

# Factors influencing children's food purchasing behavior

## Fatores de influência no comportamento de compra de alimentos por crianças

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### **Resumo**

A escolha alimentar nas sociedades contemporâneas passa, inevitavelmente, pelo comércio, pois o alimento constitui-se mercadoria que é consumida, assim como tantos outros bens e serviços. Atualmente muitas crianças já definem sozinhas suas escolhas alimentares, provocando a atenção tanto de empresas como de organizações preocupadas com sua nutrição. Utilizando o modelo BPM (Behavioral Perspective Model), criado por Foxall (2010), fundamentado na psicologia do consumidor e estruturado na tríplice contingência de Skinner, analisaram-se os fatores que influenciam crianças em seu comportamento de compra de alimentos. Tendo como sujeitos 175 alunos com idades compreendidas entre 10 e 12 anos, identificaram-se 35 variáveis que foram classificadas entre estímulos antecedentes (cenário ou histórico de aprendizado) e consequentes (reforço utilitário ou informativo) no comportamento de compra. Verificou-se que os estímulos reforçadores (consequentes) têm maior grau de importância para a decisão de compra de alimentos desses sujeitos do que os estímulos antecedentes, sendo que as consequências utilitárias são mais influentes do que as informativas. Conclui-se que os atributos dos produtos, como sabor e qualidade, têm maior influência na decisão de compra do que os estímulos ambientais, como as promoções e publicidade dos alimentos.

**Palavras-chave:** Consumo de alimentos; Comportamento alimentar; Alimentação de crianças.

## Abstract

Food choice in contemporary societies is, inevitably, a buying decision. Food is a product that is consumed, like so many other goods and services. Nowadays many children choose their food themselves, which attracts attention not only from companies that develop products and advertising for that segment, but also organizations concerned with their nutrition. This paper analyzed the factors that influence children's food purchasing behavior using the Perspective Behavioral Model (BPM) created by Foxall (2010), which in turn is based on consumer psychology and structured on Skinner's triple contingency. The subjects were 175 students between 10 and 12 years old. Thirty-five variables were identified and classified as antecedent stimuli (setting or learning history) or purchase reinforcers (utilitarian or informational reinforcement). It was seen that reinforcement stimuli (consequent stimuli) are more important to these children's decisions than antecedent stimuli, and that utilitarian consequences are more influential than informational consequences. It was concluded that product attributes such as taste and quality have greater influence on purchasing decisions than environmental stimuli such as promotions and food advertising.

**Keywords:** Food Consumption; Dietary Behavior; Children's Diet.

## Introduction

In choosing a certain food for a meal, an individual should first recognize it, identify it, and classify it as appropriate or not for consumption, according to his or her habits (cultural and nutritional, among others). In this way, far beyond biogenic factors, food choice relates to various socio-environmental factors (McNeal, 2002). In capitalist economies children have great autonomy as consumers (Oliveira, 2003) and, according to Camargo (2010), consumer behavior should be studied broadly, starting with the consumer's interactions and seeking to understand his or her relationship with the environment. Children are positioned in the consumer marketplace, and shop by themselves, especially for school lunch and snacks, making food decisions according to various influences.

For Schor (2009), children have a rich history as actors in the social economy, sometimes playing the role of traders. Children's buying capacity is growing sharply, according to studies by McNeal (2002) which show that children between 4 and 12 years of age purchased US\$ 23.4 billion of goods in 1997 and US\$ 30 billion in 2002. It is notable that the most consumed item is food, responsible for one third of all spending, to the detriment of items such as toys and clothes.

Among the theoretical models which aim to explain consumers' buying behavior, Foxall's Behavior Perspective Model (BPM) (1992), stands out; this model is based on studies begun in 1986 which analyzed marketing phenomena and their relationship with areas of the analytical-behavioral literature and the behavioral economy. By making use of this model, our objective was to analyze the factors that influenced children's food-buying behavior.

