As tangible evidence will be seen, heard, felt, tasted, or smelt by the customer, the five senses play an important role in tangibilisation of services. So far, the major part of service companies' tangibilisation efforts seems to be limited to the use of vision or sound. The interior design of restaurants, the arrow-folded ends of toilet paper in hotels, and background music at department stores are just a few visual and aural examples of how companies try to tangibilise services. There is, however, considerable potential in addressing the sense of smell in marketing. Researchers contend that "smell is the sense that is most closely linked to the brain's emotional centre and could therefore be harnessed to provoke a powerful emotional reaction" (Spence, 2002, p. 19). Despite this, most companies concentrate their marketing efforts on what we see and hear (Lindstrom, 2005).

Considerable research concerning smell and its effect on humans has been conducted within medicine and psychology. Though a number of studies on the effects of scents have been done within retailing, it is notable that smell has rarely – if at all – been researched as a tangibiliser, enhancer and differentiator of services. For instance, a recent best practice article in the *Harvard Business Review* (see Berry and Bendapudi, 2003) offers some interesting examples of how a hospital uses tangible evidence to present its patients with evidence of competence, caring and integrity. Several tangible visual and aural evidences are discussed in the article, but nothing is mentioned about scent, even though negative associations often arise from the typical smells of hospitals.

Considering the emotional power of smell, and the fact that the atmosphere of the service firm can be strongly affected by scents (Hoffman and Bateson, 2002), this area is important to explore. This paper therefore aims to contribute to the understanding of how scents can be used for services marketing purposes.

Aspects of scents in services marketing

When using scents for services marketing purposes, at least four important aspects should be considered: the presence (or absence) of a scent; its pleasantness (or unpleasantness); its congruity or fit with the actual service (Bone and Ellen, 1999); and the relationship between scents and memory.

Presence of a scent

As a scent can be processed and produce an effect in a person's mind without him or her even paying attention to it, smell is "something that the customer cannot ignore" (Ward *et al.*, 2003, p. 295). Even though some smells clearly should be avoided, many believe that the right scent can have a positive impact on consumers' behaviour. In fact, ambient scents (which work as a background characteristic of the environment) have been shown to dramatically affect performance in a variety of situations. Such scents can influence customers' intentions to visit and return to a store (Bone and Ellen, 1999), as well as contribute to building a favourable perception of a shopping centre and, indirectly, of product quality (Chebat and Michon, 2003).

Ambient odours also can be used to communicate some kind of information about what is sold, something that specialty stores such as bakeries and coffee shops have utilised for a long time. More recently, a wider array of service providers have begun to employ consultants to help develop customised fragrances for use in their service outlets (Morrin and Ratneshwar, 2003; Spangenberg *et al.*, 1996).

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Pleasantness of a scent

When scents are present, they are primarily perceived in terms of their pleasantness (Chebat and Michon, 2003). A pleasant or unpleasant scent will cause the object or service associated with it to be perceived as pleasant or unpleasant (Ellen and Bone, 1998). Although some scents are unpleasant to most people, it can be rather tricky to avoid unpleasant scents altogether, especially since this varies among cultures (Davies *et al.*, 2003). A general tendency is, however, that when a scent becomes stronger, reactions to it become more negative, which means that the intensity of a scent also is important to consider (Spangenberg *et al.*, 1996).

Studies on the effects of ambient odours in retail environments have shown that pleasant scents can have a number of positive effects. Product evaluations, image of the store, and intention to revisit the store are improved, and buying intentions are increased for products that are neither extremely liked nor disliked. Moreover, pleasant scents can positively affect time spent in a store, the number of times products are examined, and the amount of time taken to evaluate products (Morrin and Ratneshwar, 2000, 2003; Schifferstein and Blok, 2002; Spangenberg *et al.*, 1996). These effects indicate that customers will be more interested in spending their money when they perceive that the purchasing environment smells pleasantly.

