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# Sensory marketing on customers' satisfaction: a tale from the second largest coffee exporter

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**Abstract:** Using sensory marketing, which engages a customer's five senses (sight, sound, smell, touch and taste), businesses aim to approach customers on an emotional rather than on a rational level, thus bringing them satisfaction and influencing their behaviour. This paper aims to examine the impact of sensory marketing on customer satisfaction with coffee shops in Hanoi, Vietnam. Previous research in this field has been conducted and has proven that marketing appeals to the five senses can influence customers' emotions and behaviour. However, Vietnam's potential coffee shop market has not yet been investigated. This study employs a quantitative approach using an online survey of 255 Hanoi coffee shop visitors to examine the influence of sensory marketing. The findings indicate that the sensory marketing factors of sound, touch and taste, in descending order of impact level, have a positive impact on satisfaction, while sight and smell have no effect.

**Keywords:** sensory marketing; five senses; customer satisfaction; coffee shops; Vietnam; customers' behaviours; sound; touch; taste; sight.

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## 1 Introduction

During the era of traditional advertising and marketing, the human senses have been ignored despite their important role in the human experience of consumption. Since classical, two-dimensional marketing (mainly audio-visual) no longer yields the expected results, sensory marketing has had a significant impact on customer satisfaction and has

been applied in different business sectors at various levels. Sensory marketing is defined as ‘marketing that engages the consumers’ senses and affects their behaviours’ (Krishna, 2010). By appealing to the five senses including sight, sound, smell, touch and taste, a marketer can reach the consumer on an emotional rather than a rational level, win their trust and attention and form the most binding engagement between the brand and consumer.

The chain coffee shop market has seen remarkable growth in Vietnam, especially in large cities like Hanoi. In fact, Vietnam is one of the leading producers and exporters of coffee worldwide. Drinking coffee has become a common habit for the Vietnamese. The growing youth market and increased urbanisation have contributed to the rapid growth of Vietnam’s cafe market. Thus, marketing managers must employ different methods to capture the attention of and deliver satisfaction to customers by appealing to their five senses.

As seen in previous literature, the application of sensory marketing in the retail or shop environment has been examined in many countries. Unfortunately, research on sensory marketing’s influence on customer satisfaction with coffee shops specifically in a potential market like Vietnam is severely lacking. There is little research that adapts a quantitative approach to measure the impact of the five sensory marketing factors on Vietnamese customers. Although several papers have investigated customers’ decision-making in Vietnam (Huynh, 2019b; Huynh et al., 2020), analysis about marketing strategies in Vietnam is still lacking. This measurement can help coffee shop managers in Vietnam employ the appropriate tactics to attract and satisfy customers. Considering the effects of sensory marketing factors, the author chose ‘effect of sensory marketing on customer satisfaction: a tale from the second-largest coffee exporter’ as the topic of this paper. Noticeably, Luong and Tauer (2006) confirmed that Vietnam has become the second largest exporter of coffee in the world. These aforementioned points are our motivation to carry out this research.

The purpose of this research is to investigate the theoretical background of the dimensions of sensory marketing in a shop environment, customer satisfaction and the interrelationship between the two concepts. Then, this paper analyses the impact of sensory branding on customer satisfaction when visiting coffee shops in Hanoi and presents recommendations to marketers.

This paper answers the primary research question: “What is the impact of sensory marketing on customer satisfaction with coffee shops in Hanoi?”

This research question is broken down into five secondary research questions:

- 1 To what extent does visual marketing impact customer satisfaction with coffee shops in Hanoi?
- 2 To what extent does auditory marketing impact customer satisfaction with coffee shops in Hanoi?
- 3 To what extent does olfactory marketing impact customer satisfaction with coffee shops in Hanoi?
- 4 To what extent does tactile marketing impact customer satisfaction with coffee shops in Hanoi?
- 5 To what extent does gustatory marketing impact customer satisfaction with coffee shops in Hanoi?

This research focuses on the top six coffee shop chain brands in Hanoi: Highlands Coffee, Starbucks, The Coffee House, Trung Nguyen Coffee, Aha Coffee and Phuc Long Coffee & Tea. These coffee shop chains were chosen based on their brand reputation and awareness, shop scale, coffee prices, and most importantly, their application of sensory marketing. These chains have been widely acknowledged as spaces in which customers can fully experience the five factors of sensory marketing within the coffee shop premises. Additionally, large cafe chains allow for more convenient statistical analysis than small or independent coffee shops.

## 2 Literature review

### 2.1 Sensory marketing

Sensory marketing is a set of marketing techniques that aims to seduce the consumer by using his or her senses to influence feelings and behaviour (Rupini and Nandagopal, 2015). The foundation of sensory marketing is establishing a connection between the consumer and brand on an emotional level by engaging their five senses – sight, sound, smell, taste and touch – during the purchasing process and product experience (Lindstrom, 2005). Kotler (1973) compared appealing to the senses with an attempt to design buying environments to generate specific emotional impact, such as excitation or contentment, on the consumer that can enhance his possibility of purchasing. Rupini and Nandagopal (2015) shared the same opinion on the purpose of a multi-sensory brand experience, stating that it can 'generate certain beliefs, feelings, thoughts and opinions to create a brand image in the consumer's mind'.

Because sensory marketing is based on the five senses, its components can be likewise characterised as visual (sight), auditory (sound), olfactory (smell), tactile (touch) and gustatory (taste) marketing.

### 2.2 Customer satisfaction

Customer satisfaction is based on a consumer's perception of how well an organisation has delivered on their communicated value proposition (Fripp, 2015). Satisfaction is one of the most frequently collected data points for measuring market perceptions because it is a leading indicator of consumer intention and loyalty.

