



**Specialized conference of the
EuroMed Academy of Business**

**Contemporary Trends and Perspectives in
Wine and Agrifood Management**

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Published by: EuroMed Press

**Specialized conference of the
EuroMed Academy of Business**

CONFERENCE BOOK OF PROCEEDINGS

January 16-17, 2015

Lecce, Italy

**Contemporary Trends and Perspectives in
Wine and Agrifood Management**

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ISBN: 978-9963-711-30-7

Published by: EuroMed Pres

A SENSORY ANALYSIS OF COFFEE IN BRAZIL: BOUNDED RATIONALITY AND FOOD CHOICE

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ABSTRACT

According to the Institute of Food Science and Technology (IFT), sensory analysis is a discipline used to measure, analyze, and interpret the reactions produced by the attributes of foods. Psychologists refer to sensory perception as a process with three phases: reception stimulation, perception and information processing (Chen, 2014). The questionnaire was based on Furst, et. al. model proposed in 1996 (Furst, *et al.*, 1996). A documentary research and some interviews with specialists help to identify the main sensory attributes of coffee. According to Furst et al. (1996) a basic and universal factor that provides the foundation for food choices is the life course, which includes influences from past personal and historical experiences, the current participation in trends and transitions and anticipations of future events. Life course provides guidance for food choices through roles and experiences. By in-depth interview with 20 consumers some improvements in the previous Furst et. al. model were proposed. The methodology was an experiment conducted in the MarketingLab. Using different levels of sensory attributes consumers of coffee were separated in four groups of 5 consumers and interviewed based on focus group and individually. Results identify some particularities of coffee consumer behavior. The findings suggest that sensory analysis helps to explain some aspects of bounded rationality in food consumption, evaluation and perception and could improve Furst et. al. model.

Key words: *Sensory Analysis; Food, Consumer; Perceptions; Attributes; Coffee, Brazil*

1. INTRODUCTION

The way people consider and select food and beverage affects the acquisition, preparation or consumption of food in many situations such as: supermarkets, restaurants, food machines, parties and social events, meals and snacks at home. Food choice includes not only decisions based on conscious reflection, but also those that are automatic, habitual and subconscious.

Life experiences are the most important influences on food choices that include ideals, personal factors, resources, social and food contexts. These influences have triggered the development of

personal systems to make food choices that incorporated negotiations of values and behavioral strategies.

In the food industry, sensory analysis is extremely important to evaluate marketing acceptance and quality of a product, which is an inherent part of the quality control plan of an industry. It is through the sensory organs that this assessment is carried out, and since it is performed by people it is important to have a careful preparation of the samples tested and a proper application of the test to avoid the influence of psychological factors such as color that can refer to pre-formed concepts.

Sensory analysis is usually carried out by a team aiming to analyze the organoleptic characteristics of a product for a particular purpose. It can evaluate the selection of raw materials to be used in a new product, the effect of processing, quality of texture, flavor, storage stability, reaction of consumers, among others. In order to achieve the specific objective of each analysis, differentiated evaluation methods are drawn aiming to obtain more appropriate answers to the researched profile of the product.

The value of trade is affected by sensory perceptions, monetary considerations, beliefs and health concerns, nutrition, convenience, social relations and quality of food choice decisions. Strategies must be used to simplify the process of food choice developed over time. The conceptual model of food choice process represents the basis of complex food practices, and provides a theoretical framework for research and nutrition practice.

Besides this brief introduction, the paper is divided into heuristics and attributes, food choice from the point of view of a conceptual model, methodology, results and discussion and conclusion.

2. SENSORY ANALYSIS THROUGH SYNAESTHESIA

Sensory analysis allows the study of organoleptic characteristics of several products and services by using the human being as a measuring instrument and statistical techniques to interpret data and provide reliable results (LATREILLE et al., 2006).

The disadvantage of flavor testing techniques, based on purely verbal questionnaires, is due to the fact that consumers have a very limited vocabulary when it comes to describing fragrances and flavors. In the past, flavor tests were limited to questions and verbal rating scales and sensitivity. Therefore, it was difficult to distinguish between one flavor and another. The methodology of sensations uses the principles of synaesthesia to overcome these problems (PAWLE and DELFAUD, 2013).

