



The Effect of Restaurant's Physical Environment on Perceived Value, Customer Satisfaction and Loyalty: Case of Istanbul**

*Serap ÖZDEMİR-GÜZEL^a , Mithat Zeki DİNÇER^b 

^a Istanbul University-Cerrahpaşa, Tourism and Hotel Management, Istanbul, Turkey

^b Istanbul University, Faculty of Economics, Istanbul, Turkey

Article History

Received: 16.11.2018

Accepted: 21.12.2018

Keywords

Physical environment

Servicescape

Perceived value

Hedonic approach

Utilitarian approach

Customer satisfaction

Customer loyalty

Abstract

Global competition in 21st century has made essential firms to differentiate from their competitors. Physical environment elements in this needed differentiation have an important role. The physical environment, either in the differentiation of the atmosphere, changing the total perception of the product or creating the first impression in order to provide preferred, has become a strategic factor preferred by businesses.

This paper aims to examine the effects of the physical environment on perceived value, customer satisfaction and loyalty in the context of the first class restaurants. In this sense, the data were collected by survey from customers who prefer first class restaurants which have tourism establishment certificates in İstanbul. A total of 425 usable questionnaires were analysed with Structural Equation Modeling. According to findings, servicescape has a positive influence on perceived value and perceived value has a positive moderating effect on customer satisfaction. Also customer satisfaction has a positive influence on customer loyalty. The fact that this study is the first to measure the effects of physical environment on both hedonic and utilitarian approaches so it reveals the specificity of the study

* Corresponding Author

E-mail: ozdemir.serapp@gmail.com (S. Özdemir)

**This study was developed from PhD thesis named "The effect of physical environment on perceived value, customer satisfaction and loyalty: A study on first class restaurant businesses in Istanbul.

Suggested Citation: Özdemir-Güzel, S. & Dinçer, M. Z. (2018). The Effect of Restaurant's Physical Environment on Perceived Value, Customer Satisfaction and Loyalty: Case of Istanbul, *Journal of Tourism and Gastronomy Studies*, 6(4), 626-643.

DOI: 10.21325/jotags.2018.327

INTRODUCTION

Over the years the impact of the physical environment has become an important for the businesses, marketing professionals and the interior architects. In particular, the physical environment is an effective determinant in differentiating businesses and communicating with consumers. However, it also allows an easier evaluation of the service sector with an intangible feature. In this context, physical evidence shapes consumers' perceptions by providing them with information about the quality and performance of the service.

Recently, increasing in the number of businesses providing food and beverage services has made it necessary to emphasize the importance of physical environment which is one of the factors used in differentiation of these businesses. This is due to the fact that the service atmosphere is effective in the success of the restaurant business (Kotler, 1973).

In this study, it has been the subject of wonder how the businesses provide this success that try to differentiate with the physical environment. For what purposes do consumers prefer a business with a good physical environment? How does the physical environment of a business affect the consumer? Is the physical environment really creating loyal and satisfied customers? What physical environment elements affect consumers more? Is the fact that the physical environment of a business is remarkable affects the consumer's hedonic or utilitarian value? Also in the literature, It is observed that the relationship between physical environment and environmental psychology, perceived value, waiting time, the relationship between customer and employee, price, service quality, food quality etc. are examined (Harris and Ezeh, 2008; Davis et al., 2008; Kim and Moon, 2009; Han and Ryu, 2009; Lin and Mattila, 2010; Voon, 2011, 2012; Ariffin et al., 2012; Küçükergin and Dedeoğlu, 2014; Ellen and Zhang, 2014). After that, the effects of the interaction with these variables on customer satisfaction, loyalty and behavioral tendency were examined. Although there have been many studies on physical environment in the literature, no study has been found dealing with physical environment and hedonic and utilitarian value. In this context, the purpose of this study is to find out how the physical environment is perceived by consumers in the first class restaurants with tourism certificate in Istanbul. In addition, another objective is to reveal the extent to which the physical environment shapes the customer's satisfaction and loyalty trends through the perceived value.

