The Effects of Restaurant and LOHAS Images on Customer Satisfaction and Loyalty: Focusing on the Incremental Information Content of LOHAS Image

Dong-Jin Kim¹, Young-Ja Kim¹ and Min-Sun Jeon^{2¶}

¹Dept. of Food Service Industry, Yeungnam University, Korea

^{2¶}Dept. of Food and Nutrition, Chungnam National University, Korea

ABSTRACT: Since protecting the environment became a major issue in modern society, an increasing number of individuals have engaged in lifestyles of health and sustainability (LOHAS). The purpose of this study is to investigate the effects of restaurant and LOHAS images on customer satisfaction and loyalty. Particularly, this study analyzes the incremental information content of LOHAS image in the relationship between restaurant image and customer satisfaction/loyalty. A self-administered questionnaire was distributed to customers of casual-dining restaurants in three major cities (i.e., Seoul, Daegu, and Busan) in South Korea. The empirical findings suggest significant incremental information content of LOHAS image beyond general restaurant image in explaining customer satisfaction and loyalty.

Keywords: restaurant image, lifestyle of health and sustainability (LOHAS), customer satisfaction, customer loyalty, hierarchical regression analysis

INTRODUCTION

An image emphasizing a sense of sustainability and health has become a strategic issue for the hospitality industry. In the US, the resources used by casual-dining restaurants for developing and implementing sustainable practices showed a steep increase from 23 % in 2008 to 43% in 2009[1]. In addition, a 2011 restaurant operator recycling survey found that 65% of restaurant operators answered they have recycling programs in place, and 51% of consumers would be likely to pay a little more at a restaurant that recycles[2].

In South Korea, as the trend of well-being food expands, consumers have expressed an increased interest in eco-friendly restaurants. For examples, Benniqan's Korea opened an eco-friendly restaurant "Bab

O Ne Kitchen" in October 2010[3], and Cheongmirae, an organic buffet restaurant, experienced a 30% increase in profits between 2009 and 2010[4]. Also, some casual-dining restaurants such as Marché, Scarlett, and Omuto Tomato announced that they planned to employ locally grown vegetables, rice, and beef for their menus and increase the proportion of local food ingredients gradually[5].

However, although environmental inroads have been made in the restaurant industry, it is not easy to improve a valuation or create a "greener" operation in terms of consumer satisfaction and loyalty. Therefore, adopting the LOHAS concept has become a new marketing fashion to meet consumers' demands. LOHAS is a relatively new concept focused on the environment, health, personal development, and sustainable living and recognized by a relatively

[¶] Corresponding Author: Min-Sun Jeon, Dept. of Food and Nutrition, Chungnam National University, 99 Daehak-ro, Yuseong-gu, Daejeon 305-764, South Korea, Tel. +82-42-821-6836, Fax. +82-42-821-7888, E-mail: dearms@cnu.ac.kr

upscale and well-educated population segment[6]. Korean restaurant companies currently invest their limited resources in developing LOHAS practices. Unfortunately, however, the value of LOHAS image has rarely been recognized as a crucial asset that evokes customers' positive reactions.

In the competitive restaurant environment, restaurant image is a determining factor against competition. It is generally agreed that restaurant image is positively associated with customer satisfaction and loyalty. However, despite the increasing importance of LOHAS, little research has been conducted concerning the relationship between LOHAS image and consumers' reactions such as satisfaction level and loyalty. Therefore, the purpose of this study is to investigate the effects of restaurant and LOHAS images on customer satisfaction and loyalty. Particularly, this study analyzes the incremental information content of LOHAS image in the relationship between restaurant image and customer satisfaction/loyalty.

