Effect of packaging characteristics on the consumer decision-making process of extra virgin olive oils

Efecto de las características del envase en el proceso de decisión del consumidor de aceites de oliva virgen extra

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ABSTRACT

The present study evaluated the effect of visual characteristics of six packages of extra virgin olive oil using the focus group research method. The samples were evaluated by 24 consumers in three sessions, with the presence of a moderator who made the questions, and an assistant who recorded the information discussed. The results showed that the package material, color variety, design, and clear and distributed information were the visual characteristics that most influenced the purchase intention of olive oils. Moreover, it is also concluded that consumers do not know the correct definition of extra virgin olive oil and acidity index, thus it is necessary to improve the interactions between consumers and products to provide a better understanding of food labels.

keywords: Extra Virgin, Focus Group, Label, Olive Oil, Qualitative Method, Visual Characteristics.

RESUMEN

El presente estudio evaluó el efecto de las características visuales de seis envases de aceite de oliva virgen extra mediante el método de investigación de grupo focal. Las muestras fueron evaluadas por 24 consumidores en tres sesiones, con la presencia de un moderador que realizó las preguntas, y un asistente que registró la información discutida. Los resultados mostraron que el material del envase, la variedad de colores, el diseño y la información clara y distribuida fueron las características visuales que más influyeron en la intención de compra de los aceites de oliva. Además, también se concluye que los

consumidores desconocen la definición correcta de aceite de oliva virgen extra y de índice de acidez, por lo que es necesario mejorar las interacciones entre los consumidores y los productos para proporcionar una mejor comprensión de las etiquetas de los alimentos.

Palabras clave: Virgen extra, Grupo de discusión, Etiqueta, Aceite de oliva, Método cualitativo, Características visuales.

1 INTRODUCTION

Consumer attitudes and beliefs towards a product depend on the knowledge arising from packaging information, among other factors, leading to changes in the product's acceptance. Efficient information on food labels is capable of changing sensory judgments, being more consistent with individual beliefs and perceptions (Stubenitsky et al., 1999).

From a consumer perspective, food is always associated with a brand, packaging, or label, which contributes to the purchase intention of the product (Bárcenas et al., 2001). Packaging consists of visual elements including graphics, colors, shapes, sizes, and informational elements such as product name, brand, producer country, nutritional information, and promotional offers. It can be considered one of the increasingly important factors that can persuade consumers' purchase, becoming a component of brand positioning and communication (Letona et al., 2014).

Packaging plays a fundamental role in the purchase of the product, as it not only draws the consumer's attention through the first contact but also provides the necessary information for the consumption of the product. Several studies have been carried out to evaluate the effect of label information on consumer purchasing decisions (Della Lucia et al., 2007).

Consumer's behavior is multidisciplinary, thus the use of qualitative research has yielded interesting results on the individual's perception of the products, as well as its acceptance or rejection, as they allow for detailed information on attitudes, opinions, behavior, and consumer habits (Minim, 2010). Thus, the qualitative method consists in investigating the reasons that lead a consumer to buy or respond about a certain product (Hashim; Resurreccion & Mcwatters, 1996 cited by Soares et al., 2008).

Focus group is one of the best known qualitative sensory methods, which aims to obtain information about an object of study through concepts of group dynamics, in which the discussion is stimulated by the exchange of comments. The group is defined by a planned interview to gain individual insights into a particular area of interest. It is held in circles of approximately six to nine people, by an impartial moderator who allows the group to freely express their opinion on the subject, exploiting as much information as possible to hold the debate (Minim, 2010). It is a time and resource-efficient methodology for exploring and clarifying the participants' perceptions. It allows the researcher to access

a range of ideas due to the interaction between the participants, without the participants feeling pressured (Goodman et al., 2013).

The advantage of the focus group is that it encourages the participation of people who are reluctant to be interviewed, due to the freedom of expression during the meeting sessions, allowing responding as they think or prefer, generating interaction, debate, and change of opinion during the discussion with other participants. However, this type of information tends to be difficult to analyze, once it is necessary to identify the opinions, ideas, or feelings repeated by consumers, requiring careful interpretation to avoid that the analyst records only the comments consistent with their expectations (Dransfield et al., 2004).

