Satisfaction, image and loyalty can be enhanced with congruent olfactory treatments: the acid test of an optical shop case

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As there needs to be more research done on the analysis of how the senses interact in contexts which do not particularly favour certain senses, this work proposes the analysis of consumer responses to olfactory and visual stimuli in the context of stores belonging to a well-known optician franchise. To that end, two different urban spaces are considered: shopping centres and the high street. Furthermore, two distinct and non-incongruent olfactory stimuli are applied. So an attempt has been made to carry out a sure-fire test, in neither an artificial nor a natural setting, on the importance of olfactory marketing through the estimation of a path model within a methodological design of a quasi-experimental type. Specifically, the aim is to show that olfactory stimuli not only enhances the image of a store, but also becomes more relevant when there is congruence between the store and the fragrance used for ambient scenting. In addition, it can be demonstrated that this response to olfactory and visual stimuli creates an image that is crucial in building satisfaction and that this in turn strengthens customer loyalty. On this basis, implications for management practices are suggested and future lines of research are proposed based on the limitations of the work.

Introduction

It should be realised that olfactory marketing is more than simply the study and implementation of trade policies that consider the sensory nature of the consumer to be of central importance. In fact, olfactory marketing involves the assertion of the importance of one of the most crucial of the five senses, which is more often than not overlooked and relegated in favour of the dominant audio-visual senses. The sense of smell is essential from a consumer perspective since, unlike sight, it provides tangible experiences of high involvement. Therefore, olfactory marketing is more than just a sub-section of sensorial marketing, since it highlights the importance of enriching the customer experience through a holistic approach (Schmitt, 1999; Mattila and Wirzt, 2001). Moreover, this research work aims to highlight the importance of smell at an optician's store, where the sense of sight seems to be predominant.

However, the understanding and management of the sense of smell (Olahut and Plaias, 2012) and analysis of how it relates to the other senses, as well as the management of sensory preferences on the part of an enterprise, requires further investigation (Yoon and Park, 2012; Sakai et al., 2005). Additionally, congruence between a store and the fragrance it transmits is a requirement for authenticity, which is consistent with the logic of what is assumed to be true and real. Thus, various research has shown that if a store sends an olfactory message which is inconsistent with its services and products, the customer will tend to have a perceptual experience which is not only lower in intensity, but also unfavourable (Krishna, 2010). The need remains for studies into the role of olfactory stimuli in relation to image, satisfaction, and loyalty (Spangenberg et al. 2006)

which take into account congruence with the store (Ward et al., 2007) in order to ensure the rigor of the evidence obtained so far and to continue to improve the effectiveness of utilising environmental stimuli (Teller and Dennis, 2012).

On this basis, the present work proposes to study the effects of fragrance on the image of a store, as well as customer satisfaction and loyalty, taking into consideration the moderating role of congruence between the olfactory sensations and the store.

Review of the literature

There is no doubt that a visit to a commercial centre, or any shopping area, represents a sensory experience that must be taken advantage of, since the atmosphere of a store is a marketing tool in itself (Kotler, 1973, Brakus et al. 2009). It is also known that the customer's own characteristics tend to direct their attention towards what appears interesting to them, what they need or like, and what is perceived by them as pleasant (Peck and Childers, 2003). However, the senses of sight and hearing are often given greater prominence over those of touch and smell (Soars, 2009), which represents a considerable loss of effectiveness in the management of sensory marketing. In fact, it is known that ambient scenting impacts the perceptions and memories of brands and products (Cirrincione et al., 2014; Gueguen and Petr, 2006), even in contexts where an association to a particular fragrance may be difficult to make (Mattila and Wirtz, 2001). Therefore, the reputation and value of brands are variables that can be enhanced considerably through olfactory marketing (Hultén, 2011; Shamin and Butt, 2013).

More specifically, the aroma of a store represents an opportunity for differentiation which should be harnessed, taking into account the combined characteristics of the store and its customers (Douce and Janssens, 2013). According to Olahut and Plaias (2012), the effect of ambient scenting on consumer behaviour is described as a stimulus which leads towards creating a holistic image of a store that serves to

determine responses of approach and avoidance in the customer. It is therefore necessary for management to develop a clear and consistent brand identity that can be communicated through the fragrance that a store transmits, since it forms an essential part of the environment and is a relevant factor in creating a good impression (Poon and Grohmann, 2014) and a strong image in the mind of the customer (Ariffin et al, 2012;. and Ryu Han, 2009; Heung and Gu, 2012).

