

# **BRAND LOYALTY ON THE BASIS OF OLFACTORY TECHNIQUES USING DISCRIMINANT ANALYSIS: A CASE OF CAFE COFFEE DAY STORE IN KOLKATA, INDIA**

**Shuvam Chatterjee, IMS Unison University**

## **ABSTRACT**

*Consumers of modern days are concerned with emotional connections along with product attributes during buying. This has led to a whole new advent of sensorial marketing, beginning the era of experiential marketing. Utilizing this opportunity, marketers are tapping the consumer's emotive sense and exploring the option of attaching sensory cues, like smell, in marketing, thereby use of olfactory cues is increasing in brand differentiation. The aim of this paper is to assess relationship of likability of fragrance with strength of aroma in purchase. The help of a case Café Coffee Day (CCD) has been taken to investigate the above as this brand tries to enhance overall in-stay experience of consumers with implementation of Olfactory Branding. This article reflects outcome of a survey using judgemental sampling plan in few selected CCD store in Kolkata, having an atmosphere with strong aroma of coffee. A structured schedule was used to collect data from 200 respondents using appropriate scale with variables chosen from study outcomes of other researchers mentioned in serious academic literatures. The data obtained was treated with classification technique of discriminant analysis exploring the linkage of strength of aroma with likability of fragrance and its relationship with shopping under aromatic conditions. The analysis joins strength of aroma with shopping under aromatic conditions with likability of fragrance both measured under 5 point metric scales and connects it with the non metric variable shopping under aromatic conditions. This shows that there is an influence of fragrance with consumer's choice and subsequent purchase decision.*

**Keywords:** Scent Branding, Retail Store Ambience, Consumer Awareness, Sensory Stimulus, Discriminant Analysis.

## **INTRODUCTION**

The pleasantness or unpleasantness of aroma has got its own effect on (liking or disliking) human beings. It has been observed by the studies of Mehrabian and Russell (1974) that there is a relationship between the environmental stimuli and approach or avoidance associated with emotional states like pleasure, arousal and dominance (Ward, Davies, Kooijman, 2007). The combination of these determines whether a person wishes or not to remain in a particular environment. Thus the marketers of the modern day are adding aromatic effect in their product or service offerings. They have understood that there is some amount of sub-conscious correlation between liking/disliking of aroma with purchase decision. The research has been taken up investigating the liking and disliking of aroma and its effect on purchase decision for investigation, a few of them are presented below. Anselm and Kosteljik (2008) pointed out that

brand identity has been correlated mainly with a unique set of brand associations that a firm creates and maintains. It invites a value proposition with functional and emotional benefits. The emotional linkage between brands and consumers has been proposed to be a key differentiator in building strong brands. These days consumers seek for emotional experiences along with product experience in buying decisions (Brembeck and Ekström, 2004; Ratneshwar and Mick, 2005). In order to maintain customer loyalty to a brand, it is transformed from a core product into an experiential product (Pullman and Gross, 2004). Klaus and Maklan (2007) identified that a brand experience occur when a firm intentionally build one to engage their customers. Modern consumers have shifted their purchase decision making from the rational point to a more emotional and experiential proposition. This is reflected in the study of Kim et al. (2009), where the marketers are investing more towards the retail experiential to provide a differential effect to encourage consumers consume more. This further has been reinforced in the study of Daniel et.al. (2012). For example, Westin group of Hotel uses a contemporary White Tea fragrance throughout their entire properties for enhancing the In-Stay experience of their customers.

Michon et al. (2007) pointed out that on the occasion of competition becoming fierce, the industry players from the retail sector are adopting strategic innovations to uplift the consumers' shopping experience and increase frequency of purchase or visit, they are adopting experiential cues like positive fragrance that would attach consumers to the stores and further increase the duration of stay in the store. It has also been observed from the earlier studies of Lindeman (2007) that shoppers who spend more time within the store are more likely to purchase than those purchasers who are spending lesser time in the store. Kooijman's (2003) suggests a clear linkage with Mehrabian and Russell (1974) model where Retailers are attempting to manipulate the 'emotionality of the customer bond'; and are, in essence, try to ultimately facilitate consumers reaching a state of 'flow' (Kooijman 2003). Soars (2009) pointed out that a soothing store environment can actually create a positive mind set amongst the consumers with the possibility of contributing to the propensity to spend more time within the store outlet. Since fragrance is one of the cues regularly used in stores, it is suspected that there might be some link between the olfactory sense organs and purchase decisions, as the olfactory sense organ has got a direct link with the brain and could immediately evoke emotions (Soars, 2009; Kim et al. 2009). The study conducted by Soars (2009) found that aromatic shopping conditions could actually create a positive impact for shoppers within a retail outlet, especially for female consumers. This has been further supported by the study of Parsons' (2009) that shows the use of an ambient smell inside a lingerie store could actually enhance the entire marketing experience and an inappropriate smell used in an odorless retail outlet can result in an undesirable shopper behavior.

