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Correlations among Sensory and Cognitive Impressions of Spas in Vietnam

Sensory perception in general is the foremost important component of perception since it is significant with the formation of cognitive perception. However, the importance of each sensory component remains largely unknown. In this study, spa customers' perception was examined. By analyzing reviews of spas in Vietnam, this study found that customers relied more on the visual memory when recalling their experiences. However, it is the impression of a given taste or smell that significantly correlated with customers' perception of certain cognitive elements, such as price and value, and friendliness and politeness. Therefore, it is recommended that spa managers in Vietnam should focus more on the gustatory and olfactory elements when creating and maintaining their sensory servicescapes. Limitations of the study and directions for future research are also discussed.

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Introduction

Perception is the process by which an individual interprets environmental stimuli into something meaningful to him/her (Lawless, 1990; Pickens, 2005). Perception has three distinct forms, which are sensory, cognition, and affection. In normal circumstances, an individual uses his/her five basic senses (sight, sound, smell, taste, and touch) to gather information about an object or a phenomenon. These initial sensory impressions are then aggregated to form certain knowledge and beliefs about the same object or phenomenon, or cognitive perception (Hultén et al., 2009; Krishna, 2009). Such knowledge and beliefs later help define the feelings that the individual has of the object or phenomenon, or the affective perception (Baloglu and McCleary, 1999; Echtner and Ritchie, 2003).

Thus, sensory perception in general can be considered as the foremost important component of perception. This observation is supported by the findings of previous studies on both the users' and the marketers' sides. From the perspective of users, Agapito et al. (2017) found that 37% of the recalled sensory impressions of tourists to the Southwest of Portugal were in visual forms, 18.0% - 18.3% were tastes and sounds, 17.1% were touches and 14.9% were smells. From the perspective of providers, Nghiêm-Phú (2017b) discovered that 99.3% of shops in a shopping street in Japan used visual cues of name boards, banners, and pictures, while only 16.5% employed music, 4.7% adopted tactile cues, and only 0.7% made use of smells and food or drink samples. Thus, visual impressions or cues seem to be the most powerful and dominant sensory components on both the demand and supply sides. However, the importance of each sensory component cannot be identified simply by looking at its percentage. In order to have a more reliable observation, the correlations between the sensory impressions and the cognitive or affective perceptions should be further examined.

Similar to a shopping street or a tourist destination, yet on a smaller scale, a spa is also a sensory scape. A spa can give its customers many sensory stimuli, including the visual stimuli of the facilities, the audio stimuli of flowing water and music, the olfactory stimuli of herbs, the gustatory stimuli of food and drinks, and the tactile stimuli of technical treatments. Such stimuli were found to have significant influences on spa customers' emotions, such as pleasure and relaxation (Loureiro et al., 2013). The positive emotion of relaxation had some further significant effect on customers' satisfaction and word-of-mouth (Loureiro et al., 2013). However, the direct correlations between the sensory stimuli and the cognitive impressions (i.e., the physical and atmospheric attributes; Echtner and Ritchie, 2003) of the spa scape have yet to be identified.

The purpose of this study, therefore, is to examine spa users' perceptions of spa services, with a focus on the correlations between the sensory perceptions and the cognitive perceptions. Findings of this study will provide empirical evidence to confirm the relationship between these two perception elements in general. They will also present implications for the better management of spa scapes in the future.

Literature Review

A spa is defined as an establishment that provides massage treatment(s) and at least two water applications (ASEAN Secretariat, 2016, p2). A spa may also include saunas, scrubs and wraps, energy treatments, exercises, nutritional programs, dietary programs, yoga practices, meditation, herbal treatments, and other professional well-being services.

A spa is doubtlessly a servicescape, which is attached to a pool of impressions or attributes (Bitner, 1992) that are the products of the sensory, cognitive, and affective perception processes. Among them, the sensory perception is the most significant component since it participates in the

formation of the cognitive and affective perceptions (Chen and Hsieh, 2011; Compeau et al., 1998; Kim and Kerstetter, 2016; Kim and Perdue, 2013).