In 2008, Mane developed a personalized approach based on the methodology of sensations to measure emotion concerning flavors in consumer brands. By using the principles of synaesthesia, it was possible to develop an emotionally rich description of each flavor tested to create a visual and

verbal language. It was shown that synaesthesia can be successfully applied in techniques of sensory test to observe emotional effect both in a blind test and in a specific context (COOPER and BINDER, 2007).

“Synaesthesia” is a neuropsychological mechanism whereby sensations in one sense create sensations in other senses. In other words, it is “the union of the senses” (CYTOWIC, 2002). The same applies to all senses, that is, colors can be experienced as shapes, music as colors, textures, sounds. In this way, flavors are experienced as colors, textures, sounds, and so on.

Therefore, emotional responses can be measured by building a projective world Synaesthesia approach is based on the fact that flavors can be described in terms of profile and other senses, in other words, touch, smell, sound and image. Besides, it is possible to measure the emotional impact of a flavor in these terms using a qualitative and quantitative projective approach. The visual survey is used to go beyond rational verbal responses.

Synaesthesia is supposed to be the basis of long-term memory, imagination, emotion and language, and can potentially lead to improved brand relationships through better sensory and emotional involvement with consumers (COOPER and BINDER, 2007).

In recent decades, psychologists have distinguished between two thought systems with different capabilities and processes (SAMPSON and VOYER, 2012), which were called System 1 and System 2 (STANOVITCH and WEST, 2000). System 1 is usually automatic, affective and based on “trial and error”, which means that it depends on mental “shortcuts”. It quickly classifies intuitive responses for problems that may arise. However, System 2 corresponds to controlled processes. It is slow, laborious, conscious and rule-based and it can often be used to monitor the quality of the response given by system 1. If it is convinced that our intuition is wrong, then it is able to correct or replace automatic judgments (KAHNEMAN 2011).

Technique of qualitative and quantitative synaesthesia quantifies the emotions of System 1 by using visual techniques. Initial reactions of consumers’ System 1 regarding taste occur in a few seconds after tasting some product and the emotional and cognitive centers of the brain react before the person is aware of it.

Pawle and Delfauld (2013) conducted interviews using facial coding assessed by specialists to analyze facial expressions of emotion in the decisive seconds after each Cappuccino was first experienced by respondents. Then they compared facial coding results of emotional response with scores of hedonic tastes.

Facial coding recognizes the immediate flavor impact. The first reaction of consumers is to try to “recognize” the flavor instead of enjoying it or not. New perceptions of flavor allow aligning the product of sensory experience with high marketing performance. These perceptions of flavor and

emotion result in new forms of work, allowing companies to design their products not only based on the score “like”, but also based on the emotional “insight” of the major sensory dimensions of the product: flavor and smell (PAWLE and DELFAULD, 2013)

Synaesthesia enables to create sensitive measurements of emotional impact of flavors and the ability to enhance and develop brand positioning. The impact of flavor on a brand is mainly driven by System 1, which is the intuitive and emotional thinking. Therefore, in order to create a language that can have a significant profile on the flavor impact, it is necessary to measure the visual emotional responses as well as the use of conventional measures, such as hedonic of taste. Synaesthesia means that a sense can be experienced and described in terms of other senses.

3. HEURISTICS ATTRIBUTES AND FOOD CHOICE FROM THE POINT OF VIEW OF A CONCEPTUAL MODEL

Bounded rationality is justified by mental shortcuts used to assess the attributes that involve heuristics and biases. In this approach, consumers may overvalue or undervalue the effect or consequence of certain attributes.

To Bazerman (1994) people first determine their preference for a certain result from self-interest and then justify this preference by changing the importance of attributes. Even if individuals receive identical information, depending on the interest, the relationship with the attribute may vary and may be biased with respect to the attribute assessed (Diekman, Samuels, Ross, Bazerman, 1987). In addition to this self-interest, individuals can simplify their cognitive process to save time and resources in their decision making and judgment of value.

