

# Ambience and Word of Mouth Recommendation: Evaluating the Effects of Ambience Dimensions on Emotions, Customer Satisfaction, and Word of Mouth Recommendation in Coffee Shops

Sang-Hyeop Lee<sup>1</sup>, Bee Lia Chua<sup>2</sup> and Jong-Ho Lee<sup>3,¶</sup>

<sup>1</sup>Sunway University, Malaysia

<sup>2</sup>Universiti, Putra Malaysia, Malaysia

<sup>3</sup>Dept. of Foodservice Management, Kyungsoong University, Busan 608-736, Korea

**ABSTRACT:** Little is known about the impact of ambience on customers' emotions, satisfaction, and word of mouth recommendation within the context of coffee shops. This study examined the relationships among ambience, emotions, customer satisfaction, and word of mouth recommendation in a coffee shop setting. A total of 303 visitors at 5 coffee shops in a Southwestern state in the U.S. completed questionnaires. Utilizing a structural equation modeling technique, this study demonstrated that ambience significantly influenced emotions and customer satisfaction. In addition, emotions significantly affected customer satisfaction and word of mouth recommendation.

**Keywords:** Ambience, Customer Satisfaction, Emotions, Word of Mouth Recommendation

## INTRODUCTION

Coffee is considered one of the most consumed beverages in the world (Hudson & Hudson, 2004). The size of the coffee industry in both the United States and the rest of the world has increased dramatically. According to Daviron and Ponte (2005), about 75% of adults in the US drink coffee, and 58% of them drink coffee every day. Americans drink approximately 400 million cups of coffee a day, and the United States is the country with the highest coffee consumption in the world with more than 150 million daily drinkers.

Ambience in service settings is considered one of the most important factors affecting customers' emotions and satisfaction because customers in service settings tend to show more concern about the invisible factors as well as visible ones (Baker, 1986; Mattila & Wirtz, 2001). In addition, word of mouth recommendation is one of the most critical elements regarding customer loyalty in order to investigate customers' future behavioral intentions in various service settings (Cheng, Lam, & Hsu, 2005). Thus, studying the relationships among ambience, emotions, customer satisfaction, and word of mouth recommendation is worthwhile within the context of coffee shops.

Numerous scholars have explored that the impact of ambience in various service settings. However, no research has been con-

ducted regarding the effect of ambience on customers' emotions, satisfaction, and word of mouth recommendation in a coffee shop setting. Thus, it would be worth studying how ambience influences customers' emotions, satisfaction, and future behavior intentions such as word of mouth recommendation.

The objectives of this study were (1) to examine the effect of ambience on emotions and customer satisfaction, (2) to test the impact of emotions on customer satisfaction, and (3) to identify the influence of emotions and customer satisfaction on word of mouth recommendation.

## LITERATURE REVIEWS

### *Influence of Ambience on Emotions and Customer Satisfaction*

A lot of scholars have insisted that ambience strongly influences customers' emotional responses and future behavior in regard to the environment (Baker, 1986; Mattila & Wirtz, 2001). Aroma, lighting, music and temperature are the four factors in ambience. For example, music increases time spent for shopping and influences customer notions of the service settings (North & Hargreaves, 1998). According to previous studies (Mattila & Wirtz, 2001; North & Hargreaves, 1998), music is also able to affect sales by impacting purchasing patterns and intentions and affects customers' feelings, such as satisfaction (Oakes, 2003). The familiarity

<sup>¶</sup> Corresponding Author: Jong-Ho Lee, Professor, Dept. of Foodservice Management, Kyungsoong University, 309 Suyeong-ro, Nam-gu, Busan 608-736, Korea, Tel. +82-51-663-4472, Fax. +82-51-627-6830, E-mail: johlee@ks.ac.kr

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of the music is also closely linked to the length of stay. When customers are unfamiliar with the music played, they spend more time staying in shopping malls (Mattila & Wirtz, 2001). Aroma is an important factor influencing customers' emotions and purchasing behavior in service settings (Lin, 2004). An aroma customers enjoy might positively influence customers' emotions (Bone & Ellen, 1999). Research further pointed out that temperature is also related to customers' emotions. For instance, low temperatures (e.g., lower than 62°F) negatively influence the customer's emotional status (Bell & Baron, 1977). Lighting is one of the most critical physical inducements in some types of service settings such as upscale restaurants and bars. The color of lighting can differ depending on the type of restaurants or bars. For example, warm, soft, and ambient lighting emblematically imparts images of full service and luxury (Knez & Kers, 2000). However, dazzling lighting may indicate quick, fast, and cheaper images. Lighting is closely linked to customers' physiological excitement level. Moreover, the kind of lighting has an impact on customers' awareness of the quality of the facilities, altering their perception of spiritual and psychological features of the facilities (Kurtich & Eakin, 1993). Thus, this study proposed the following hypotheses:

H1a: Ambience will have a positive effect on emotions in coffee shop settings.