The focus group discussion can be compared with a series of interviews to discover the participants' perceptions and values (Parker & Tritter, 2006). However, the interviews involve an individual discussion in which the researcher adopts the role of "questioner", which implies asking questions, controlling the dynamics of the discussion or engaging in dialogue with one specific individual at a time. However, in a focus group discussion, researchers adopt the role of "moderator" because the researcher facilitates or moderates a discussion between participants in a group, assuming a peripheral role rather than a central role in a focus group discussion (Hohenthal et al., 2015).

Focus group is a data collection technique that can interact with the group to produce data and insights that would be difficult to achieve individually, to express opinions and discuss data aimed at building the best knowledge about the subject. Thus, the researcher can listen to several opinions at the same time and observe the characteristic interactions of the method (Kind, 2004, cited by Reis & Zaninelli, 2018).

According to Soares, Camelo and Resck (2016) to construct the focus group technique, it is necessary to follow a whole methodological rigor, with a full understanding of the topic. According to the authors, success will occur to the extent that researchers are equipped with knowledge about this practice. Thus, the present study evaluated, through the qualitative focus group method, the effect of the visual characteristics of the extra virgin olive oil packaging to discover the factors that influence the purchase intention.

2 MATERIALS AND METHODS

2.1 FOCUS GROUP

The qualitative focus group method was used to investigate the consumers' attitudes, opinions, concepts, and thoughts aimed at assessing the factors that influence the purchase intention of extra virgin olive oil packaging.

The study was conducted at the Federal Institute of Education, Science and Technology of Southern Minas Gerais - Campus Inconfidentes, and was divided into three sessions over three days with the participation of 24 consumers, who evaluated six different extra virgin olive oil samples, coded from A to F. The first session was attended by nine participants (five women and four men), the second by eight participants (seven women and one man) and the third session composed of seven participants, all women. All participants consumed extra virgin olive oil regularly and were invited by the assistant to participate in the test. The participants were volunteers, receiving no monetary incentive for their participation in the study.

The choice of an adequate meeting place is of fundamental importance in the participants' adherence and success of the meetings and should be an environment that favors interactions and reduces visual and auditory interference (Reis & Zaninelli 2018). Therefore, the sessions were held in a classroom in an environment surrounded by nature and free of noise. To provide better interaction, eye contact, and harmony during the discussion, the technique was performed in a circle format, in which participants chose their seats as they arrived. It was necessary the presence of the assistant, who should record the information and the moderator who clarified the purpose of the study and the importance of the opinion of each participant, emphasizing that all answers were valid, with no right or wrong answers.

The sessions last 50 minutes each and were organized in three stages: presentation, development, and closure. The preparation was done in 10 minutes by the moderator, consisting of the presentation of the participants, a brief introduction of the theme, presentation of the objectives, the focus group technique, and the ethical aspects of the research. The development was guided by guiding questions, as presented in Tables 1 and 2.

Table 1: Prior script before starting the sessions

Do you observe the labels of the products you consume?
What do you think about the label information "Extra Virgin Olive Oil" and "Acidity Index"?

Source: The author, 2014.

Table 2: Questions for focus group sessions.

What catches your eye the most?
What do you think about product packaging, coloring, and design?
What do you consider important in this packaging?
Would you like to see some other information on the label?
Would you buy this product? If so, how much would you overpay for the product?

Source: The author, 2014.

Thus, two previous questions were used in the development stage, as shown in Table 1. Then, the sessions were started using the script presented in Table 2 on consumer habits during purchase, to know

the consumers' opinion about the labels and packaging of the products. For each session, a random order of presentation of the packages was used. The six extra virgin olive oils used in the study were purchased in Inconfidentes, Bueno Brandão, and Ouro Fino, which are cities located in the state of Minas Gerais, Brazil. The samples contained different color characteristics, brand, and information, to generate discussions according to the opinion of each participant.

3 RESULTS

3.1 QUESTIONS ASSESSED BEFORE THE FOCUS GROUP SESSIONS

According to the questions in Table 1, 25% of participants observed the expiration date of products, 12.5% observed price, and 14.28% were focused on label colors and designs. In addition, 10.71% observed the aesthetics and packaging conditions; 7.14% analyzed the nutrition table and the acidity index, if any. The list of ingredients, presence of information “*contain gluten*” and oil type (virgin, extra virgin, among others) were observed by 3.57% of the participants for each item. In addition, 5.36% of participants noted the origin of the products they consume and 7.14% observed the acidity index. With a low percentage for each item, 1.78% of participants observed the date of manufacture, sodium level, brand, and product viscosity. All information is best represented in Figure 1.