To simplify decisions, individuals often set rules that allow them to use some dimensions as substitutes for others. Heuristics is therefore a shortcut (a result of life experience and memory, for example) that serves as an alternative in relation to the excessive amount of information and complex mental calculations required in the consumption decision and choice of attributes based on the three heuristics: (a) representativeness, (b) availability and (c) anchoring and adjustment. Changes in the way we communicate, the combination of attributes offered and the process that consumers use to decide are part of research on heuristics.

In many situations we ignore the laws of probability and statistics. Cognitive, emotional, functional and symbolic elements represent all tangible or intangible elements with direct or indirect influence on accumulated impressions. They will be generators of our perceptions. When measuring the quality of a product, we take attributes of easier observation and measurement such as size, color, expiration date and brand name. The perspective on this quality can be called objective. However, other attributes that involve a subjective perspective of quality are based on perceptions that may vary

from individual to individual such as confidence, affection and taste. Mainly in this subjective perspective of quality, the heuristics and biases may appear more frequently in decision for attributes.

The negotiation of values is a crucial element in food choice. This is due to the fact that it is very difficult that all values can be completely satisfied with a single food. Surveys have shown that the values compete with each other and the people negotiate and consider using heuristics and that they prioritize some over others since it is difficult to satisfy all the values in a single time (Falk; Bisogni; Sobal, 1996; Connors *et al.*, 2001).

The conceptual model of food choice proposed by Furst *et al.* (1996) collected all the factors that consumers use in the process of choice for food, such as the life course, influence from family and friends, among others.

The model developed by the authors of the study and updated in 2009 by Sobal and Bisogni (2009) analyzes the factors involved in the choice of food and the process by which it occurs. These factors were grouped into three main components, which are the basis of the model: (1) Life course; (2) Influences and (3) Personal Food System.

Life course (1): It is the basis of the process and includes personal issues as well as social, cultural and physical environment to which the person was exposed. The trajectory and life course transitions of a person are essential in the development of his personal system which will influence the choices for food. This is due to the fact that the system is based on personal experiences with long-lasting effects although they may change over time with exposure to new environments. The authors also suggest that transitions in the life course are occasions in which the food choice system may be subjected to changes and provide opportunities for interventions (Devine *et al.*, 1998).

Influences (2): Five major influences that operate in the food choice process were observed (Furst *et al.*, 1996): Ideals, which are the beliefs and standards under which people analyze food; Personal Factors, which are the needs and preferences of people for certain foods, based on physiological and psychological characteristics; Resources, which includes tangible and intangibles factors involved in the selection process; Social Framework, which consists of interpersonal relationships and social functions associated with the context of food choice; and Context, which includes the physical surroundings and cultural environment of food choice (Falk; Bisogni; Sobal, 1996).

Personal System (3): The Personal System encompasses the cognitive process involved in the decision for food and it is closer to consumer behavior towards food when compared to Influences or Life Course. It is in the Personal System that people build values to make choices, negotiate and consider these values, classify food and situations, form and revise strategies, scripts and routines (Sobal and Bisogni, 2009). It is a concept that represents the dynamic set of processes built by

individuals to make decisions related to food (Falk; Bisogni; Sobal, 1996; Furst *et al.*, 1996). This system is divided into two parts: *Negotiation of Values and Strategies*.

This negotiation of values provides some limits that exclude certain choices and build dilemmas, for example the tradeoff between taste and health, cost and convenience or health and interpersonal relationships (Connors *et al.*, 2001).

On the other hand, strategies include regular patterns (food routines) that make certain food more usual than others (Falk; Bisogni; Sobal, 1996).

4. METHODOLOGY

Focus group is an interactive qualitative method that provides in-depth answers to complex problems. By using real cases as material in the focus group it is possible to define problems in a language that consumers can follow (O'Donnell, 1988).

The method consists in gathering a group of six to ten people in a central location where the researcher develops a discussion directing it to the topics he planned within a specified period, which usually takes one to two hours (Randle, Mackay & Dudley, 2014). For Morgan and Spanish (1984), focus group can be composed of four to ten participants who are put together to share their thoughts and experiences on topics selected by the researcher who can use audio recorders to assist in data collection.