The current literature suggested that customer satisfaction should be assessed using surveys and measured on a five-point Likert scale, which allows customers to judge their satisfaction with a brand or a specific product and its attributes. An example of satisfaction ratings is provided in Table 1.

**Table 1** Five-point scale for satisfaction

<i>Very dissatisfied</i>	<i>Somewhat dissatisfied</i>	<i>Neither dissatisfied or satisfied</i>	<i>Somewhat satisfied</i>	<i>Very satisfied</i>
1	2	3	4	5

*Source:* Farris (2010)

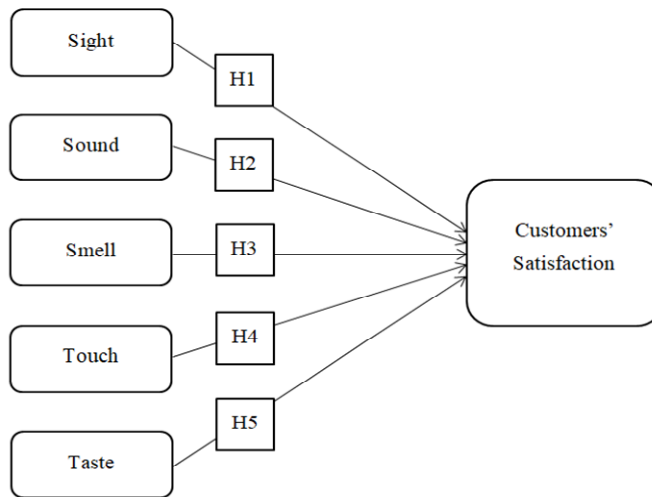
Previous literature has proven that there is a relationship between sensory marketing and customer satisfaction. Therefore, businesses should pay special attention to their

emotional link with customers through the senses because it enhances customer experiences and maximises their gratification with the brand.

### 2.3 *Research theoretical model and hypothesis*

With the support of the literature review, the following research model is proposed, as illustrated in Figure 1.

**Figure 1** Proposed research model



The five senses of sight, sound, smell, touch and taste are the independent variables (i.e., the predictor variables), with customer satisfaction as the dependent variable (i.e., the outcome variable). The purpose of this research is to examine the impact of the five sensory marketing factors on customer satisfaction with coffee shops in Hanoi.

It is proposed that sensory appeals have a positive impact on the customer satisfaction variable, which, in practice, means that when multi-sensory marketing is employed to create a favourable experience in coffee shops, customer satisfaction will increase. This study's hypotheses were developed accordingly.

Most previous studies on sensory marketing have emphasised sight as the main sensory cue (Elder and Krishna, 2010) and an effective tool in the era of marketing (Barclay and Ogden, 2011). Visuals that are attractively created using colours to convey marketing messages can lead to a positive reaction, thus satisfying the consumer (Miller and Kahn, 2005). Therefore, the authors hypothesise that:

**H1** The sensory marketing factor of sight has a positive impact on customer satisfaction with coffee shops in Hanoi.

Sound has an influential function on customer satisfaction and purchase intention if a customer enjoys the music playing in a shop (Soars, 2009). Previous literature has demonstrated that properly structured and chosen sound stimuli can have a considerable impact on the success of a business. In accordance with previous findings on the importance of sound elements in a shop environment, including coffee houses, the authors therefore hypothesise that:

H2 The sensory marketing factor of sound has a positive impact on customer satisfaction with coffee shops in Hanoi.

If an emotional contact is successfully created through the sense of smell, customers will be satisfied and tend to make a quicker purchasing decision (Lindstrom, 2005). Smell's ability to provoke emotions is directly connected to the prosperity of coffee shops (Soars, 2009). The comprehensive practice of using smell to improve customer satisfaction is still on the increase (Vlahos, 2007). In line with previous research results of the coffee shop setting, the authors hypothesise that:

H3 The sensory marketing factor of smell has a positive impact on customer satisfaction with coffee shops in Hanoi.

Consumers tend to feel satisfied and confident when making a purchase after they have physically touched a product (Barclay and Ogden, 2011). With food products, the sense of touch enables consumers to perceive product freshness and determine if they are sufficiently satisfied to make a purchase (Peneau et al., 2007). Additionally, haptic sensation is proven to increase brand satisfaction and sales (Soars, 2009). Touch is one element of the sensory brand experience that contributes to customer satisfaction in the shop environment (Baser et al., 2015). In accordance with these research results from various retail chains, including coffee shops, the authors hypothesise that:

H4 The sensory marketing factor of touch has a positive impact on customer satisfaction with coffee shops in Hanoi.

The sensory dimension of taste allows consumers to create their own satisfaction and experience, especially in the food and beverage industry (Soars, 2009). Various studies have pointed out that good-tasting food has a positive effect on customer satisfaction as well as increases the customer retention rate, which also depends on satisfaction. Additionally, taste is closely related to touch, which means that if a customer has a good feeling when touching a food product, he or she is more likely to taste and purchase it (Hornik, 1992). Since taste plays a crucial role in the food and beverage sector, the authors hypothesise that:

H5 The sensory marketing factor of taste has a positive impact on customer satisfaction with coffee shops in Hanoi.

### **3 Research methodology**

#### *3.1 Research and sample design*

This paper uses a deductive research method. First, the author starts with an existing theory and conceptual model. Second, the hypotheses are formulated to test the relationships between the five senses and customer satisfaction variables. The data, after examination, should confirm or reject the theory. Comparing the study's research findings with those from the comprehensive literature review is also essential to a deductive research design.