Generally, people go to a spa to enjoy wellness services and to improve their health conditions (Frost, 2004; Rančić et al., 2013; van Tubergen and van der Linden, 2002). In a study with spa customers in Hong Kong, Kucukusta and Guillet (2014) found that customers prefer mid-level prices, a high level of therapist qualifications, a high level of privacy, a full range of spa facilities, and branded spa products. In addition, customers would consider therapist qualifications, price, and level of privacy when they book the spa services. Also concerning Hong Kong's spas, Mak et al. (2009) reduced customers' motivation to five factors: friendship and kinship, health and beauty, self-reward and indulgence, relaxation and relief, and escaping. Mak et al. (2009) also identified eight symbolic meanings that a spa may have, including a relaxation place, a pampering place, a beautifying treatment place, a health enhancement place, a healing place, a slimming place, and a trendy place. These meanings, in the terminology of Voigt et al. (2010), reflect the hedonic values of spa experiences. However, employing the Australian context, Voigt et al. (2010) also suggested that there is another equally important value of spa experiences: the spiritual or eudaimonic value, such as belongingness to a special world, effort, and perseverance.

From another perspective, Chen et al. (2013) identified seven major dimensions of spa service quality, including health promotion treatments, mental learning, experience of unique tourism resources, complementary therapies, relaxation, healthy diet, and social activities. Using these quality dimensions as segmentation criteria, Chen et al. (2013) found that the market of older spa customers in Taiwan is not homogeneous. This observation is further supported by Rančić et al. (2014) when they examined motivations of different groups of spa customers in Slovenia.

In addition, Panchal (2014), after assessing user-generated content or UGC about spas in India, Philippines, and Thailand, suggested three types of spa experience, which are physical, psychological, and social/environmental. Looking at these components from another lens, there is indeed a connection between the physical experiences and the sensory impressions (e.g., warmth, ticklish, feeling of strength or vigor, and feeling of muscle loosening up), the social or environmental experiences and the cognitive impressions (e.g., contacts with other people, and nature), and the psychological experiences and the affective impressions (e.g., relaxation, lightness or weightlessness, peacefulness, and calmness). In an empirical study in Portugal, Loureiro et al. (2013) found that the atmospheric and sensory cues at spas, such as lighting, color, decoration, aroma, music and temperature, are significant antecedents of customers' feelings of relaxation and pleasure. Between the two feelings, relaxation has a significant effect on customers' word-of-mouth. The importance of positive feelings was also confirmed by other studies in China (Lo and Wu, 2014). Spa services can also add some values to customers' overall experiences, including those involving local tourism resources and social activities (Chen et al., 2013).

Method

Historically, spas have been prominent in parts of European culture (van Tubergen and van der Linden, 2002). Nowadays, spa businesses have been spreading across the globe, and Southeast Asia has become an appealing hub of wellness tourism, in general, and of spa, in particular. Previous studies in the context of Southeast Asia have examined the spa businesses in Malaysia, Singapore, and Thailand (Henderson, 2003; Liang et al., 2017). That leaves certain gaps in the literature concerning other spa destinations such as Vietnam. Therefore, this study adopted Vietnam as its setting.

In Vietnam, the spa business has only been developed over the past 10 years. Local providers often combine both spa and beauty services in their businesses. Thus, going to spas in Vietnam means that customers can enjoy both massages and beauty treatments. Correspondingly, according to the regional standard (ASEAN Secretariat, 2016, p.3), the majority of spas in Vietnam are day spas (Table 1).

Table 1 Types of spa in Southeast Asia

Type	Definition
Day Spa	Is a stand-alone spa business in a house, commercial building, mall, or airport terminal servicing guest in a short time, usually of 1-5 hours.
Club Spa	Provides services in a club environment, where a membership is payable. Tends to focus on exercise to strengthen the body, plus wet areas, but also including yoga or other treatment.
Hotel/Resort Spa	Is the spa in a hotel or resort with the major services of massage, exercise, steaming, and sauna.
Mineral Spring Spa	Is the natural or man-made hot spring or mineral spring where one can benefit from the healing waters.
Cruise Ship Spa	Is located on a cruise ship mainly provides pampering and beauty treatments but may also offer exercise or other activities for well-being.
Destination Spa	Provides clients with customized lifestyle improvement and health enhancement through professional spa services, exercises, education programming and onsite accommodation where spa cuisine or healthy food is served. Does not provide medical services.

