioned age group is made based on marketing reasons combined with scientific reasons. Regarding the marketing reasons, mothers pay special attention to the child’s energy needs, whether during classes or even during break time; so Nestum’s consumption gives the right energy intake regarding their daily challenges. On the other hand, scientifically Nestum is a product that is sweet besides the low level of sugars but also the digestive process of the product allows for the energy to be spread more evenly than other products since the sugar is being gradually assimilated, not allowing for such a elevated pick and fall this also gives the sensation of being full during a large period of time.

In Portugal, **the private label brands are growing**, in the supermarkets and hypermarkets during the first semester of 2009 33% of the total sales were private labels, against 30,8% during the same semester of 2008 (Sol, 2009).

Nowadays, private label brands are **more conscious about the quality and health** factors of its brands, and they are working hard to gain the consumers’ trust.

Concerning the category where Nestum is, it is the only cereals flakes´ national brand in the Portuguese market, being the private label brands the threat to Nestum growth. All the biggest retailers in the Portuguese market have their own private label in this category; so as competitors Nestum has the brands Continente, Pingo Doce, Auchan, Goody (exclusive brand by Lidl) and Dia (exclusive brand by Minipreço). In spite of the competition, Nestum is the market leader, but in the last few years, Nestum has been losing market share to the private label brands (*Néstle, 2009)*.

My research proposal is to understand through the **consumer characteristics**, **purchasing behaviour and perceptions** about the product category, why some of consumers **switch from Nestum to their competitors**. All of those are important to obtain a solution to properly fight private label brands.

Literature Review and Hypothesis

Children Consumer Behaviour

According to McNeal (2007), at the **primary school age**, between 6 and 10 years, the consumer **behaviour of the children is influenced** by their family and with a higher preponderance by their peers - their schoolmates.

At this stage, children want to copy the behaviour of older people (parents, celebrities and older schoolmates), who are their references. To avoid the inferiority feeling, children work hard to develop skills and attitudes, as they want to belong to the same group and be one of them. (McNeal, 2007)

During this age, children do their first independent purchases, by this we do not mean supermarket purchases alone but some low value items as candies when they walk from their home to school, where they find small stores that know the children personally having a more personal relationship with them making it easier for children to make purchases.

As the above mention behaviour is not yet engrained children at this age are not independent buyers with **parents playing an important role** in their decisions and for that reason in this research.

Manufacture Brand versus Private Label Brand

Taking in to account the definition by Kotler, manufacturer brand is “created and owned by the producer”, while private label brand is “created and owned by a retailer” (Kotler et al, 2008).

However this is not the only difference; through customers’ heterogeneity these two kinds of brands could be seen as two distinctive sub segments: there is customers, which are **“quality seekers”** and others “**economy seekers**” (Baltas *et al.*, 1997). Those authors found a decreasing substitution between manufacture brands and private label brands. For example, when the manufacture brand' price increases, there is a similar proportional switch to other manufacture brands rather than to private label brands. Myres (1967) argues that the **price and the promotion are the main differences** between them, with private brands tending to have a lower price and their promotion is mainly local while manufacture brands are more likely that have a higher price and their promotion is made in a bigger scale.

Additionally customers perceive **differences in terms of quality** (Baltas and Doyle, 1998). For example, even when we have two products with equal quality but priced differently, the private label brand, the one with lowest price, is seen as being lower quality (Myres, 1967).

In Western Europe, the grocery chains dominate the grocery retailing. This means a huge **retailer's power over the manufacturers** (Quelch and Harding, 1996). As the retailers have their own brand, and also sell the manufacture brands, in their store, they can control the shelf space according with their needs, gaining advantage over the national brands (Rao, 1969), which have to negotiate and consequently to pay a fee to obtain a good position in the shelves.

Nowadays, retailers do not consider about **private label brands** as low-price product with simple packaging and no advertising. They **are changing the image** of the private label brands, giving a new value for the own brands in order to avoid the low quality association. Retailers are focused now on creating demand **offering quality**, as well as healthy conscious products (Know *et al.*, 2008). Following the Quelch and Harding (1996) idea, private label brands have more quality, more readily will the customers choose those brands over the manufacture and high-priced brands.

Hypothesis

Research about manufacturer brands versus private label brands is plentiful. However, these studies were made across different product different categories, to verify if all the hypotheses were applicable in all categories studied. In my research, some of the variables are applied to a specific product category, the cereal flakes.

Considering the literature review, the best predictors to differentiate who buys private label brands from the manufacture brands is through the behavioural variables (Burger and Schott, 1972). Other authors had already studied demographic and socio-economic characteristics, which have a small significance and they are not relevant at all (Frank, R. E. and Boyd, H. W., 1965, Myres, 1967 and Livesey and Lennon, 1978), but Richardson, P. *et al* (1996) noticed that socio-economic variables such as income and family size have an impact on propensity to consume private label brands. Furthermore education and age were found to have no impact of such variables as purchase intention. Hence the first's hypotheses are:

> *H_1: Household annual income has negative impact on private label brands' purchase intention.*
>
> *H_2: The greater is the family size, the greater is the purchase intention of Nestum private label brands.*

The protection of brand image becomes even more important nowadays because it is a strong weapon to remain competitive without forcing the price too much (Baltas *et al.*, 1997). Brand image is "the set of beliefs about where each brand stands on each attribute" (Kotler *et al.*, 2008) that include purchase experiences, which influences the customer behaviour through the policies adopted by the stores and the response to the marketing programs, but the impact depends on each product (Myers, 1967). One could add up to marketing programs, the product related attributes such as the brand name, packaging and label, the combination of all those elements contributes to brand image and consequently will influence the brand preference (Richardson *et al*, 1996*).*

H_3: The greater the brand image of the private label brands, greater is the brand preference for such brands over Nestum brand.

According to Lichtenstein *et al.* (1988) definition, price consciousness is the degree to which the consumers use the price as a decision-making criterion. Being price conscious is one of the attitudes already studied previously and it is a feature of the private label customers, since private label brands practice lower prices than manufacture brands (Glyn and Chen, 2009). Other authors found that the consumers who tend to pay low prices are more favourable to buy private label brands (Burton *et al,* 1998 and Ailawadi *et al,* 2001).

H_4: If customers are price conscious, the purchase intention of private labels brands is higher.

Considering Richardson *et* al (1996), quality should be seen as the perceived value of money rather than quality in absolute terms; given the same price of two brands in the same category, the brand that the customer, considering the different attributes and features, perceives as having the most quality, this is, the one that presents greater benefits will induce greater private brand purchase intention. Hence the fifth hypothesis:

H_5: If the customers perceive value of money, then the purchasing intention of the private label brands is greater.

Methodology

The research is divided in **two parts**. The first part is dedicated to the **children as the consumers**, while the second part will focus on the **parents as the buyers**. The children's perceptions and attitudes are important due to the fact that parents take in to consideration their child's preferences when purchasing products in stores.

Children

The method used in the first part was to conduct focus group with the target age group mentioned above (between 6 and 10 years old), in their schools, within Greater Lisbon. Moreover, the children had to consume at least one of the brands in the cereal flakes category.

While doing research with children, one has to take into account their development, because there are some techniques and methods, which are not suitable. UNICEF (2002) built an article about the ethics and responsibilities one should take in consideration. The main points in this document regard the parents' agreement in the children participation in the research, as well as, the children rights.

The initial goal was to conduct the research in private and public schools to get information from different social classes. In order to do the research in public schools an authorization from the Education Ministry is needed. This authorization was denied because the study was understood as a market research; therefore, the research was limited to private schools.

The research was conducted in two private schools; authorization and a questionnaire (both documents are available in Annexe 1 and 2) were sent to the parents, with the former used to complement the information given by the children.