A descriptive research design is employed to precisely and systematically describe the current status of a phenomenon and provide direct answers to questions regarding the who, what, where, when and how (but not why) of a particular research problem. This

type of research is appropriate for researching a specific subject and acts as a precursor to a quantitative study.

In quantitative research, surveys are distributed amongst a sample and the results analysed. Quantitative rather than qualitative research was chosen for this thesis because the objective of quantitative research is to explain what is observed rather than to provide a detailed description of the research topic. Therefore, it provides the researcher the best chance of quantifying customer satisfaction, opinions and attitudes based on multiple parameters related to sight, sound, smell, touch and taste with regard to coffee shops in Hanoi.

The total number of respondents in the sample for this study was 255 to ensure the representativeness of the selected population, following convenient sampling.

### 3.2 *Data collection method*

To collect data, questionnaires were distributed amongst chain coffee shop visitors in Hanoi online using Google Forms. The questionnaire consists of two main sections. The first is related to the respondents' demographic background, including gender, age, monthly income, the frequency of and reasons for going to the coffee shop and the time spent on each coffee shop visit.

The second section required the respondents to evaluate their sensory experiences and satisfaction with any shop of six specified cafe chains in Hanoi: Highlands Coffee, Starbucks, The Coffee House, Trung Nguyen Coffee, Aha Coffee and Phuc Long Coffee & Tea. The questions were presented on a five-point Likert scale ranging from 1 to 5 (e.g., 1 – strongly disagree, 2 – disagree, 3 – neutral, 4 – agree and 5 – strongly agree).

**Table 2** Measurement scale

<i>No.</i>	<i>Code</i>	<i>Variables</i>
<i>Sight (visual tool) (SI)</i>		
1	SI1	The architecture of the coffee shop is unique.
2	SI2	The interior decoration layout of the coffee shop is appealing.
3	SI3	The colour of the coffee shop is vivid.
4	SI4	The lighting of the coffee shop is bright.
5	SI5	The advertising display and billboard are appealing.
6	SI6	The food or drink of the coffee shop is eye-catching.
<i>Sound (auditory tool) (SO)</i>		
7	SO1	The style of music playing in the coffee shop is my favourite.
8	SO2	The volume of music playing in the coffee shop is appropriate.
9	SO3	The music playing in the coffee shop gives me pleasure.
10	SO4	The noise in the coffee shop is minimum.
11	SO5	The instruction of the staff is delicate and mellifluous.
<i>Smell (olfactory tool) (SM)</i>		
12	SM1	The signature aroma of the coffee shop soothes me.
13	SM2	The coffee aroma I smell while entering the coffee shop gives me pleasure.
14	SM3	The aroma from the food or drink gives me pleasure.
15	SM4	There are no unpleasant odours in the coffee shop.

**Table 2** Measurement scale

No.	Code	Variables
<i>Touch (tactile tool) (TO)</i>		
16	TO1	The furniture of the coffee shop is soft and comfortable.
17	TO2	The temperature inside the coffee shop is appropriate, not too cold or too hot.
18	TO3	The coffee shop is clean.
19	TO4	I like the feeling of touching a hot/cold drink.
<i>Taste (gustatory tool) (TA)</i>		
20	TA1	The food or drink of the coffee shop is tasty.
21	TA2	There is a variety of food and drink on the menu of the coffee shop.
22	TA3	The ingredients of the food and drink are fresh and healthy.
<i>Customers' satisfaction (CS)</i>		
22	CS1	I am satisfied when I go to the coffee shop.
23	CS2	I will consider going to the coffee shop for the next time.
24	CS3	I will suggest my friends or family to the coffee shop.

The questionnaire is based on a measurement scale as shown in Table 2.

Out of the 255 survey questionnaires distributed, 250 were usable while five had answer gaps that might have caused discrepancies in the statistical analysis and affected the results.

The data collected from the questionnaires were imported into SPSS 2.0 (i.e., Statistical Package for the Social Sciences) software and then screened and cleaned before being analysed. The data analysis included descriptive statistics, reliability and validity tests, including Cronbach's alpha and explanatory factor analysis (EFA), and hypotheses tests, including correlation analysis and multiple linear regression analysis.

## 4 Research results

### 4.1 Analysis of demographic factors

From Table 3, amongst the 250 respondents, there were 78 men (31.2% of the total respondents) and 172 women (68.8%). One hundred and eighty-eight respondents (75.2%) were between the ages of 18 and 22, which is understandable since young people's demand for visiting coffee shops has recently increased considerably. Most respondents were average income earners. Specifically, 37.2% (93 respondents) had a monthly income of less than 2 million Vietnamese dong (VND), while 26.8% (67) and 23.6% (59) earned VND 2–5 million and 5–10 million monthly, respectively. The frequency of visiting a coffee shop was occasionally for 55.6%, or 139 respondents. The respondents tended to spend a quite long time per visit to the coffee shop with 62.4%, or 156 participants, staying in the coffee shop for over one hour.