## Food choice

According to Viana (2002), food choices are connected to preferences which are in turn related to flavor preferences and the dietary habits learned since infancy through social interaction. Poulain and Proença (2003), affirm that diet is man's first social knowledge, as human beings learn from infancy to make dietary choices based on social interactions. For Quaioti and Almeida (2006), dietary behavior

has physiological and psychosocial components. These characteristics influence food choices, forming a dietary model which is the result of a set of choices made by a society. A dietary model is a particular configuration of the social space where consumption habits are present, in which industries that produce and distribute food promote a range of offerings for the customer's choosing, molding his or her consumption habits based on previous choices (Jomori and Proença, 2008). According to Santos and Andery (2006), eating is a social act, and the development of dietary habits and practices have references in the social dynamic itself. Human food consumption should be analyzed broadly, not only through relationships between agents in the food supply chain such as agricultural producers, industries, vendors and consumers (Oliveira and Thébaud-Mony, 1997).

A child is a socially active individual, capable of making decisions and responding in a specific manner to various social stimuli, such as appeals to consumption (Douglas, 1998). According to McGinnis et al. (2006) the population of children is demanding in their choice of products, and companies targeting this segment have sought to offer differentiated products in order to meet the specific needs of this consumer group. Gwozdz and Reisch (2011) relate that in contemporary society, there is a specific social space for children who have client status, behaving like someone who chooses, decides, and purchases, classified as a demanding consumer.

In a study commissioned by the Pan-American Health Organization, Hawkes (2006) stressed marketing strategies as stimulators of exaggerated and unbalanced consumption from a nutritional point of view. The study recognizes the amplitude

of marketing, but it is tied to only one of the many dimensions which basically define marketing by its publicity, focusing on variables such as television advertisements, marketing in schools, sponsorship, merchandising, internet marketing and sales promotions.

Various authors present factors that influence the consumer in his or her purchasing decisions, with emphasis on Sheth et al. (2001), Solomon (2002), Mowen and Minor (2003) and Camargo (2010). From these authors, the existence of other categories in which to group factors that influence the purchasing decision can be seen, such as social, financial, biogenic, and geophysical factors (Chart 1).

### Theoretical model (BPM)

Human behavior (including purchasing behavior) is the product of contingencies which the person has previously experienced. A certain environmental stimulus (discriminative) preceding a purchasing action can trigger it (the response of the organism). If the consequence of that determined purchase (response) makes the organism repeat it when exposed to the same discriminative stimulus again, then this action (response) was reinforced. If the consequence of an action does not make the organism have a similar action when exposed to the same environmental stimulus again, it can mean that the consequence of that action was not reinforced, or was punitive (Santos and Andery, 2006).

Based on the SD-R-SR triple contingency paradigm (Skinner, 2007), in which SD represents discriminative stimuli in the environment which can provoke response R (the organism's action), which in turn leads to reinforcing stimuli, Foxall (2010)

**Chart 1 - Variables influencing children's food purchasing behavior**

Dimensions	Variables
Publicity and Advertising	Television advertising; Internet advertising; Magazine and newspaper advertising; Sponsorship of events; Promotion; Packaging; Point-of-sale merchandising
Social	Culture; Social class; Purchasing history; Religion; Social group; Family
Financial	Income; Price
Biogenic	Hunger; Gender; Age; Health status; Personal taste; Emotional state
Geophysical	Climate; Location of point-of-sale; Environment

defined BPM (the behavioral perspective model), in which discriminative stimuli, responses, and reinforcing or punishing consequences make up distinct classes or events forming the fundamental device of motives known as Purchasing Behavior. BPM considers that consumption activity should be systematically related by the contingencies which sustain it.

Discriminative stimuli can be diverse, such as color, brand, scent, slogan, situation, or other memories that come from previous purchases (learning history). The stimuli are capable of moving the consumer to different responses (actions) which will provoke one of four types of consequent stimuli: utilitarian reinforcement, informative reinforcement, utilitarian punishment, and informative punishment, noting that the latter two will provoke aversive consequences. Purchasing behavior can be affected by reinforcement contingencies present in the situation where consumption takes place (Lima, 2008; Pohl, 2008; Rosenthal, 2007; Silva, 2007). It is rare for the consumer to not be exposed to the scenario of consumption, so marketing professionals work to influence consumers by means of environmental stimuli (discriminative) which lead to purchase, and positive reinforcements, which foster faithfulness, while at the same time they seek to reduce punitive consequences which lead to future uncertainties in purchasing, or not making similar purchases in the future (Foxall, 2010).