Literature Review

Physical environment

The concept of physical environment is handled differently by different researchers in the literature (Kotler, 1973; Baker, 1987; Bitner, 1992; Wakefield and Blodgett, 1996; Turley and Milliman, 2000; Lucas, 2003; Newman, 2007; Ryu and Jang, 2008; Kim and Moon, 2009; Lee and Kim, 2014). For the first time, physical elements were evaluated under the concept of "atmospherics" by Kotler (1973). *Atmospherics is defined as "to describe the conscious designing of space to create certain effects in buyers"* (Kotler, 1973: 50). "Servicescape" is the another concept for physical environment in the literature. This concept refers to the environment in which serve the service. Bitner (1992: 58) defined "servicescape" as a man-made environment. Also Amould, Price and Tierney (1998: 90) are expressing a physical environment such as Kotler, as a conscious design of a place.

The physical environment in the light of the stated definitions; can be defined as a consciously design of the service environment of a place in order to influence positively the preferences and purchasing decisions of the people. On the other hand, the concept of physical environment is named differently by different authors in the article. This caused different physical environments. For example; The concept of "Dinescape" was used by Ryu and Jang (2008) for the physical environment of upscale restaurants.

There are different sub-dimensions for the concept of physical environment created by different authors in the literature (Kotler, 1973; Baker, 1987; Bitner, 1992; Wakefield and Blodgett, 1996; Turley and Milliman, 2000; Lucas, 2003; Newman, 2007; Ryu ve Jang, 2008; Kim and Moon, 2009; Lee and Kim, 2014). Bitner's (1992: 6566) classification is one of the most used in the literature and examined the physical environment under three dimensions which are; ambient condition (temperature, music, lighting, noise, odor), spatial layout and functionality (machines, equipments, layout etc.) and signs, symbols and artifacts. Bitner's physical environment dimensions are generally accepted in the literature. However, it appears that the role of the social environment in the physical environment is inadequate. Another scale that is widely studied in the literature, is dinescape. It has six dimensions and these are (Ryu and Jang, 2008a; 2008b):

- *Facility aesthetics* refers decor, architectural design or interior design. Interior design includes color, furniture, wall decoration, painting, table, flower and design (Ryu and Jang, 2008a: 15).
- *Ambiance* contains music, odor and temperature (Ryu ve Jang, 2008b: 66).
- *Lighting*; is an important physical stimulant, especially in luxury restaurant businesses and is known to have different effects on consumer behaviors. For example; It is suitable for businesses which have full service and high price that offer warm, comfortable and dim lighting (Ryu ve Jang, 2008b: 1154).
- *Layout* is the placement of machinery, materials and furniture in an environment (Ryu and Jang, 2008a). Especially it is important to the creation of a suitable environment for comfortable movement.
- *Table setting* is to design the table (elegant, high quality, prestigious) that will appeal to the table and affect the customers. It is particularly important in the design of luxury restaurant establishments and is influential in creating quality perception. For this reason, it is expected that the table materials used will be of high quality (such as glass, porcelain, silver and tablecloth) (Ryu and Jang, 2008b: 1156).
- *Staff* factor includes the appearance, number, costume of the employees (Ryu and Jang, 2008b: 1156).

It can be said that social environment that is lacking in Bitner, is occupied by the staff sub-dimension at this scale. However, at this scale, the customer segment of the social environment remains incomplete. In this study, the Dinescape is preferred due to the purpose of the study.

Relationship between pyhsical environment and perceived value

Physical environment defined as a man-made environment by Bitner (1992). It has been proved that man-made environment has led to internal and external reactions to both customers and employees. Ellen and Zhang (2014: 88) stated that the internal response was based on cognitive, emotional and satisfaction, and that the external response was to move away, repurchase, and to remain in the environment. Based on this, the effect of the designed physical

environment on people has become a popular research topic in the literature. The way in which the physical environment shapes the value of the customer in terms of customer value has become important in the increasing competition market. In particular, the effects of the physical environment in the retail sector have been studied, and the emphasis is on price, quality perception, emotional and psychological impacts of people.