**Table 3** Demographic factors

<i>Variables</i>	<i>Criteria</i>	<i>Count</i>	<i>Percentage</i>	
Gender	Male	78	31.2%	
	Female	172	68.8%	
Age	18–22	188	75.2%	
	23–30	44	17.6%	
	> 30	18	7.2%	
Monthly income	< VND 2 million	93	37.2%	
	VND 2–5 million	67	26.8%	
	VND 5–10 million	59	23.6%	
	> VND 10 million	31	12.4%	
Frequency of visiting the coffee shop	Daily	4	1.6%	
	Weekly	72	28.8%	
	Monthly	35	14.0%	
	Occasionally	139	55.6%	
Time spent on each visit to the coffee shop	< 10 minutes	2	0.8%	
	10–30 minutes	20	8.0%	
	30 minutes–1 hour	72	28.8%	
	> 1 hour	156	62.4%	
		<i>Responses</i>		<i>Percentage of cases</i>
		<i>N</i>	<i>Percent</i>	
Reasons for visiting the coffee shop	Studying	106	17.50%	42.40%
	Working	88	14.60%	35.20%
	Holding business meetings	18	3.00%	7.20%
	Socialising and meeting friends	228	37.70%	91.20%
	Having a takeaway	45	7.40%	18.00%
	Relaxing	120	19.80%	48.00%
<i>Total</i>		605	100%	242.00%

In terms of reason for visiting the coffee shop, socialising and meeting friends was the most popular response with 228 responses, or 91.2% of the respondents. The percentage of cases does not add up to 100% because respondents could select more than one answer. In this case, 605 responses were collected while there were only 250 respondents in the sample.

#### 4.2 *Descriptive statistics of the independent and dependent variables*

From the descriptive statistics of the variables, the mean values of all five factors of sensory marketing are around 4, except for SI5, which has the lowest mean value of 2.88. This indicates that customers' level of agreement with these statements was relatively high. The mean values of the CS variables are also high, ranging from 4.24 to 4.48. Accordingly, the respondents strongly confirmed that they were satisfied with these chain



coffee shops as well as willing to consider visiting again and suggesting these shops to others.

**Table 4** Descriptive statistics of the independent and dependent variables

Variable		Min.	Max.	Mean	Std. deviation
SI	SI1	1	5	4.28	0.768
	SI2	1	5	4.08	0.844
	SI3	1	5	3.23	0.979
	SI4	2	5	4.16	0.766
	SI5	1	5	2.88	1.065
	SI6	1	5	3.97	1.017
SO	SO1	1	5	4.08	0.989
	SO2	1	5	4.28	0.786
	SO3	1	5	4.25	0.902
	SO4	1	5	4.19	1.018
	SO5	1	5	4.14	0.953
SM	SM1	1	5	3.7	0.903
	SM2	1	5	3.74	0.974
	SM3	1	5	3.73	1.004
	SM4	1	5	4.63	0.665
TO	TO1	1	5	3.98	0.885
	TO2	1	5	4.2	0.724
	TO3	2	5	4.6	0.559
	TO4	1	5	3.71	1.15
TA	TA1	2	5	4.49	0.629
	TA2	1	5	3.88	0.861
	TA3	2	5	4.4	0.711
CS	CS1	2	5	4.48	0.622
	CS2	2	5	4.35	0.686
	CS3	1	5	4.24	0.785

Note: The abbreviation was presented in Table 2.

Overall, the standard deviation of the variables is low, indicating there is not much variation in the data points.

### 4.3 Reliability and validity testing

Reliability refers to the consistency of the measurement, or the degree to which an instrument measures a variable in the same way each time it is used under the same conditions with the same subjects. Cronbach's alpha, or coefficient alpha,  $\alpha$ , is a common measure of internal consistency, which is an assessment scale for reliability. If the Cronbach's alpha  $\alpha$  is greater than 0.6, the measurement scale is considered to be

acceptable. A Cronbach's alpha between .7 and .8 (i.e.,  $0.7 < \alpha < 0.8$ ) indicates a good scale and one over .8 ( $\alpha > 0.8$ ) indicates a very good scale (Hoang and Chu, 2008).

**Table 5** Cronbach's alpha results

<i>Variable</i>	<i>Cronbach's alpha</i>	<i>Number of items</i>
Sight	.757	6
Sound	.727	5
Smell	.720	4
Touch	.691	4
Taste	.675	3
Customer satisfaction	.768	3

All variables met the minimum threshold and were accordingly retained for 'EFA' to test the convergent and discriminant validity of the measurement scale. Convergent validity evaluates the degree to which a measure is correlated with other measures. The convergent variables are merged together as groups in a rotated matrix. Discriminant validity evaluates whether latent constructs that should have no interrelationship are related to each other. Each convergent variable group is split into separate columns in the rotated matrix (Heale and Twycross, 2015).

Some criteria in EFA are:

- KMO-test stands for the Kaiser-Meyer-Olkin measure of sampling adequacy for each variable in the model and the entire model overall. If the KMO value is greater than or equal to 0.5 ( $0.5 \leq \text{KMO} \leq 1$ ), the sample is adequate. Kaiser (1974) set the rules for interpreting the value of KMO as in Table 6.
- Bartlett's test of sphericity assesses whether the observed correlation matrix is an identity matrix in which the correlations between variables are all zero. A significant result (Sig.  $< 0.05$ ) indicates that the data are not an identity matrix and are correlated highly enough to run a meaningful EFA.
- Eigenvalues are the number of variances in measured variables accounted for by each of the common factors. All factors with eigenvalues greater than or equal to 1 are retained.
- Total variance explained reflects the contribution rate of cumulative variance after the factors are extracted. This index should be greater than or equal to 50% to be valid.
- Factor loading for a variable is "a measure of how much the variable contributes to the factor; thus, high factor loading scores indicate that the dimensions of the factors are better accounted for by the variables" (Allen et al., 2009). In practice, the factor loadings for samples between 120 and 350 and above 350 are widely acknowledged to be 0.5 and 0.3, respectively.