Data Collection

This study opts to analyze user-generated content (UGC) to examine the sensory and cognitive impressions that customers have of spas in Vietnam. The reasons are threefold. First, many users have the motivation and the tendency to share their experiences with other people through textual reviews or pictures. The fact that they spend time and effort to post their reviews shows that they really are impressed with some particular events at and attributes of a place or scape (Cadotte and Turgeon, 1988). Second, the reviews are uninduced by open-ended questions or structured scales which are employed by the direct survey method (Lu and Stepchenkova, 2015). Reviewers are free

to express their opinions and only recall what are most salient to their memories (Cadotte and Turgeon, 1988). Third, UGC is openly available and easy to collect (Lu and Stepchenkova, 2015). Thus, UGC has been used in research on customers since the 2000s.

In this study, Tripadvisor.com was chosen as the source of data for two reasons. First, the abundance of review themes on this portal ensures that the database of spa service is available. Second, the ranking of spa parlors, which shows their favorability among tourists, is a reliable criterion to select the venues.

The collection of the data was undertaken manually by the first researcher in August 2017. The reviews and their titles about the top ten spas in three major cities of Vietnam (Da Nang, Hanoi, and Ho Chi Minh City) were collected over a three-month period (April – June 2017) and were kept in an Excel spreadsheet. In order to improve the reliability of the data, all the reviews written by reviewers who only contributed one or two reviews on the forum were eliminated. The initial read of the reviews suggested that these accounts might be set up in an attempt to produce manipulated reviews (Hu et al., 2012). In addition, to create relative homogeneity of the data, all the reviews which evaluated the overall spa experience as poor (1 point), bad (2 points), and average (3 points) were also excluded. The reason was that such reviews only accounted for a small percentage of the whole collection for each city (Da Nang = 3.8%, Hanoi = 3.0%, and Ho Chi Minh City = 8.9%). Consequently, a total of 568 sets of reviews and titles were compiled (Da Nang, n = 50; Hanoi, n = 293; Ho Chi Minh City, n = 225). Almost all the reviews were written in English. Some reviews were written in both English and another language. In such cases, only the English part was utilized.

Data Analysis

The interpretation of the data followed several steps. In the first step, all the reviews were combined into a single Excel spreadsheet and were automatically analyzed by Voyant Tools, a web-based open-source application for text analysis (https://voyant-tools.org), to reveal the frequencies of the keywords (Sinclair and Rockwell, 2012). Those keywords that were mentioned in 10% or more of the reviews (61 or more) were extracted for further manual analysis. After eliminating the generic nouns (e.g., massage, spa, staff, place, body, experience, service, recommendation, foot, treatment, time, room, hour, day, and masseur), generic adjectives (e.g., good, great, best, relaxing, amazing, nice, excellent, like, wonderful, and lovely), and verbs and adverbs (e.g., highly, really, definitely, just, got, come, went, and came), the remaining main keywords (e.g., professional, clean, friendly, hot, tea, facial, treatment, price, and pressure) were grouped into three sensory categories (sight, taste, and touch), and three cognitive categories (professionality, friendliness, and price). Two other sensory categories (smell and sound) were added to the initial ones to create an eight-variable coding scheme. The generic nouns were eliminated since they can be captured by the five sensory categories or defined by the three cognitive categories (e.g., friendly staff, professional treatment, and nice room). In addition, the generic adjectives were also excluded since the affective impressions were mostly positive, and the creation of a positive feeling category that is apparent in every review is nonessential.

In the second step, the first researcher coded all the reviews using a deductive method (Elo and Kyngäs, 2008). The coding was mastered in an Excel file. Each variable was given a column. Its availability within a review was given a value of 1, and its nonexistence a value of 0. All the reviews were coded twice to ensure intra-coder reliability (Kassarjian, 1977). Several minor adjustments were made to the coding scheme when this researcher worked on the data.

Specifically, the sensory variable of sight included the visual perception of facility conditions, and the visual evaluation of cleanliness. The sensory variable of touch was detailed by the feelings of treatment materials and heat, and the sensory variable of taste was represented by the mention of food or drinks. The sensory variables of sound and smell were counted when the reviewers recalled a specific sound or quietness, and a specific odor respectively. In addition, the cognitive variable of price was extended to include tip, discount, and value-for-money. The cognitive variables of friendliness and professionality were also extended with the inclusion of hospitality and skills respectively. Examples of the coding method are presented in Table 2.