To explore further and understand the relationship between a retail environment in the context of consumer behavior and their responses, a stimulus-organism-response (S-O-R) of Mehrabian and Russell (1974) has been considered. They proposed that there exists an effect of arousal, dominance and pleasure, influence consumer behavior in certain environments. Donovan and Rossiter (1982) discussed that arousal and pleasure constitute a significant factor in predicting consumer approach and intentions with respect to time and affiliation. Later studies conducted by Donovan et al. (1994) also pointed out that the pleasantness of in-store atmospherics are an important component of predicting whether an individual wishes to, approach, or stay, or spend money in the store. Studies of Darden and Babin (1994) and later studies conducted by Spangenberg et al. (1996) throw light on the fact that the consumer perception of a store are related to various sensory cues, like color, lighting, music, scent, etc.,

which aim at stimulating positive customer responses. Moreover, in-store components can have impact on shopper behavior and perceptions as pointed out by Donovan and Rossiter (1982) and through later studies conducted by Baker and Cameron (1996) and Turley and Chebat (2002). These studies show the enhancement of positive emotions and feelings of the consumers. Ambient scent research conducted by Bone and Ellen (1999) reveals that the presence of an ambient scent affects customer performance in terms of intentions to visit and return to a store and also establishes a positive perception of a particular commercial environment which is being noted by Chebat and Michon (2003). Various other studies conducted by Bone and Ellen (1999), Chebat and Michon (2003) have considered the pleasantness of scents emanating from an object, or a service associated with it that is perceived by the consumers as being pleasant or unpleasant. It sounds now clear that pleasant scents have positive effects on time spent in a store, the number of times products are examined, as well as the total time devoted by the consumers for product evaluation Spangenberg et al. (1996) Morrin and Ratneswhar (2000 & 2003), Schifferstein and Block (2002), which supports our suspicion stated above. Based on the S-O-R model, it has been seen by Morrin (2010) reinforced that pleasant scents result in pleasant/unpleasant affective consumer responses. Moreover research of Spangenberg et al., (2006) indicate an evoking of pleasant scent is a cheap and effective means of enhancing customer shopping behavior. Store environment receives a significant importance from the studies conducted by Ward et al. (2003), Mitchell et al. (1995) where it is normally seen that customers get influenced by pleasant smell, considering not only from the product's aspects but a considerable portion of it from the store environment aspect as well. Parsons (2009) demonstrated how, through the active use of associated scents, an otherwise naturally odorless store could enhance shopper behavior and gain a competitive advantage (Schifferstein and Blok, 2002). All in all, these evidence points towards the effect of impact of olfactory cues on consumer's buying behavior, leading them to spend more money. Hence according to (Parsons, 2009; Soars, 2009), a brand new industry has emerged named the Scent Industry. The research of Lempert (2005) has added a new dimension to Scent Marketing. Studies conducted by Lindstrom (2005) Tan (2008) and Parsons (2009) has added a new dimension of research of Brand management based on experiential cues, which has been termed as Olfactory Branding by Kim et al. (2009). Subsequent study of Ward et al. (2003) show that the olfactory aspects of commercial environments refer to the application of pleasant scents as a cue or stimulus, to produce an effect in the individual's mind, which in turn impact the actual behavior, without the person being aware of the process. In this context, three subsequent considerations of using scent have been emphasized in the research, viz. the presence of a scent, its pleasantness and its fit with environmental and service elements (Bone and Ellen, 1999). In fact, a number of studies have demonstrated the positive effects of scents on buying intentions and store image (Parsons, 2009).

## **OBJECTIVE**

This paper seeks to establish a linkage between influences in purchase decision with likability of fragrance with the strength of aroma using discriminant analysis.

## **METHODOLOGY**

Based on the above discussion, a survey research was conducted to explore the linkage in purchase decision with likability of fragrance with the strength of aroma using discriminant analysis. Discriminant function analysis is used to determine which variables discriminate

between two or more naturally occurring groups. Here we are investigating such linkages of variables relating to Olfactory Branding with reference to the case of a Café Coffee Day (CCD) Store in Kolkata as this brand tries to enhance the overall In-stay experience of a consumer with proper implementation of olfactory techniques inside all their outlets. A survey was conducted using an appropriate question schedule including the variables listed above found through the study of Ward et al. (2003) through using appropriate attitudinal agreement type scale in selected CCD outlets in Kolkata. A total of 200 consumers who visit CCD were surveyed using convenience type judgmental (Non Probability) sampling plan. Since all the respondents were personally surveyed, complete answer was received. The Data received was treated with SPSS 20.0 to test the association of variables using discriminant analysis (Tables 1 and 2).