**Table 6** Rules of interpreting the value of KMO

<i>The value of KMO</i>	<i>Indicator</i>
$KMO \geq 0.90$	Marvellous
$0.80 \leq KMO \leq 0.89$	Meritorious
$0.70 \leq KMO \leq 0.79$	Middling
$0.60 \leq KMO \leq 0.69$	Mediocre
$0.50 \leq KMO \leq 0.59$	Miserable
$KMO \leq 0.49$	Unacceptable

*Source:* Kaiser (1974)

In this research, EFA uses a principal components technique with a varimax rotation, sorting the factor coefficients by size and suppressing all factor coefficients lower than 0.5.

#### 4.3.1 EFA of independent variables

After conducting EFA, some independent variables were removed because they did not meet the factor loading requirements.

**Table 7** Rotated component matrix

	<i>Component</i>				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
SM2	.802				
SM1	.778				
SM3	.650				
TO3		.732			
SM4		.721			
TO2		.664			
TO1		.539			
SI2			.883		
SI1			.847		
SI3			.585		
SO1				.795	
SO2				.775	
SO3				.758	
TA2					.723
SI6					.697
TA1					.664

In the final test, we have:

- $0.5 < KMO = 0.814 < 1$  (satisfactory)
- sig. Bartlett's test =  $0.000 < 0.05$  (satisfactory)

- eigenvalues = 1.026 > 1 (satisfactory)
- total variance explained = 66.721% > 50% (satisfactory)
- five common factors were extracted from the sense factors scale.

A rotated component matrix presents how the variables are merged together as groups based on the factor loading analysis.

Accordingly, this yields new groups of variables, as follows:

Factor 1 sight (SI): SI2, SI1 and SI3

Factor 2 sound (SO): SO1, SO2 and SO3

Factor 3 smell (SM): SM2, SM1 and SM3

Factor 4 touch (TO): TO3, SM4, TO2, TO1 (because the number of items of the 'touch' factor is dominant, the name 'touch' represents this new factor's characteristics)

Factor 5 taste (TA): TA2, SI6, TA1 (because the number of items of the 'taste' factor is dominant, the name 'taste' represents this new factor's characteristics).

#### 4.3.2 EFA of dependent variable

In the EFA of the dependent variable, we obtained  $0.5 < \text{KMO} = 0.693 < 1$ , sig. Bartlett's test =  $0.000 < 0.05$ , eigenvalues =  $2.063 > 1$ , and total variance explained = 68.774% > 50% (satisfactory). Therefore, the customer satisfaction variables are meaningful for the following analysis.

#### 4.4 Correlation

The linear correlation between two variables is represented by the correlation coefficient, denoted as 'r', ranging from -1.00 to +1.00. An r value between 0 and +1.00 indicates a positive correlation, which means that, as the value of a variable increases, the values of the other variables also increase. Conversely, a negative correlation is represented by an r value between -1.00 and 0, which indicates that the two variables move in different directions – as the value of a variable increases, the value of the other variable decreases.

There is a significantly positive correlation between customer satisfaction and the sight factor (r value =  $0.236 > 0$ , sig. value =  $0.000 < 0.05$ ). Similarly, there is a statistically significant positive correlation between customer satisfaction and the sound, smell, touch and taste elements, with r values of 0.468, 0.327, 0.455 and 0.332, respectively (sig. value =  $0.000 < 0.05$ ). This significance value indicates that the probability of the correlation being a fluke is very low; therefore, the relationship between the dependent variable and independent variables is meaningful.

It is also shown that there are correlations amongst the independent variables. For example, sight has a 0.252 relationship with sound, 0.260 relationship with smell, 0.246 relationship with touch and 0.386 with taste (sig. value =  $0.000 < 0.05$ ). The data shows that these correlations are meaningful for the study because too high a correlation can cause multicollinearity.

**Table 8** Correlation

		<i>CS</i>	<i>SI</i>	<i>SO</i>	<i>SM</i>	<i>TO</i>	<i>TA</i>
CS	Pearson correlation	1	.236**	.468**	.327**	.455**	.332**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	250	250	250	250	250	250
SI	Pearson correlation	.236**	1	.252**	.260**	.246**	.386**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	250	250	250	250	250	250
SO	Pearson correlation	.468**	.252**	1	.412**	.523**	.368**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	250	250	250	250	250	250
SM	Pearson correlation	.327**	.260**	.412**	1	.490**	.418**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	250	250	250	250	250	250
TO	Pearson correlation	.455**	.246**	.523**	.490**	1	.375**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	250	250	250	250	250	250
TA	Pearson correlation	.332**	.386**	.368**	.418**	.375**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	250	250	250	250	250	250

Note: \*\*Correlation is significant at the 0.01 level (2-tailed).

#### 4.5 Regression

In this part, we will summarise our regression results for the further investigations.

##### 4.5.1 From the model summary table

The adjusted R squared value is 0.284, which means that 28.4% of the variance in customer satisfaction when visiting coffee shops in Hanoi can be explained by the five independent variables (i.e., sight, sound, smell, touch and taste), which is average. The remaining 71.6% of variance in customer satisfaction depends on random error or the impact of other factors not mentioned in this thesis.

The Durbin-Watson value,  $d$ , is 1.644, between the two critical values of  $1.5 < d < 2.5$ . Accordingly, there is no first-order linear autocorrelation in the multiple linear regression data.

##### 4.5.2 From the ANOVA table

The significance value of the regression is  $0.000 < 0.05$ , which proves the results of this thesis are accurate and acceptable. There is a significant correlation between the dependent and independent variables, which means customer satisfaction depends on the sensory appeals. However, it does not mean that all variables of sensory appeals have a significant correlation with customer satisfaction.