Figure 1: Information observed by consumers on the labels of the products they consume.

Source: The author, 2014.

For 20% of participants, the definition of extra virgin olive oil means a better quality product, while 20% of participants believed it is pure oil, and the others were not able to respond. Of the participants, 16.67% reported that extra virgin olive oil undergoes less intense processing. However, 13.33% of participants assumed that extra virgin olive oil is defined during the extraction process. Finally, 3.33% of participants believed that extra virgin olive oil is related to lower acidity, 3.33% considered it is

healthier, and the same percentage associated it with "*something extra*". All information is shown in Figure 2.

Figure 2: Consumer information on the definition of extra virgin olive oil.

Source: The author, 2014.

Regarding the acidity index, the highest percentage of participants, corresponding to 62.5%, was not able to define this index. In addition, 12.5% of participants believe it is related to lower acidity, and 12.5% considered it is related to sensory importance. Of the participants, 8.33% believed the acidity index is related to higher acidity. Finally, 4.16% of participants associated acidity index with pH. These results are shown in Figure 3.

Figure 3: Information given by consumers about the definition of acidity index.

Source: The author, 2014.

3.2 RESULTS OF FOCUS GROUP SESSIONS

The results were obtained in the three focus group sessions, referring to the questions shown in Table 2. The characteristics of extra virgin olive oil samples are described in Table 3.

Table 3: Characteristics of the extra virgin olive oil samples

Identification	Information about packaging	Label Directions
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Sample A	Light brown 500 ml glass bottle, sealed in dark green with a gold band	Transparent label illustrated with trees. Information on the front panel: brand, origin, content, type of olive oil, 100% hojiblanca olive, and presence of dosing tip. Information on the back: list of ingredients, brand, "gluten free", conservation indication, date of bottling, expiration date, batch, produced and packed by, imported by SAC, address and nutritional information. On side panel 1: brand, Spanish product, slightly spicy and bitter. On side panel 2: brand, Spanish product, special crop, and chemical analysis.
Sample B	Light brown 500 mL metal bottle with green cap without seal	Label in brown and green coloring, illustrated with an olive. Information on the front panel: imported from Italy, brand, company, type, and the phrase "acidity index on the back". On side panel 1: the phrase "exclusive non-dripping edge", chemical analysis, and product history. On side panel 2: SAC, phrase "manufacture and expiration dates are printed on the lid", imported and distributed by, bottled and imported from, nutritional information, ingredients, and "gluten free". Presence of dosing tip.
Sample C	Medium brown 500 mL glass bottle with light green seal on the lid	Label in white, green and gold coloration. Information on the front panel: net content, brand, imported from Portugal (since 1919), type, intensity, original taste, and dosing tip. Information on the back: expiration date, batch, SAC, produced and bottled by, indication of use, nutritional information, chemical analysis, ingredients, "gluten free" and the phrase "Gallo extra virgem oil is a balanced combination of flavors and aromas". Presence of dosing tip.
Sample D	Medium brown 500 ml glass bottle with lid protected by dark green with gold seal	Label in light green, dark red color, illustrated with a female figure holding olives. Information on the front panel: brand, Spanish product since 1866, liquid content, type, chemical analysis, "use in salads, sauces and seasonings of your dishes". Information on the back: brand, phrase "the taste of Spain on your table", history, nutritional information, ingredients, "gluten free", indication of use, imported and distributed by, date of manufacture, expiration date, batch, bottled and manufactured by, SAC, and Spanish product. Package without dosing tip.
Sample E	Light green 500 ml glass bottle with a gold-colored, unsealed cap	Label in light green coloring, illustrated with a church. Information on the front panel: brand, net content, origin of Portugal, type, chemical analysis, phrase "tradition in quality", Portuguese olive oil 100% tradition. Information on the back: type, brand, nutritional information, batch, expiration date, indication of use, "gluten free", SAC, imported, packaged and distributed by, and ingredient list. Package without dosing tip.
Sample F	Gold colored 500 mL metal bottle with green lid	Label in black coloring, illustrated with a castle and olives. Information on the front and back panels: type, brand, net content, Spanish origin. On side panel 1: Imported and bottled and distributed by, expiration date, and batch. On side panel 2: chemical analysis, nutritional information, "gluten free" and indication of use. Information on the lid: expiration date, batch, and date of manufacture.