LITERATURE REVIEW

Restaurant Image

The term, corporate image has defined in a number of different ways and the concept has been changed over decades. Bayton[7] defined the corporate image as a corporation's personality, and Margulies[8] described that it is the perception of the company by public. From the 1980s, researchers began to explain the corporate image as the expectation, attitudes, and feelings which people describe and remember, and they believed that it could be managed by companies[9-11]. Brown and Dacin[12] emphasized the importance of corporate social responsibility for its image. More recently, Cacho- Elizondo and Loussaïef[13] found that a corporate image was certainly affected by the perceived sustainability development actions. Store image has also been defined in different points of view. Store image can be refer to complex perceptions in a store's characteristic attributes that consumers feel the store different from others[14]. Berman and Evans[15] posited that store image consists of functional and emotional attributes formed in a consumers' perceptual structure. In addition, Assael[16] defined that store image is a consumer's total perception of the company's attributes from diverse sources such as geographical location, service, prices, and atmosphere. Moreover, other researchers reported that store image facilitates the prior knowledge of consumers about service performance[17].

In the restaurant industry, customer service generally includes the food, physical provision, the atmosphere, and service received at a restaurant[18]. Therefore, many studies have used food, physical environment, and services as key components to elicit the restaurant image, and providing high quality of food and service has been accepted as a primary factor of a good restaurant image[19-21]. Jang and Namkung[19] used three dimensions of product, atmospherics, and service to evaluate restaurant service quality. Ryu, Han, and Kim[20] also indicated food quality, service quality, interior design and décor, restaurant location, and wait time as key drivers to build a restaurant image. In addition, Ryu et al[21] defined a restaurant image as the sum of the emotional perceptions, ideas, or symbolic attitudes of restaurant customers. That is, a consumer's perception of a restaurant's image is formed through customer's cumulative experiences.

LOHAS Image

Since protecting the environment became a major issue in our society, an increasing number of individuals have engaged in lifestyles of health and sustainability (LOHAS). This segment pursuing LOHAS consumes a broad range of products and services that purport to be environmentally and socially responsible and spends approximately \$300 billion each year in the US accounting for nearly 30% of the consumer market[22]. LOHAS consumers are environmentally conscious, highly aware of environmental problems, and interested in the level of responsibility of corporations[23,24].

Some researchers indicated that only a small portion of environmentally conscious customers actually purchases eco-friendly products or services[13,25]. However, most studies found that consumers' eco-friendly purchasing decision was driven from general environmental concerns[23,24,26-28]. In these studies, the environmentally conscious consumers were more willing to purchase a product or service from companies that involve any environmental responsi-

bility activities. In addition, many hospitality firms' ecological performances enhanced their images [29, 30].

To keep pace with the environmental issues, restaurant businesses try to build more favorable images employing eco-friendly activities[23]. The restaurant service, like other service sectors, has a characteristic of intangibility, and it is difficult to tell customers what they will be getting in advance. Accordingly, restaurants may use LOHAS image as an indicator for their customers to predict its service. Thus, this study viewed a LOHAS concept as a positive attribute of restaurant image evaluated by consumers.

Influence of Restaurant and LOHAS Images on Customer Satisfaction

Differentiated restaurant image and maintaining the image is a competitive strategy of restaurant operators because the perceived image can influence on customer satisfaction[21]. Thus, previous studies showed that restaurant image significantly affects on customer satisfaction[20,31,32]. A restaurant image had a subsequent influence on customer satisfaction in the service industry[31,33]. Ryu et al[20] revealed that overall quick-casual restaurant image was a decisive factor of customer perceived value and customer satisfaction.

In today's intensely competitive market, consumers have become more sophisticated and they are more interested in healthy and sustainable environment than ever before. As a result, casual dining restaurants can no longer largely dependent upon good taste and service for their success[34]. Thus, restaurant customer satisfaction might be influenced by an emotional and evaluative process about green practices such as employing LOHAS concept in a restaurant. Seo and Joo[35] reported that LOHAS image had a positive influence on customer satisfaction and involvement of hotel restaurants. Joo, Kwon, and Lee[36] also showed that LOHAS image of hotel restaurants had a positive impacts on the perceived service quality and satisfaction. In particular, Kim, Kim, and Byun[37] found that incremental information content of LOHAS image was significant in the relationship between restaurant image and customer satisfaction. Based on these previous studies,

this study approached customer satisfaction in an emotional response, triggered by evaluation process about LOHAS performances in a casual-dining restaurant.