Congruity with a scent

Scents are more difficult to recognise and label than visual and aural stimuli. On average, humans can identify only 40-50 percent of common odours. But even if people have problems in identifying a scent, they often are aware that they know the scent, a phenomenon called the "tip-of-the-nose state" (Ellen and Bone, 1998). The ability to identify a specific odour also is influenced by surrounding cues, such as colour. Thus, it is easier to recognise a lemon scent in a yellow liquid than in a red one. Even when consumers are unable to identify a certain smell, they may be able to determine that it is "just not right". In fact, research has shown that product evaluations are improved when there is congruity between scent and product. For instance, consumers evaluate products with a "typical" scent, such as a suntan lotion with a coconut scent, more positively than when the smell is not typical for the product, such as a suntan lotion with a lemon scent. House cleaning solutions, on the other hand, are positively evaluated by customers when they are scented with lemon, since this is considered appropriate in that situation (Ellen and Bone, 1998). However, as Ward et al. (2003) point out, it is important to consider not only the congruity between the smell and the actual offering, but also the totality; that is, the entire composition of the service environment.

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Memory of a scent

There also exists a clear link between smell and memory. As elegantly put by researcher and poet Diane Ackerman:

Hit a tripwire of smell, and memories explode at once (Ackerman, 1996, p. 5).

Actually, memories evoked by smell are more emotional than memories evoked by other stimuli (e.g. Halloway, 1999). So, even though smell-induced memories are not more accurate than others, they are perceived as being more accurate due to their emotional quality (Larkin, 1999).

The long duration of this phenomenon is interesting, as memories from months, years, or even decades ago, often can be recalled in unusual detail in the presence of a certain smell (Aggleton and Waskett, 1999). When a scent has acquired specific meanings early in life, it may lead to long-lasting responses that are cognitive and behavioural, as well as emotional (Epple and Herz, 1998). Thus, scents that are experienced seldom, but in connection to specific occasions such as Christmas, are likely to be tied to this occasion — a connection that can be used commercially. For example, if people experience traditional "Christmas smells" that evoke strong emotional responses, and they are in a place where they can buy baked Christmas ham, then they are very likely to do so (Larkin, 1999). Besides specific occasions or time periods, associations also may represent connections between the scent and certain foods, products or places (Bone and Ellen, 1999). However, the effect of a smell can to a large extent vary among individuals, since a person's response depends on what associations he or she makes to the smell.

Davies *et al.* (2003) assert that when service providers succeed in using scents to trigger memories of pleasant emotions, it facilitates the development of a bond between the service provider and customer. Scent memory thus presents service providers with a potentially powerful tool from which to develop loyalty to a brand or service outlet (Davies *et al.*, 2003).

Scent as a tangibiliser, enhancer and differentiator of service

Despite the marketing possibilities that can be derived from the discussed aspects of scents, this is still a rather neglected area in services marketing literature. The intention of the following examples is, therefore, to serve as an introduction on how scents can be used to tangibilise, enhance or differentiate services.

Smells like brand spirit

Researchers conclude that the presence of a pleasant scent is an inexpensive and effective way to enhance consumers' perceptions and reactions to the service environment (Chebat and Michon, 2003; Spangenberg *et al.*, 1996). As consumers connect more strongly to a brand if more of their senses are involved, this in turn means an increased willingness to pay more (Lindstrom, 2005). To help differentiate their firm from competitors, service providers can develop their own unique signature scent, which should be distinctive, unifying, and memorable (Davies *et al.*, 2003; Spence, 2002). Ambient signature scents may not only help create a pleasant atmosphere by transferring emotions from other contexts and experiences to the sphere of the service provider, but they also could trigger a unique set of emotions in customers (Davies *et al.*, 2003).