Focus group provides access to certain types of qualitative phenomena that have been poorly studied by other methods (Morgan & Spanish, 1984). O'Donnell (1988) complements that discussions obtained by focus group seem to find answers that other techniques can miss, besides providing qualitatively responses different from individual interviews. In addition, group experience can encourage more spontaneity, less inhibitions, greater anonymity, security and even the honesty of the participants comparing to individual interaction (O'Donnell, 1988).

Among other benefits focus group can also enhance the vocabulary used in the research; anticipate problems; provide useful insights into the construction of the questionnaire; indicate the most important performance measures for the different participants and enable the integration of the main types of intervenor (Oliveira, Freitas, 2008). For Fern (1982), focus group can also be used to explore opinions, attitudes and attributes, evaluate commercials, identify and pre-test questionnaire items.

O'Donnell (1988) argues that focus group is not as simple as it seems and prior planning determines the quality and quantity of results. The planning of focus group should involve decisions related to how data will be collected. The first decision is who will participate in the groups, followed by how they will be structured including the level of involvement of the moderator, and the third

consists in determining the number of groups and their size (Morgan, 1997). In the planning phase, the problem should be defined and it is necessary to conduct a guide for group discussion.

The method used was content analysis, transcribed and analyzed after comparing responses. The sample used in the experiment was 20 young students between 18 and 33 years old at a public university in the state of São Paulo. They were divided into 4 groups, where one component from each group was in the placebo condition, which was randomly assigned.

The MarketingLab Laboratory in Brazil was used for the experiment of focus group as well as computers, camcorder, recorder machine and Nespresso coffee machine to conduct the experiment.

The coffee were chosen as analysis product and each group participated in all of phases of the experiment to answering questionnaires targeted for coffee. The experiment was divided into 4 stages and as table 3 describes the steps of the experiment: pre stimulus, stimulus with images, degustation and focus group.

The survey was performed on the campus of Esalq in Piracicaba, Brazil to conduct the experiment. It started at 10:30 a.m. for preparation and at 11 a.m. we received the first of the four groups to run the experiment. In the first ten minutes, each group answered a quick questionnaire with questions of personal character to obtain consumers' profiles., and also specific questions about the first product under review. These questions were prepared aiming to assess consumer perception about coffee before suffering the first stimulus, and then they were asked "What is your level of knowledge on the issue of coffee quality?", "What is coffee for you?", "Are you a coffee consumer?", "Imagine that you are going to buy coffee. What aspects or information do you consider in order to buy this product?", "What could coffee have that it does not nowadays?" and "What do you take into consideration to assess the quality of coffee?". At this moment we named randomly one member of the group to be the placebo component, the one that does not suffer stimuli during the experiment.

After the first initial questionnaires, 4 of 5 consumers were directed to the computers previously numbered where they had the first stimuli with images of advertising pieces of coffee. The objective was to provoke the perception of geographical origin of the product using figures that illustrate coffee tree and coffee beans already roasted. For the same images, there were indications of different locations, indicating Brazilian coffee and Colombian coffee.

At this moment they were given a second questionnaire with specific questions about the advertising pieces to analyze the influence of the product origin at purchase time. The questions were "What aspects did you like the most in this ad?", "What aspects did you like the least in this ad?", "Imagine that you are going to buy coffee. After observing the product images, which aspects or information would you consider when purchasing this product?".

After completing the questionnaire on the 4 pictures of coffee, the group was directed to coffee degustation step. Two different types of capsules were selected (Roma and Decaf) and each consumer received just one cup of coffee, however, they were not informed about the flavor. It was not allowed to sweeten the coffee in order not to mask the sample since it was important to describe their first perception of the drink. Two questions were asked about this step "Point the aspects that you liked the most regarding the perception of the coffee tasted", "Point the aspects that you liked the least regarding the perception of the coffee tasted". The fifth student in the group, as a placebo, did not participate in both perception stages: the advertising pieces and degustation.