Source: The author, 2014.

3.2.1 Sample A

The first sample presented a different packaging model, obtaining 62.5% approval by the participants, once it was a glass package. Of these, 12.5% of participants reported that the model offers greater security during touch, while 12.5% did not share this view; 33.33% of participants approved the design while 12.5% did not. About 4.17% of participants approved the color and 8.33% reported the package is attractive. The label was made with plastic material, which displeased 20.83% of participants, once it allows oil adhesion generating a "sticky" effect.

Regarding the information that the participants considered important in the packaging, 33.33% observed the presence of the dosing tip, and 25% reported that the information is clear and well distributed,

including the acidity index, which was observed by 8.33% of participants. However, 4.17% had opposite opinions about the clear information, and 8.33% found that the information is poorly distributed.

According to 4.17% of participants, the expiration date should be more visible on the label, and the same percentage of participants reported that the information about the type of olive oil should be more prominent. For 12.5% of participants, the glass vial should be darker to ensure better protection of the product, and 4.17% observed the presence of the security seal.

The indication of the brand is repeated several times on the label, which caught the attention of 4.17% of participants. In addition, 12.5% did not like the package design. For 8.33% of participants, the label is full of information. The information about the slightly spicy flavor and the bitter taste was not approved by 41.67% of participants, once they are undesirable characteristics, allowing serving the public with different concepts. However, 16.67% approved this information because it refers to something innovative. Sample A was the only sample that reported the olive variety, catching the attention of 4.17% of participants.

For 8.33% of participants, the information about specific characteristics such as slightly bitter should be presented on the label. Therefore, 41.67% of participants would buy the product and the same percentage would not. Among them, 20.83% would overpay from 10 to 50% more for the product, while 50% would not.

3.2.2 Sample B

The metallic packaging with two different formats was not aesthetically pleasing for 54.17% of the participants, while 41.67% approved the innovation. The design was approved by 25% of participants and disapproved by 4.17%; moreover, 12.5% disliked the color blending and 8.33% of participants appreciated it.

Regarding the important characteristics considered to consumers, 4.17% observed the absence of the security seal, which provides better protection to the product. The presence of the dosing tip was approved by 4.17% of participants. For 12.5% of participants, the font should be larger and standardized to ensure better viewing of the label. In addition, 37.5% of participants reported that information should be better distributed. However, 16.67% of participants reported that the information is very clear, and the nutrition table is visible to 4.17% of participants. Concerning the origin of the product, 25% of participants observed this information, followed by type (12.5%), brand (12.5%), and export and import, with 4.17%.

During the analysis, 4.17% of participants approved the information: “*acidity index informed on the back of the package*”, as it guides the consumer. In addition, 8.33% of participants noted the presence of edge, of which 4.17% reported that the historical context of olive oil in packaging is unnecessary.

However, 12.5% disagree and stated that historical information is important for providing consumer confidence. Most participants, representing 70.83%, would buy the product, of which 18.52% would overpay from 10 to 25% for the product, while 54.17% of participants reported they would not pay a higher value.

3.2.3 Sample C

Sample C had higher packaging approval by 75% of participants. In addition, the design was approved by 12.5% of participants and 29.17% approved the color blending.

Concerning the important items of the olive oil packaging, the presence of the dosing tip was observed as positive for 41.67% of participants. The presence of clear information and location was reported by 41.17% and 12.5% of participants, respectively, while 12.5% observed the origin, 29.17% observed the type, and 12.5% registered the flavor intensity. However, according to 25% of participants, the information about the acidity index should be more visible, and 16.67% reported that all information is poorly distributed and understood. According to 8.33% of participants, the label font should be larger, to allow better reading and use of the space. The presence of the security seal was reported by 12.5% of participants.