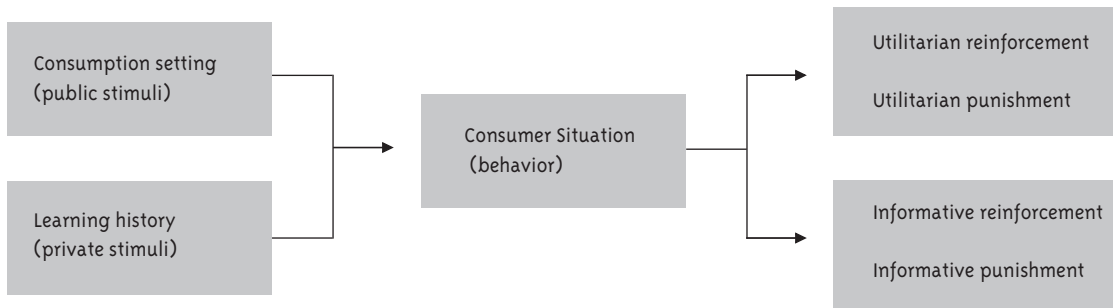
Determining that consumer behavior is influenced and can be controlled by scenarios (functional environments) is not a novelty brought by BPM theory, but the fact is that the stimuli present in the scenarios can reinforce an individual's purchasing behavior; in other words, they can define the extent of consumer behavior based on reinforcements, which in turn determines a chain reaction of sequenced behaviors. In this way, an individual in a purchasing situation is the result of the current state of deprivation or the effects of deprivation of a certain good or service that he or she wishes to obtain, which determines the reinforcement contingent to the purchase, as well as allows the purchasing situation to occur in the present and in the future (Jannarelli, 2006). Although there are some criticisms of the model, in the sense that the

individuals are not always sequentially reinforced, the model offers an interpretation of the "why" of consumption, and not just the "for what" (Foxall, 1998; Rosenthal, 2007).

BPM proposes that consumer behavior is initially determined by life history and the scenario of consumption, which precede the purchase (Figure 1). According to the events which take place in the consuming environment, different consequences are indicated. These consequences can be "utilitarian", when they are associated with the value of the use/utility of the product, and/or "informative" when they are symbolic or associated with the social response expected by the consumer (Foxall et al., 2006; Foxall, 2010). According to Schiffman and Kanuk (2000), groups influencing the consumer are family, friends, formal social groups, purchasing groups, consumer action groups and work groups. Based on the social relations which are constructed, young consumers can acquire information that might help them in the process of making purchasing decisions. According to BPM, the establishment of this feedback of information is characterized as Informative Reinforcement.

As proposed by BPM, the consumer, guided by operant contingencies in the purchasing scenario, can decide whether or not to consume a product or a service according to his or her historical relationship (private stimuli) with regards to exposure to the contingencies of reinforcement and punishment in prior purchases, which cause the consumer to behave in a similar manner, even though the consuming situation may not be the same. Therefore, in the individual history of each consumer, the contingent relationships are established in a manner such that discriminative stimuli signal probabilities of the occurrence of reinforcement or punishment (Mendes, 1998). Food products, which are part of the consuming scenario, can possess many variables (discriminative stimuli) which influence the consuming decisions of young consumers. In reality, these informative and utilitarian reinforcements are constructed (are made, remade, or unmade, in the case of informative or utilitarian punishment) through the life history, or experiences of consumption which occur based on the brand or the product chosen each time a purchase is made (Rosenthal, 2009).

**Figure 1 - Flowchart representing BPM (Behavioral Perspective Model)**



Source: Adapted from Foxall, 2010.