Some service providers and retailers already are using signature scents. Lingerie retailer Victoria's Secret, for instance, has long used fragrance as a part of the sensory environment in its stores (Tischler, 2005), and Singapore Airlines took its "sensory branding" to another level with the development of a unique scent called Stefan Floridian Waters (Lindstrom, 2005). The scent could be discerned in the stewardesses' perfume, in the hot towels, and generally all over the airplanes. Though few people can describe the smell afterwards, everyone seems to recognise it once they step into a Singapore Airlines plane again. Lindstrom (2005, p. 136) notes that the scent "has the potential to kick-start a kaleidoscope of smooth comfortable memories – all reflecting the Singapore Airlines brand". Besides supporting the creation of a lasting impression, signature scents can be designed to have a therapeutic role, such as helping customers relax or putting them in a buying mode (Spence, 2002). The development of signature scents thus provides a host of opportunities for service providers (Davies *et al.*, 2003).

Scents also can be used when advertising services. Although scents have been used in several advertisements of products, few examples of how service providers have used scent in their advertising were found in literature. Utilising scents in advertising could therefore open possibilities for service providers to differentiate themselves from competitors — in particular, if using a well-developed signature scent.

Pleasantness of scent

Many casinos are using some kind of pleasant scent, since research has shown that receipts from one-armed bandits can increase more than 50 percent when the surrounding area is pleasantly scented (Tischler, 2005). Based on the notion that pleasant smells can stimulate purchasing desire, Japanese credit card company JCB recently introduced a scented credit card. This was part of an effort to attract more female customers after an internet survey of more than 6,000 of JCB's female customers revealed that fragrance, through aromatherapy, perfume, etc, played an important role in the lives of more than half of the respondents. The credit card, Linda Sweet, comes with a built-in citrus scent composed of grapefruit, lemon and mandarin, which is asserted to remain in the credit card for at least three years (www.jcbcorporate.com/english/news/20051208.html). Nevertheless, when tangibilising services, a smell should not always be pleasant. A good example is the Jorvik Viking Centre, a museum situated in York, UK, that seeks to recreate the city of York during the tenth century. In doing so, the museum, besides using pleasant scents such as apples, uses the acrid smell of rubbish to enhance the visitors' experience (see Aggleton and Waskett, 1999).

To fit or not to fit - that is the question

Although it can be claimed that a firm generally should smell according to target market expectations (e.g. Hoffman and Bateson, 2002), this is not always the best way to tangibilise a service. For instance, even if some researchers assert that hospitals should smell clean and antiseptic (Hoffman and Bateson, 2002), the typical smells of hospital or dentist's office makes some patients anxious and stressed. Patients with dental phobia, in fact, give high importance to the smell of the dental office when it comes to factors evoking intensely unpleasant feelings (Lehrner *et al.*, 2000). In an effort to address this issue, Lehrner *et al.* (2000) found that an ambient scent of orange in a dental waiting room led female patients to feel less anxious, more positive, and calmer. Likewise, some hospitals have used ambient scents to calm patients during

medical procedures (Morrin and Ratneshwar, 2000). At Florida Hospital's Seaside Imaging Center, the MRI[1] exam space is designed as a virtual beach, with the flooring looking like a boardwalk and the MRI unit camouflaged as a sand castle (Tischler, 2005). Along with the sounds of waves and birds played by sound machines, several scent machines diffuse the smell of ocean or coconut oil. Within the actual MRI room, the scent of vanilla is infused, since research has shown that this helps people feel less claustrophobic. The virtual beach helps people relax, which also has lowered the cancellation rate for MRI tests by 50 percent. Moreover, the time needed to comfort patients to submit to the exam also has decreased dramatically (Tischler, 2005).

Overall, firms have started to pay more attention to the notion that customers can be influenced by generally pleasant scents that are not necessarily related to the products being sold (Mitchell *et al.*, 1995). For example, even though Nike shoes hardly can be associated with the scent of flowers, research has shown that people are more willing to purchase Nike shoes, and pay more for them, when trying them on in a floral-scented dressing area. The results remained the same even when the scent was too faint for people to notice (Wilkie, 1995).