The questionnaire was applied in second year classes, 30 parents answered it. The focus group had six students. In the other school 44 authorizations and questionnaires were sent but only 10 of them were valid; consequently, 2 focus groups of 5 children each were performed.

The focus groups were composed by three distinct parts. In the first one, the goal was to “break the ice”, mainly. Children present themselves by writing in a card their names as well as what they eat for breakfast. After that a small discussion was had about their preferences and habits at this meal.

In the second part, the goal was to get information about children’s preferences and was composed by two steps. First, a blind test with the six different honey cereal flakes brands was performed; warm skimmed milk was used, as information given by Nestlé (2009) showed this was the way that the majority of consumers used to eat such brands. In order to measure how much the children liked the different brands, a 5 points smile likert scale (Neelankavil, O’Brien and Tashijian, 1985) was used. After that, the six brands packages were shown to the children for them to rank the three most preferred brands. The objective of this second part was to analyze if there were differences between the ranks of brands’ tastes and the ranks of the brand images of the several brands.

In the last part, the goal was to measure the brand image of the different brands. Given the participants age, visual methods were more effective. I offered them a diverse range of magazines, as Visão, Sábado, Visão Júnior, National Geography, Futebolistas, Auto Hoje, Pais e Filhos, Bébes, MotorSport, etc.) and children had to cut images from the several magazines which they associated to each brand and then posted them in the paper with the correspondent brand. At the end, small interviews were made to understand the pictures’ choices when related to each brand.

Parents

To gather information from the parents, a questionnaire was built since it is the best method to collect information from buyers of cereal flake category (Questionnaire in detail in Annexe 2).

The questionnaire was built according to the research hypothesis, excepting the first part, which intended to filter the cereal flakes' buyer; to understand which brands were bought, brand packaging pictures were shown to the parents to point out which ones they knew. After that, they had to point out which brands their children consumed. If the parent did not choose any brand, their participation finished.

The second part was made to obtain information about brand preference. The scale applied can be found in Bruner and Hensel (1998); this scale compares the known brands under several statements by using a five point likert scale, where each extreme corresponds to a brand. The statements used were "Good brand", "I like the brand" and "brand more likely to purchased".

Furthermore, the third part was focused in two topics: price consciousness and perceived value of money. Both topics were measures through scales from a book by Bearden and Netemeyer (1999). Those scales contain different statements measured in a seven item likert-scale, from the 1, strongly disagree to 7, strongly agree.

The following part was dedicated to the social-economical variables. The income levels used to measure the household annual income is from the *Instituto Nacional de Estatística* (2002), as are parts 6 to 11. Each part corresponds to one brand. This organization allowed for an easy identification of the brand, as parents had to answer only the brands they knew.

The three first questions were about purchase intention of that specific brand. Those questions were also measured in 7 item likert-scale. The fourth question measured the brand image. It was made through sixteen adjectives that characterized brands in a 5 items likert-scale, collected from Bruner and Hensel (1998) book.

The questionnaires were rebuilt, being a slightly different from the one that first sent to the parents in the schools. The questionnaire was too long to be answered in the hypermarkets and supermarkets (Questionnaire in detail in Annexe 3). Instead of studying all brand images; only two brands were chosen: Nestum and a competitor, if they knew someone. The questionnaire was filled in the hypermarkets and supermarkets in Lisbon area, next to the Nestum and private labels shelves to get the parents whose children consume at least one of the brands. Unfortunately, authorization was only obtained in three of the five grocery chains; so two days were spent in Jumbo and three days in both Continente and Pingo Doce. This fact has an impact on the data obtained, which was biased as 55 questionnaires were from the hypermarkets and supermarkets.

Findings and Results

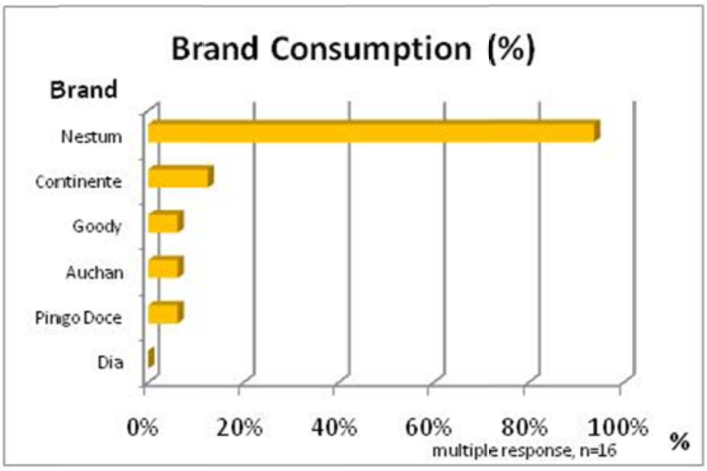
All the frequencies are detailed in Annexe, from 4 to 22.

Children

A focus group with 16 children was conducted; therefore, the sample is too small to be valid, then the analysis conducted is descriptive.

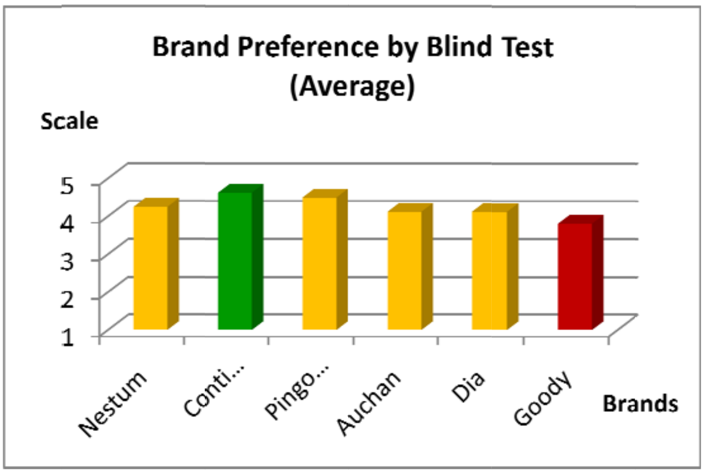
The data collected is useful to have the children perspective about the cereal flakes product category.

Figure 1 – Brand Consumption



The children, who participated in the focus groups consume mainly Nestum brand. Some of them also consume private label brands, but this percentage is small (Figure 1). In general, children like all the cereal flakes brands.

Figure 2 – Brand Preference by Blind Test



Nonetheless Continente was the brand most preferred and Goody was the brand less preferred, when the different brands were tested/tasted (Figure 2).

Figure 3 – Brand Preference by Ranking

a) Overall result **b) An exemple**

When, asked to rank the brands, one surprise arose: Goody was one of the preferred brands. As expected, the manufacture brand, Nestum was the favourite brand, followed by Continente (Figure 3).

Brand image was another studied topic, with the intention of perceiving the differences among brands.

Children, however, still don´t see each brand as unique. Most of the pictures that were chosen, they are common to all brands.

The common pictures that appeared were babies and some dishes used by them. Also other products for children were pointed out, as Cerelac (baby porridge), cheese and tuna for kids.

For the private label brands there was a strong association with the buying act. When children thought about those brands what came to mind were the grocery chains rather than the product category or the brand for that specific product.