Influence of Restaurant and LOHAS Images on Customer Loyalty

Customers often have their biases toward a company based on its image in the marketplace, and numerous empirical studies have investigated the influence of a company image on customers' loyalty [20,31,38]. Martineau[39] and Oliver[40] found that people's behaviors were more likely to be influenced by an image than by the objective reality or actual experience. In another study, store image was a significant predictor of store loyalty as much as other functional attributes such as waiting time and store location were[32].

In particular, Yim and Yim[41] showed that an impact of corporate image on customer loyalty was stronger in the service industry than manufacturing industry because the image was a major determinant when customers were not able to predict what they will purchase prior to experience. Han et al[23] investigated the impact of images of green hotels on customers' behavior, and customers were willing to stay at the green hotel, to recommend it, and to pay more. Dalton et al[42] also examined tourist attitudes to renewable energy supply in hotel accommodation and found that environmentally conscious tourists were willing to stay in an eco-friendly hotel and to pay extra for the renewable energy supply. In addition, Castro et al[33] found that a destination's image influenced tourists' future behavioral intention to revisit.

The literature has also discussed the impact of an image on customer loyalty in the restaurant industry. Ryu et al[20] found that overall quick-casual restaurant image was a decisive factor of customer perceived value and behavioral intention implying that restaurant image not only has an determinant effect on overall service evaluation, but also creates a halo effect to enhance evaluation[43,44]. Given this, customer loyalty can be considered not just as actual customer behaviors, but also a customer's favorable attitude toward the restaurant's LOHAS image.

Based on the supports from previous studies, this

study proposed the following hypotheses:

Hypothesis 1: Restaurant image has a positive influence on customer satisfaction.

Hypothesis 2: LOHAS image has a positive influence on customer satisfaction.

Hypothesis 3: When LOHAS image is added to the relationship between restaurant image and customer satisfaction as a second predictor, the change in R^2 is significant.

Hypothesis 4: Restaurant image has a positive influence on customer loyalty.

Hypothesis 5: LOHAS image has a positive influence on customer loyalty.

Hypothesis 6: When LOHAS image is added to the relationship between restaurant image and customer loyalty as a second predictor, the change in R^2 is significant.

METHODS

Instrumentation and Data Collection

After reviewing previous studies, this study utilized a questionnaire comprising 15 measurement items for restaurant image, 12 items for LOHAS image, 4 items for customer satisfaction, and 4 items for loyalty[6,35,37,40,45,46]. All question items used in this study were measured on a 5-point Likert-type scale (1=strongly disagree and 5=strongly agree).

A pilot study was conducted with graduate students who were experienced at least one casual-dining restaurant within the past 6 months in order to ensure that the selected items had acceptable validity. A total of 400 questionnaires were distributed to customers of casual-dining restaurants in three major cities (i.e., Seoul, Daegu, and Busan) in South Korea for a two week period. After removing incomplete and unusable responses, a total of 359 usable questionnaires were coded for data analysis, resulting in the response rate of 89.75%.

Data Analysis

In order to accomplish the purpose of the study, descriptive statistics analysis, exploratory factor analysis, reliability test, and hierarchical regression analysis were performed. Specifically, in the hierarchical regression, restaurant images were entered in the

first step. Then, LOHAS images were entered in the second step. The sequential entry of independents variables allowed researchers to test hypotheses about how much variance in the customer satisfaction and loyalty can be attributed to LOHAS images over earlier entered restaurant images. All of these procedures were performed using IBM SPSS software.