In contrast, providers of edibles most often tangibilise their offerings with congruent scents. Hence, to entice customers into the store, bakeries commonly pump the scent of their freshly baked products into mall traffic areas (Bitner, 1992), and coffee shops, such as Dunkin' Donuts and Starbucks, are using scents of fresh coffee to attract customers (Chebat and Michon, 2003). Similarly, car dealers usually utilise congruent scents, since they generally enhance the smell of new cars with new-car scent from aerosol containers (Lindstrom, 2005). This practice has also been tested with used cars at General Motors-owned Network Q dealerships, where sellers sprayed a mixture of leather, fresh plastic and air freshener into second-hand cars. Customers even were provided a bottle of air freshener along with the car, in order to maintain the smell after purchase (Bold, 2004).

Efforts in using congruent scents also can be found in the entertainment industry. At Holland Experience 3D Movie Theatre, visitors can see, feel, and smell The Netherlands three-dimensionally. Visitors are seated in aircraft seats on a moving platform, and they are provided with special 3D glasses that make the trip through Holland quite realistic. While "entering" the famous Keukenhof flower gardens, visitors smell flowers; when "travelling" through the port of Rotterdam, visitors experience the atmosphere; and when watching the Dutch eat herring, people actually smell fish (www.holland-experience.nl/index1024.html). The Jorvik Viking Centre uses congruent scents in a similar way. Besides sights and sounds that are thought to be associated with the city during Viking occupation, the museum also utilises a number of supporting scents to accomplish a complete Viking experience. This is achieved by piping combinations of seven different, highly distinctive smells, such as burnt wood or beef, into the museum. Since visitors are transported in vehicles along a fixed route, at a fixed pace, rather uniform encounters of sights, sounds and smells are produced for different visitors (Aggleton and Waskett, 1999).

Odour sensation and memory

In order to investigate the link between memory and the specific odours used at the Jorvik Viking Centre, Aggleton and Waskett (1999) conducted an experiment using seven different odours identical to those dispersed at the museum: burnt wood, apples,

acrid rubbish, beef, fish market, rope/tar and earthy. According to the authors, many visitors to the museum comment spontaneously on the striking scents they encounter. Especially the sharp rubbish odour surrounding the Viking toilet area seems to evoke a disgust response in almost all visitors. Participants in Aggleton and Waskett's experiment had visited the museum between one and three times each, with a mean estimated time since the last visit of about 6.5 years. Results showed that the specific scents acted as effective retrieval cues, as participants related the odours to their actual visit at the museum. Both the individual smells (most notably the acrid rubbish and rope/tar odours) and the combination of smells worked as effective contextual cues that, according to the researchers, probably reflect their uniqueness. Since many visitors react to the acrid rubbish odour when visiting the museum, it is interesting that the rubbish acrid smell used in the experiment acted as an especially effective contextual cue for the participants. Aggleton and Waskett (1999) therefore conclude that since there is a strong link between emotional arousal and memory, an unusual odour that is affectively arousing may be an especially effective retrieval cue.

A somewhat different way of utilising the connection between smell and memory is explored by British architect Usman Haque, who develops "columns" of scents for hotels, intended to help people remember which wing of the building they are in. Haque compares the novel work of using scents in architecture to the stage where lighting design was 40 years ago, implying that smells may become a crucial part of interior design in the same way as lighting is now (Kharif, 2005).

Conclusion

Within the frame of four different aspects of scent, this paper has provided several illustrative examples of how scents can be used to tangibilise, differentiate and enhance service offerings, service environments, or even advertisements of services. There is little doubt that smell provides managers with a potentially powerful tool, and that by adding the component of scent to their offerings, service providers have the opportunity to create a competitive advantage. Since this area has been virtually neglected in the literature, the field is open for more research on this topic.

Note

1. Magnetic resonance imaging, a non-invasive diagnostic procedure.

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