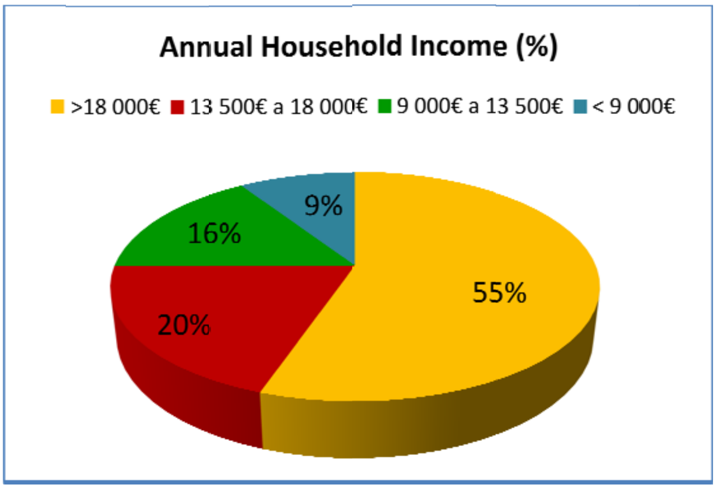
Additionally, warm colours like yellow and brown together with the honey colours were associated with them. Regarding those associations, they seem do not like the Auchan packaging due to the fact is white, in opposition to the yellow in the competitors brands. One of the children wrote over the Auchan brand picture "crap", however, against expectations, this child was an Auchan consumer.

As said previously, there were few unique associations. One of child pointed out the sun, which is present in Dia packaging and other have linked the Portuguese flag to Nestum.

Parents

From the parents a convenience sample was gotten, due to the limitations in visiting all the grocery chains, but also there was low response rate from the schools and finally time constrain, which it did not allow to obtain a higher sample therefore the results are not accurate as it should be. In spite of all these

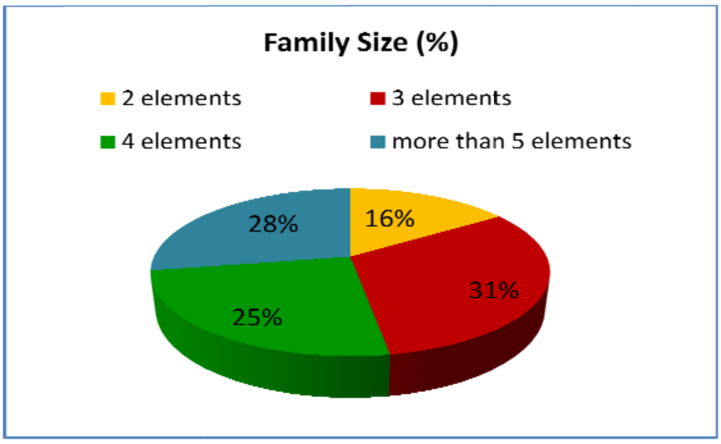
Figure 4 – Annual Household Income



limitations sample of 76 parents was obtained; moreover for some questions, the sample is even lower, because of select cases.

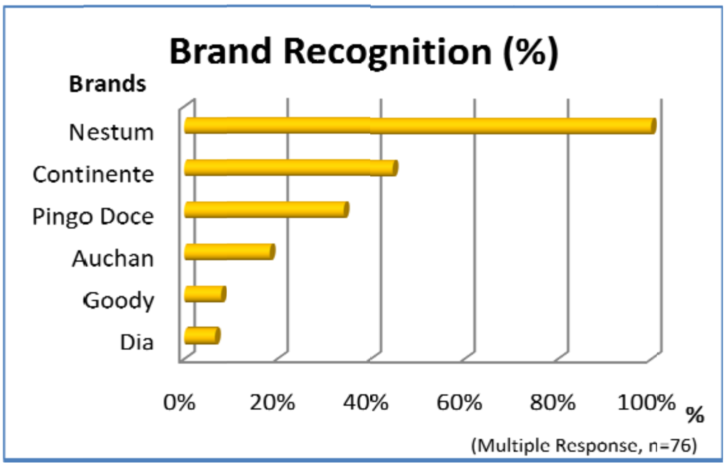
Initially, the socio-economical variables are described to understand, which buyers' characteristics fit in the sample. The sample was described through the annual household income. In sample of the 76 respondents, more than half earn the highest income level (Figure 4). Contrasting the data collected with the data available by INE (2002), around 35% of households earn the highest income level in Great Lisbon area and 25% earn the smallest income level. Therefore, our sample is not representative of the Great Lisbon area in terms of income, being biased towards higher income levels.

Figure 5 – Family Size



The other social - economical variable studied was the family size. We could say that the frequencies are equally distributed in the categories. Surprisingly, 16% of the families are composed by two elements. In this sample the families with three elements are more represented (Figure 5).

Figure 6 – Brand Recognition



Although brand recognition was not required for the hypotheses, it was included in the questionnaire, to ask to people the right questions. Given my sample, Nestum has huge brand recognition: all the respondents know the brand. The best private label just got about 45% of brand recognition (Figure 6).

Afterwards, the parents were asked about in which cereal flakes brands they really buy. As expected, the result was according to the market share. Nestum has an enormous market share comparing to the competitors. In the sample, around 88%, of the customers buy the Nestum brand, while the competitors' brands have less than 20% each one (Figure 7).

Important to know is the brand preference comparing the manufacturer brand, Nestum with each private label brand. It was decomposed in two different questions: which is the best brand and which brand is more likely to be purchased.

In this question the respondents had to compare Nestum with the brand they knew, through a five items likert scale. In addition, a scale transformation was done, in order to get a better comprehension of the results.

Figure 7 – Brand Consumption

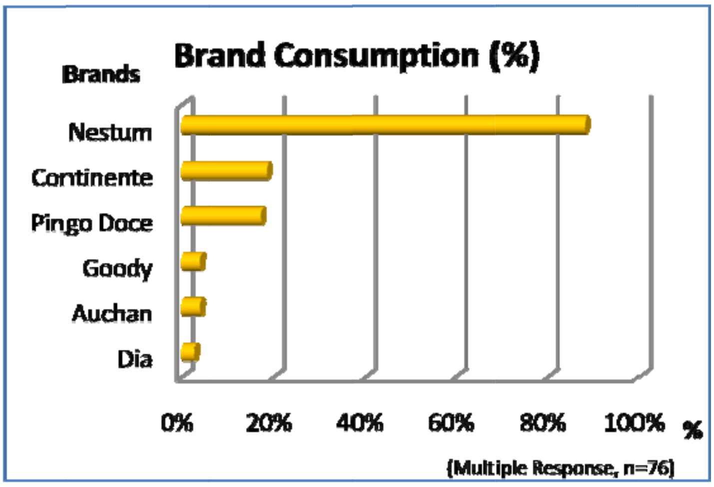
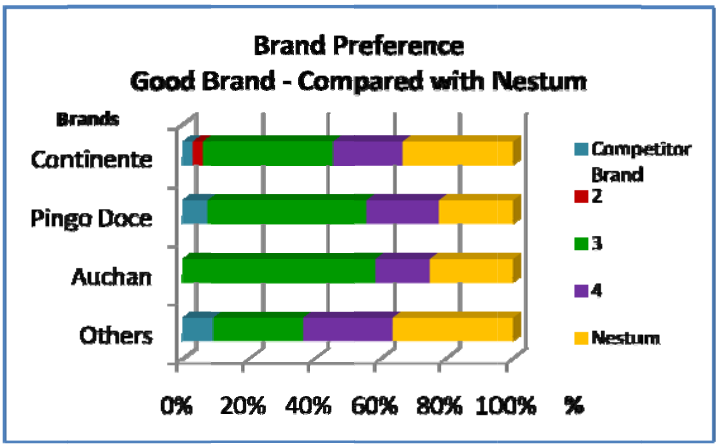


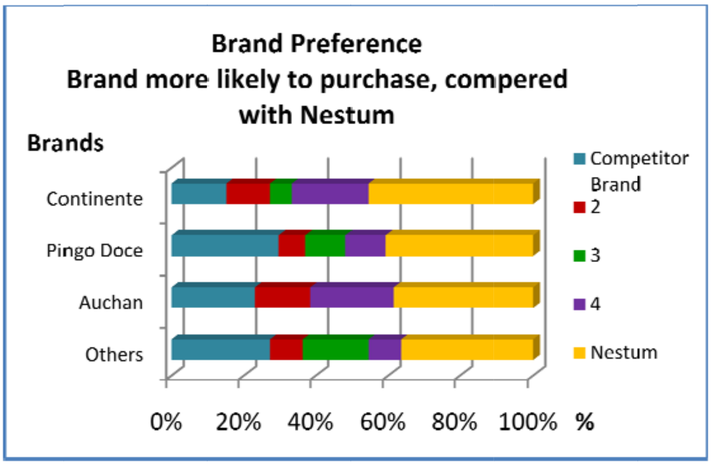
Figure 8 – Brand Preference: Good Brand, compared with Nestum scale



Considering the Figure 8, customers think Nestum brand as good as private label competitors. Although, there is a significant percentage, who thinks Nestum is the best brand. A small percentage see Nestum is the worst brand.