It is possible to say that the studies regarding the perceived value are related to the extent to which customer expectations are met. Herein, the relationship between expectation-benefit relationship or benefit-based sacrifices is emphasized. Perceived value is everything the customer expects from a good or service. For this reason, the perceived value is affected by many variables. These variables are risk, price, quality, benefit and sacrifices. However, businesses have recently become interested in the hedonic and utilitarian aspects of perceived value (Babin et al., 1994; Voss et al., 2003; Park, 2004; Jones et al., 2006; Nejati and Moghaddam, 2013). Voss et al. (2003) state that the measurement of hedonic and utilitarian customer value dimensions will be useful in knowing the effect of experiential marketing or functional positioning strategies.

The physical environment of the businesses affects the perceived value of the customer. Looking at the physical environment of a place that has never been experienced before, it can be done with the judgments and expectations (quality, luxury, price, service, employees, cleaning and hygiene etc.). This is in line with the view that Bitner's (1992) physical environment has a direct impact on the cognitive responses of customers, such as thought and perception. As a result of the studies in the literature, the view that "physical environment affects positively the perceived value" has supported (Mehrabian and Russell, 1974; Bitner, 1992; Donovan et al, 1994; Mattila, 1999; Han and Ryu, 2009; Liu and Jang, 2009; Ryu et al., 2012; Durna, Dedeoğlu and Balıkcıoğlu, 2015). While Donovan et al. (1994) stated that the environment affected the perceived value, Mehrabian and Russell (1974) also pointed out the relationship between the perceived value and the physical environment. Mattila (1999) stated that the physical environment of hotels is an important variable in creating the perceived value of tourists traveling for business purposes. Durna et al. (2015) found that physical environment had a significant effect on the perceived value of the physical environment of the hotel businesses. Han and Ryu (2009) state that there is a positive relationship between the physical environment of restaurants and the perceived value. In addition, it is observed that the physical environment of restaurants affects positively the perception of price and the decoration and architecture of the restaurants are especially effective in the formation of this situation. However, it is known that the physical environment of the restaurants give hints about the expectations and perceived value of the customers who prefer the first time (Ryu et al., 2012). Liu and Jang (2009) in their study on Chinese restaurants, the food atmosphere, in other words, atmosphere has a significant impact on the perceived value of customers'. In the emergence of this result, it is seen that interior design and employees are effective, ambience and layout do not have an effect on perceived value. In conclusion, assuming that a well desingning physical environment will shape the perceived value positively, the alternative hypothesis established in this study is as follows;

H1a The aesthetic dimension has a positive effect on the hedonic value

H1b The aesthetic dimension has a positive effect on the utilitarian value

- H1c The ambiance dimension has a positive effect on the hedonic value
- H1d The ambiance dimension has a positive effect on the utilitarian value
- H1e The lighting dimension has a positive effect on the hedonic value
- H1f The lighting dimension has a positive effect on the utilitarian value
- H1g The table setting dimension has a positive effect on the hedonic value
- H1h The table setting dimension has a positive effect on the utilitarian value
- H1i The layout dimension has a positive effect on the hedonic value
- H1j The layout dimension has a positive effect on the utilitarian value
- H1k The staff dimension has a positive effect on the hedonic value
- H1l The staff dimension has a positive effect on the utilitarian value
- H1m The music dimension has a positive effect on the hedonic value
- H1n The music dimension has a positive effect on the utilitarian value

Relationship between perceived value, customer satisfaction and loyalty

Perceived value is the judgment that is generated as a result of the comparison of the sacrifice and benefits of the customers towards a good or service. According to Odabaşı (2004), customer satisfaction is defined as the occurrence of overlap between the expectations of the customer and a product or service. According to definitions, It can be said that the perceived value is the determining factor in customer satisfaction. At the same time, perceived quality, perceived quality, perceived risk, perceived price, perceived benefit and sacrifice are closely related to satisfaction. It is important for these factors that make up the perceived value to meet customer expectations. In short, customer satisfaction is directly related to the perceived value, but it is directly proportional to the correct perception of the customer expectations from businesses.

Fornell et al. (1996), who explained the relationship between perceived value, customer satisfaction and loyalty with a model and contributed a great deal to the literature, stated that perceived quality, customer expectations and perceived value relationship affect customer satisfaction. He emphasizes that there is a negative relationship between customer satisfaction and complaint and a positive relationship between satisfaction and loyalty.