It was only needed to perform the focus group to complete the procedure with the first group. At this moment, all the 5 members were invited to start a conversation about all the stages through which they had passed. Some questions were prepared in order to provoke and understand what has changed regarding the initial perceptions of the participants about the coffee, and those that they had in mind about the products after the stimuli caused during the experiment, for example "What did not you like in the experiment?", "What has not changed?", "What has changed?", "What do you value at the time of purchase?", "What is meat for you?" and "What is coffee for you?".

This procedure was repeated 4 times until it was done the same with the 20 students. All steps were properly recorded and filmed so data could be worked with accuracy at the time of the analysis execution. After the closure of the fourth and final focus group, the questionnaires were collected and organized by group number.

The results were discussed and related to the theory discussed earlier in the study, as can be followed in the next item.

5. RESULTS AND DISCUSSION

The objective of this study was to understand what consumers think about coffee before and after the stimuli that were planned.

Thus through these experiment stages it was able to gather participants' responses and make a comparison between before and after the experiment.

In the first stage, the pre stimulus started with the question "what is quality of a food product for you" and there were answers such as "conservation of quality for a certain period without impairing consumer's health", "security, flavor, raw material submitted to sustainable procedures", "origin of the product". Only one student described his knowledge regarding coffee quality as high and most respondents claimed to have low knowledge and 3 of the 20 students claimed they do not consume the product. Most take into consideration the brand, the packaging and the price of the product at time of purchase and only one person mentioned the origin of the product as an important

factor. There were those who said they cared about “the taste that the product promises”, blend, seal of quality, brand relevance, recommendation and expiration date.

The question regarding what coffee could have that it does not nowadays, answers were obtained such as “coffee packed with sugar”, “coffee with different flavors”, “better quality control”, “description of roasting on the packaging and other cultivation aspects”, “preparation kit”, among other suggestions given by the students.

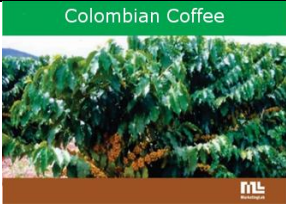
Image	Result
 <p data-bbox="188 568 475 600">Brazilian Coffee</p>	<p data-bbox="496 568 1396 786">For this first image, consumers have made some statements related to valuation of coffee tree figure, a product of national origin, plantation safety, origin, healthy looking of the plant, natural product, plantation quality and coffee origin, and color of the image.</p>
 <p data-bbox="188 792 475 824">Brazilian Coffee</p>	<p data-bbox="496 792 1396 1055">For this second image, consumers claimed to have the impression that the manufacturer guarantees that the grains will be the same way after they have been packed, comfortable feeling to see the person taking the drink, origin, satisfaction of the person with the product, national product, roasting quality, grain quality, and stenghtening of the national bond.</p>
 <p data-bbox="188 1061 475 1093">Colombian Coffee</p>	<p data-bbox="496 1061 1396 1323">For this third image, consumers answered they did not like the image of the plantation but included visual quality of the plant, vivid colors, imported product, advantage of the origin, reliability of the origin, natural product, sanitary quality of plant, stage of fruit maturation, price, and information that can prove the Colombian origin.</p>
 <p data-bbox="188 1330 475 1361">Colombian Coffee</p>	<p data-bbox="496 1330 1396 1702">For this fourth image, consumers highlighted the fact that the product appears to be good due to the grain size, smoothness of the drink, quality appearance of the product from the aspect of the person, quality of origin, the illustration of the grain makes consumer closer to the product, advantage of Colombian coffee, grain and toasting quality, price, brand recognition, what the coffee has in special for being Colombian, origin, remembrance of a happy consumer stimulates purchasing</p>

Table 1. Answers of the illustration stimulus stage of coffee.

Source: Authors.

In quality evaluation there were many factors that were cited such as granulometry, aroma, flavor, quantity of waste, purity, satisfaction, origin, color. And when they were asked what should be taken into consideration to assess the quality of the coffee, the answers were very distinctive such as

flavor, aroma, granulometry, amount of waste, physical purity, brand recognition, satisfaction and appearance.

After the pre focus responses, the ones related to the stimulus step were analyzed. These students had many points in common, but since they have different habits and formations the perceptions and opinions were divergent about the product (Table 1).