## Study variables

The consumption model from a behavioral perspective (BPM) has served as a theoretical base for various studies in the area of consumer psychology such as work by Lima (2008), Pohl (2008), Mendes (2008), Ferreira (2007), Porto (2009), Jannarelli (2006), Rosenthal (2007) and Silva (2007). According to Foxall (2010), the behavioral model allows for amplitude of analysis and adaptation, with no guidance or definition of variables for each construction of the model in the literature. According to Rosenthal (2009), the levels of utilitarian and informative reinforcement are not defined absolutely but relatively, because they reflect the needs of a determined survey. In this way, the variables which determine the consequences of reinforcement or punishment are determined by the researcher, in accordance with the objectives of the study, and with the reality to be surveyed.

In the Consuming Scenario dimension, we classified variables which are stimuli of immediate purchase (impulse buying), or those which could be defined as public stimuli which, according to Baum (2008), are those external to the organisms or which can be observed by other subjects; on the other hand, the private stimuli are those internal to the subject, related to memory or even cognitive processes, and cannot be observed by other people. According to these criteria, in the dimension entitled Learning History, various characteristics of learned stimuli were established; these describe a purchase defined by a consumer's previous reflection, conducted based on his or her knowledge about a certain product which is to be acquired (Chart 2).

**Chart 2 - Variables preceding children's purchasing behavior**

Dimensions	Variables
Consumption setting	Promotion
	Packaging
	<i>Point-of-sale merchandising</i>
	Culture
	Location of point-of-sale
Learning history	TV advertising
	Internet advertising
	Newspaper and magazine advertising
	Event sponsorship
	Purchasing history
	Personal tastes
	Emotional state
	Climate

Using the simplified system of BPM presented by Foxall et al. (2006), we opted to group “utilitarian punishment” and “informative punishment” into a single dimension entitled simply “punishment” since both informative and utilitarian punishment share the characteristic of removing the value which the customer expects from the product (attributes considered a basic condition for purchase and which should not be below the consumer's expected standard), while utilitarian and informative reinforcement add value to the product or deliver the product within the consumer's value expectations. Using the definition of aggregated value presented by Gronroos (2007) and Pelham (2010), the reinforc-

ing stimuli category includes variables related to stimuli which are the consequences of the act of purchase which deliver or add value to the product acquired, and in the punishment category we placed the variables which removed value from the product (Chart 3). According to Lovelock and Wright (2001), adding value to a product is essential in promoting its differentiation strategy. Gronroos (2007) affirms that consumer satisfaction is obtained when the buyer expresses the sentiment that the product met his or her expectations. Therefore, adding value to a product can differentiate it in the market, and consequently promote its sales to certain consumers who, because of this added value, feel satisfaction in acquiring the product.

**Chart 3 - Consequential variables of children's buying behavior**

Dimensions	Variables
Utilitarian reinforcement	Price discount
	Very low price
	Hunger
	State of health
	Quality
	Flavor
	Nutrients
	Versions
Informative reinforcement	Social class
	Religion
	Social group
	Family
	Very high price
	Gender
	Age
	Environment
Punishment	Price inaccessible to the consumer
	High price
	Quantity
	Color
	Consistency
	Validity

Although the variable “packaging” possessed various characteristics which could place it into multiple dimensions at once, we opted to place it in the Scenario of Consumption dimension, since we consider publicity to be the most important characteristic. According to Guadalupe (2000), although food security and ease of logistics continue to be the functions of the packaging, with the variety of products in the consumer marketplace, packaging has also come to promote sales. Faria and Sousa (2008) affirm that packaging is an important item in the marketing equation, one which can awaken the consumer’s desire to buy. Della Lucia et al. (2007) emphasize that the study of food packaging is extremely important, as it represents the consumer’s first contact with the product or food, in this way becoming a primary object for defining choice and purchasing. Garrán (2006) and Giehl (2008) affirm that, in packaging, industries have an efficient channel of communication with the consumer, and can use it to transmit diverse messages about their products. According to Machado (2003), packaging can influence the consumer’s decision through objective and subjective criteria which can be employed, such as appearance, convenience, and the nutritional value of the product. Ishimoto and Nasif (2001) clarified that marketing has exploited food packaging and labeling resources to the maximum in order to provide information to the consumer which might influence their buying decision. Finally, Machado (2006) emphasizes that the process of exchanging values, which is characteristic of marketing, should occur by diffusion of clear, correct, and coherent ideas.