RESULTS

Sample Profile

Demographic characteristics of the respondents are shown in Table 1. Approximately 52.1% of respondents were female and 47.9% were male. The majority of the respondents (65.1%) were between 30 and 49 years old, and 45.7% were single. Approximately 86.1% had at least a college degree or were college students, which showed that the majority had a relatively high education level. Also, 81.5% of respondents described that their household income level is between \$22,000 and \$53,000, and 10.6% indicated that their household income is more than \$53,000. Approximately 38.4% were office workers, and 15.9% were professionals.

Exploratory Factor Analysis

Exploratory factor analysis (EFA) was performed to test the factor structure in the image variables. Using a principle axis factoring method with varimax rotation, only items with factor loadings of .4 or greater were retained for analyses, and those factors with eigen values greater than 1.0 were extracted. The test results suggested that the deletion of 4 items would positively improve the overall reliability of latent variables. The final results of the EFA extracted three restaurant image factors and two LOHAS image factors. Unidimensionality refers to consistency of the measurement items, in that unidimensional survey questions measure the same concept. For the unidimensionality tests of customer satisfaction and loyalty, principal axis factoring with varimax rotation was employed respectively following the study by Kim and Lee[47]. For both constructs, a single factor was identified. The results indicated that customer satisfaction and loyalty were consistent with the intended measures and explained more than 69% of

Table 1. Demographic information of the respondents (n=359)

Variable	Level	n	%
Candar	Female	187	52.1
Gender	Male	172	47.9
	20~29	99	27.6
Ama	30~39	129	35.9
Age	40~49	187 172 99 129 105 26 195 164 raduate 50 t/bachelor's degree 281 ent/graduate degree 28 00 28 00 38 197 96 000 38 57 48 23 ement 24 22 47 219 103 32 5 174 105	29.2
	50 or older		7.3
Marital status	Married	195	54.3
Marital Status	Single	187 172 99 129 105 26 195 164 50 egree 281 legree 28 197 96 38 138 57 48 23 24 22 47 219 103 32 5 174 105 48	45.7
	High school graduate	50	13.9
Education level	College student/bachelor's degree	281	78.3
	Graduate student/graduate degree	28	7.8
	Less than 22,000	28	7.9
Annual income (¢)	22,000~37,000	197	54.8
Annual income (\$)	College student/bachelor's degree Graduate student/graduate degree Less than 22,000 22,000~37,000 37,001~53,000 More than 53,000 Salary worker Professional Public service Self-employed		26.7
	More than 53,000	38	10.6
Female Male 20~29 30~39 40~49 50 or older Married Single High school graduate Education level College student/bachelor's degree Graduate student/graduate degree Less than 22,000 22,000~37,000 37,001~53,000 More than 53,000 Salary worker Professional Public service	Salary worker	138	38.4
	Professional	57	15.9
	Public service	48	13.4
Occupation	Self-employed	187 172 99 129 105 26 195 164 50 281 28 28 197 96 38 138 57 48 23 24 22 47 219 103 32 5 174 105 48	6.4
	Female 187 Male 172 20~29 99 30~39 129 40~49 105 50 or older 26 Married 195 Single 164 High school graduate 50 College student/bachelor's degree 281 Graduate student/graduate degree 28 Less than 22,000 28 22,000~37,000 197 37,001~53,000 96 More than 53,000 38 Salary worker 138 Professional 57 Public service 48 Self-employed 23 Service management 24 Housewife 22 Students 47 ≤1 219 2 103 3 32 ≥4 5 Family 174 Friends 105 Couple 48	6.7	
Age Marital status Education level Occupation Frequency of visit (per month)	Housewife	22	6.1
	Students	47	13.1
	≤1	219	61.0
Frequency of visit	2	103	28.7
(per month)	3	187 172 99 129 105 26 195 164 50 281 28 28 197 96 38 138 57 48 23 24 22 47 219 103 32 5 174 105 48	8.9
	≥4	5	1.4
	Family	174	48.5
Companion	Friends	99 129 105 26 195 164 195 164 1 graduate 50 dent/bachelor's degree 28 2,000 28 000 197 000 96 53,000 38 er 138 er 138 ed 23 hagement 24 22 47 219 103 32 5 174 105 48	29.2
Companion	Couple	48	13.4
	Colleague	32	8.9

the variance in the data. Additionally, reliability tests were implemented to assess the internal consistency of the measurement items. Nunnally[48] offered a

rule of thumb of 0.6, and because the Cronbach's alpha values were above 0.6, the scales for the factors were deemed to exhibit adequate reliability for fur-