<b>Table 1 CALCULATIONS</b>	
<b>Canonical Discriminant Function Coefficients</b>	
	<b>Function 1</b>
Strong is the aroma	-0.458
Likability factor of the fragrance	0.554
(Constant)	0.130
Unstandardized coefficients	
<b>Functions at Group Centroids</b>	
<b>Shop under aromatic conditions</b>	<b>Function 1</b>
<b>Yes</b>	0.113
<b>No</b>	-0.113
Unstandardized canonical discriminant functions evaluated at group means	

<b>Table 2 CLASSIFICATION RESULTS<sup>A</sup></b>					
		<b>Shop under aromatic conditions</b>	<b>Predicted Group Membership</b>		<b>Total</b>
			<b>Yes</b>	<b>No</b>	
<b>Original</b>	<b>Count</b>	Yes	51	49	100
		No	43	57	100
	<b>%</b>	Yes	51.0	49.0	100.0
		No	43.0	57.0	100.0
54.0% of original grouped cases correctly classified					

### RESULTS AND DISCUSSION

The result is surprisingly encouraging. It has been found that there is a connecting relationship between shopping under aromatic conditions with strength of aroma and likability of fragrance. This shows that there exists an influence of fragrance with consumer’s choice and subsequent purchase decision in context of CCD Retail Outlet.

## CONCLUSION

In this study, the case of CCD has been taken as a representation of the investigating environment. This is an explorative study as we have used Non Probability Sampling techniques and Judgmental (Convenience) Sampling and hence this is an indicative study. Therefore there is a scope of expanding this study to encompass a larger investigating environment using Conclusive Research Design through experimentation using experimental and control group design. The outcome of such investigation can be examined with ANOVA to draw concrete results.

## REFERENCES

- Anselm, K.J. & Kosteljik, E. (2008). Identity based marketing: A new balanced marketing paradigm. *European Journal of Marketing*, 42(9/10), 907-914.
- Baker, J. & Cameron, M. (1996). The effects of the service environment on affect and consumer perception of waiting time: An integrative review and research propositions. *Journal of the Academy of Marketing Science*, 24(4), 338-49.
- BertilHultEn. (2011). Sensory marketing: The multi-sensory brand-experience concept. *European Business Review*, 23(3), 256-273.
- Bloch, P.H., Ridgway, N.M. & Dawson, A. (1994). The shopping mall as a consumer habitat. *Journal of Retail*, 70(1), 23-42.
- Bone, P.F. and Ellen, P.S. (1999). Scent in the marketplace: Explaining a fraction of olfaction, *Journal of Retailing*, 75(2), 243-62.
- Brembeck, H. & Ekstrom, K. (2004). *Elusive consumption*, Berg, MA: Oxford Cambridge.
- Chebat, J.C. & Michon, R. (2003). Impact of ambient odors on mall shoppers' emotions, cognition and spending: A test of competitive causal theories. *Journal of Business Research*, 56(7), 529-39.
- Clarke, D.W., Perry, P. & Denson, H. (2012). The sensory retail environment of small fashion boutiques. *Journal of Fashion Marketing & Management: An International Journal*, 16(4), 492-510.
- Darden, W.R. and Babin, B.J. (1994). Exploring the concept of affective quality: Expanding the concept of retail personality. *Journal of Business Research*, 29(2), 101-110.
- Discover which Variables Discriminate Between Groups, Discriminant Function Analysis: Retrieved 13th May 2016 from: <http://www.statsoft.com/Textbook/Discriminant-Function-Analysis>
- Donovan, R.J. and Rossiter, J.R. (1982), Store atmosphere: An environmental psychology approach. *Journal of Retailing*, 58(3), 34-57.
- Donovan, R.J., Rossiter, J.R., Marcolyn, G. & Nesdale, A. (1994). Store atmosphere and purchasing behavior. *Journal of Retailing*, 70(3), 283-294.
- Eiglier, P. and Langeard, E. (1976), Principe de Politique Marketing pour les Entreprises de Service, working paper, *Institut d'Administration des Entreprises, Universite' d'Aix-Marseille, Aix en Provence*.
- Gro'nroos, C. (1982). An applied service marketing theory. *European Journal of Marketing*, 16(7), 30-41.
- Gro'nroos, C. (2006). Adopting service logic for marketing. *Marketing Theory*, 06(3), 317-333.
- Kim, J.B., Koo, Y. & Chang, D.R. (2009). Integrated brand experience through sensory branding and IMC. *Design Management Review*, 20(3), 72-81.
- Kooijman, D. (2003) Shop-image and interaction: The use of senses in consumption space. In: McDonagh, D., Gyi, D., Hekkert, P. and van Erp, J. (Eds.) *Design and emotion*. London: Taylor & Francis.
- Lempert, P. (2005). Sensory branding possibly the most effective marketing tool yet? Retrieved Sept 22, 2005 from Extreme Retail 23 (XR23) [www.xr23.com/page.cfm/179](http://www.xr23.com/page.cfm/179).
- Lindeman, T.F. (2007). Retailers look for creative ways to get customers to stick around (and spend more), Pittsburgh Post-Gazette, Retrieved 13<sup>th</sup> May 2016 from <http://www.post-gazette.com/business/businessnews/2007/04/25/Retailers-look-for-creative-ways-to-get-customers-to-stick-around-and-spend-more/stories/200704250302>.
- Lindstrom, M. (2005). Broad sensory branding. *Journal of Product & Brand Management*, 14(2), 84-87.
- Mehrabian, A. & Russell, J.A. (1974). *An approach to environmental psychology*. Cambridge, MA, USA; London, UK: MIT Press.