## Methodology

In order to respond to the issues of this study, descriptive survey was considered adequate, as our objective was to explain the psychosocial phenomenon of children’s consumption, based on the results obtained from applying quantitative and qualitative methods. These primarily included personal interviews with a small sample classified as random, and which were obtained by convenience of access, without selection criteria for confirming the variables obtained in the literature. Afterwards, a questionnaire was given to a statistically signi-

ficant sample in order to obtain descriptive data (Malhotra, 2006).

Keeping in mind that the project sought to evaluate a total of 35 variables, the sample calculation was made in accordance with Hair et al. (2005) who considered a minimum proportion of at least 5 times the number of respondents per parameter to be evaluated. This meant 175 students between ages 10 and 12, primary school students in a public school in Natal, Rio Grande do Norte. This age group was chosen because of the fact that, according to McNeal (2002), when they reach this age, children are already capable of purchasing in a complete and independent manner. Another issue which contributed to the definition of the age group to be studied was the fact that, according to Coll et al. (2004), only after age 10 can children begin to understand certain social systems such as the economy and the notion of gain, therefore making purchases with greater consciousness of the real value of the product, and are able to distinguish between discounts and promotions. The 175 subjects who participated in the survey were individually interviewed by the authors over a period of two months during the second half of 2010, in the school environment, during hours which were previously scheduled with the pedagogical coordinators of the school who monitored the process.

Initially, the literature was reviewed in order to find a research instrument which could be adapted to the study's target population. The instruments localized about consumer behavior were conducted with adults, making it difficult to adapt them to the target population of this study. The few studies with young consumers of food published at the time of this project refer, essentially, to the influences of publicity on the purchasing behavior of children. As this study sought to verify other variables of influence, we opted to create our own instrument based on the variable indicated in the literature, especially in Guadalupe (2000) and Hawkes (2006). Seeking better coverage to define the issues which make up the research instrument, interviews were carried out using the focus group technique, based on the reflections expressed orally by the participants. To define the list of questions to be asked in the focus group, the authors got closer to the children's world, getting to know the characters who pervade

this sphere such as cartoon characters, singers, and actors who were popular with children at the time the research was conducted. The information was collected from the websites, television shows, magazines, and newspapers to which the subjects had access. In these vehicles, the placement of possible food product publicity was observed. After this observation, the authors catalogued the food product which was the object of the publicity. With this data in hand, visits were made to the supermarkets located in the city where the investigation was conducted. The object of these visits was to identify the products observed through mass publicity, on sales displays in the stores which were visited. These data served to guide an informal conversation with the focus group and allowed us to obtain information which indicated some new variables and confirm the variables encountered in the literature (Cruz Neto et al., 2002; Guerra, 2006). The comments expressed in the focus group were analyzed using the content analysis technique (Bardin, 2006). Ten children between the ages of 10 and 12 who were not part of the school's student body participated in the focus group and were removed from the quantitative sample. Suggestions were obtained about the questions and terms used in order to utilize language appropriate for the population being studied.

Collection and classification of the variables helped to define the issues that composed the research instrument which was created based on Guadalupe (2000) with closed questions on the Likert scale. A pre-test was applied to five children between the ages of ten and twelve; this gave suggestions about the questions, clarifying the form and language which would permit better comprehension. This information was heeded and used to adapt the instrument. To make the questionnaire more didactic and appropriate for the children, an image of an increasing number of stars was used; in other words, no importance earned zero stars, and four stars marked maximum importance.

The data were analyzed using multivariate analysis, first conducting descriptive analysis in order to verify the degree of importance of the variables and the groups of variables. Afterwards factorial analysis was conducted to identify dimensions of common variabilities (Corrar et al., 2009). The

analysis was conducted in three stages: first to verify how many factors factorial analysis would extract with all the indicators without forcing extraction; secondly, forced factorial analysis was conducted with only 5 dimensions in order to verify the total of the variance explained by the dimensions of the BPM model; and in the third stage, we conducted a confirmatory factorial analysis to verify the power of the explanation of the variables within the dimensions of the BPM model. Univariate statistic calculation using the main components was used to extract the factors and analyze the covariance matrix with Varimax rotation.