Many studies have been conducted in the literature to prove the relationship between perceived value, customer satisfaction and loyalty. While there is a direct relationship between perceived value and customer satisfaction, there is a relationship between perceived value and loyalty directly or through satisfaction (Patterson and Spreng, 1997; Gallarza and Gil Saura, 2006; Lee et al., 2007; Ryu et al., 2010; Ryu et al., 2012; Ha and Jang, 2010; Hanzae and Khonsari, 2011; Durna et. al, 2015). Ha and Jang (2010) aimed to measure the relationship between perceived value, satisfaction and loyalty in their study. They concluded that there was a direct relationship between perceived value-satisfaction, perceived value-behavioral tendency and satisfaction-loyalty. Ryu, Lee and Kim (2012) stated that the

perceived value is a decisive factor in customer satisfaction and customer satisfaction affects loyalty. Hanzaee and Khonsari (2011) determined that hedonic and utilitarian value has a strong and meaningful relationship on satisfaction. The relationship between perceived value, satisfaction and loyalty is also parallel outputs in the food and beverage industry. Patterson and Spreng (1997) emphasized the role of perceived value in consumer service in the service sector. In this study, it has been concluded that the perceived customer value affects customer satisfaction positively and directly. Liu and Jang (2009) study in the context of Chinese restaurants, perceived value affects the future eating behavioral tendency of customers. Ryu et al. (2010) aimed to measure the effect of hedonic and utilitarian value on customer satisfaction and behavioral tendency in fast-casual restaurants. As a result, it was found that utilitarian value had a great effect on both customer satisfaction and behavioral tendency compared to hedonic value. They also found that satisfaction greatly influenced behavioral loyalty. In conclusion, in light of other studies in the literature, this study positively argues that the perceived value affected by the physical environment will positively affect satisfaction and loyalty. In this direction the hypotheses established are as follows;

H2a The hedonic value has a positive effect on the customer satisfaction

H2b The utilitarian value has a positive effect on the customer satisfaction.

H3a The hedonic value has a positive effect on the customer loyalty

H3b The utilitarian value has a positive effect on the customer loyalty

Relationship between customer satisfaction and loyalty

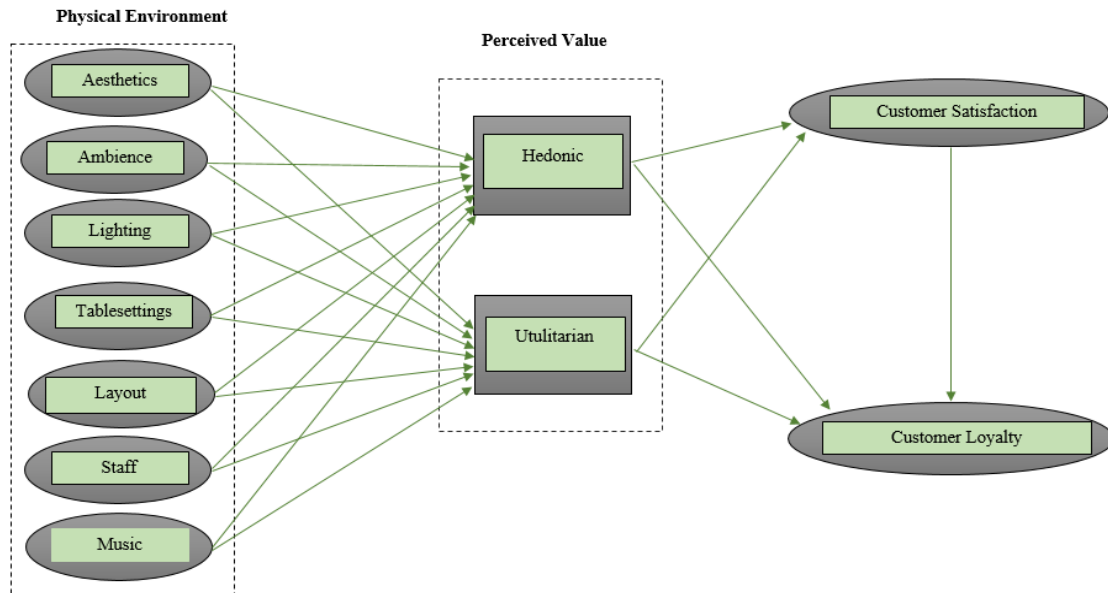
In the majority of studies, a positive relationship was found between customer satisfaction and loyalty (Fornell et al., 1996; Oh, 1999; Han and Ryu, 2009; Ha and Jang, 2010; Ryu and Han, 2011; Ryu et al., 2012; Ismail and Yunan, 2016; Jalil et al., 2016). Because a customer who is satisfied with his past experience will have a greater tendency of loyalty than the one who is not satisfied (Kotler, Bowen and Makens, 2006). However, there is also the opinion that satisfied customers will not always be loyal customers (Kivela et al., 1999, 2000; Chow et al., 2007). Oh (1999), in the work carried out in the restaurant businesses, the tendency to repurchase and again recommend of satisfied customers were found to be positively affected. In a study conducted by Babin et al. (2005) for restaurant businesses, a positive relationship was found between customer satisfaction levels and positive recommendation. Han and Ryu (2009) stated that customer loyalty is provided through the physical environment of restaurants, price perception and customer satisfaction. Weiss et al. (2004) obtained a similar result. They concluded that food quality and the atmosphere affected satisfaction and satisfaction affected the tendency to revisit. Ryu and Han (2011) state that customer satisfaction plays an important role in the estimation of customer loyalty in fine dining restaurant businesses. As a result, in light of the findings obtained in the literature, the hypothesis established by considering the positive behavioral tendency of the satisfied customer is as follows;