Furthermore, and contrary to what is usually true, sight isn't always predominant over smell. If the aroma of a place is attractive to the customer and consistent with the characteristics of that particular store, the sense of smell may be preferred (Lunardo 2012). It is undeniable that the dominant sense in humans is usually sight (Sakai et al. 2005) but, depending on the circumstances, smell may sometimes be dominant. The fulfilment of expectations and congruence between fragrance and store may alter the simultaneous system of senses responses which characterises sensorial experience. Zhou et al. (2010) and Seo et al. (2010) show that a congruent fragrance prolongs the length of time that a subject pays attention to an image, as well as to the features selected for perception. This primacy of smell operates independently of cognitive control and almost subconsciously. Michon and Chebat (1995) and Isacsson et al. (2009) explain that smell, in comparison to sight, activates emotional responses with greater intensity due to the greater proximity to the limbic system of the brain. In any case, it is the congruence of smell with the store that alters sensory preference, offering opportunities to improve the effectiveness of marketing strategies (Yoon and Park, 2012). If there is incongruence between the fragrance and the store, the sense of sight overpowers the sense of smell, distracting the customer through the sensorial conflict that arises and causing errors of judgment (Blackwell, 1995). On this basis, the first two research hypotheses are proposed:

H1$_a$. Ambient scenting enhances the image of a store when the fragrance is congruent with the store.

H1$_0$. Ambient scenting does not enhance the image of a store when the fragrance is congruent with the store.

H2$_a$. Ambient scenting is more influential than visual design aspects in the formation of the image of a store when the fragrance is congruent with the store.

H2$_0$. Ambient scenting is not more influential than visual design aspects in the formation of the image of a store when the fragrance is congruent with the store.

The atmosphere of a store produces meaningful stimuli that effect a customer's judgements (Douce and Janssens, 2013; Han and Ryu, 2009; Done, 2012; Morrin and Ratneshwar, 2000). Thus, as the marketing literature shows, ambient scenting determines the perception of product quality and satisfaction (Cirrincione et al, 2014; Olahut and Plaias, 2012; Ryu and Han, 2010; Ariffin et al, 2012; Lunardo, 2012). Therefore, a store that smells pleasant is more satisfying to customers than an odorless one (Lunardo, 2012; Ward et al., 2007). In addition, fragrance has a greater impact in the context of the delivery of services due to the tangible nature of odor and the intangible character of service (Heung and Gu, 2012).

Nonetheless, the influence that ambient scenting has on customer satisfaction may occur indirectly via the image of the store, as well as directly. On the other hand, there is substantial evidence about the more direct role of the visual aspects of image on customer satisfaction (Osman, 1993). Moreover, it is known that the indirect function occurs with the overall quality of the image that the store transmits through various

features present in the environment (Turley and Chebat, 2002; Bloemer and Ruyter, 1998) that are processed in an affective and emotional way (Ryu and Jang, 2008) as the customer is approaching or moving away. In any case, the congruence between the fragrance and the image of the store serves to reinforce the overall role of image in generating a higher level of satisfaction, which is emotionally pleasing to the customer (Mattila and Wirtz, 2001; Spangenber et al, 2005). It is, in short, a sense of satisfaction that arises from various sources perceived to have sensorial value and that convey the brand image of the store (Wu and Liang, 2009). Therefore, the positive influence of ambient scenting on satisfaction is likely - even when the image of a store is difficult to match to a fragrance - if there is congruence between the image and the fragrance (Mattila and Wirtz, 2001). On this basis, the third research hypothesis is proposed:

$H3_a$. Satisfaction with the image of a store is enhanced when the fragrance is congruent with the store.

$H3_0$. Satisfaction with the image of a store is not enhanced when the fragrance is congruent with the store.