H1b: Ambience will have a positive effect on customer satisfaction in coffee shop settings.

#### *Influence of Emotions on Customer Satisfaction*

The relationship between emotions and customer satisfaction in various service settings has been emphasized. A lot of researchers have studied the influence of emotions on customer satisfaction and insisted that positive emotions positively affect customer satisfaction in a variety of service settings (Mattila & Wirtz, 2001; Wakefield & Blodgett, 1999). For instance, positive emotion would lead to a high level of satisfaction and customers tend to spend more time in service settings (Donovan & Rossiter, 1982). Turley and Fugate (1992) investigated that positive emotion would significantly influence customer satisfaction and purchasing behavior in entertainment facilities. In addition, Emotions such as arousal and pleasure positively influence customer satisfaction and future behaviors (Bagozzi, Gopinath, & Nyer, 1999). Thus, positive emotions would be closely related to a higher level of customer satisfaction, which is one of the most critical elements affecting business in various service settings. Therefore, this study proposed the following hypothesis:

H2: Emotions will have a positive effect on customer satisfaction in coffee shop settings.

#### *Influence of Emotions and Customer Satisfaction on Word of Mouth Recommendation*

Word of mouth recommendation is considered one of the most important factors in explaining customer loyalty because it is significantly critical in all service settings. Word of mouth recommendation implies that current customers share their own feelings or experiences with prospective customers regarding the products or services (Halstead, 2002). Thus, customers who are satisfied with the products or services will be more likely to have

positive word of mouth recommendation (Cheng, Lam, & Hsu, 2005). Also, customers who have more positive emotions tend to share more positive word of mouth recommendation with other people. Customers who have negative emotions will be more likely to spread pessimistic word of mouth recommendation to prospective customers (Han & Back, 2006). According to Han and Ryu (2007), positive emotions and a high level of customer satisfaction would lead to the successful word of mouth recommendation in hospitality areas. Therefore, this study proposed the following hypotheses:

H3a: Emotions will have a positive effect on word of mouth recommendation in coffee shop settings.

H3b: Customer satisfaction will have a positive effect on word of mouth recommendation in coffee shop settings.

## **METHOD**

### *Survey and Sampling*

#### *Ambience*

Respondents were asked to rate what they thought about the ambience while being in that coffee shop. Respondents rated each item using a 7-point Likert scale (1=strongly disagree, 7=strongly agree). Using a 7-point Likert scale is more suitable than any others for this study because "having seven points tends to be a good balance between having enough points of discrimination without having to maintain too many response options" (Sauro, 2010). In order to measure "ambience", four items were adapted from Baker's (1986) study. The items have temperature, aroma, background music, and overall lighting level.

#### *Emotions*

To measure "emotions", three items were adapted from Mehrabian and Russell's (1974) study. The original Mehrabian and Russell items were somewhat modified to fit the coffee shop context. Emotions were divided into two sections: pleasure and arousal. Pleasure consists of two items: unhappy-happy and annoyed-pleased. Arousal consists of one item: depressed-cheerful.

#### *Customer satisfaction*

"Customer satisfaction" was measured using two items developed by Wakefield and Blodgett (1996). Respondents were asked to rate how satisfied they are with the overall physical environment of the coffee shops. Respondents rated the following items on a 7-point bipolar scale: dissatisfied-satisfied, and "puts me in a bad mood-puts me in a good mood".

#### *Word of mouth recommendation*

"Word-of-mouth recommendation" was measured using three items developed by Geyskens, Steenkamp, Scheer, and Kumar (1996).

#### *Data collection*

Since there are various coffee shops operating in Southwestern United States, data collection was conducted in Southwestern United States for one week in January 2013. The respondents who

Table 1. Indicator’s mean, skewness, and kurtosis (N=303)

Items	Mean	SD	Skewness	Kurtosis
A	5.50	.97	-.587	-.052
EP1	5.78	1.09	-.732	-.020
EP2	5.75	.96	-.312	-.835
EA1	5.67	.95	-.172	-.906
SAT1	5.80	1.14	-1.122	1.362
SAT2	5.66	1.20	-.816	.341
LWOM	5.27	1.32	-.468	-.509

were 18 years or older were asked to participate in filling out self-administered questionnaires at coffee shops. The research assistants explained the goal of the survey and distributed the questionnaires to the participants. Participants returned the questionnaires to the research assistants when finished. 303 questionnaires were remained for data analysis (a usable response rate of 97.7%).