For 58.33% of participants, the brand has a great influence on the purchase intention, besides the price and the location of bottling operations, as observed by 4.17% of participants. Also, 4.17% of participants reported that quality is an important factor, once it impacts the product's consumption.

Finally, 95.83% of participants would buy the product, of which 6.67% reported overpaying from 10 to 50%, while 20.83% would not overpay for the product.

3.2.4 Sample D

The extra virgin olive oil D was highly regarded, and 54.17% of participants reported liking the packaging, and only 4.17% disliked it. Among them, 12.5% enjoyed the format, against 4.17% who did not. The design was approved by 41.67% of participants, of which 4.17% observed that olive oil has colors rather than designs on the label. However, 4.17% did not approve the design. The product label was approved by 16.67% of participants and 8.33% liked the dark color of the packaging, which can prevent the oxidation reactions.

Clear information and distribution are important factors in a product label. For 37.5% of participants, the information is very clear, of which 25% noted the origin of the product, 29.17% observed the acidity index, 16.67% observed the instruction for use, 25% observed the type of product, and 016.67% of participants observed the expiration date. In addition, 4.16% of participants reported that the font should

be larger. The presence of the security seal was reported by 29.17% of the participants, and the absence of the dosing tip was strongly perceived by 25% of participants.

The indication of consumption in salads attracted the attention of 8.33% of participants, while 4.16% considered unnecessary the female reference figure on the label. However, all participants would buy, and 62.5% would overpay from 10 to 50% for the product.

3.2.5 Sample E

According to the qualitative research, 45.83% of participants liked the olive oil package against 25% who disliked it. The design and label were approved by 12.5% and 16.17% of participants, respectively, while 12.5% of participants did not approve the label; 16.67% of participants disliked the design and 8.33% found that color, design, and package resemble a traditional, old aged product.

The phrase “100% tradition” in the olive oil sample caught the attention of consumers, being approved by 12.5% of participants, besides the dark color, reported by 4.17% against 8.33% who disagreed. However, 8.33% of participants liked the country's coat of arm and the information of being packaged in Brazil. Another requirement observed by 4.17% of participants is that the packaging is long and tall, and should be shorter and wider, according to the participants' opinion.

Regarding the important information, 29.17% reported it is very clear and distributed, especially the origin, expiration date, and type of olive oil. However, 8.33% of the participants reported that the acidity index should be highlighted. Regarding the origin of the product, 33.33% of participants observed the information on the label, and 16.67% reported that it is an aspect that can influence the purchase. The lack of security seal and the dosing tip was an undesirable aspect observed by 54.17% and 20.83% of the participants, respectively, as these characteristics facilitate the use and can protect the product. Of the participants, 16.17% found that the main information is on the front panel, which is very desirable.

All participants would buy (87.5%) the sample E. However, 54.17% of participants would not overpay for the product, while 33.3% of participants would pay 10-50% more.

3.2.6 Sample F

The package of sample F exhibited an inferior appearance, as 83.33% of participants disliked the package due to it consisted of metallic material. In contrast, 12.5% of participants liked the packaging because metal can better preserve the food; 16.33% disapproved the design, of which 25% reported they did not like the black color, against 8.33% who liked the color of the package.

Regarding the important information, 25% of participants did not approve the lack of information, including the indication of use reported by 8.33% of participants. In contrast, 4.17% reported that the information is clear and 4.17% reported that the type of product should be more prominent. However, 8.33% observed the expiration date, batch, and date of manufacture on the top of the product and 12.5% observed the origin. According to the participants, the acidity index is a very important requirement for olive oil, which was noted by 4.17% of participants. The presence of the dosing tip was observed by 16.17% of the participants.

The most striking features were the presence of the country flag, which was either approved or disapproved by the same percentage of participants (12.5%). However, 8.33% of participants reported that the information about the origin was repetitive, and only 12.5% liked the design of the country flag on the product label. Of the participants, 4.17% approved the size and type of olive oil but did not approve the brand on the label. The vast majority of participants, accounting for 79.17%, reported that they would not buy and overpay for the product, due to its undesirable characteristics mentioned above.