H4 The customer satisfaction has a positive effect on the customer loyalty

Methodology

Research Model

Figure 1: Research Model



Measurement or Instrument

In this study, it is aimed to reveal how the physical environment influences perceived value, customer satisfaction and loyalty in first class restaurant business with tourism operation certificate in Istanbul. For this purpose, quantitative research method was used. The questionnaire used in the research contains 38 items. These items were measured using the 7-point Likert scale (*1=Strongly Disagree, 7=Strongly Agree*) in the structured questionnaire. In addition, "*0 = No Opinion*" option was added to increase the reliability of working in the questionnaire form. The multi-item measures for physical environment, perceived value, customer satisfaction and loyalty were adapted from the scales of Oliver (1980); Parasuman et al. (1994); Ryu and Jang (2008); Haris and Ezeh (2008); Hutchinson Lai and Jang (2009); Kim and Moon (2009); Ryu, Han and Jang (2010); Ha and Jang (2010); Ryu and Han (2011). The survey was finalized by being reviewed by expert professors and restaurant managers. The scale and the cited studies are given in Table 1.

Table 1: Items and Cited

	Construct	Item	Label	Cited
Physical environment	Ambience	Ambience 4	Furniture (e.g, dining table, chair) is of high quality.	Ryu and Jang (2008: 14)
		Ambience 3	General cleaning of the restaurant makes me feel relax	Haris and Ezeh (2008)
		Ambience 2	Air aroma is enticing.	Ryu ve Jang (2008: 14)
		Ambience 1	Temperature is comfortable.	
	Layout	Layout 4	Signs in the restaurant provide adequate guidance.	Kim and Moon (2009)