Table 2. Results of factor analyses

Factor	ltem	Factor loading	Mean (SD)	Variance explai- ned %	Eigen value	Cronbach's alpha
Factor 1:	Freshness of ingredients	.827	3.37 (.67)			
Food taste	Food taste	.822	3.36 (.71)	8.232	1.893	.693
and quality	Food temperature	.510	3.54 (.75)			
	Parking space	.759	3.49 (.83)		2.190	
Factor 2:	Space design	.733	3.45 (.74)			
Facility and atmosphere	Layout	.642	3.35 (.78)	9.521		.711
utinospiicie	Modern facility	.637	3.46 (.71)	9.521 2.190 14.986 3.447 22.333 5.137 9.468 2.178 44 (p=.000),		
	Courtesy	.871	3.90 (.73)			
Factor 3:	Kindness	.823	3.86 (.73)			
Employee	Decent appearance	.798	3.82 (.70)	14.986	3.447	.869
service	Knowledge about menus	.732	3.74 (.73)			
	Customer treatment	.725	3.50 (.82)			
	Use of sustainable farming ingredients	.863	2.77 (.79)		5.137	
	Use of eco-friendly supplies	.856	2.71 (.78)			
	Sustainable ingredients	.830	2.83 (.76)			
Factor 4: Environment	Purchase of sustainable products	.777	2.84 (.74)			
and	Promotion of eco-friendly products	.767	2.73 (.79)	22.333		.911
sustainability	Use of recycling products	.605	2.85 (.74)			
	Active practices for environmental protection	.585	2.96 (.80)			
	Use of eco-friendly materials	.551	3.04 (.84)			
Factor 5:	Energy saving facilities	.760	3.01 (.73)		2.178	.800
Recycling and	Sharing of LOHAS value	.717	3.00 (.75)	9.468		
LOHAS value	Social responsibility	.593	2.92 (.74)			
	Kaiser-Meyer-Olkin(KMO)=.890, Bartlett's tes Total variance explai		-	44 (p=.000)	,	
	Relatively good	.866	3.31 (.72)			
Customer	Fulfill expectations	.858	3.16 (.66)		2 = 2 4	2.2
satisfaction	Satisfied with overall image	.833	3.33 (.69)	09.513	2./81	.849
	Worth the money	.775	2.84 (.79)			
	Kaiser-Meyer-Olkin(KMO)=.815, Bartlett's te	st of sphe	ericity=619.48	37 (p=.000)		
	Positive word of mouth	.887	3.27 (.76)	-		-
Customer	Willingness to recommend	.883	3.14 (.77)	76 572	2.062	909
loyalty	Revisit intention	.870	3.23 (.74)	76.572	3.063	.898
	Preferential selection	.859	3.16 (.77)			
	Kaiser-Meyer-Olkin(KMO)=.848, Bartlett's te	st of sphe	ericity=848.59	97 (p=.000)		

ther analyses.