4 DISCUSSION

4.1 QUESTIONS ASSESSED BEFORE THE FOCUS GROUP SESSIONS

As shown in Table 1, all participants generally read the product labels concerning the expiration date, price, design, color, package condition, nutrition table, and acidity index when necessary, as these messages draw attention and may influence the purchase intention of the products.

Philippi et al. (2010) investigated how consumers understand food labels and found that the diversity of information on the label can influence food choice at the time of purchase for 55.17% of participants. Ambrosini et al. (2017) carried out an exploratory study on consumer buying behavior of olive oil and reported that several factors can affect the purchase intention, including the origin, acidity index, expiration date, filling date, olive variety, period of harvest, design, and label color of olive oils.

Machado et al. (2006) evaluated consumer behavior about the food label and concluded that shelf life, calorie value, nutritional composition, and manufacture process were the most common attributes observed. However, the participants were not capable to explain the meaning of extra virgin olive oil and

about 62.5% of participants were not able to define the acidity index, while only 4.16% made an association with pH, which can be an indirectly true relationship.

Camara et al. (2008) reported that consumers are not capable of understanding the information available on the food label, and many are unaware of the nutrition table, while others show some disinterest. Although most consumers read food labeling, only a small number uses this information at the time of purchase, demonstrating that despite consumers want to improve the quality of food they eat, they cannot understand food labeling.

Gonçalves et al. (2015) evaluated the relationship of food labeling and consumers and concluded that participants were aware of the importance of food labeling, and considered it provides better information for consumers. However, many participants did not present a satisfactory knowledge about the information on the labels, corroborating the results of the present study. Soares, Neto and Silva (2016) investigated the consumers' behavior regarding understanding food labeling and concluded that most participants do not know exactly some terms, thus public policies are necessary to improve the use of knowledge.

4.2 FOCUS GROUP SESSIONS

To better understand the results of the focus group sessions, they were combined according to the information rather than the sample. Thus, regarding the question on consumer's opinion about packaging, the glass packaging was preferred by the participants, due to its greater safety and quality. Thus, sample C obtained the highest approval, with 75% of participants, followed by sample A with 62.5%, sample D with 54.17%, and sample E with 45.83% of approval. In contrast, the samples B and F are metal packages, thus they received lower approvals by 41.67% and 12.5% of participants, respectively, while sample F was disapproved, with 83.33%.

Concerning the packaging design, sample D received greater approval, with 41.67% of participants, as the package refers to the field, and 16.17% of participants approved the combination of color. Sample A obtained 33.5% approval, followed by sample B and C with 25% and 12.5% approval, respectively. The samples E and F were disapproved by 16.67% and 16.33% of participants, respectively, because one refers to a traditional and old-fashioned product, while the other failed due to metallic packaging and black color of the label.

For the attribute color, sample C obtained greater approval by 29.17% of participants, due to the combination of the medium brown color with white, green, and golden, conferring lightness and tranquility. Sample D had the second-highest approval, with 25%, due to the combination of the brown color of the package and the light green, dark, and red colors of the label. In addition, 25% enjoyed the

combination of colors and designs, as it allows remembering field and nature, which is consistent with the product under study. In contrast, samples B, F, A, and E had lower approvals for the color attribute, with 8.33%, 8.33%, 4.71%, and 4.17% approval, respectively.

Regarding the important aspects of packaging, the factors that provide better visibility, protection, and quality stood out. Thus, the clear and distributed information was a relevant factor for the participants, and sample C obtained greater approval, with 53.67% of participants, followed by the samples D, E, A, B, and F with 37.5%, 29.17%, 25%, 16.67%, and 4.17%, respectively. However, the information about the acidity index is important and related to product quality, thus visualization should be easy. The samples C and E stood out for this attribute, as reported by 25% and 8.33% of participants, respectively. Similar findings were observed for the type of product, which was more prominent in the samples A and F, according to 4.17% of participants.

The presence of the dosing tip is also considered an important factor in packaging, as it can control the oil flow, leading to greater safety in the use of the product. However, the dosing tip was present only in samples A, B, C, and F, which was reported by 33.33%, 4.17%, 41.67%, and 16.17% of participants, respectively. The security seal was also considered an important factor, as it provides greater protection before consumption, which was observed only in the samples A, C, and D, by 4.17%, 12.5 %, and 29.17% of participants, respectively.