**RESULTS**

*Demographic Information*

The sample (n=303) was 44.2% male (n=134) and 55.8% female (n=169). Mostrespondents’ annual income was less than \$20,000 (60.1%). The largest education category was graduate degree (30.7%), followed by undergraduate degree (29.7%). The majority of the respondents visited a coffee shop once a week (48.5%). Approximately 52.8% of the respondents spent between 1 and 3 hours at coffee shop. Over 60% of the respondents (61.4%) revealed that they visited the coffee shop to meet friends.

*Measurement Model*

Before conducting structural equation modeling (SEM), a measurement model was evaluated using AMOS 18. The items were subjected to a confirmatory factor analysis (CFA) with a four-factor measurement model using maximum likelihood estimation. The fit statistics reported that the measurement model fit the data reasonably well ( $\chi^2=102.287, df=38, p<.001; NFI=.945; CFI=.964; RMSEA=.075$ ).

All 11 items were loaded at least .50 on their assigned factors, and all loadings were significant ( $p<.01$ ). One item representing ambience (i.e., “Temperature.”) was removed due to low factor loading. The coefficient alpha ranged from .73 to .88, showing the

internal consistency of the items for each construct (Nunnally, 1978). As shown in Table 2, while the AVE value for ambience was slightly below .50, the AVE values for emotions, customer satisfaction, and word-of-mouth were above the .50 level, normally supporting convergent validity. All proportions of variance extracted in each construct exceeded the squared correlation between two constructs, indicating evidence of discriminant validity, except for “ambience and emotions” and “ambience and satisfaction.” For those pairs, two constructs were combined into one to perform a chi-square difference test (Bagozzi & Yi, 1988). The chi-square difference for “ambience and emotions” was significant at .05 level ( $\Delta \chi^2=43.788, \Delta df=3, p<.001$ ). The chi-square difference for “ambience and customer satisfaction” was significant at .05 level ( $\Delta \chi^2 =31.944, \Delta df=3, p<.001$ ). Thus, the discriminant validity was confirmed for all pairs of the constructs, delineating ambience, ambience, emotions, customer satisfaction, and word-of-mouth as four independent constructs.

*Test of the Structural Model*

The results of the SEM were summarized in Table 3 and Figure 1. The overall fit was adequate ( $\chi^2=107.631, df= 39, p<.001, \chi^2/df=$

Table 3. Results of structural equation modeling

Paths	Coefficient	t-value	Test outcome
Hypothesis 1a: Ambience → Emotions	.629	5.285***	Supported
Hypothesis 1b: Ambience → Customer satisfaction	.223	2.830**	Supported
Hypothesis 2: Emotions → Customer satisfaction	.763	10.610***	Supported
Hypothesis 3a: Emotions → Word-of-mouth	.409	2.324*	Supported
Hypothesis 3b: Customer Satisfaction → Word-of-mouth	.298	1.707	Not supported

Note, \* $p<.05$ , \*\* $p<.01$ , \*\*\* $p<.001$ .

Table 2. Measure correlations, the squared correlations, and AVE

Measure	Correlations among latent constructs (squared) <sup>a</sup>				AVE	Alpha
	Ambience	Emotions	Satisfaction	Word of mouth		
Ambience	1				0.48	0.73
Emotions	0.39 (.15)	1			0.71	0.88
Satisfaction	0.45 (.20)	0.82 (.67)	1		0.78	0.87
Word of mouth	0.65 (.42)	0.51 (.25)	0.53 (.27)	1	0.73	0.84

Note, Satisfaction- customer satisfaction, Word of mouth- word-of-mouth recommendation. <sup>a</sup>. Correlation coefficients are estimates from AMOS 18. All were significant at .001. Model measurement fit:  $\chi^2=102.287 (df=38, p<.001)$ , RMSEA=.075, CFI=.964, NFI=.945