**Table 9** Regression results

<i>Model summary</i>								
<i>Model</i>	<i>R</i>	<i>R square</i>	<i>Adjusted R square</i>	<i>Std. error of the estimate</i>	<i>Durbin-Watson</i>			
1	.546 <sup>a</sup>	0.298	0.284	0.4901	1.644			
<i>Analysis of variance (ANOVA)</i>								
<i>Model</i>	<i>Sum of squares</i>	<i>df</i>	<i>Mean square</i>	<i>F</i>	<i>Sig.</i>			
1	Regression	24.931	5	4.986	20.759	.000 <sup>b</sup>		
	Residual	58.607	244	0.24				
	Total	83.538	249					
<i>Coefficients</i>								
<i>Model</i>		<i>Unstandardised coefficients</i>		<i>Standardised coefficients</i>	<i>t</i>	<i>Sig.</i>	<i>Collinearity statistics</i>	
		<i>B</i>	<i>Std. error</i>	<i>Beta</i>			<i>Tolerance</i>	<i>VIF</i>
1	(Constant)	1.667	.290		5.753	.000		
	Sight	.048	.049	.058	.992	.322	.829	1.206
	Sound	.213	.051	.275	4.197	.000	.672	1.489
	Smell	.028	.048	.038	.582	.561	.676	1.480
	Touch	.258	.073	.241	3.541	.000	.623	1.605
	Taste	.093	.058	.103	1.604	.011	.704	1.420

Notes: <sup>a</sup>Dependent variable: customer satisfaction.

<sup>b</sup>Predictors: (constant), taste, sound, sight, smell and touch.

#### 4.5.3 From the coefficients table

- a Sight has a beta coefficient of 0.058, corresponding to a sig. value of 0.322 > 0.05, indicating that it has no impact on customer satisfaction. Thus, Hypothesis 1 is rejected.
- b Sound has a beta coefficient of 0.275, corresponding to a sig. value of 0.000 < 0.05, indicating that it has a positive impact on customer satisfaction. Thus, Hypothesis 2 is supported.
- c Smell has a beta coefficient of 0.038, corresponding to a sig. value of 0.561 > 0.05, indicating that it has no impact on customer satisfaction. Thus, Hypothesis 3 is rejected.
- d Touch has a beta coefficient of 0.241, corresponding to a sig. value of 0.000 < 0.05, indicating that it has a positive impact on customer satisfaction. Thus, Hypothesis 4 is supported.
- e Taste has a beta coefficient of 0.103, corresponding to a sig. value of 0.011 < 0.05, indicating that it has a positive impact on customer satisfaction. Thus, Hypothesis 5 is supported.

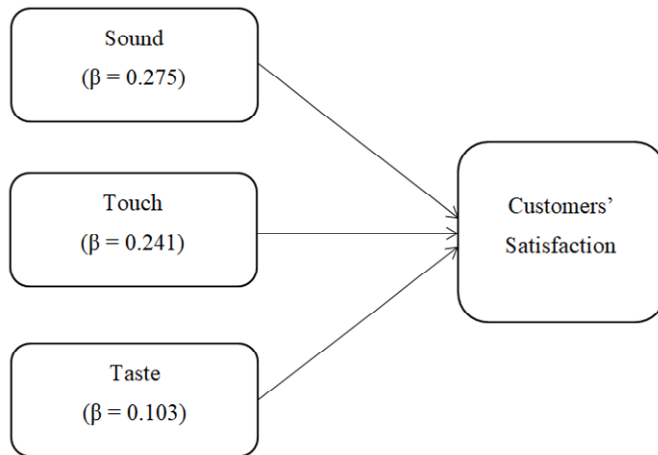
There is no multicollinearity and the result of the research is not affected (variance inflation factor – VIF values < 2) (Huynh, 2020, 2019a). The multiple regression equation for 'customer satisfaction at coffee shops in Hanoi' is formulated as:

$$Y = 0.058 * X1 + 0.275 * X2 + 0.038 * X3 + 0.241 * X4 + 0.103 * X5$$

where Y: customer satisfaction and X1: sight, X2: sound, X3: smell, X4: touch and X5: taste.

The results of sensory marketing factors effects on coffee shop visitors' satisfaction are summarised as in Figure 2.

**Figure 2** Models of sensory marketing factors effect on customer satisfaction with coffee shops in Hanoi



## 5 Conclusions and recommendations

### 5.1 Conclusions

As previously mentioned, the purpose of this research is, first, to investigate if there is a relationship between sensory marketing (in terms of sight, sound, smell, touch and taste) and customer satisfaction when visiting chain coffee shops in Hanoi, Vietnam. The second aim is to determine the factor of sensory marketing that has the most significant impact on customer satisfaction to provide recommendations to marketers. Two hundred and fifty responses of coffee shop visitors in Hanoi were collected from an online survey for quantitative analysis.

The research findings show that Hypotheses H2, H4 and H5 are supported while H1 and H3 are rejected. Ranked in order of descending impact, the sensory marketing factors of sound, touch and taste have a positive impact on satisfaction when customers are in coffee shops. Sight and smell cues in the shop, however, show no sign of impact on coffee shop goers' contentment.

## *5.2 Recommendations for coffee shops to improve the effectiveness of sensory marketing*

The coffee shop industry in Hanoi has become intensively competitive. Therefore, it is important that innovative tactics are used to gain a competitive advantage over competitors and create unique experiences for customers.

The dimensions of sight, sound, smell, touch and taste can be manipulated to achieve the desired business goals. From existing knowledge and this study's findings, only one sensory marketing factor does not have a considerable impact. Drinking a cup of coffee without one of the other sensory cues, for example, the coffee aroma, will lower overall the customer's experience. Therefore, more than two appeals or an all-round approach of combining the five senses should be used to expand the positive impact on customer contentment and behaviour. The following recommendations can be applied to chain coffee shops and other types of cafes in general.