		Layout 3	Layout makes it easy for me to move around.	Ryu ve Jang (2008: 14)	
		Layout 2	Layout gives me enough tangible privacy.		
		Layout 1	Seating arrangement gives me enough space.		
	Table Settings		Tablesettings 4	Menus are visually attractive.	Parasuraman et al. (1994)
			Tablesettings 3	The linens (e.g. table cloths, napkin) are attractive.	Ryu ve Jang (2008: 14)
			Tablesettings 2	The table setting is visually attractive.	
			Tablesettings 1	Tableware (e.g., glass, china) is of high quality.	
	Staff		Staff 3	Employees are well dressed.	
			Staff 2	An adequate number of employees makes me feel cared for.	
			Staff 1	Attractive employees make me feel good.	
	Facility Aesthetics		Facilityaesthetics 3	Colors used create a warm atmosphere.	
			Facilityaesthetics 2	Wall decorations are visually appealing.	
			Facilityaesthetics 1	Paintings/pictures are visually attractive.	
	Lighting		Lighting 3	Lighting creates a comfortable atmosphere.	
			Lighting 2	Lighting makes me feel welcome.	
			Lighting 1	Lighting creates a warm atmosphere	
	Music		Music2	Background music is pleasant	
			Music1	Background music relaxes me.	
	Perceived Value	Hedonic	Hedonic5	Although the cost was higher than other restaurants, I liked to eat out at the better place.	Babin et al. (1994). From: Ryu, Han, Jang (2010)
Hedonic4			During the dining experience at first class restaurant, I felt the excitement of searching food.		
Hedonic3			The dining experience at first class restaurant was truly a joy.		
Hedonic2			Eating-out at first class restaurant was pleasant.		
Hedonic1			I ate out at first class restaurant since I could have good feelings.		
Utulitarian			U4	I liked healthy food options in first class restaurant.	Ha and Jang (2010)
			U3	I liked a variety of menu choices in first class restaurant.	
			U2	The food portion in first class restaurant was enough, satisfying my hunger.	
			U1	The foods I had were tasty, so I enjoyed them.	
Customer Satisfaction	Customer Satisfaction	CS3	Dining in first class restaurant establishments is the right choice.	Oliver (1980)	
		CS2	First class restaurants always meet my expectations.	Ryu and Han (2011: 609)	
		CS1	Overall, I am satisfied with first class restaurant.	Ryu and Han (2011: 609)	

Customer Loyalty	Customer Loyalty	CL3	I would more frequently visit first class restaurant.	Hutchinson Lai and Jang (2009)
		CL2	I would like to come back to first class restaurant in the future.	Ryu and Han (2011: 609)
		CL1	I would recommend first class restaurant to my friends or others.	Ryu and Han (2011: 609)

Data Collection and Analysis

The most crowded city in Turkey is İstanbul (Türkiye İstatistik Kurumu, 2016). It's also the highest number of food and beverage businesses (T.C. Kültür ve Turizm Bakanlığı Yatırım ve İşletmeler Genel Müdürlüğü, 2015). It is believed that most of the restaurant customers lived in the city of Istanbul and so this study was carried out in Istanbul. As a result of the meeting held with Istanbul Provincial Directorate of Culture and Tourism on on July 21, 2016, there are 158 first class restaurants with tourism operation certificate in Istanbul. This restaurants are examined one by one and 36 of them are closed, 99 of them are kept outside due to menu content (kebab, fish, bar, pub, Chinese, Italian, Ottoman, Turkish cuisine and etc.). In this study taking a total inventory count. So the data collected from 23 first class restaurant business with tourism operation certificate which serving World cuisine.

Data collection process started in November 2016. The data collected for the pilot study took place between November 2016 and December 2016. The reliability and validity values of the scale were examined in the pilot study. In the pretest, where reliability levels were significant, it was checked whether there was a difference between the dimensions that were not understood or meaning similar. According to pretest results the questionnaire revised. So, the data collection process took place between March 2017 and May 2017. A face-to-face survey was conducted on the volunteer customers who exit the restaurants by first researcher. A total of 470 samples were collected. If the population is between 1-100 million, the sample size is 384 and it is accepted as sufficient (Sekeran, 2003: 294; Yazıcıoğlu and Erdoğan, 2004: 49-50). After deleting 45 surveys that contained incomplete and faulty responses, 425 questionnaires were used for the data analysis. The data coded in SPSS and imported into SPSS Amos V. 24. In accordance with the procedure suggested by Anderson and Gerbing (1988), confirmatory factor analysis (CFA) and structural analysis was conducted to assess the proposed model through Structural Equation Modeling (SEM). In this study, better and more accepted Structural Equation Modeling (SEM) was preferred. The reasons for this is in YEM (Meydan and Şeşen, 2011: 6);

- Adoption of a confirmatory approach,
- Verification of compliance with the data of the relationship established presence in theory,
- To be more successful for hypothesis testing than other methods,
- Finding out clear results in error estimating,
- Simultaneous testing of both observable and unobservable variables and direct, indirect and multiple relations are measurable.