A pleasant fragrance causes customers to revisit a store and make repeat purchases (Douce and Janssens, 2013; Ward et al, 2007), although there are occupations that do not demonstrate this relationship directly (Mattila and Wirtz, 2001). In fact, the influence of fragrance on customer loyalty is of an indirect nature, which comes via the store's image and satisfaction with its sensory stimuli (Ryu and Han, 2010; Han and Ryu, 2009). In other words, loyalty is the result of exceeding customer expectations regarding the store's image, which is generated based on the physical features present in a store (Bloemer and Ruyter, 1998) or restaurant (Ryu et al., 2008). This relationship between satisfaction and loyalty in the context of aroma is especially important in the service sector (Ariffin et al. 2012) and in the field of hedonic

consumerism (Ryua and Han, 2011), where repeat purchases and customer recommendations are a clear consequence of customer contentment (Martenson, 2007).

According to the SOR model (stimuli-organ-response) of Mehrabian and Russell (1974), the consumer experiences responses of attraction and rejection towards a store, the effect of which can be either emotionally pleasant or unpleasant respectively, which originate on the basis of environmental stimuli (Baker et al 1992;. Buckley, 1991). Therefore, customer loyalty to a store could be interpreted as, firstly, a response to environmental stimulation, secondly, an emotionally pleasurable reaction and, finally, a repeated approach (Tai et al. 1997).

Moreover, congruence between a store and its environmental characteristics is presented as an enhancer of customer experience (Mattila and Wirtz, 2001) and encompasses a wide variety of behaviours (Olahut and Plaias, 2012). Specifically, congruence works through a holistic process that integrates the characteristics of the store and the service or product into a single whole (Ward et al. 2007) that may have a prolonged influence if it constitutes an olfactory experience that is satisfying to customers (Maille, 2004). Therefore, the effects of congruence are derived from the characteristics of the customer (Spangenberg et al., 2006). Additionally, incongruity between olfactory stimuli and brands produces adverse effects (Ellen and Bone., 1998; Shiu et al, 2006) which can be explained by the discrepancy between the customer's expectations and experience, cognitive dissonance, and the greater difficulty for the customer to discriminate between stimuli (Volkmer Scharf, 2000) (See figure 1). On this basis the fourth hypothesis is proposed:

H4$_a$. Satisfaction enhances loyalty to a store when the fragrance is congruent with the store.

H4$_0$. Satisfaction does not enhance loyalty to a store when the fragrance is congruent with the store.

Methodology

The methodological procedure followed in the empirical research is based on a quasi-pre-experimental design consisting of 4 stores from the optical sector whose brand franchise was the same for the sake of internal validity. In period t_1, self-administered questionnaires were given to customers upon exiting the stores in order to be completed off premises. In period t_2, the stores were aromatised via the air conditioning vents and the questionnaires were handed out again. Given that different kinds of fragrance can influence customers with varying levels of effectiveness, depending on their perceived congruence with the type of store and its products or services, 2 different fragrances were selected: jasmine and freshly cut grass. According to the expert recommendations of the manufacturer and distributor of the fragrances used to aromatise stores, freshly cut grass was considered more consistent with the design of the store, as its herbaceous notes, with a background of moss and basil, transmit freshness. In contrast, jasmine is a dusty aroma with spicy and fruity notes that convey a sense of warmth. Bearing in mind that the decor of the store corresponds to a fresh and modern design, the aroma of freshly cut grass is considered more consistent with this type of store and its products (glasses and contact lenses). In addition, this congruency was confirmed within a previous, qualitative research phase consisting of interviews with several potential customers to whom the fragrances were administrated in both natural and artificial settings. Both of these fragrances were applied at two different stores with similar characteristics in terms of the level of sales and the type of customer. Thus, 2 stores located at shopping centres, as well as 2 stores located on the high street, were selected and both fragrances were applied equally. Moreover, the experimental design had to guarantee that there would be no

significant differences in terms of usual sales during the two time periods considered. To ensure this, field work was carried out on the same days of the week (Monday to Saturday) and in the same week, over 2 consecutive months (October and November). Specifically, it was performed over 11 consecutive days during both periods. Table 1 shows the methodological process followed in the quasi-experimental design.

The surveys were self-administered off of the commercial premises. The total number of persons constituting the sample totalled 484, of which 39.9% were men and 60.1% women. The majority of respondents were repeat customers (77.2%), with 22.8% being first time customers. Of all surveys, 243 were made in the period t_1 and 241 in the period t_2 in which the stores were aromatised. Both sub-samples are quite similar with respect to demographic profile.