When submitted to the degustation step, it could be noticed that those who do not have the habit of consuming coffee said the drink was too strong and bitter, especially because for effectiveness of the experiment they could not add sugar when sipping for the first time. Among the positive responses there was the aroma, creaminess, texture, slightly fruity, and intense flavor. However, regarding the issues that they liked the least we obtained answers such as very bitter, very strong, it tastes as if it were burned, leaves a strange feeling in the mouth, no sugar, and a little sour. Perceptions for each type of coffee are listed in Table 2.

Participants/Capsule	Point the aspects that you liked the most regarding the perception of the coffee tasted	Point the aspects that you liked the least regarding the perception of the coffee tasted
Roma	The fact it is espresso pleases me more With sugar it seemed to me a delicious espresso The strong smell Texture and density Strong taste Creaminess Aroma Intense flavor You feel less sleepy It tastes very good, different from coffee made in a percolator To feel and know the real taste of coffee Lightness Foam The tastes it leaves in your	It tastes as if it were burned Not very pleasant odor compared to the others I have already tasted Too bitter Lack of sugar It tastes weak Too creamy A little sour A little watery It leaves a strange feeling in the mouth Trace of powder in the cup Absence of additional flavors It does not have a remarkable aroma and flavor

	mouth Proper temperature	
Decaf	Warm Very good aroma Creamy Color Strong coffee Slightly fruity Intense Texture Lightness of flavor Foam The taste it leaves in your mouth Bitter Lasting flavor	Extremely bitter Very strong flavor Foam Aroma Consistency Roast of the coffee Absence of additional flavors It does not have a remarkable flavor and aroma Lack of sugar Flavor should be a little more enhanced In the first sip I could not identify the flavor well since it was very hot

Table 2. Answers of the degustation stimulus stage of coffee.

Source: Authors.

Focus Group

During the focus group stage it was able to synthesize the information on the perception in a more relaxed and natural way. The students were comfortable in the chat to talk about what they thought about the experiment and to tell better about their respective consumption habits, as shown and summarized in Table 3.

Based on the responses it was possible to understand the perceptions and raise the following propositions:

Pr1: The price is the main element in the assessment of quality, which hinders the use of other differentiation strategies in food.

The question of purchase linked to price appears in coffee. It was raised the fact that coffee quality is directly related to price. "You know that the cheapest coffee has low quality", "I worry about the quality and I pay more for a better coffee". This proposition is directly related to the bias of Heuristics

"Insufficient anchoring-and-adjustment" and personal food system of Conceptual Model, proving that people have some resistance to changing their habits that have already been incorporated.

Pr2: Certain information about foods needs to be encouraged to be incorporated in the food decision making.

The informational content needs to be stimulated, otherwise, respondents are focused only on what is shown. The sustainability issue only appears when it is stimulated and few people have spoken about this topic. During the focus group the discussion on other topics not only the origin, taste and nutrition was encouraged. In this case, it can be said that the bias of Heuristics "ease of remembrance" is related to events and life experiences of the Conceptual Model because individuals judge by the number of memories. One respondent claimed: "Companies should invest less in marketing and more in written information about the product, they should suggest recipes". In this item, it can be related to the bias of Heuristics "Resilience with feeding habits of the Conceptual Model", since individuals are biased in their assessments of the frequency of importance and presence of an attribute.

Pr3. The rational and technical knowledge have important influence on the decision regarding food.

It is noticed that, professional knowledge about the issue interferes in the formation of opinions. For this item, it can be said that the lack of sensitivity to the base proportions of the heuristic biases and experiences and life path of the Conceptual Model support this proposition.

Pr4. Certain stimuli do not change the decision about food when it is related to something cultural and present in the family environment.

Non-appreciation of advertising. People say that certain stimuli do not interfere in the need of product consumption and they would not stop buying due to the lack of advertising, besides the fact that for coffee, customers are most of the time loyal to a brand. "When we moved to Goiânia, my family took many packages of coffee from São Paulo because my parents thought coffee was quite different there.", "People are addicted to certain brands. My family always buys the same brand, but I would not know how to buy", "Even without advertising I would not stop consuming the product, they are types of essential products and advertisements do not interfere in the purchase". Overconfidence is the bias that sustains this proposition added to experiences and life path as proposed in the Conceptual Model.