Findings

Profile of the respondents

In the study, about 60.9 % of the participants were female (n=259) and 39.1 % were male (n=166). Age groups are grouped according to X and Y generations, and when examined under this scope; 83.1% was between 16-36 and 16.9% was between 37-68 years of age. It is seen that 69.6 % (n=296) of the respondents were single and 30.4% (n=129) were married. When the educational status was examined; 42.1% of the participants had bachelor's degree. Considering the working conditions, it was seen that the number of the private sector employees is the greatest (44.7 %). When income levels are evaluated; It is seen that 36.9% earned adequate, 28% can save Money, 18.4% can buy luxury goods and 8% can get everything they want.

Measurement Model

The study employed Anderson and Gerbing's (1988) two-step approach to evaluate the convergent validity for modeled constructs and to test hypotheses. The measurement model provided a good fit to the data ($\chi^2/df = 2.917$, $\chi^2= 609.595$ $df= 209$, $p= 0.000$; RMR: .096, GFI: .889, AGFI: .854, CFI: .908, IFI: .909, NFI: .868, RMSEA: .067). Personel 1, which has a standardized factor loading less than 0.6 and R^2 less than 0.4 (Awang, 2011), is deleted from the measurement model. The CFA excluding this variable was re-estimated ($\chi^2: 554.588$, $df: 188$, $\chi^2/df: 2.950$, RMR: .095, AGFI: .859, GFI: .895, CFI: .914, IFI: .915, TLI: .895, RFI: .849, NFI: .877, RMSEA: .068). According to modification index, covariance was formed between errors of the Table Setting 3. and 4. The CFA was re-estimated ($\chi^2/df =2.791$, RMR: .093, GFI: .900, AGFI: .865, CFI: .922, IFI: .922, NFI: .884, RMSEA: .065). Finally, "Ambiance 4" which is lower than AVE, and "Layout Plan 4", which seems problematic in the modification values, have been removed. The measurement model provided a good fit to the data ($\chi^2/df = 2.593$, RMR: .074, GFI: .916, AGFI: .880, CFI: .940, IFI: .941, NFI: .907, RMSEA: .061). Table 2 shows the reliability and validity of the constructs.

Table 2: Validity and Reliability for Constructs

	Construct	Item	Factor loadings	t- value	Cronbach Alpha	CR (above 0.60)	AVE (above 0.50)
Physical environment	Ambience	Ambience 4	Deleted		0.73	0.71	0.45
		Ambience 3	0.57	10.366			
		Ambience 2	0.76	11.985			
		Ambience 1	0.68	11.985			
	Layout	Layout 4	Deleted		0.86	0.91	0.77
		Layout 3	0.86	24.206			
		Layout 2	0.90	24.484			
		Layout 1	0.87	24.484			
	Table Settings	Tablesettings 4	0.58	11.813	0.82	0.82	0.53
		Tablesettings 3	0.73	15.543			
		Tablesettings 2	0.89	14.784			
		Tablesettings 1	0.69	11.813			
	Staff	Staff 3	0.88	6.818	0.62	0.66	0.51
		Staff 2	0.50	6.818			
		Staff 1	Deleted				

	Facility Aesthetics	Facilityaesthetics 3	0.66	15.586	0.80	0.81	0.59
		Facilityaesthetics 2	0.82	14.162			
		Facilityaesthetics 1	0.81	14.162			
	Lighting	Lighting 3	0.78	16.167	0.84	0.84	0.64
		Lighting 2	0.85	15.940			
		Lighting 1	0.77	15.940			
	Music	Music2	0.91	11.848	0.86	0.86	0.76
Music1		0.83	11.848				
Perceived Value	Hedonic	Hedonic5	0.53	10.886	0.83	0.86	0.62
		Hedonic4	Deleted				
		Hedonic3	0.84	18.057			
		Hedonic2	0.96	19.393			
		Hedonic1	0.75	10.886			
	Utulitarian	U4	0.53	8.210	0.68	0.69	0.43
		U3	0.71	9.045			
U2		Deleted					
U1	0.70	8.210					
Customer Satisfaction	Customer Satisfaction	CS3	0.87	19.627	0.87	0.87	0.69
		CS2	0.83	18.677			
		CS1	0.80	19.646			
Customer Loyalty	Customer Loyalty	CL3	0.79	19.458	0.87	0.87	0.69
		CL2	0.84	21.190			
		CL1	0.86	19.472			