The measurement scales used to evaluate the different integrated constructs of the model correspond to a 5-point Likert scale (see Table 2). The items related to the image of the store, customer satisfaction, and attitudinal loyalty were designed based on the reviewed literature (Aaker, 1991; Keller, 1993; Yoo and Donthu, 2001; Gounaris and Stathakopoulos, 2004). To measure the olfactory and visual sensations, scales from a single item were used (the store smells nice and the decor is attractive). Table 2 shows the items that conform to each of the model constructs, the result of the factorial and confirmatory analyses carried out.

Analysis of results

Analysis of the validity of the measurement scales

Before performing the analysis to test the hypotheses, the validity and reliability of the different measurement scales for multiple items were analysed: image, satisfaction, and loyalty. To this end, an exploratory factor analysis was first applied in order to verify the dimensional nature of these scales. Secondly, a confirmatory factor analysis was carried

out in order to confirm the results, using structural linear equations. Finally, the composite reliability coefficient, the analysis of extracted variance and Cronbach's alpha were applied to assess reliability. The results shown in Table 3 indicate that all the constructs tested are one-dimensional and that the scales are valid and reliable, since the model as a whole has a good fit because the measures of adjustment are absolute and incremental, and parsimony is around that recommended in the literature, except for the level of significance of the Chi-square, which is a sensitive measure of the size of the sample and limits the number of indicators (Hair et al., 1999). Also, the relationship between each item and its respective construct is statistically significant in all cases, with regression weights in most cases close to 0.7, demonstrating their convergent validity. According to Mathieu and Taylor (2006), this model can be considered as excellent as the value CFI is over 0.95 and less than 0.08 RMSEA. In addition, all composite reliability values are above the recommended value of 0.7 (Hair et al. 1998). The same applies to the values of the extracted variance, since all are close to or exceed the recommended value of 0.5 established by Hair et al. (1998). Similarly, the Cronbach's alpha indicates that the scales are reliable (See table 3).

In Table 4, the means, standard deviations, and correlations of all items used in the model are shown: image, satisfaction, loyalty, and the two items used to measure the olfactory and visual sensations.

Given that consumers tend to understand incongruence as an artificial manipulation (Lunardo et al., 2016), the congruence between the fragrance and the store and the products or services sold therein is a variable that protects the results from biases. For this reason, it has been considered as a preliminary step appropriate to analyse the extent to which the two fragrances used (jasmine and freshly cut grass) are perceived by respondents as being congruent (Group Jt_1 and Ht_1 Group). Table 5 shows the results of

this preliminary analysis, from which it follows that both fragrances are regarded as congruent in both dimensions (store and products), since freshly cut grass and jasmine are positively correlated and show congruence values. Nevertheless, the descriptive as well as the correlation analysis allow us to point out that the freshly cut grass fragrance reaches a slightly higher level of proximity, similarity, and congruency than jasmine.

Hypothesis testing

To test the hypotheses, a multi-group equation model was used in which the groups are as follows: (1) Group Jt_1, consisting of 124 individuals (25.6%), which corresponds to the surveys carried out in stores in t_1 which were not aromatised, and those aromatised with Jasmine in t_2; (2) Group Jt_2, consisting of 126 individuals (26.0%), which corresponds to the surveys carried out in stores in t_2 aromatised with Jasmine; (3) Group Ht_1, consisting of 119 individuals (24.6%), which corresponds to the surveys carried out in stores in t_1 which were not aromatised, and those aromatised with freshly cut grass t_2; and finally (4) Group Ht_2, consisting of 114 individuals (23.8%), which corresponds to the surveys carried out in stores in t_2 aromatised with freshly cut grass. The goodness of fit of this model can be considered as satisfactory [$\chi^2(208)=528.833$, p=0.000; CFI=0.897; RMSEA=0.057], in accordance with the recommendations of Mathieu and Taylor (2006).