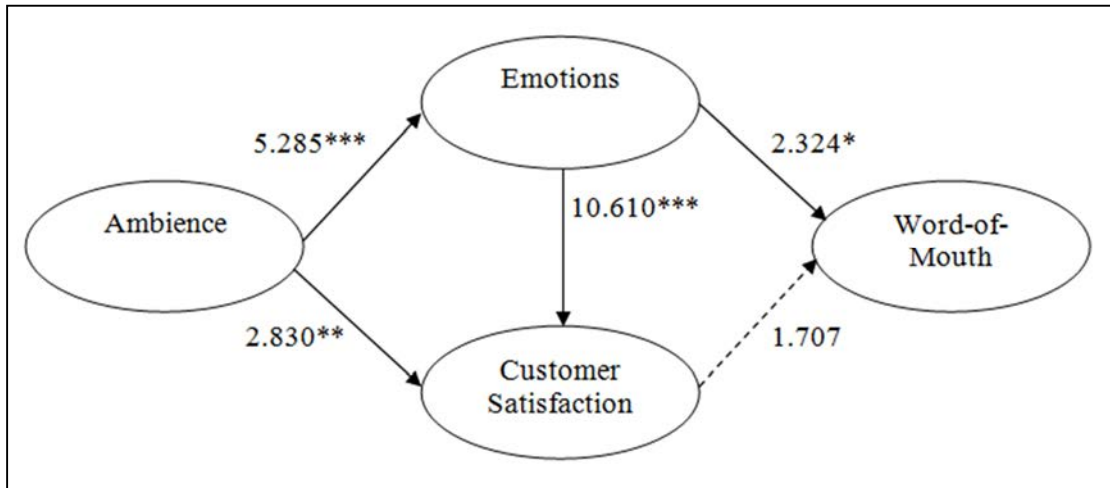


Fig. 1. The finalized SEM results.

2.760; NFI=.942; CFI=.962; RMSEA=.076). Ambience explained 39.6% of the total variance in emotions. Ambience and emotions explained 84.6% of the total variance in customer satisfaction. Emotions and customer satisfaction explained 47.6% of the total variance in word-of-mouth. The relationship between ambience and emotions was significant ( $\beta=.629$ ,  $t=5.285$ ,  $p<.001$ ). The relationship between ambience and customer satisfaction was also significant ( $\beta=.223$ ,  $t=2.830$ ,  $p<.01$ ). Thus, hypotheses 1a and 1b were supported. The effect of emotions on customer satisfaction was significant ( $\beta=.763$ ,  $t=10.610$ ,  $p<.001$ ). Thus, hypothesis 2 was supported. The relationship between emotions and word-of-mouth was significant ( $\beta=.409$ ,  $t=2.324$ ,  $p<.05$ ). Thus, hypothesis 3a was supported. However, the effect of customer satisfaction on word-of-mouth was not significant ( $\beta=.298$ ,  $t=1.707$ ,  $p>.05$ ). Thus, hypothesis 3b was not supported.

## CONCLUSION

This study concentrated on the impact of ambience on emotions and customer satisfaction, the influence of emotions on customer satisfaction, and the effects of emotions and customer satisfaction on word of mouth recommendation within the context of coffee shops. Although a lot of customers have paid attention to ambience of coffee shop, little research about that topic has been conducted.

The relationship among ambience, emotions, and customer satisfaction was significantly supported. It showed that customers who had a high perception of ambience tended to have more positive emotions and a high level of customer satisfaction about the coffee shop. It indicated that the importance of ambience factors such as aroma, lighting, and music should be emphasized in a coffee shop setting and owners or managers of coffee shop should pay more attention to ambience with care in order to have more positive emotions and satisfaction from customers.

The relationship between emotions and customer satisfaction was significantly supported. It revealed that customers with more positive emotions would more likely to have a high level of satisfaction at coffee shops. Thus, coffee shop owners or managers should know the importance of the relationship between emotions and customer satisfaction and realize how to maximize

positive emotions for their more stable profits.

The relationship between emotions and word of mouth recommendation was significantly supported. It pointed out that customers with positive emotions would be more likely to have positive word of mouth recommendation regarding the coffee shop. Positive word of mouth recommendation strongly influences prospective customers' future behaviors in a variety of service settings (Han & Ryu, 2007). Thus, in order to have more positive word of mouth recommendation, owners or managers of coffee shops should not underestimate the effects of customers' emotions on their word of mouth recommendation even though the result of this study demonstrated that the relationship between customer satisfaction and word of mouth recommendation in a coffee shop setting was not significantly supported.

This study has managerial and theoretical implications. In terms of a managerial perspective, this study helps owners or managers of coffee shops realize the importance of ambience factors such as aroma, lighting, music and temperature. In order to make customers satisfy at a high level, coffee shop owners or managers should take care of ambience factors with careful consideration. They should know customers' preferences regarding ambience factors in more details. Since this study revealed the effects of emotions and customer satisfaction on word of mouth recommendation, coffee shop owners or managers need to investigate how to maximize positive emotions and customer satisfaction for their successful businesses. In terms of a theoretical perspective, this study is able to contribute to investigating the influence of ambience on customer satisfaction and emotions within the context of coffee shops. Numerous scholars in various service settings have recently studied the effect of ambience factors on customer satisfaction and emotions. However, few studies about that relationship have been attempted in a coffee shop setting. Therefore, this study is worth exploring the importance of ambience factors and how they affect customers' emotional responses and future behavioral intentions.

This study has limitations for future research. The data collection was conducted with convenience sampling approach in five coffee shops located in a southwestern state. Therefore, the results cannot be generalized for the whole population of all coffee shops in the States. Another limitation is about the number of ambience factors

because more factors of ambience should be investigated in order to reflect the whole features of ambience within the context of coffee shops.

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