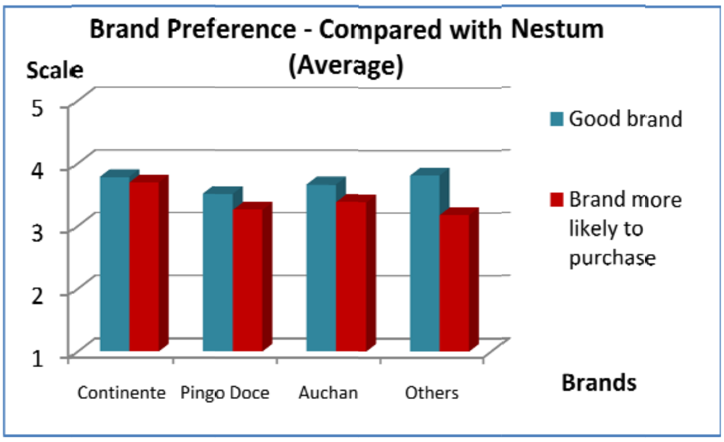
Under the previously structure, the respondents were asked to compared Nestum with the private label brands, to know which brand they are more likely to buy. About 40% of the respondents said that they buy more Nestum than the other private label brand that they know. However, there is a significant percentage, who buys more the private label brands (Figure 9).

Figure 9 – Brand Preference: Brand more likely to purchase, compared with Nestum scale



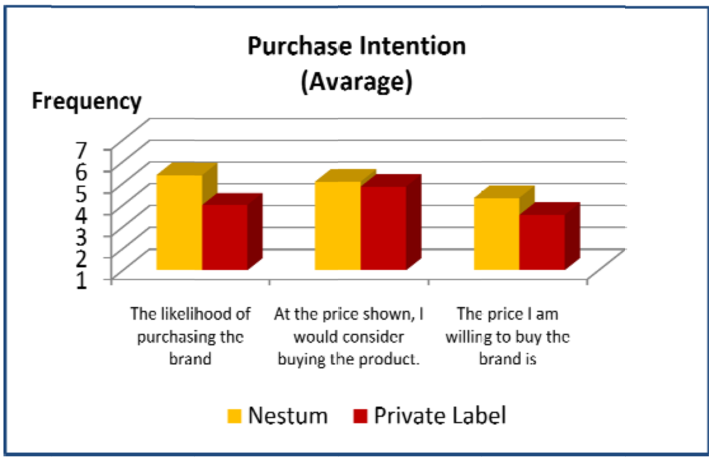
For a better understanding of the outcome, the average was computed (Figure 10). A high column means Nestum has a higher purchase intention. The Nestum brand is always preferred, it does not depend on which brand is used to compare. Nestum is clearly perceived as better brand than Continente and Auchan, while Pingo Doce is perceived to be as good as Nestum. Nestum is the best brand, taking into consideration this sample; however this fact does not mean that they buy the manufacture brand.

Figure 10 – Brand Preference, an overview



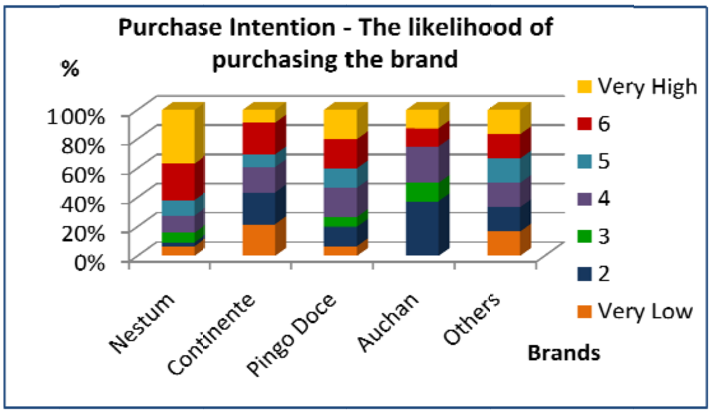
Purchase intention is also an important variable. The set of questions was asked for all brands, but some brands have the sample too small, being the result not significant at all. Then, the frequencies of private label brands were added up to compare with Nestum in order to obtain an overall conclusion. In general, Nestum has the highest purchasing intention (Figure 11).

Figure 11 – Purchase Intention, an overview



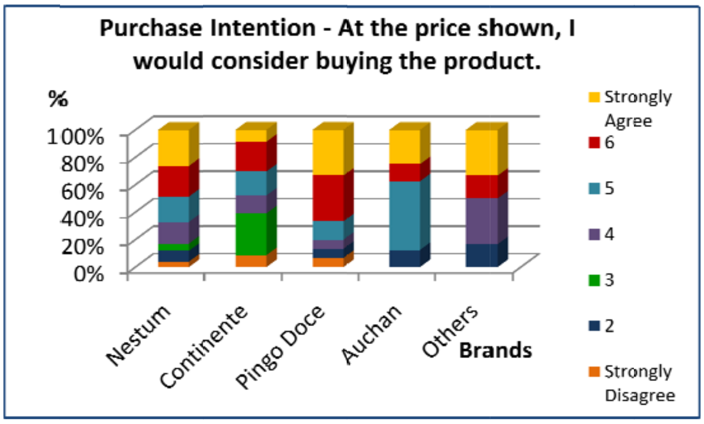
Analyzing deeply each question, we have a more accurate perspective. In Figure 12, we see Nestum with high purchasing likelihood. In the private label brands there were not dominant answer; they are more or less equally distributed.

Figure 12 – Purchase Intention: the likelihood of purchasing the brand



Regarding Figure 13, the majority of respondents' considerer to buy each brands at price shown, since a small percentage of answers is below 4, the middle point. Additionally, around 35% of buyers who knows Continente,

Figure 13 – Purchase Intention: At the price shown, I would consider buying the product



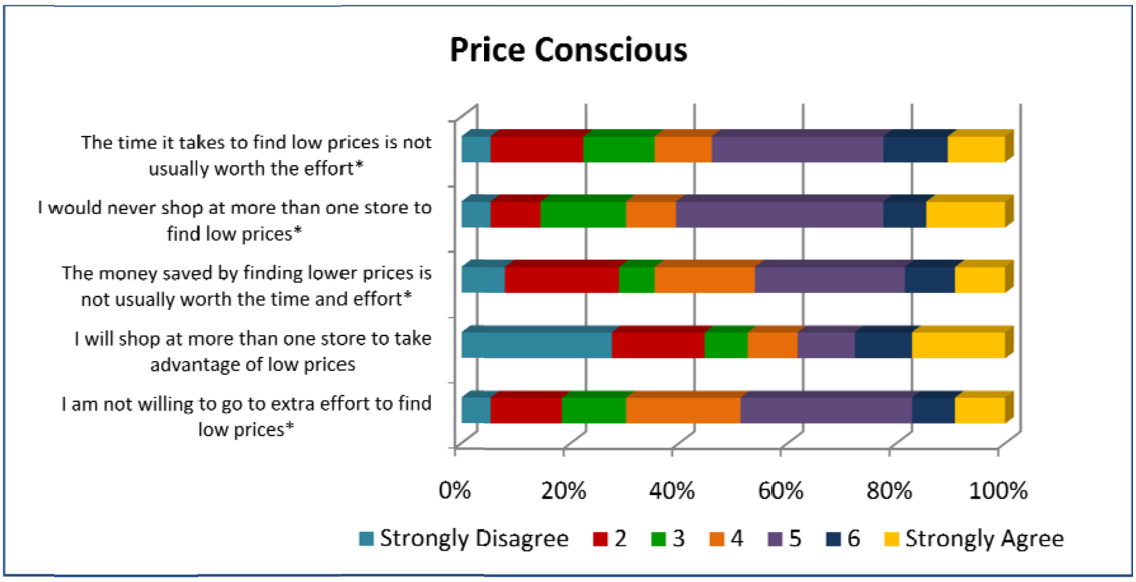
are not able to pay for the brand, given the price shown. This percentage is significant when it is compared with other brands.