In order to contrast what effect ambient scenting may have on the customer in terms of image, satisfaction and loyalty, as well as the prevalence of olfactory sensations versus those of a visual nature, in Figures 2 and 3 standardised estimators are collected for the adjusted model in function of the fragrance applied in period t_2. As is clear from the results shown in both figures, and as expected, the four groups analysed show that the image of the store is a direct antecedent of satisfaction and the customer loyalty that follows from it, regardless of whether or not the store has been scented. In all observations, the model

allows us to explain, in relatively high percentages, the variability of the image (between 21.3% and 37.4%), satisfaction (between 54.8% and 80%), and loyalty (between 57.9% and 82.3%). However, it is worth highlighting how for the group of respondents from the stores scented with freshly cut grass in t_2 (Ht_2 Group), the levels of explanation of the variability of satisfaction and loyalty are considerably higher, reaching levels above 80%. In this regard, the full effects of the olfactory sense on satisfaction and loyalty, based on the group, are collected in Figure 3, showing that ambient scenting has a clear and positive influence in these two key variables for marketing. These results are much more noticeable for the fragrance of freshly cut grass, which is more congruent with the kind of store surveyed.

As for the effect of ambient scenting and the influence that olfactory and visual perceptions have on image, the results reveal that (1) image is more highly influenced by the visual sensations present in stores with no ambient scenting ($ß = 0.397$, $p = 0.000$ and $beta = 0.587$, $p = 0.000$, and groups Jt_1 and Ht_1, respectively) than by those of an olfactory nature ($ß = 0.234$, $p = 0.009$ and $beta = 0.173$, $p = 0.041$, and groups Jt_1 and Ht_1, respectively); (2) for both fragrances, the effect on image is positive since, in both cases, a greater influence can be observed for the olfactory sensation on image in period t_2 in respect to t_1 ($ß = ß = 0.234$ and 0.332 for jasmine in periods t_1 and t_2, respectively, and $ß=0.173$ y $ß=0.449$ for freshly cut grass in periods t_1 and t_2, respectively); and, finally, (3) the existence of congruence between the fragrance and the store is a very important criteria to consider when making choices regarding ambient scenting since, as the results show, the fragrance of freshly cut grass gave better results in terms of its influence on the image of the store ($ß=0.332ß$ and $ß=0.449$ for jasmine and freshly cut grass in period t_2, respectively).

Therefore, on the basis of the results obtained, it can be said that as ambient scenting enhances image, especially when it is congruent with the store, the first research hypothesis is verified. Equally, as the sense of smell is more prevalent than the sense of sight on image formation where the fragrance is congruent with the store, the second research hypothesis positively is verified. In addition, since the congruence between store and fragrance boosts the role of image in improving satisfaction, the third hypothesis is accepted. Finally, when congruence is achieved, satisfaction further strengthens loyalty, confirming the fourth hypothesis.

Conclusions

Ambient scenting represents a long tradition of commercial activity, although it is true that its study has not only been insufficient regarding the role of other sensory stimuli, but also that investigations have so far been, with some degree of frequency, ambiguous with respect to results and with limitations in regards to the instruments of measurement used (Teller and Dennis, 2012). Therefore, the present work into olfactory marketing aims to demonstrate the causal role of ambient scenting on image, satisfaction, and customer loyalty through a structural model of variables that have exceeded certain statistical tests of validity and reliability.

In addition, although it goes without saying that most olfactory research works have been successful in demonstrating the importance of olfactory stimuli for marketing, the vast majority of them have been based in settings which are too artificial (Spangenber et al, 1996; Rimkute et al., 2015) or, in contrast, in natural settings where the environment is large, heterogeneous, and scarcely controlled (Kivioja, 2017). Nevertheless, this model has been analysed in the context of four quasi-experimental designs that have taken place in a franchise within natural environments, rather than a laboratory setting, the comparison of which makes it possible to ensure the internal validity of its design. In

other words, a surer test has been carried out whereby we were able to neutralise any spurious influence derived from environment while, at the same time, keeping it natural, thanks to the consistent conditions provided by a franchise. Furthermore, these conditions take into account the importance of testing the homogeneity of the franchise at different outlets, such as shops located in two urban spaces (shopping centres & the high street), rather than just one, two, or three similar places (Henshaw et al, 2016).

Furthermore, despite the fact that most research takes place in conditions that are conducive to the sense of smell, this particular investigation has been developed in an adverse sector (in this case, opticians' stores) where fragrances may not only seem ancillary, but also superfluous in relation to visual stimuli. Nevertheless, despite this 'acid test' having been carried out under adverse (visual) and real (franchise) circumstances, has become clear that ambient scenting represents a marketing strategy which promises significant results from the point of view of consumer behaviour, and one which could serve to strengthen customer loyalty through the enhancement of image and improved customer satisfaction. Incidentally, the relevance of olfactory effect in a chiefly visual context has been evidenced by other research works (Lwin & Morrin, 2012). Given that more research is needed on how the senses interact in both real and controlled experiments (Spangenber et al, 1996; Krishna, 2012), this paper contributes by sparking new ideas related to image, satisfaction, and loyalty.