Hypotheses Testings

Table 3 shows the impact of restaurant image and LOHAS image on the customer satisfaction. The impact of restaurant image on customer satisfaction was firstly investigated. R^2 was found to be .330 (modified R^2 =.325), implying that 32.5% of customer satisfaction can be attributed to the restaurant image. Food taste and quality (t=8.895, p=.000) and facility and atmosphere (t=3.719, p=.000) were found to be significant whereas employee service (t=1.558, p=.120) was not significant. Thus, hypothesis 1 was partially supported. These results may indicate that in the current competitive restaurant industry, employee service is not a competitive advantage any more to differentiate a restaurant. The impact of LOHAS image on customer satisfaction was also investigated. R^2 was found to be .221 (modified R^2 =.216), implying that the LOHAS image explained 21.6% of customer satisfaction. environment and sustainability (t=4.709, p=.000) and recycling and LOHAS value (t=3.052, p=.002) showed positive influence on customer satisfaction. Thus, hypothesis 2 was supported.

The results of hierarchical regression analysis show-

ed the impact of adding LOHAS image to the relationship between restaurant image and customer satisfaction (Table 4). When LOHAS image was added in the model 2, R² was found to be .421 (modified R^2 =.413), explaining 41.3% of customer satisfaction. Adding LOHAS image to the model 1 significantly increased R^2 by 9.1% (ΔR^2 =.091) indicating statistical improvement in the model explaining customer satisfaction, which is consistent with a previous study by Kim, Kim, and Byun[37]. The ΔR^2 is an indicator of the relevance of particular variables entered in later steps, relative to those entered in earlier steps. Therefore, hypothesis 3 was supported. In the model 2, four out of five factors were found to be significant in explaining customer satisfaction. Food taste and quality (β =.379, p<.001), facility and atmosphere (β =.107, p<.05), recycling and environment and sustainable image (β =.177, p<.01), recycling and LOHAS value (β =.171, p<.01) were found to be significant. On the other hand, employee service was found not to be significant.

Table 5 shows the impact restaurant image and LOHAS image on customer loyalty. It was found that restaurant image explained 32.6% of the variance in the customer loyalty (R^2 =.332, modified R^2 =.326). Food taste and quality (t=8.872, p<.000) and employee service (t=3.573, p<.000) positively affected cus-

Table 3. The result of multiple regression analyses for Hypotheses 1 and 2

	Independent variables		lardized cients	Standardized coefficients	t	р		
			B SE					
	(Constant)		.209	-	2.908	.004		
Restaurant	Food taste and quality	.468	.053	.440	8.895	.000****		
image	Facility and atmosphere	.193	.051	.183	3.791	.000****		
	Employee service	.077	.049	.078	1.558	.120		
_	R^2 =.330, Modified R^2 =.325, F-value=58.344***, Durbin-Watson=1.998							
LOHAS image	(Constant)	1.747	.144	-	12.097	.000		
	Environment and sustainability	.299	.063	.308	4.709	.000****		
	Recycling and LOHAS value	.190	.062	.200	3.052	.002**		
R^2 =.221, Modified R^2 =.216, F-value=50.417***, Durbin-Watson=1.873								

Dependent variable: customer satisfaction.

^{**} p<.01, *** p<.001.

Table 4. The result of hierarchical regression analysis for Hypothesis 3

Independent variables -			Мс	odel 1		Model 2				
		SE	β	t	р	SE	β	t	р	
(Constant)		.209	-	2.879	.004	.207	-	.557	.578	
Food taste	and quality	.053	.440	8.895	.000 ***	.050 .379 8.088 .		.000 ***		
Facility and	atmosphere	.051	.183	3.791	.000 ***	.049 .107 2.318 .02		.021 *		
Employee s	service	.049	.078	1.558	.120	.046 .081 1.735 .084		.084		
Environmen	nt and sustainability					.057 .177 3.042 .003 *			.003 **	
Recycling a	nd LOHAS value					.054 .171 3.018 .003		.003 **		
	R^2 (Modified R^2)		.330 (.325)				.421 (.413)			
	<i>F</i> -value		5	8.344 ***		51.349 ***				
Statistics	Statistics ΔR^2		-				.091			
	<i>F</i> -value for ΔR^2		-				27.694 ***			
Durbin-Watson				-				2.044		

Dependent variable: Customer satisfaction.