According to Figure 14, the responds are not willing to pay a high price for the product category. This outcome is expressed by the majority of the options is centre in the middle point. Only in Nestum, about 10% of the respondents are willing to pay a so high price.

Figure 14 – Purchase Intention: The price I am willing to buy the brand

To analyze the price consciousness, we need to be aware that some questions are in the negative form. They are marked by a (*).

Figure 15 – Price Conscious



*** - Question are in negative form**

In this product category, the buyers are low price conscious. They do not use the price as main factor to choose a brand due to the fact they do not search for low prices because that search does not worth time and the effort (Figure 15).

The customers also perceived the category as good value of the money. They are both concerned about the quality and price. However, they do not pay some much attention on the price, when they are buying the category products (Figure 16).

Figure 16 – Perceived Value of Money

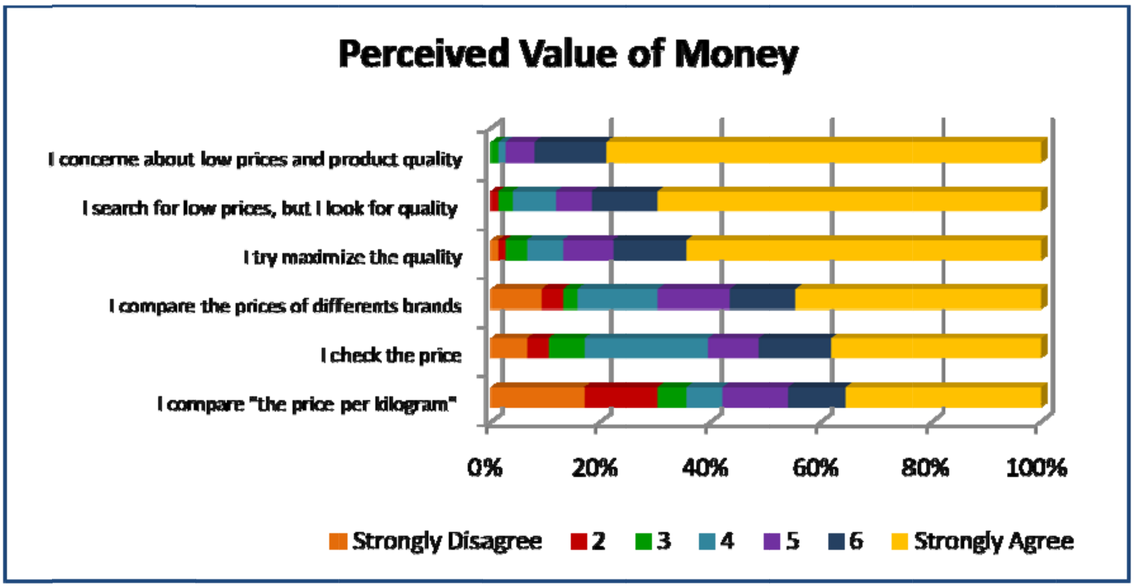
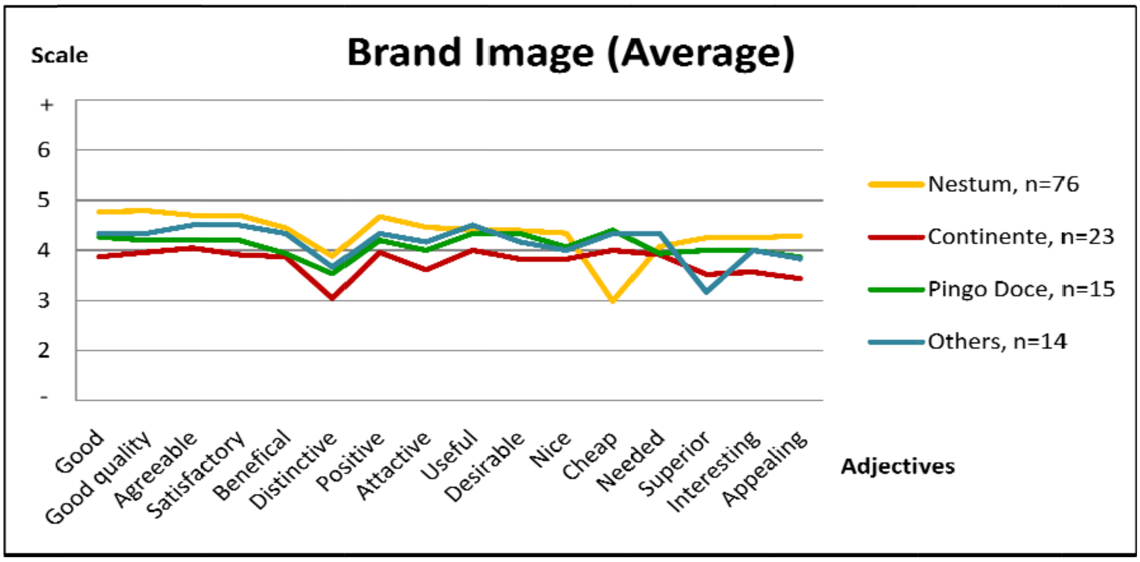


Figure 17 – Brand Image



Finally, we have the brand image. As happened in previously questions, here some brands were aggregated, because they have a small sample and their possible conclusions are not significant at all.

In all the adjectives used in the brand image description, Nestum has higher score than its competitors, excepted in “cheap”; Nestum is seen as being the most expensive brand. The brand Continente is the brand with the lowest brand image (Figure 17).

To see detailed the analysis of each adjective, check the Annexe 22.

After a quickly summary about the data found, it is essential to see if the initial hypothesis are verified. Due to the type of scales used, all the tests used were non-parametrical.

The hypotheses were tested through chi-square test, at 5% significance level with the null hypothesis of this test being a no association between the variables; to measure the strength of the association, we used the Cramer’s V statistic, which is applied in tables larger than 2 x 2. This statistic only indicates the degree of association and it does not indicate how the variables are associated. Furthermore, to see how variables are associated, the Spearman’ rank correlation coefficient is used (Malhotra and Birks, 2007). In Annexe 23 is available the tests for variables with significance.

When, significance tests were computed, the data from Auchan, Dia and Goody were not used because their samples are too small to have a significant conclusion.

H_1: Household annual income has negative impact on private label brands’ purchase intention.

Table 1 - Chi-Square Test between Household Income and Purchase Intention

	The likelihood of purchasing the brand			At the price shown, I would consider buying the product			The price I am willing to buy the brand		
	χ^2	p-value		χ^2	p-value		χ^2	p-value	
Nestum	43,064	0,010	Reject H0	15,513	0,905	Not reject H0	21,819	0,590	Not reject H0
Continente	27,520	0,121	Not reject H0	30,143	0,068	Not reject H0	24,169	0,235	Not reject H0
Pingo Doce	18,333	0,787	Not reject H0	17,667	0,609	Not reject H0	17,708	0,607	Not reject H0

In the Table 1 are presented the values of chi-square tests, the p-value and an indication if the hypothesis is rejected or not rejected.