## Results

The variables found in the literature were qualitatively tested by a convenience sample which confirmed their own adequacy, and also allowed for the grouping of variables in accordance with the model proposed by Foxall (2010). The collected data were submitted to statistical treatment based on factorial analysis in order to obtain their degree of reliability. In an initial solution, a correlation matrix was extracted using Varimax rotation which maintained the factors perpendicular to each other, and minimized the possibility of one variable having high factorial loads for different factors (Bezerra, 2009). For an initial analysis, commonality was between 0.6 and 0.7, which was considered adequate. Later, a descriptive univariate factorial analysis was done in which a correlation matrix was utilized to extract only 5 factors and the Varimax-type rotation was also used; this showed a low commonality index between the variables.

When the KMO test was applied to analyze the variables together, a value of 0.453 was obtained, which according to Bezerra (2009), when this test yields a degree of explanation less than 0.5, means that the factors encountered in the factorial analysis were unable to satisfactorily describe the data variations originally obtained in the survey. However, as the objective of the research was to analyze the factors and not necessarily detect them, this result served as a warning, but did not impede the understanding of the overall results, or the continuity of the factorial analysis.

In the first attempt at factorial analysis with free grouping of the variables, 16 factors were obtained with 65.6% of variation explained. In a second factorial analysis, which limited the factors to 5 to correspond with the number of constructs (dimensions) of BPM, only 25.9% of variation was explained; however, according to Bezerra (2009), some results can be better explained by varied criteria depending on the theoretical knowledge with respect to the variables as well as the type of survey. This information corroborates what has already been explained by Hair et al. (2005), when they explained that conceptual questions as well as empirical questions can affect the researcher's decision regarding the method to be used in defining the number of factors that determine the set of original variables in a study.

Finally, a confirmatory factorial analysis was conducted with variables from each construct in order to analyze the power of explanation of the variables together with each dimension of BPM. The results showed low values for the selected survey subjects, as can be seen in Chart 4. The KMO tests to verify the adequacy of the sample showed results close to 0.5, between 0.447 and 0.514, showing a partially adequate sample. All the dimensions showed a matrix with low correlation between variables, and commonalities below 0.5 or, in other words, greater commonality the closer to 1 the results were. Variance was not satisfactorily explained in any of the dimensions, with explanation scores of 16% and 24%. From these results, it was verified that the dimensions of the BPM model, for the subjects researched, presented a low power of explanation for the set of variables which made up each dimension.

According to the literature, it is not always possible to establish explicative relationships between the variables; accordingly, the researchers' inference based on pre-established groupings can be considered adequate, despite not having confirmation for the variation suggested by the factorial analysis (Hair et al., 2005; Bezerra, 2009).

The results of the quantitative survey confirmed much of the information previously observed in the focus group and showed the subjects' tendency to value factors connected to utilitarian characteristics of food products. The variables considered most



**Chart4 - Results of the confirmatory factorial analysis of the factors (dimensions) of BPM**

	KMO Test	Correlation matrix	Commonality	Variation explained
Consumption setting	0.499	min. 0.016 - max. 0.162	min. 0.018 - max 0.478	24%
Learning history	0.447	min. 0.018 - max 0.160	min. 0.001 - max 0.431	16%
Utilitarian reinforcement	0.490	min. 0.011 - max.0.195	min. 0.006 - max 0.461	17%
Informative reinforcement	0.514	min. 0.005 - max.0.154	min. 0.067 - max 0.302	16%
Punishment	0.494	min. 0.004 - max. 0.132	min. 0.036 - max 0.539	21%

important for these children were, in first place, quality, with 153 subjects (in a sample composed of 175 participants); in other words, 87.4% of the children considered quality to be very important in their choice of food products. Along with quality, other variables deserve mention in the survey results, such as the product’s expiration date (78.3%), nutritional value (72%), flavor (70.9%), healthiness (64.6%), and quantity (49.7%), all variables related to the utilitarian values of the product.