Table 5. The result of multiple regression analyses for Hypotheses 4 and 5

	Independent variables –		ardized cients	Standardized coefficients	t	р					
			SE	β							
	(Constant)	.358	.233	-	1.534	.126					
Restaurant	Food taste and quality	.521	.059	.439	8.872	.000****					
image	Facility and atmosphere	.092	.057	.078	1.618	.106					
	Employee service	.196	.055	.178	3.573	.000****					
	R^2 =.332, Modified R	n=1.748									
	(Constant)	1.659	.162	-	10.243	.000					
LOHAS image	Environment and sustainability	.369	.071	.341	5.191	.000****					
mage	Recycling and LOHAS value	.166	.070	.156	2.375	.018*					
	R^2 =.215, Modified R	² =.210, <i>F</i> -v	R^2 =.215, Modified R^2 =.210, F-value=48.690***, Durbin-Watson=1.679								

Dependent variable: Customer loyalty.

tomer loyalty, but facility and atmosphere (t=1.618, p=.106) did not positively affect customer loyalty, partially supporting hypothesis 4. These results indicated that restaurant image had a positive influence on customer loyalty, which is consistent with

previous studies showing the positive relationship between restaurant image and customer loyalty in restaurants[20,40]. The impact of LOHAS image on customer loyalty was also investigated. R^2 was found to be .215 (modified R^2 =.210), implying that 21.0% of

^{*} p<.05, ** p<.01, *** p<.001.

^{*} p<.05, *** p<.001.

Independent variables -			Мо	odel 1			Мо	odel 2		
		SE	β	t	р	SE	β	t	р	
(Constant)		.233	-	1.534	.126	.229	-	772	.441	
Food taste	and quality	.059	.439	8.872	.000 ****	.055	.375	8.038	.000 ***	
Facility and	atmosphere	.057	.078	1.618	.106	.054	003	064	.949	
Employee s	Employee service		.178	3.573	.000 ***	.051	.181	3.924	.000 ***	
Environmen	t and sustainability					.063 .230 3.962 .00		.000 ***		
Recycling a	Recycling and LOHAS value					.060	.127	2.258	.025 *	
R^2 (Modified R^2)		.332 (.326)				.428 (.420)				
	F-value		58.725 ***				52.762 ****			
Statistics	ΔR^2			-		.096				
F-value for ΔR^2 Durbin-Watson		-				29.617 ***				
		-				1.776				

Table 6. The result of hierarchical regression analysis for Hypothesis 6

Dependent variable: Customer loyalty.

customer loyalty can be attributed to the LOHAS image. Environment and sustainability (t=5.191, p=.000) and recycling and LOHAS value (t=2.375, p=.018) showed positive on the customer loyalty. Thus, hypothesis 5 was supported.

The model 2 in Table 6 shows that adding LOHAS image in the relationship between restaurant image and customer loyalty significantly increased R^2 by 9.6% (ΔR^2 =.096) pointing out significant incremental information content of LOHAS image (R^2 =.428, modified R^2 =.420). Thus, hypothesis 6 was supported. The results reported that Food taste and quality (β =.375, p<.000), employee service (β =.181, p<.000), environment and sustainable image (β =.230, p<.000), and recycling and LOHAS value (β =.127, p<.05) significantly affected customer loyalty, whereas facility and atmosphere did not.

DISCUSSION AND CONCLUSIONS

Discussion of Findings

This study aimed to examine the influence of restaurant image and LOHAS image on customer satisfaction and loyalty in the casual-dining restaurant segment. Particularly, it tested if LOHAS image added

information content to that provided by restaurant image in explaining customer satisfaction and loyalty.

Firstly, the multiple regression results supported the hypotheses 1 and 2, showing that restaurant image as well as LOHAS image positively influenced customer satisfaction. Furthermore, adding LOHAS image to restaurant image explained more of the variance in customer satisfaction, supporting Hypothesis 3. These findings suggest that both restaurant image and LOHAS image directly affect customer satisfaction. The results may imply that building strong LOHAS image is an effective way to increase customer satisfaction in the restaurant industry.