Additionally, and based on the obtained results, it can be said that while the effects of olfactory marketing are significant, efficacy increases when the congruence between the chosen fragrance and the nature of the store is considered. In fact, this evidence is confirmed by other recent research works in which brand loyalty is strengthened via the congruency (Chatterjee, 2017). Specifically, the importance of accurately gauging not only the extent to which the fragrance used is effective, but also of establishing an

appropriate combination of olfactory stimuli and other features that describe the store, since this congruence directly effects the image and indirectly effects customer satisfaction, and, therefore, their loyalty. As far as the research gap related to congruency is concerned (Krishna, 2012), this finding contributes towards the further understanding of how the consistency between fragrance and store effects consumer behaviour, with implications for relational marketing.

Similarly, it has been shown that the model of the customer's sensory responses does not always best fit a predominantly visual pattern, since the olfactory aspects may become more dominant if there is appropriate congruence between the olfactory stimuli and personality of the store. This evidence represents a great opportunity for customers to engage with the store, since smell, as with touch and taste, is a sense of high involvement, as oppose to sight and hearing whose power of involvement is always less. Moreover, as the domain of smell has significant effects on image-building as regards the store in the minds of customers, it would appear logical to recommend that marketing strategies, implemented in order to enhance brand value, pay greater attention to the precise measurement of fragrance and its consistency with the products, services, and other descriptive characteristics. This congruence between fragrance and store is important not only in contexts where the sense of smell could be seen as nonessential, but also even where it could be considered as something that would be completely ignored by customers due to the greater relevance of the sense of sight, such as in the field of optics. So, as more than one particular atmospheric aspect of the store should be considered (Spence et al., 2014; Helmefalk & Hultén, 2017), this finding enriches the obtained evidence related to how to design a multisensory experience even when sight is the predominant sense and smell plays in an unfavourable context.

Some practical recommendations can be derived from these findings. Firstly, it may be stated that aromatisation is always advisable. To be more specific, olfactory stimulation is always desirable if what we wish to do is enhance the store's image. In fact, it might even be effective in visually dominated contexts such as an optic shops, cinemas and art exhibitions. Secondly, if we wish to improve satisfaction and loyalty, congruency should be considered. In this respect, managers should search for the congruency between the scent and the character of the store due to the fact the aromatisation multiplies its effect not only on the store's image, but also on customers' satisfaction and loyalty. Thirdly, congruent aromatisation can become predominant over visual effects and managers might resource this tool in circumstances when the visual influence might have a negative impact, for example, during the removal of the furniture, execution of works or other temporary problems. Finally, it seems logical that freshly cut grass aroma could be interchangeable with other similar smells such as rain, mint, citrus, etc. In contrast, Jasmine aroma might be substitutable for muffin, nard and other type of strong and spicy scents.

Nevertheless, the present work does have some limitations that need to be addressed. Firstly, the sample collected consisted of a larger number of women than men, which could facilitate greater olfactory perception given the greater female predisposition towards perceiving fragrance in the environment, compared to the greater male proclivity for touch (Krishna et al., 2012; Moore, 2004). Therefore, it would be interesting to make a greater effort in designing a quasi-experimental model with more balanced samples in terms of gender, in order to neutralise the possibly favourable effect of olfactory sensations on women in comparison to men. However, it is worth mentioning that it is not gender that matters most, but rather personality traits and other personal characteristics (Amsteus et al., 2015). Secondly, loyalty has been measured in terms of

willingness to recommend the store and an intention to return, which means the limitations raised in the literature regarding the recurring differences between attitudes and behaviour would make it interesting to measure loyalty through other approaches, possibly even through a longitudinal study. Thirdly, in contrast to the models of Mehrabian and Russell - and applied to diverse works such that of Chebat and Michon (2003) - the model proposed in this research presents an essentially cognitive and rational character, from which we may propose as a future line of research the integrated analysis of consumer responses from not only an emotional or affective, but also a rational or cognitive point of view. In other words, it seems necessary to give credit to both explicit and implicit sensory perception since quite a few research works integrate both approaches (Haase et al. 2018). Finally, as, in this research work, the scent was disseminated through the air conditioning system, one might propose that further quasi-experiments were effected in which the aromatisation was spread through other materials, for instance, decorative features, and even personnel so that the influence can be tested.