Regarding the purchase intention and overpayment for the product, sample D had the highest percentages, since all participants (100%) would buy the product, and 62.5% would pay more for the product. In contrast, the samples, C, E, B, and A had a lower purchase intention, with 95.83%, 87.5%, 70.83%, and 41.67% of participants, respectively, who reported that the overpayment was not consistent with the results of purchase intention. The sample F had the worst purchase intention and overpayment, with 79.17% of participants reporting that they would not buy and overpay for the product.

The results showed that the packaging material and color, the color blending, the variety of images, and the clear and well-distributed information, especially about the font, acidity index, size, model, and the type of olive oil can influence the purchase intention. In addition, 58.33% of participants reported that the brand has a great effect on the purchase intention, along with the price (4.17%) and quality (4.17%). The brand can influence the product's purchase, due to the confidence gained when compared to the other products (Jaeger, 2006). A study on roasted and ground organic coffee packaging showed that the well-known brand positively affected the purchase intention of 93% of consumers, as they probably related the well-known brand to the best product quality (Dell Lucia et al., 2007). Those authors reported that price influenced the purchase intention of all consumers, with relative importance ranging from 30.1% to 77.1%.

From a scientific point of view, food quality is assessed by the nutritional value or functional attributes, to guide consumers about the restriction or consumption, aimed at reducing the risks of chronic degenerative diseases or assisting in health recovery or maintenance (Garcia, 2000). Machado et al. (2006) reported that 62% of consumers stated that reading labels can affect the purchase of food products, and food quality was the second criterion prioritized by consumers in the purchase decision, with 32.20%.

Deliza et al. (2000) identified three groups of sunflower oil consumers: the first reporting that the purchase intention was influenced by the figures on the label; a second group who considered price and brand as the main aspects affecting the purchase intention, and a third group focused on the manufacture of the product. Dantas et al. (2004) conducted focus group interviews to investigate the impact of minimally processed product packaging on consumers' attitudes, opinions, thoughts, and conceptions, specifically minimally processed green cabbage. The results showed that the price, package color, type, and amount of label information are important aspects that influenced the perception and purchase intention of the product.

Carneiro et al. (2010) used a focus group to evaluate packaging and labels of cachaça and found that brand, quality seal, awards, information about the place of manufacture, aging time, and type of cask are essential factors that influence the consumers' intention. Martínez, Aragonés and Poole (2002) conducted focus group sessions to understand how UK consumers were able to detect the differences between olive oil and extra virgin olive oil by identifying the factors that interfere with product consumption and purchase. The authors concluded that the package, price, and net content most affected the purchase intention and consumption behavior. According to the authors, European consumers have associated packages with the price before purchasing a product, once the price of extra virgin olive oil is higher, thus it requires a package with superior material and design.

Menezes et al. (2010) studied the opinions, attitudes, and perceptions of wine consumers using focus group sessions. The authors report that the brand, origin, price, and type of wine (dry or mild) were factors that interfere with the purchase intention. Santosa et al. (2013) conducted focus group studies on extra virgin olive oil samples to understand the consumption habits and buying behavior of US consumers in northern California. Regarding consumption habits, factors such as the use of olive oil to stimulate the sensory factors (aroma, taste, and health benefits); usage (culture, tradition) and daily habits affect the way the product is consumed. In turn, the buying behavior is affected by several factors, including the location of purchase: marketing on non-sensory attributes (origin, price, net content, brand, type, among others), buying habits and motivations. According to the study, to improve marketing during purchase, the olive oil samples should have more information on labels about the association between the bioactive compounds (antioxidants, monounsaturated and polyunsaturated fatty acids, among others) and the

sensory properties, especially the concerning bitterness, astringency, and poignancy, to better inform the benefits to consumers.

5 CONCLUSION

The study showed that the package material, color blending, design, and clear and distributed information are visual characteristics that most influenced the purchase intention of olive oils, as observed for the samples A and D, which obtained higher approvals. In contrast, the opposite results were observed for sample F, which was not approved by the participants.

The results about the definition of extra virgin olive oil and acidity index led to the need to improve the information present on the labels to facilitate understanding by consumers. Moreover, the visual characteristics of the package and the label information, such as price and expiration date stood out in the consumers' opinions.

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