The hypothesis which associates "the likelihood of purchasing Nestum" with the different incomes level was rejected. This means there is association between these two variables. Therefore, the Cramer's V statistic is equal to 0,376, meaning that this association is not strong and this outcome is confirmed by -0,045 Spearman Rho test.

Between the private labels brands and the purchase intention there is any association. It means, for the cereals flakes category, the household income is not a characteristic that distinguish the customers, and then, the null hypothesis is rejected.

H_2: Greater is the family size, the greater is the purchase intention of Nestum private label brands.

Table 2 - Chi-Square Test between Family Size and Purchase Intention

	The likelihood of purchasing the brand			At the price shown, I would consider buying the product			The price I am willing to buy the brand		
	χ^2	p-value		χ^2	p-value		χ^2	p-value	
Nestum	17,071	0,972	Not reject H0	35,009	0,242	Not reject H0	25,764	0,687	Not reject H0
Continente	9,095	0,523	Not reject H0	6,287	0,791	Not reject H0	13,608	0,192	Not reject H0
Pingo Doce	22,500	0,549	Not reject H0	24,250	0,232	Not reject H0	15,938	0,720	Not reject H0

The Table 2 shows that there is no association between the different family's sizes and both Nestum and private label brands purchase intention. So, the initial hypothesis is rejected. A greater family size does not induce more private labels' purchasing intention.

In conclusion, the socio-economic variables do not have impact on the private label brand purchase intention, in the cereal flakes category.

H_3: The greater the brand image of the private label brands, greater is the brand preference for such brands over Nestum brand.

Using the chi-square test, the association between each adjective and brand preference was measured. A test for each brand was done, and in general, there is no association between the majority of adjectives and the brand preference.

For Nestum brand, there was needed to compare with Continente and Pingo Doce, due to the fact that the brand preference question was built using a comparative scale, where Nestum was always one of the possible answers (see Table 3 for summary of all hypotheses tested).

There is a strong association (Cramer's V is equal to 0,541) between "good quality" and "the brand more likely to purchase", when the respondents had to compare Nestum with

Table 3 - Chi-Square Tests between Nestum Brand Image and Continente and Pingo Doce Brand Preference

Nestum Brand Image	Continente						Pingo Doce					
	Good Brand			Brand more likely to purchase			Good Brand			Brand more likely to purchase		
	χ^2	p-value		χ^2	p-value		χ^2	p-value		χ^2	p-value	
Good	8,929	0,348	Not reject H0	12,256	0,140	Not reject H0	2,746	0,840	Not reject H0	7,976	0,436	Not reject H0
Good quality	9,545	0,298	Not reject H0	13,344	0,101	Not reject H0	6,918	0,329	Not reject H0	15,793	0,045	Reject H0
Agreeable	39,618	0,000	Reject H0	19,750	0,072	Not reject H0	16,272	0,061	Not reject H0	9,055	0,698	Not reject H0
Satisfactory	43,674	0,000	Reject H0	21,140	0,048	Reject H0	18,883	0,026	Not reject H0	10,948	0,533	Not reject H0
Benefical	6,013	0,646	Not reject H0	3,049	0,931	Not reject H0	4,444	0,617	Not reject H0	4,143	0,844	Not reject H0
Distinctive	20,151	0,064	Not reject H0	17,410	0,135	Not reject H0	8,433	0,491	Not reject H0	7,591	0,816	Not reject H0
Positive	9,592	0,652	Not reject H0	7,413	0,829	Not reject H0	3,322	0,767	Not reject H0	6,263	0,618	Not reject H0
Attractive	9,895	0,272	Not reject H0	4,200	0,839	Not reject H0	3,734	0,713	Not reject H0	4,829	0,776	Not reject H0
Useful	7,928	0,441	Not reject H0	4,384	0,821	Not reject H0	8,834	0,183	Not reject H0	9,191	0,326	Not reject H0
Desirable	37,008	0,000	Reject H0	10,196	0,599	Not reject H0	27,087	0,001	Reject H0	5,843	0,924	Not reject H0
Nice	6,530	0,588	Not reject H0	9,452	0,306	Not reject H0	2,136	0,907	Not reject H0	6,694	0,570	Not reject H0
Cheap	15,814	0,466	Not reject H0	29,829	0,019	Reject H0	12,269	0,424	Not reject H0	26,111	0,052	Not reject H0
Needed	18,088	0,113	Not reject H0	6,237	0,904	Not reject H0	9,223	0,417	Not reject H0	8,385	0,754	Not reject H0
Superior	7,990	0,434	Not reject H0	7,710	0,462	Not reject H0	8,960	0,176	Not reject H0	16,564	0,035	Reject H0
Interesting	7,938	0,440	Not reject H0	13,703	0,090	Not reject H0	3,327	0,767	Not reject H0	4,538	0,806	Not reject H0
Appealing	11,608	0,170	Not reject H0	8,063	0,427	Not reject H0	4,538	0,604	Not reject H0	4,810	0,778	Not reject H0

Pingo Doce. 81.5% of this question respondents said that Nestum is a very good quality brand and 51.9% said that it is more likely to buy Nestum in relation to Pingo Doce.

69.7% of 33 respondents though that Nestum is agreeable brand and Nestum is seen as better brand than Continente (54,5%). This association between “agreeable” and “good brand” is strong: The Cramers’ V statistic is 0,633.

There is strong association between “satisfactory” and “good brand” (Cramers’ V is 0,664) and “satisfactory” and “brand more likely to purchase” (Cramers’ V is 0,462), when it was compare Nestum with Continente. 69.7% of the respondents said Nestum is a very satisfactory brand.

Nestum is also a desirable brand. When it was compared with Continente, 54.5% of the respondents said Nestum is the best brand and 87.9% of 33 said that Nestum is a desirable brand. The association between them is strong, because Cramers’ V is equal to 0.611. However, when we compare Nestum with Pingo Doce, a significant number of the respondents (48.8%) though that Nestum is as good as Pingo Doce and Nestum is desirable brand by 88.9% of the respondents, who know both Nestum and Pingo Doce. In this case, the association is also strong; Cramers’ V is equal to 0,578.

Through chi-square test, association between “cheap” and “brand more likely to purchase” was also found. There is a higher probability of buying Nestum rather than Continente (66.7%) and respondents thought that Nestum was neither expensive nor cheap (42.4%). The association is not too strong (Cramers’ V is 0,475).

There is a strong association between “superior” and “brand more likely to purchase” (Cramers’V is 0,554). Nestum is seen as a superior brand (88.9%).

In general, there is no relationship between the Continente brand image and its brand preference (Table 4). However, there are three adjectives that are strong associated with “good brand”. As it was said previously, in order to measure the brand preference, a comparative scale was used, between Nestum and Continente. Nestum is seen as a better brand than Continente, 60,9% of the respondents said that.