Table 2 Examples of coding method

Variable	Example
Sight	The place is nice although don't expect Asian luxury.
Sound	But it's so peaceful - no traffic noise or clients coming and going as one is trying to relax.
Taste	You are served tea and dried fruits while waiting and also offered your choice of a free drink from the rooftop bar and can watch the busy toads from above.
Smell	It started by choosing your massage and if there was oil involved, you pick your favorite oil upfront by smelling their different samples.
Touch	At the end of the massage, my masseuse used a warm wet towel to wipe off the oils.
Price and value	… the service is well with the money and the treatment is outstanding…
Friendliness and politeness	Definitely go there, the staff we're amazingly friendly and kind.
Skills and professionality	Massage is professional and good! Try it!

After that, approximately 10% of the reviews were given to the second researcher for a crosscheck. This researcher agreed with the adjustments to the coding scheme that the first researcher suggested. Her coding was in total agreement with that of the first researcher in all the five sensory variables, and the skills and professionality variable. With the other two cognitive variables (price and value, and friendliness and politeness), the percentages of agreement ranged

from 95.0% - 98.3%. Inter-coder reliability indices (Kassarjian, 1977) were calculated for these two variables in an online portal (http://dfreelon.org/) (Freelon, 2010). All the Scott's Pis, Cohen's Kappas, and Krippendorff's Alpha were around 0.89 and 0.97 for price and value, and friendliness and politeness respectively. Consequently, the coding of the first researcher could be considered reliable (Hayes and Krippendorff, 2007; Lombard et al., 2002).

In the third step of the data analysis process, descriptive analysis was performed to reveal the frequency of each impression (three sensory variables and three cognitive variables). After that, binary correlation analysis was undertaken to identify the correlations between the sensory and the cognitive variables. IBM SPSS served as the analysis tool.

Findings

Among the five sensory impressions, sight is the most frequently recalled, followed by touch, taste, smell, and sound (Table 3). The visual impression, including that of cleanliness, was noticed by more than 30% of the reviewers. Each impression of taste, touch, and a combination of sound and smell made up approximately 20%. Among the three cognitive impressions, "skills and professionality" was the most frequently mentioned, largely exceeding "friendliness and politeness," and "price and value." Nearly 90% of the reviewers wrote about "skills and professionality," while only 35-45% of them referred to the other two impressions.

Regarding the correlations among these variables (Table 4), sight had only two significant associations with smell and sound, while the remaining sensory impressions significantly correlated to one another. "Price and value" significantly associated with all the five sensory impressions, while "skills and professionality" had none. Additionally, "friendliness and politeness" shared some significant correlations with smell and taste, and with "skills and

professionality." All the significant correlations ($p < 0.05$) had a small-to-medium size (0.083 – 0.344).

Table 3 Descriptive analysis of major attributes (n = 568)

	No		Yes	
	n	**%**	**n**	**%**
Sight (including cleanliness)	373	65.7	195	34.3
Sound	536	94.4	32	5.6
Taste	451	79.4	117	20.6
Smell	482	84.9	86	15.1
Touch (materials and heat)	443	78.0	125	22.0
Price and value (including tips and discounts)	367	64.6	201	35.4
Friendliness and politeness	311	54.8	257	45.2
Skills and professionality	78	13.7	490	86.3

Table 4 Correlations among major attributes (n = 568)

	Sight	Sound	Taste	Smell	Touch	PV	FP
Sound	0.145**						
Taste	0.063	0.083*					
Smell	0.108**	0.110**	0.344**				
Touch	0.054	0.110**	0.223**	0.238**			
Price and value (PV)	0.101*	0.091*	0.115**	0.129**	0.131**		
Friendliness and politeness (FP)	0.028	0.008	0.158**	0.100*	0.004	0.023	
Skills and professionality (SP)	0.030	0.053	-0.024	0.054	0.002	0.049	-0.161**

* Correlation is significant at the 0.05 level (2-tailed), ** Correlation is significant at the 0.01 level (2-tailed)

Discussions

The outcomes revealed that spa customers used the visual sense the most to gather information from the surrounding environment. This observation is consistent with those of the previous studies (Agapito et al., 2017). However, this is only meaningful at face value. Actually, smell and taste are the most important senses since they are closely correlated with spa customers' cognitive impressions of "price and value," and "friendliness and politeness." This observation suggests that although the visual impressions are more popular, the olfactory and gustatory impressions may have more impacts on customers' evaluation of spa service quality. Perhaps the relaxing and

healing time that customers can have at a spa (Koh et al., 2010) has given them an opportunity to closely encounter with and appreciate the smells and tastes that are offered.