### *5.2.1 Recommendations for visual marketing (sight)*

Just because the regression analysis shows that sight has no impact on customer satisfaction does not mean that coffee shops cannot apply visual marketing techniques in their business.

A unique architecture and attractive storefront make a coffee shop stand out from its competitors. Customers can be attracted when passing by the shop location. Neglecting the cafe appearance can cause missed opportunities to attract potential customers.

The design of the interior space is equally important as the storefront design. The choice of artwork and wall decoration, colour palette, menu board, merchandise displays, signage and seating area should be consistent with the overall concept of the shop and show customers creativity and originality amidst other similar businesses in the same area. Small but delicate details such as painting, vases and a phonograph are encouraged. A small size is not an excuse for neglecting style, visual appeal and an appropriate seating layout for customers.

Lighting is another visual factor that coffee shops should make use of because it can improve the aesthetic appeal as well as set the mood and ambiance of the interior space. If possible, natural lighting should be employed in the shop as much as possible. Apart from organic light, decorative lighting fixtures such as sconces, pendants, chandeliers, neon light bulbs and table lamps also play an essential function in completing the look of the cafe space. The lighting should be carefully considered to enhance the shop theme and fulfil the shop requirements. For example, in a Highlands Coffee shop, visitors are strongly impressed by the huge colourful, hand-painted bells hanging from the ceiling that function as decorated lights. Additionally, depending on the shop theme, either warm or cool light tones are utilised. Warm and soft tones can create a cosy, comforting space; on the other hand, cool lights are a suitable option for a modern and energetic theme. Nowadays, more customers come to coffee shops to study and work (42.4% and 35.2%, respectively, of all respondents); therefore, coffee shops should ensure there is adequate lighting inside.

With the popularity of social media, customers tend to share their experiences through photos on platforms such as Facebook and Instagram. A unique space and beautifully decorated dessert or drink can complete the customers' experience while serving as an effective, free marketing strategy.



The biggest cafe chains in Hanoi have emphasised the visual aspects, thus standing out in a crowd of competitors. Small and medium-sized coffee shops should learn this aspect to attract visitors and allow them to enjoy satisfaction in a creative space.

### *5.2.2 Recommendations on auditory marketing (sound)*

Since the sensory marketing factor of sound has the largest impact on customer satisfaction, so music will fill them with spirit and energy and boost business. Customers will not feel gratified with the ambiance in the absence of background music.

First, coffee shops should pay attention to the appropriate kind of music that relaxes customers while they enjoy their drinks. An upbeat and mellow sound is soothing to the ears and entices customers. Apart from good coffee and a reasonable price, the welcoming ambiance with their favourite music is the reason why customers want to come back to the shop. Acoustic, jazz and pop are some examples of musical genre that should be played in the background of a coffee shop. Acoustic and instrumental music with a soft and subtle beat can create a relaxing and peaceful aura that does not affect customers' conversations or ability to concentrate on their work. Live acoustic performances can help increase customer engagement. Jazz and deep house have always been the standard soundtracks for coffee shops, restaurants, eateries and bars as studies show that jazz music has the potential to enhance dining experiences better than other genres such as hip-hop and rock (Fiegel et al., 2014). These light genres of electronic music can create a fun but unobtrusive atmosphere. If the coffee shop's target audience is young, trendy pop songs can be played to attract them. However, they also have the side effect of causing distraction. Staff can consult coffee house music playlists on Spotify that are suitable for the chill vibes in a cafe.

Second, playing background music set to a carefully considered volume and tempo impacts customers' pleasure and behaviours. During a rushed period in which table turnover is set to increase, loud and fast-tempo music can cause customers to spend less time in the shop so new ones can be seated rapidly. During a slow period, soft, slow-tempo and low-volume songs can entice customers to stay in the shop longer and stimulate them to purchase more.

### *5.2.3 Recommendations on olfactory marketing (smell)*

Like sight, the regression analysis proves that olfactory marketing has no impact on customer satisfaction. However, previous studies have shown that customers respond positively to the existence of smell in a shop environment. The ambient scents that are both generally favoured and related to products in a shop can elevate customers' pleasure and positively affect their purchase behaviours. Therefore, scent marketing can be employed to develop relationships with customers.

First, the use of an aromatic coffee scent is one of the most effective methods coffee shops should use to attract customers walking past the shop or stimulate diners to stop for dessert. Watching coffee being prepared and experiencing its enticing aroma when entering a coffee house can attract customer traffic. Some famous cafe chains in Hanoi including The Coffee House, Highlands and Starbucks have successfully developed signature scents that cannot be mistaken for other brands, thus increasing brand recognition and recall.

Second, aside from the fragrance of freshly ground coffee beans, complementary scents can be infused to set an appropriate mood and establish a pleasant atmosphere. Lemongrass or lime helps keep people calm and concentrating, jasmine and vanilla create a pleasant feeling, lavender lowers anxiety, and peppermint boosts mood and energy. Additionally, irresistible sweet aromas such as cinnamon and pastry scents can be placed at the checkout counter to entice customers to make additional purchases. In fact, most chain coffee shops examined in this thesis pays attention only to coffee aromas and neglect complementary scents. However, these scents need to be used at the appropriate time. As an example, rosemary is suitable for waking people up in the morning but inappropriate for use in the evening before sleep. Additionally, the amount of scent used should consider. Too much scent can be dangerous to customers with allergies or asthma.