Table 4 - Chi-Square Test between Continente Brand Image and Continente Brand Preference

Continente Brand Image	Continente					
	Good Brand			Brand more likely to purchase		
	χ^2	p-value		χ^2	p-value	
Good	26,403	0,009	Reject H0	17,115	0,378	Not reject H0
Good quality	12,425	0,190	Not reject H0	17,465	0,133	Not reject H0
Agreeable	16,875	0,051	Not reject H0	19,610	0,075	Not reject H0
Satisfactory	15,645	0,208	Not reject H0	17,465	0,356	Not reject H0
Benefical	12,390	0,192	Not reject H0	5,995	0,916	Not reject H0
Distinctive	15,170	0,232	Not reject H0	16,049	0,450	Not reject H0
Positive	14,615	0,102	Not reject H0	15,603	0,210	Not reject H0
Attractive	20,534	0,058	Not reject H0	10,855	0,818	Not reject H0
Useful	10,551	0,308	Not reject H0	6,966	0,860	Not reject H0
Desirable	8,727	0,463	Not reject H0	13,170	0,357	Not reject H0
Nice	8,747	0,461	Not reject H0	8,867	0,714	Not reject H0
Cheap	19,945	0,018	Reject H0	12,053	0,441	Not reject H0
Needed	13,765	0,316	Not reject H0	10,648	0,831	Not reject H0
Superior	11,589	0,237	Not reject H0	12,778	0,385	Not reject H0
Interesting	22,945	0,028	Reject H0	21,654	0,155	Not reject H0
Appealing	16,593	0,166	Not reject H0	12,773	0,689	Not reject H0

Regarding the chi-square test, there is a strong association (Cramers' V is 0,619) between the adjective "good" and "good brand". A contradiction was establish because when the respondents were asked about which brand they prefer between two, the majority preferred Nestum, but when it was asked, if Continente is a good brand, without any comparative term, they answer positively.

The customers recognized that Continente is a cheaper brand (73,4% of respondents), in spite of this, they preferred Nestum. This association is strong (Cramers'V is 0,538).

Table 5 - Chi-Square Test between Pingo Doce Brand Image and Pingo Doce Brand Preference

Pingo Doce Brand Image	Pingo Doce					
	Good Brand			Brand more likely to purchase		
	χ^2	p-value		χ^2	p-value	
Good	13,185	0,154	Not reject H0	17,778	0,123	Not reject H0
Good quality	18,810	0,093	Not reject H0	17,778	0,337	Not reject H0
Agreeable	18,810	0,093	Not reject H0	17,778	0,337	Not reject H0
Satisfactory	18,810	0,093	Not reject H0	20,000	0,220	Not reject H0
Benefical	14,933	0,093	Not reject H0	16,875	0,154	Not reject H0
Distinctive	10,344	0,323	Not reject H0	14,048	0,298	Not reject H0
Positive	17,564	0,041	Reject H0	14,821	0,251	Not reject H0
Attractive	14,916	0,093	Not reject H0	17,143	0,144	Not reject H0
Useful	14,143	0,117	Not reject H0	18,000	0,116	Not reject H0
Desirable	9,375	0,154	Not reject H0	8,125	0,421	Not reject H0
Nice	16,716	0,053	Not reject H0	10,268	0,592	Not reject H0
Cheap	3,367	0,762	Not reject H0	7,857	0,448	Not reject H0
Needed	12,455	0,189	Not reject H0	10,417	0,579	Not reject H0
Superior	13,599	0,137	Not reject H0	17,143	0,144	Not reject H0
Interesting	15,505	0,078	Not reject H0	13,964	0,303	Not reject H0
Appealing	11,460	0,245	Not reject H0	13,214	0,354	Not reject H0

There is a strong association between "interesting" and "good brand" (Cramers'V is equal to 0,577). However, the respondents who know Continente brand did not give an explicit answer about how interesting Continente is. Some found it neither interesting, nor uninteresting brand (34,8%), and others said that it is a little bit interesting (30,4%).

There is only one association between one adjective of Pingo Doce brand image and it brand preference (Table 5). The respondents said that Nestum is as good as Pingo Doce (46,7%). However, they considered Pingo Doce as a positive brand (86,7%). This relationship is strong due to the fact Cramers' V statistic is equal to 0,550.

Although, the Nestum brand image, on average, is higher than the brand image of its competitors and also it is the most preferred brand, on average, when we compute the appropriate statistics, there are few brand image items associated to brand preference. In conclusion, brand image do not have impact on brand preference, in general.

H_4: If the customers are price conscious, so there is higher purchase intention of private labels brands.

In this hypothesis, both variables were measure through an interval scale, due to this fact, a table for each brand was done.

Table 6 - Chi-Square Test between Price Conscious and Nestum Purchase Intention

	The likelihood of purchasing the brand			At the price shown, I would consider buying the product			The price I am willing to buy the brand		
	χ^2	p-value		χ^2	p-value		χ^2	p-value	
I am not willing to go to extra effort to find low prices*	23,208	0,951	Not reject H0	39,643	0,311	Not reject H0	36,305	0,454	Not reject H0
I will shop at more than one store to take advantage of low prices	26,025	0,89	Not reject H0	37,974	0,379	Not reject H0	39,374	0,321	Not reject H0
The money saved by finding lower prices is not usually worth the time and effort*	19,361	0,989	Not reject H0	31,15	0,698	Not reject H0	41,236	0,252	Not reject H0
I would never shop at more than one store to find low prices*	38,699	0,349	Not reject H0	31,7	0,673	Not reject H0	51,526	0,045	Reject H0
The time it takes to find low prices is not usually worth the effort*	35,725	0,482	Not reject H0	28,741	0,800	Not reject H0	36,035	0,467	Not reject H0

Firstly, the association between price consciousness and Nestum purchasing intention was checked (Table 6). In the majority of the situations, the null hypothesis of the chi-square test was not rejected. However, there is a set of variables with association between them, but this association is not strong (Cramer's V = 0,336). Therefore, we could say that there is association between "the price I am willing to buy Nestum" and "I would never shop at more than one store to find low prices", but it is not strong enough.

There is no association between price conscious and Continente's purchase intention. In the all combinations made there is no evidence to reject null hypothesis (Table 7).

Table 7 - Chi-Square Test between Price Conscious and Continente Purchase Intention

	The likelihood of purchasing the brand			At the price shown, I would consider buying the product			The price I am willing to buy the brand		
	χ^2	p-value		χ^2	p-value		χ^2	p-value	
I am not willing to go to extra effort to find low prices*	34,743	0,252	Not reject H0	21,052	0,886	Not reject H0	26,025	0,890	Not reject H0
I will shop at more than one store to take advantage of low prices	27,594	0,592	Not reject H0	32,061	0,365	Not reject H0	19,361	0,989	Not reject H0
The money saved by finding lower prices is not usually worth the time and effort*	24,62	0,743	Not reject H0	28,65	0,536	Not reject H0	23,299	0,803	Not reject H0
I would never shop at more than one store to find low prices*	22,86	0,586	Not reject H0	21,984	0,637	Not reject H0	28,332	0,293	Not reject H0
The time it takes to find low prices is not usually worth the effort*	21,754	0,863	Not reject H0	33,481	0,119	Not reject H0	21,307	0,675	Not reject H0

The relation between price conscious and Pingo Doce purchase intention did not exist at all (Table 8). There is only one combination with a strong association between them (Cramers' V is equal to 0,807). The association exists between "I would never shop at more than one store to find low prices" and "at price shown, I would consider buying the product". 53,3% of the respondents said that do not shop at more than one store to find low prices and 80% said that consider to buy Pingo Doce.

Table 8 - Chi-Square Test between Price Conscious and Pingo Doce Purchase Intention

	The likelihood of purchasing the brand			At the price shown, I would consider buying the product			The price I am willing to buy the brand		
	χ^2	p-value		χ^2	p-value		χ^2	p-value	
I am not willing to go to extra effort to find low prices*	23,292	0,503	Not reject H0	18,125	0,579	Not reject H0	18,167	0,576	Not reject H0
I will shop at more than one store to take advantage of low prices	37,708	0,157	Not reject H0	24,125	0,512	Not reject H0	22,396	0,613	Not reject H0
The money saved by finding lower prices is not usually worth the time and effort*	21,250	0,880	Not reject H0	19,000	0,797	Not reject H0	18,333	0,828	Not reject H0
I would never shop at more than one store to find low prices*	40,333	0,285	Not reject H0	48,800	0,016	Reject H0	30,667	0,432	Not reject H0
The time it takes to find low prices is not usually worth the effort*	21,667	0,866	Not reject H0	20,000	0,747	Not reject H0	29,583	0,240	Not reject H0

In general, the cereal flakes customers are not price conscious; it does not have impact on the purchase of private label brands. Therefore, H_4 null hypothesis was rejected.