Secondly, both restaurant image and LOHAS image significantly affected customer loyalty, supporting hypotheses 4 and 5. Also, when the LOHAS image factors were added to the relationship between restaurant image and customer loyalty, increased information content R^2 was significant, supporting Hypothesis 6. The findings suggest that although the contribution of LOHAS image in explaining customer loyalty is slight its incremental information content is meaningful in explaining restaurant firms' customer loyalty.

^{*} p<.05, *** p<.001.

The incremental information content of LOHAS image was greater in explaining customer loyalty (Δ R^2 =.096) than in explaining customer satisfaction (Δ R^2 ==.091). In the study conducted by Chow, Lau, Lo, Sha, and Yun[49], a direct relationship between service quality and repeat patronage was reported. Seo and Joo[35] examined the impacts of LOHAS image on customer loyalty perceived by hotel restaurant customers in South Korea and evidenced positive relationship between LOHAS image and customer loyalty. In the US, Gupta and Pirsch[50] investigated the influence of restaurant company's social responsibility and concluded that a company's ability to offer up-to-date products in a environmentally conscious manner was important in determining consumers' restaurant image and their loyalty levels. Therefore, the customers in the present study may recognize the LOHAS image as a type of the restaurant's green performances, resulting in the higher incremental information content in explaining customer loyalty than in customer satisfaction.

In South Korea, "the body and soil are one" is one of the traditional food values prevailing through the ages, and this has led to the local food and sustainability movement for over a decade. Also, increasing processed food products and environmental pollution have recently caused several food safety accidents such as detection of foreign substances in canned tuna and snacks (March 2008), dioxin in mozzarella cheese (April 2008), and endocrine disrupting chemicals in powdered milk (August 2008). Consequently, the concerns about food safety accidents are increasing, and eco-friendly activities such as recycling, separate waste collection, reducing use of a disposable product directly influence consumer's purchasing attitude[35,36]. Therefore, employing green image such as a LOHAS concept can be a competitive element to differentiate a restaurant firm from its competitors.

In conclusion, the findings of this study did not show that LOHAS image is the most important factor for satisfied or loyal customers. However, they suggest that adding LOHAS image to the restaurant image could be a competitive business strategy for casual-dining restaurants which enables their image upgrade. It is widely accepted that high quality food is a crucial element for customer satisfaction and lo-

yalty in a restaurant[21,51,52]. Hence, ironically, maintaining and improving the high food quality could not be a competitive advantage any more.

Rather, enhancing a restaurant image could be more effective to acquire competitive advantages. There are several ways to build LOHAS image of restaurants; developing menus considering health and sustainability, remodeling space design on an eco-friendly basis, installing an energy saving system, and using eco-friendly food supplies. Through these performances, restaurants can enhance eco-friendly image and provide customers the feeling engaged in environmental protection, which drives customer satisfaction and loyalty.

This study has merits to contribute to the existing literature by differentiating it from the previous studies to some extents. In previous studies, a store image[20,32,53,54] and an environmentally friendly image[13,23,35,55] associated with customer satisfaction[37] and loyalty have been investigated separately. However, this study suggested a different approach from previous studies by adding LOHAS image items to restaurant image in explaining customer satisfaction and loyalty and investigating the incremental information content of the LOHAS image.

Limitations and Future Research

Despite the unique contributions of this study, there are limitations that should be mentioned. First, this study examined the satisfaction and loyalty level of general casual-dining restaurant customers even though customers from different background may respond differently to the survey questions. Thus, further study should consider the background differences of restaurant customers such as age, gender, income level, education level, and frequency of visit. Secondly, this study did not include items that determine if consumers are exactly aware of the LOHAS concept. For future study, it would be useful to identify the relationship between the awareness level of the LOHAS concept and related variables such as customer behaviors.

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