In contrast, in evaluating the degree of importance to the subjects, variables related to reference groups as well as publicity efforts were observed. For these individuals, the least important variable was “newspaper and magazine advertisement”, reaching an average degree of importance of 1.98 in a range which varied from 1 to 5, as can be seen in Table 1. The other variables which were considered to be of little importance for these subjects were “social group”, “internet propaganda”, “emotional state”, “location of POS”, “culture”, “religion”, and “social class”, which received an average degree of importance between 2.07 and 2.40, respectively.

These results contrast with the literature on consumer behavior, which emphasizes that social groups made up of family or friends strongly influence purchasing decisions. However, the results showed that the most important utilitarian reinforcement for the children interviewed was related to product quality. The quality of a food product can have varied meanings for each of the subjects interviewed, as these can be associated with various different characteristics which were emphasized in the statements in the focus group.

Along with the same tendency of general analysis of the variables, it was verified that, when grouped into the dimensions of the BPM model, the average result places “utilitarian reinforcement” into first place influencing purchasing decisions, with a score

**Table 1 - Average degree attributed by the subjects to the variables, in order of importance**

Variable	Average	Standard deviation
Quality	4.75	0.72
Expiration date	4.59	0.88
Nutrients	4.49	0.98
Flavor	4.46	1.02
Healthiness	4.23	1.15
Quantity	4.03	1.20
Purchasing history	3.99	1.07
Discount	3.98	1.12
Family	3.89	1.24
Consistency	3.89	1.22
Preserving the environment	3.87	1.06
<i>Having light and diet versions</i>	3.86	1.23
Promotion	3.63	1.36
Packaging	3.49	1.13
Low price	3.47	1.25
Appropriate price	3.45	1.37
Price I can afford	3.33	1.46
Appropriate to the climate	3.17	1.29
Personal taste	3.11	1.22
Appropriate to sex	2.90	1.16
Perceived hunger	2.79	1.28
High price	2.58	1.30
Appropriate color	2.53	1.20
TV advertisement	2.50	1.24
Appropriate to age	2.43	1.31
<i>Point of sales merchandising</i>	2.43	1.19
Event sponsorship	2.41	1.57
Social class	2.40	1.30
Religion	2.38	1.38
Culture	2.38	1.31
POS location	2.30	1.50
Emotional state	2.11	1.19
Internet advertising	2.08	1.42
Social group	2.07	1.37
Newspaper and magazine advertisement	1.98	0.93

of 4.0 in a range varying from 1.20 to 4.88 in all dimensions (Table 2); in other words, for the children interviewed, it was most important to choose a purchase by the utilitarian attributes of the product.

The second highest average was equated with the “punishment” dimension (average of 3.64), denoting that, for the public participating in the study, a food product which is below the expected standard will provoke distancing from the product. Therefore, if the product does not correspond to the young consumer’s expected standard of quality, punishment avoidance behavior will probably occur, consequently the product will not be acquired again. The result for the “informative reinforcement” dimension stood out (average of 2.81) showing that, for the interview subjects, the social response which may come from purchasing a food product is less important in the purchasing decision than the utilitarian value of the product, although, according to Schiffman and Kanuk (2000), social groups

can be a large influence in consumers’ purchasing decisions, especially children.

According to Mowen and Minor (2003) a consumer can make purchasing decisions through internal learning, based on his or her own convictions, as well as external learning based on information acquired from third parties (from social feedback). In this way, the “learning history” dimension can be considered to be dependent on the individual’s past experiences (utilitarian reinforcement) and his or her process of modeling from reference groups and social influences (informative reinforcement); however, for the subjects in this study, the variables related to the “learning history” showed a lesser average degree of importance (2.67). Considering that the variables which make up the “consumption setting” were considered to be of little importance to the subjects (average of 2.85), it was verified that prior stimuli have lesser influence on the purchasing decisions of this group, as can be seen in Table 3.