H$_5$: If the customers perceive value of money, then there is purchasing intention of the private label brands.

As in the previous hypothesis, the data was analysed separately for each brand.

Table 9 - Chi-Square Test between Perceived Value of Money and Nestum Purchase Intention

	The likelihood of purchasing the brand			At the price shown, I would consider buying the product			The price I am willing to buy the brand		
	χ²	p-value		χ²	p-value		χ²	p-value	
I am very concerned about low prices, but I am equally concerned about the product quality	20,132	0,689	Not reject H0	20,534	0,666	Not reject H0	14,64	0,931	Not reject H0
When grocery shopping, I compare the prices of differents brands to be sure I get the best value for the money	38,29	0,366	Not reject H0	33,886	0,57	Not reject H0	36,571	0,442	Not reject H0
When purchasing a product, I always try to maximize the quality I get for the money I spend.	35,251	0,504	Not reject H0	26,319	0,881	Not reject H0	56,575	0,016	Reject H0
I generally shop around for lower prices on products, but they still must meet certain quality requirements before I will buy them.	20,758	0,895	Not reject H0	28,265	0,556	Not reject H0	59,724	0,001	Reject H0
When I shop, I usually compare the "price per kilogram" information for brands I normally buy	34,445	0,543	Not reject H0	29,462	0,771	Not reject H0	31,5	0,682	Not reject H0
I always check the prices at hte grocery store to be sure I get the best value for the money I spend	29,667	0,763	Not reject H0	30,042	0,747	Not reject H0	45,756	0,128	Not reject H0

Regarding Nestum brand, in general, there is no association between the perceived value of money and the Nestum purchase intention (Table 9). However, there are two variables that are associated. "The price I am willing to buy the brand" and "When purchasing a product, I always try to maximize the quality I get for the money I spend" are associated, but it is not too strong (Cramers' V is 0,352). 64,5% of the respondents are really looking for quality, in spite of they are not willing to pay too much for Nestum brand, only 14,5% are able to do it. Also "the price I am willing to buy the brand" and "I generally shop around for lower prices on products, but they still must meet certain quality requirements before I will buy them" are not strong associated, because Cramers' V is 0,396. The customers use to see the low prices, but they only buy them if they have quality (69,7%).

For the brand Continente, there are no association between the perceived value of money and the Continente´s purchase intention (Table 10). In all significance tests, the null hypotheses were not rejected.

Table 10 - Chi-Square Test between Perceived Value of Money and Continente Purchase Intention

	The likelihood of purchasing the brand			At the price shown, I would consider buying the product			The price I am willing to buy the brand		
	χ^2	p-value		χ^2	p-value		χ^2	p-value	
I am very concerned about low prices, but I am equally concerned about the product quality	2,173	0,825	Not reject H0	7,173	0,208	Not reject H0	1,025	0,961	Not reject H0
When grocery shopping, I compare the prices of differents brands to be sure I get the best value for the money	22,527	0,834	Not reject H0	29,895	0,471	Not reject H0	21,387	0,875	Not reject H0
When purchasing a product, I always try to maximize the quality I get for the money I spend.	20,250	0,442	Not reject H0	16,889	0,660	Not reject H0	19,164	0,511	Not reject H0
I generally shop around for lower prices on products, but they still must meet certain quality requirements before I will buy them.	13,832	0,538	Not reject H0	12,689	0,626	Not reject H0	10,088	0,814	Not reject H0
When I shop, I usually compare the "price per kilogram" information for brands I normally buy	20,400	0,906	Not reject H0	28,273	0,556	Not reject H0	26,751	0,636	Not reject H0
I always check the prices at hte grocery store to be sure I get the best value for the money I spend	21,840	0,645	Not reject H0	20,948	0,400	Not reject H0	22,280	0,326	Not reject H0

Regarding the brand Pingo Doce, there is only one association (Table 11). It happened between "I always check the prices at the grocery stores to be use I get the best value for the money I spend" and "the price I am willing to buy the brand". These two variables are very strong associated with a Cramers' V statistic of 0,741. The customers are not willing to pay a huge price for Pingo Doce brand but most of them verified the prices at store to get the best value for the money spent (46,6%).

Table 11 - Chi-Square Test between Perceived Value of Money and Pingo Doce Purchase Intention

	The likelihood of purchasing the brand			At the price show n, I w ould consider buying the product			The price I am w illing to buy the brand		
	χ^2	p-value		χ^2	p-value		χ^2	p-value	
I am very concerned about low prices, but I am equally concerned about the product quality	8,958	0,706	Not reject H0	10,5	0,398	Not reject H0	7,604	0,667	Not reject H0
When grocery shopping, I compare the prices of differents brands to be sure I get the best value for the money	26,667	0,32	Not reject H0	15,25	0,762	Not reject H0	25,417	0,186	Not reject H0
When purchasing a product, I alw ays try to maximize the quality I get for the money I spend.	21,944	0,583	Not reject H0	28,083	0,107	Not reject H0	15,139	0,768	Not reject H0
I generally shop around for low er prices on products, but they still must meet certain quality requirements before I w ill buy them.	9,792	0,634	Not reject H0	14,875	0,137	Not reject H0	7,604	0,667	Not reject H0
When I shop, I usually compare the "price per kilogram" information for brands I normally buy	24,018	0,461	Not reject H0	18,911	0,528	Not reject H0	25,134	0,196	Not reject H0
I alw ays check the prices at hte grocery store to be sure I get the best value for the money I spend	21,071	0,635	Not reject H0	23,036	0,287	Not reject H0	32,946	0,034	Reject H0

Taking into consideration this sample, the customers did not find differences among the brands regarding their perceived value of money. In general, the perceived value of money is not associated to the private labels purchasing behaviour, in the cereal flakes product category and the initial null hypothesis is not verified.

Conclusion

Before general conclusions presentation, it is essential to reinforce that this study was made through a convenience sample and results were based on that.

In the cereal flakes category, the differences in income level do not have different purchasing behaviours among the brands. The same happens with the family size. There is a strong idea that **low income families and also the big families** are more prone to purchase private label brands. However, **those facts are not verified** in this category.

Furthermore, **price is not the main factor to choose among a brand** in the cereal flake category. The customers are not price conscious at all, due to the fact they do not use to spend time and effort in the search of low prices. Even with the quality improvements of private label brands, the price is still the main distinguish factor from the manufacturer brand. However, the customers do not use to look for it and then the private labels brands could not take advantage from the low prices.

The perceived quality is one of the important factors to choose a brand, even more than the price in this category. In spite of all these considerations, any of these factors are not strongly associated to the purchase intention.

Nestum is the brand with the best brand image, even for the children. It is the most consumed brand since generations in opposition to **private labels brands**, which are relatively new in the market. They **still have not so positive image**, related to the low price and initial low quality, when private label brands entered in the distribution market. **Children did not see the different brands in the category as unique**. For them, they have the same associations to Nestum. When they have thought about the private label brands images, they have associated them to the grocery chains image, mainly. The target consumers, from the 6 to 9 years old, have seen the brands consumed for children younger people than them.

The market share lost by Nestum to private label brands should be explained through others factors, which were not present in this study.

Limitations

The main limitation of this study was the sample size, which is too small to have a significant and generalized conclusion about cereal flakes category in Portuguese market. It was used a convenience sample, with geographic limitations, because research was made is Lisbon Great Area whether in schools whether in supermarkets, it does not represent the national behaviour.

Also the fact that this research was not applied in public schools biased the sample, not allowing to have access to children from other social environments.

The time constrain was another factor that had impact in the final outcome, because it was not possible to use more deeply characteristics, methods and analyses that could help explain better the problem between Nestum and private label brands.

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