Finally, coffee shop managers should ensure that there are no unpleasant odours in the location. As a case in point, Starbucks adds a coffee scent to its heating, ventilation and air conditioning systems to eliminate bad odours or overpower the strong smell of food offerings that can affect the overall atmosphere.

#### *5.2.4 Recommendations on tactile marketing (touch)*

Based on the findings of this paper, coffee shops can apply the following tools for appealing to the sense of touch. The first factor is the choice of furniture arrangement – from sofas, cushions, tables and chairs in the outside seating area – to meet the different purposes of various visitors. The material of the furniture depends on the overall concept of the shop. Hence, as long as it satisfies customers by providing high comfort and relaxation, the customers sit and enjoy their drinks. In addition to providing seating for customers coming in groups, private sections for individual seating should be provided to gratify those who like to go alone. Customers will feel a sense of dominance within their private spaces despite the small size of the shop.

Hygiene is also appreciated by customers; therefore, coffee shops should make sure that the floor, furniture, seating sectors and eating utensils are clean. Customers usually experience discomfort due to the murky air and fine dust in the outside world; therefore, an air-purification system should be installed in a shop to create a fresh atmosphere.

#### *5.2.5 Recommendations on gustatory marketing (taste)*

Because cafes are a part of the food and beverage industry, the role of the taste factor cannot be disregarded.

The essential factor that a coffee shop should focus on is the quality of its dessert and beverage offerings. The taste of drinks should go through a process of scrutiny and improvements to respond rapidly to changing consumer preferences. To get feedback from customers or introduce new products, coffee shop managers should offer free samples. In addition to the flavours themselves, fresh and healthy ingredients contribute to customers' perception of food and drink taste.

Customers show excitement when the menu of a coffee shop offers a variety of options. If a coffee shop offers the same drink from time to time, there will be little motivation for new customers to visit, especially when competitors offer seasonally specific drinks. Some customers tend to stick to their regular order while others like to try something new every time. Therefore, to meet the demands of both types of customers, seasonal and new drinks should be created in addition to the fixed menu to improve

customer satisfaction and excitement. Starbucks has a specific menu for each important holiday of the year. The special menu for Halloween 2019 included four new drinks: Jack Skellington Frappuccino, Sally Frappuccino, IT Frappuccino and Matcha-topped Joker Frappuccino. The Christmas menu had special items such as drinks with Christmas flavours, such as toasted marshmallow hot chocolate, gingerbread latte, toffee nut latte and eggnog latte. In addition to seasonal drinks, Starbucks has mastered updating its menu and introducing new drinks that allure customers to try them. For example, according to McDowell (2019), the unicorn frappuccino, a colourful and flavour-changing drink, was introduced in 2017 and drove significant sales. Starbucks is one of many brands that recognise the importance of change and evolution in their menus so that customers have a wider range of options and never get bored.

### *5.3 Contribution to the literature*

In terms of the theoretical aspects, this thesis contributes to the existing literature in the sphere of sensory marketing, especially in coffee shops. This thesis presents evidence of the relationship between sensory impact and customer satisfaction. Although previous similar research has been conducted to analyse sensory marketing in the shop environment, very few have examined this topic in Vietnam specifically. Additionally, this thesis suggests that researchers that conduct analyses within the sphere of this topic create a conceptual model integrating the five senses to predict consumer behaviours, such as satisfaction.

As regards the practical aspects, the findings of this thesis will help coffee shop managers predict customer behaviour based on the role of sensory marketing's relationship to customer satisfaction. Because the number of coffee shops has been unceasingly growing, it is essential to find a different approach to attract and satisfy customers. Based on the investigations conducted in this thesis on different dimensions of sensory marketing, a coffee shop can create distinctive, particular and emotional marketing strategies to attract potential customers as well as keep patrons coming back.

### *5.4 Limitations and suggestions for further research*

#### *5.4.1 Limitations*

The authors are aware that this research has limitations that may have influenced the results. First, due to the authors' limited ability, the samples were restricted to coffee shop goers in one city, Hanoi. Therefore, they are not representative of the general population because people in different cities have different behaviours and approaches to a specific product and service or the discussed scenario. Second, this research is limited to the context of coffee shops, thus the findings cannot be applied to the entire food and beverage industry. Finally, the research was conducted between March and April 2020, a time when the world saw the outbreak of the coronavirus disease 2019 (COVID-19) pandemic. Due to social distancing practices, it was impossible to send traditional paper surveys directly to participants at coffee shops in the city. The data were collected only from online surveys. The authors could not combine both quantitative and qualitative approaches, for example, conducting interviews with coffee shop managers or customers. Because coffee shops were closed during this period, participants were required to recall their past experiences with coffee shops before the pandemic occurred.

Another limitation lies in the group of participants who responded to the survey. Most were relatively young with limited incomes so visiting coffee shops was not a frequent habit. This indicates that they might not be the customer group that plays the most important role in generating revenue for coffee shops.

#### 5.4.2 Suggestions for further research

As previously mentioned, this paper only focuses on respondents in Hanoi and coffee shop chains. The authors hope this study will serve as a foundation for further research reaching a wider scope of respondents for more generalised and credible results. Apart from coffee shops, other contexts of food and beverage chains as well as other industries should be studied. Furthermore, future research could examine sensory marketing from big data sources, as suggested by Akhtar et al. (2019), using panel data with an endogeneity bias (Ullah et al., 2018, 2020).

Additionally, future research should examine other topics related to sensory marketing or the impact of sensory marketing on other dependable variables apart from customer satisfaction such as purchase intention, brand loyalty, brand image, brand recall and brand image. Also, future studies should reveal how a difference in gender or age group contributes to the impact of sensorial variables in the shop atmosphere on customer satisfaction.

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