These outcomes also confirmed the significance of the price and professionality factors with spa customers' experiences (Kucukusta and Guillet, 2014). In addition, it has revealed another important factor of staff's friendliness and politeness, which is similar to other servicescapes, such as tourist destinations in general (Echtner and Ritchie, 2003). However, perspectives on price and value may not be defined by perceptions of the skills and professionality and the friendliness and politeness of staff, but by the sensory environmental conditions of spas. Nevertheless, evaluations of skill and professionality may be positively enhanced by perception of friendliness and politeness, and vice versa.

Theoretical and Practical Implications

A servicescape, as initially defined by Bitner (1992), includes three major factors: (1) the ambient conditions, (2) space and function, and (3) signs, symbols and artefacts. Among them, the ambient conditions represent the sensory elements, and the remaining factors the physical elements of the servicescape. The findings of this study have extended this definition of Bitner (1992) to the spa context. They also suggested that in addition to the physical elements, a spa servicescape should be regarded with some atmospheric or psychological elements, such as friendliness and politeness. In fact, since the atmospheric or psychological characteristics are inherent in many other contexts, such as tourism destinations and airports (Echtner and Ritchie, 2003; Nghiêm-Phú, 2017a), they should also be included in the examination and evaluation of spa scapes, in particular, and other servicescapes, in general.

With spas, the creation and maintenance of the appropriate sensory conditions are important with customers' perceptions of price and value, and friendliness and politeness. It should be noted

that the two latter factors may have potential impacts on customers' satisfaction with the product or service (Martín-Consuegra et al., 2007; Uhas et al., 2008). Satisfaction, in its turn, is a significant antecedent of customers repurchase and reuse intentions (Clemes et al., 2020). However, a selective strategy may be more efficient and effective since the managerial resources, such as time and money, are limited. Spa managers in Vietnam could focus their efforts more on the olfactory and gustatory elements of their servicescapes rather than the visual and audio ones. This recommendation may contradict findings of previous studies regarding the employment of the latter elements (Ghosh and Sarkar, 2016; Yalch and Spangenberg, 2000). Nevertheless, it should be noted again that each type of servicescape has its unique conditions and characteristics (Echtner and Ritchie, 2003). In previous studies (Ghosh and Sarkar, 2016; Yalch and Spangenberg, 2000), the settings are larger entities, such as a tourist destination and a shopping area. Thus, the visual and audio cues may work quicker in capturing visitors' impressions. In this study, the spas are smaller and in more intimate contexts. The quality (relaxing and healing) time that customers spend here is likely to help them to slowly enjoy the spas' olfactory and gustatory offers, rather than the easy-to-catch impressions of scenes and music.

Conclusion

Apparently, spa customers in Vietnam relied more on the visual memory when recalling their experiences. However, it is the impression of a given taste or smell that significantly correlated with customers' perception of certain cognitive elements, including price and value, and friendliness and politeness. Therefore, it is recommended that spa managers in Vietnam should focus more on these elements when creating and maintaining their sensory servicescapes.

The result of this study, nevertheless, is only applicable to spas in Vietnam over a certain period (April – June 2017). In other words, this result may not be able to generalize to spa

businesses in other periods or in other countries. The generalization of the findings requires further efforts in different times and contexts. In addition, the result is only relevant to the positive experiences of spa customers. The importance of the sensory impressions and other cognitive service quality factors when customers are unsatisfied remains unknown. This limitation should also be addressed by future studies.

The investigation of the sensory impressions of customers in the tourism sector is still in an early stage compared to that of the cognitive and affective images. To ascertain the relative significance of each sensory impression to the overall experience of users, more research is requested. With spa business in particular, the role of audio cues should be examined in detail. Spa customers often prefer a relaxed environment (Chen et al., 2013; Mak et al., 2009). However, which of the following solutions, the use of the appropriate sounds and music or the maintenance of quietness, is more appropriate to spa customers' experiences also needs a thorough verification.

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