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Tables

TABLE 1
Methodology

Procedures:	- Quasi-experimental design with exchange for four stores using air conditioning in order to apply fragrances: store in Las Arenas shopping centre: Freshly cut grass aroma Store in El Mirador shopping centre: Jasmine aroma Plaza España high street shop: Freshly cut grass aroma Triana high street shop: Jasmine aroma - Interviews with structured questionnaire
Population:	Customers of 4 optical stores in Las Palmas de Gran Canaria city
Sample:	484 customers selected at random at the selected optical stores
Survey date:	Period without aroma: from 18th to 31th of October in 2014 Period with aroma: from 17th to 29th of November in 2014

TABLE 2
Ítems of the used scales

IMAGE	
IMA1	This is a store with good image
IMA2	This store makes me feel trust
IMA3	This store is innovative
IMA4	This store shows good quality
IMA5	This store shows good value
SATISFACTION	
SAT1	I´m satisfied with the experience provided by the store
SAT2	I´m satisfied with the attention provided by the clerks
SAT3	I´m satisfied with the provided service in this store
LOYALTY	
LOYAL1	I´ll recommend this store
LOYAL2	I´ll come back to this store

TABLE 3
Results for the model

Causal relations		Standardised estimators	Critical ratio	p	Reliability indicators	Goodness of fit indicators
IMA1	←Storeimage	0.726			Compound reliability=0.800	
IMA2	←Storeimage	0.820	16.515	0.000		
IMA3	←Storeimage	0.602	12.326	0.000	Extracted	
IMA4	←Storeimage	0.679	13.871	0.000	variance=0.452	
IMA5	←Storeimage	0.487	9.976	0.000	Cronbach Alpha=0.789	
SAT1	←Satisfaction	0.853			Compound reliability=0.904	CMIN = 128.520
SAT2	←Satisfaction	0.869	24.252	0.000		$p = 0.000$
SAT3	←Satisfaction	0.890	25.128	0.000	Extracted variance=0.758 Cronbach Alpha=0.901	CFI = 0.965 NFI = 0.954 RMSEA = 0.079
LOYAL1←Loyalty		0.894			Compound reliability=0.843	
LOYAL2←Loyalty		0.811	20.077	0.000	Extracted variance=0.728 Cronbach Alpha=0.841	

TABLE 4

Descriptive analysis and correlations

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1 IMA1	4.45	0.67	---											
2 IMA2	4.23	0.78	0.639***	---										
3 IMA3	3.76	0.90	0.449***	0.504***	---									
4 IMA4	3.97	0.84	0.444***	0.539***	0.422***	---								
5 IMA5	4.24	0.75	0.259***	0.374***	0.287***	0.411***	---							
6 SAT1	4.32	0.76	0.577***	0.589***	0.459***	0.489***	0.409***	---						
7 SAT2	4.49	0.70	0.479***	0.521***	0.351***	0.436***	0.307***	0.723***	---					
8 SAT3	4.43	0.68	0.497***	0.566***	0.393***	0.480***	0.356***	0.736***	0.807***	---				
9 LOYAL1	4.38	0.82	0.506***	0.546***	0.373***	0.512***	0.422***	0.669***	0.598***	0.612***	---			
10 LOYAL2	4.40	0.82	0.404***	0.477***	0.369***	0.489***	0.380***	0.621***	0.549***	0.560***	0.725***	---		
11 Visual sensation	3.94	0.85	0.467***	0.347***	0.462***	0.302***	0.192***	0.360***	0.285***	0.301***	0.341***	0.331***	---	
12 Olfactory sensation	3.66	0.85	0.349***	0.301***	0.280***	0.282***	0.209***	0.321***	0.236***	0.281***	0.302***	0.269***	0.355***	---

*** p<0.001

TABLE 5

Frequencies, descriptive & correlations results for testing store & product congruency