**Table 2 - Descriptive analysis of the constructs of the BPM model**

	Minimum	Maximum	Average	Standard deviation
Consumption setting	1.20	4.40	2.85	.628
Learning history	1.50	3.75	2.67	.431
Utilitarian reinforcement	2.88	4.88	4.00	.432
Informative reinforcement	1.50	4.13	2.81	.496
Punishment	2.17	4.67	3.64	.555

**Table 3 - Descriptive analysis of stimuli before and after purchase**

	Minimum	Maximum	Average	Standard deviation
Prior stimuli	1.71	4.08	2.76	.389
Consequent stimuli	2.56	4.19	3.41	.316

According to Hawkes (2006), marketing, especially with regards to aspects of publicity and advertising, significantly affects choices and affects children's dietary habits. Nevertheless, for the group of children who participated in the study, the variables associated with marketing, which were distributed in the BPM model among the dimensions prior to purchase, are less important than the post-purchase variables, which refer to product attributes.

## Conclusion

The act of purchasing food has been shown to be a complex behavior and cannot be considered an isolated act, since it may involve a set of various factors and have distinct particularities for each person, adult or child, as can be seen in the results. These indicate that, for the interviewed public, there are various factors which influence the decision making process in purchasing food, many of which differ from what the theory indicates.

The general objective, to analyze the factors that influence children in their food purchasing behavior, was understood to have been attained. Through the literature as well as through the interview with the focal group, factors were identified and later confirmed in the qualitative research. With the definition of variables in the literature, and its confirmation in the focus group, it was possible to assure the analysis of the factors which lead children to choose foods. It was noted that among the variables found, those related to notions of publicity and the influence of social groups were not as significant as the literature has indicated, especially with reference to work by Hawkes (2006, 2010) and Camargo (2010). In the group studied, product attributes such as flavor and quality, which are understood to be utilitarian reinforcers, were shown to be more important than advertising appeals. Based on the quantitative analysis of the data collected in the field research, a greater degree and order of importance of the factors following purchase behavior (utilitarian and informative reinforcement, and punishment avoidance) was perceived.

Based on the results of the research, it was verified that the quality variable can be related to satisfaction in the surveyed consumers, according

to Gronroos (2007), who attributes consumer satisfaction to full satisfaction of their expectations from the purchase. In this way, based on the survey results, it is understood that strategies towards promoting improvement in food products, which can bring benefits to young consumers, can contribute to faithfulness in young consumers, especially with relation to quality, expiration date, nutrients, and flavor, variables which are strongly considered in the purchasing decision to the detriment of variables related to advertising.

Although the KMO test has indicated low sample adequacy for the utilization of factorial analysis, it was possible to apply confirmatory factorial analysis, which showed low explanation of the variables of the BPM dimensions; however, as stated by Hair et al. (2005), analysis based on conceptual questions have been shown adequate, to the extent that they enable the classification of the variables studied in their constructs. The combination of the dimensions related to punishment, whether informative or utilitarian, was shown to be adequate since, with relation to the results, punishment always brings about avoidance of the purchase, because the consumer seeks to avoid punishment, considering punishment to be everything that (in the food product) is below the consumer's expected standards. Viability of the use of classification of added product value presented by Gronroos (2007) and Pelham (2010) stands out, as do variables of the reinforcing stimuli and in the punishment category those variables which remove value from the product. We recommend further studies utilizing this same process of classification of the variables of the BPM model in order to confirm efficacy.

One of the limitations found in conducting the survey refers to the restriction of the sample (random, and chosen by convenience by the researchers), a fact which limits generalization of the findings. It is suggested that future studies be conducted with children from other social groups in order to clarify the many aspects of young consumers' purchasing behavior, especially with respect to the quality variable, which can be researched in more depth to understand how this is perceived by children, or which of the main attributes related to the quality of a food product should be present to satisfy young

consumers. It is also suggested that larger studies be conducted in order to confirm or refute the idea that advertising has a large influence on children's food purchasing decisions.

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Received: 15/08/2011  
 Resubmitted: 12/11/2012  
 Approved: 14/01/2013