- Michon, R., Yu, H., Smith, D. & Chebat, J.C. (2007), The shopping experience of female fashion leaders, *International Journal of Retail and Distribution Management*, 35(6), 488-501.
- Mitchell, D.J., Kahn, B.E. & Knasko, S.C. (1995). There's something in the air: effects of congruent or incongruent ambient odour on consumer decision making. *Journal of Consumer Research*, 22(2), 229-238.
- Morrin, M. & Ratneswhar, S. (2000). The impact of ambient scent on evaluation, attention and memory for familiar and unfamiliar brands. *Journal of Business Research*, 49(2), 157-165.
- Morrin, M. & Ratneswhar, S. (2003). Does it make sense to use scents to enhance brand memory? *Journal of Marketing Research*, 40(1), 10-25.
- Morrin, M. (2010). Scent marketing an overview. In Krishna, A. (Ed.), *Sensory Marketing: Research on the Sensuality of Products*, New York: Taylor & Francis Group.
- Parsons, A. (2009). Use of scent in a naturally odourless store. *International Journal of Retail & Distribution Management*, 37(5), 440-452.
- Pine, B.J. & Gilmore, J.H. (1999), *The experience economy: Work is theatre and every business a stage*, Boston, MA: Harvard Business School Press.
- Pullman, M.E. & Gross, M.A. (2004). Ability of service design elements to elicit emotions and loyalty behaviors, *Decision Sciences*, 35(3), 551-578.
- Ratneshwar, S. & Mick, D. (2005). *Inside consumption*, London: Routledge.
- Schifferstein, H.N.J. & Blok, S.T. (2002). The signal function of thematically (in) congruent ambient scents in a retail environment. *Chemical Senses*, 27(6), 539-549.
- Soars, B. (2009). Driving sales through shoppers' sense of sound, sight, smell and touch. *International Journal of Retail and Distribution Management*, 37(3), 286-298.
- Spangenberg, E.R., Crowley, A.E. & Henderson, P.W. (1996). Improving the store environment: Do olfactory cues affect evaluations and behaviours? *Journal of Marketing*, 60(4), 67-80.
- Spangenberg, E.R., Sprott, D.E., Grohmann, B. & Tracy, D.L. (2006). Gender-congruent ambient scent influences on approach and avoidance behaviours in a retail store. *Journal of Business Research*, 59, 1281-1287.
- Stoel, L., Wickliffe, V. & Lee, K.H. (2004). Attribute beliefs and spending as antecedents to shopping value, *Journal of Business Research*, 57(10), 1067-1073.
- Tan, C.S.L. (2008). Of senses and men's cosmetics: sensory branding in men's cosmetics in Japan. *European Journal of Social Sciences*, 06(1), 7-25.
- Turley, L.W. & Chebat, J.C. (2002). Linking retail strategy, atmospheric design and shopping behavior. *Journal of Marketing Management*, 18, 125-144.
- Ward, P., Davies, B.J. & Kooijman, D. (2003). Ambient smell and the retail environment: Relating olfaction research to consumer behavior. *Journal of Business and Management*, 9(3), 289-302.