	Jasmine	Freshly cut grass

	Disagree				Agree	Disagree				Agree
	1	2	3	4	5	1	2	3	4	5
Store C.	0%	2%	16%	22%	10.8%	0.4%	1.7%	15.8%	18.4%	12.4%
Product C.	0.4%	4.8%	17.6%	20.4%	7.6%	1.3%	3.4%	17.1%	17.1%	9.8%

Variables	Mean	SD	Mode	Q1	Median	Q3	Store C.	Product C.	Mean	SD	Mode	Q1	Median	Q3	Store C.	Product C.
Store C.	3.82	0.81	4	3	4	4	---	0.64**	3.83	0.88	4	3	4	5	---	0.65**
Product C.	3.59	0.88	4	3	4	4	0.64**	---	3.63	0.97	3	3	4	4	0.65**	---

** $p < 0.01$

Figures

FIGURE 1

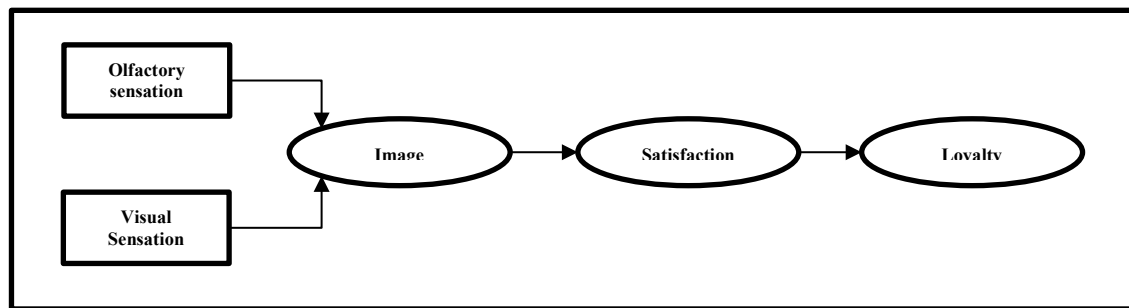### Model of olfactory marketing effects

FIGURE 2
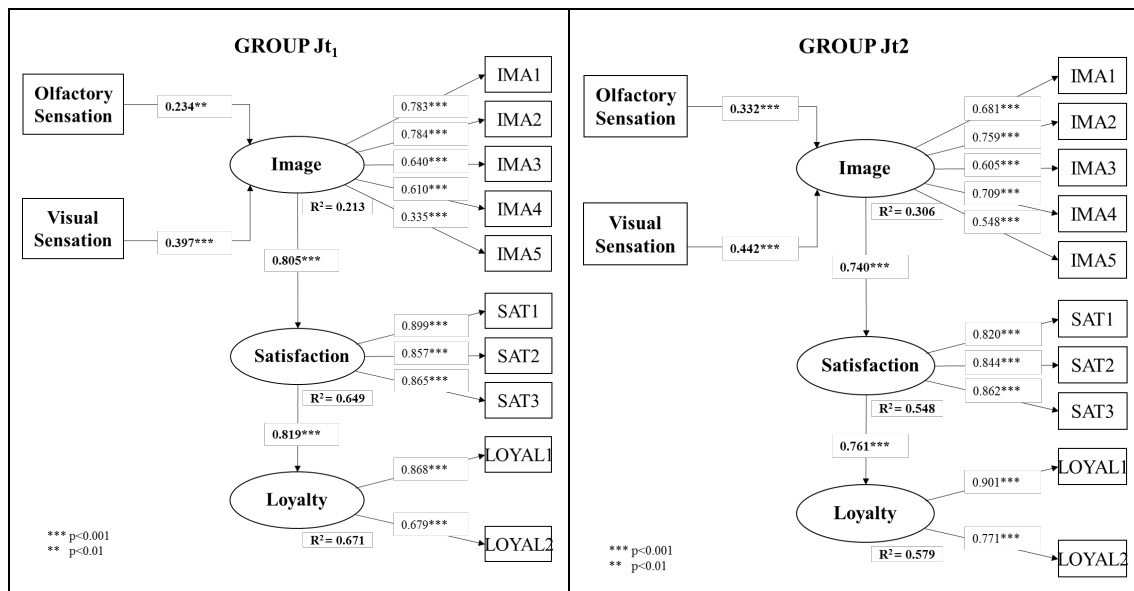### Results of the multi-groups model for Jasmine aroma

FIGURE 3
Results of the multi-groups model for Freshly Cut Grass Aroma