Pr5. Origin is a relevant factor and facilitates food purchase decision process.

The source is an important factor. "I take into consideration origin and product certification". However, there were those who said they did not care about the brand. This last proposition fits the bias Retrospect of Heuristics and Influences of the Conceptual Model pyramid, since after having observed the occurrence or not of an attribute, individuals tend to overestimate the degree to which they would have foreseen the correct result.

Coffee
<p>I always appreciate the question of origin, giving preference to a domestic product.</p> <p>I like to look at the nutrition label to know what the product contains.</p> <p>I value the contact with the consumer in advertising, I feel like trying the product.</p>
<p>I was not encouraged by advertisements as when I saw the person drinking coffee.</p> <p>I prefer simpler advertisements.</p> <p>Not having refined taste does not distinguish one type of coffee from another. The fact of seeing the grain product changed after the stimuli. Emotional vision. I wanted to drink after the stimulus.</p>
<p>It is a stimulating beverage.</p> <p>The price issue for coffee interferes much at the moment of purchase. When we moved to Goiânia, my family took many packages of coffee from São Paulo because my parents thought it was quite different there.</p>
<p>Considers packaging at the time of purchase, brand origin, curiosities. Values vacuum packaging and appearance of the product, but would not buy only because of the packaging. Origin is very important, it would not interfere purchase, but it gives more security at the time of purchase. The image of the production feels better by referring to the natural factor of the product.</p>
<p>I worry about the quality and I pay more for better coffee. I buy coffee by the smell and flavor quality: Melita and Morro Grande. When I am in my parents' house, I do not like the coffee that Dad buys very much, and then I buy essences to put on the coffee and change the flavor a bit. (no changes) Dark packaging can cause bad impression; I value the valve on it.</p> <p>I did not have a formed concept. Seeing the image enriches the product and it is more accepted because it sharpens the desire.</p>
<p>Consumer includes price aggregated to origin. Purchase attribute comes from family habit. Has trust in a particular brand of coffee, so he takes into consideration the brand at the time of purchase, if he does not like, he does not buy.</p>
<p>It is important to conserve the product in the refrigerator. I like and appreciate the quality standard of product. I know coffee, I'm a producer, I appreciate the origin, family influence.</p> <p>People are addicted to certain brands. My family always buys the same; I would not know how to buy.</p>

The smell stimulates the purchase.
The image of the production did not attract much attention, but the grain did. We associate the origin. I take into consideration the price and the packaging, “café Fazenda” must be worth. “Morro Grande” and “3 Corações”. I felt the coffee was very strong.
I am attracted to the packaging, machines of “Morro Grande” and I consider the grinding when drinking. I take very seriously the nutritional issue. If I moved the city or state, I would take “Morro Grande” with me. I usually take into account the scent, texture, taste and packaging. I felt nationalism, the stimuli helped a lot, but I was not sure of the origin, if it was reliable.
I take into account the speed of preparation and practicality. The one my mother makes and can afford. It was strange that the pictures stressed the origin. Other things matter and those who do not know, they do not understand. I noticed that the foam and the creaminess make it lighter. Advertising does not change anything for me.
Packaging is very important since it calls the attention (Curaçu – I bought only because of the packaging, aesthetics, information and valve). I took into account the origin. I did not understand why showing the plant.

Table 3. Answers of the focus group stage.

Source: Authors.

6. FINAL CONSIDERATIONS

It was confirmed by the literature, sensoriality and physiology of the five senses, heuristics and attributes and the Conceptual Model of food choice that when consumers are stimulated, they can change their perceptions about a product based on their offers of flavors and nutrition and they suffer influences of the environment at the time of purchase.

There was a limitation related to the sample size, however, there is the possibility to develop this research in greater depth in the near future since all data collected generated insights for new and future researches.

Through the five propositions that were raised, it is possible to develop a quantitative experiment for each of them, relating to the various concepts of heuristics and proposing foundations for the proposed model that can incorporate new stimuli besides flavor and nutrition.

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