All composite reliabilities without staff (.66) and utilitarian factor (.69), were the recommended value of .70 (Nunnally and Bernstein, 1994; Hair et al, 1998: 611-612; Bryne, 2010). But, CR >.60 is also accepted (Loewenthal, 2004; Awang, 2011). The results indicated a strong reliability of measures. All AVE values apart from Ambience and Utulitarian, exceeded the recommended value of .50 (Fornell and Larcker, 1981). However, it can be considered that the AVE value is less than .50 in the models (Ping, 2009: 3). These findings indicated that both convergent and discriminant validity are significant (Fornell and Larcker, 1981). Table 3 shows the discriminant validity of the construct.

Structural Model

The structural model provided a good fit to the data ($\chi^2/df = 2.211$, $\chi^2 = 1005.932$ $df = 455$, $p = 0.000$; RMR: .09, GFI: .88, AGFI: .85, CFI: .93, IFI: .93, RMSEA: .05).

Table 3: The Regression Path Coefficient and its Significance

Construct	Path	Construct	Estimate	S.E	T.	P.	Result
Ambience	→	Hedonic	-.134	.151	-.890	.374	Not Significant
Layout	→	Hedonic	-.013	.057	-.228	.820	Not Significant
Table Setting	→	Hedonic	-.022	.126	-.173	.863	Not Significant
Staff	→	Hedonic	.633	.142	4.460	***	Significant
Aesthetics	→	Hedonic	-.142	.092	-1.546	.122	Not Significant
Lighting	→	Hedonic	.123	.083	1.478	.139	Not Significant
Music	→	Hedonic	.126	.058	2.180	.029	Significant
Ambience	→	Utulitarian	-.135	.115	-1.181	.237	Not Significant
Layout	→	Utulitarian	-.059	.043	-1.383	.167	Not Significant
Table Setting	→	Utulitarian	-.057	.099	-.575	.565	Not Significant
Staff	→	Utulitarian	.654	.138	4.750	***	Significant
Aesthetics	→	Utulitarian	.142	.069	2.050	.040	Significant
Lighting	→	Utulitarian	.029	.062	.470	.639	Not Significant
Music	→	Utulitarian	.065	.043	1.509	.131	Not Significant
Hedonic	→	Customer Satisfaction	.437	.042	10.392	***	Significant
Utulitarian	→	Customer Satisfaction	.349	.074	4.738	***	Significant
Hedonic	→	Customer Loyalty	-.015	.047	-.309	.757	Not Significant
Utulitarian	→	Customer Loyalty	.238	.073	3.249	.001	Significant
Customer Satisfaction	→	Customer Loyalty	.918	.076	12.056	***	Significant

According to Table 3, it is understood that the dimensions of ambience, layout, table setting, lighting and music do not significant on utilitarian value. Ambience, layout, table setting, aesthetic, lighting dimensions do not significant on hedonic value. Furthermore, the relationship between hedonic value and loyalty is not significant. In the model, statistically insignificant pathways were removed one by one and the analysis was re-estimated each time. The goal here is that every insignificant path taken can affect other paths positively or negatively. After removing insignificant paths, the model provided a good fit to the data (CMIN/DF: 2.179; RMR: .09, GFI: .88; AGFI: .85; CFI: .93; IFI: .93; RMSEA: .05).

Table 4: After Removing Insignificant Paths: The Regression Path Coefficient and its Significance (p < 0.05)

Construct	Path	Construct	Estimate	S.E	T.	P.	Result
Staff	→	Hedonic	.517	.078	6.645	***	Significant
Music	→	Hedonic	.100	.048	2.088	.037	Significant
Layout	→	Utulitarian	-.077	.034	-2.243	.025	Significant
Staff	→	Utulitarian	.548	.081	6.734	***	Significant
Aesthetics	→	Utulitarian	.187	.062	3.030	.002	Significant
Hedonic	→	Customer Satisfaction	.439	.041	10.733	***	Significant
Utulitarian	→	Customer Satisfaction	.354	.072	4.913	***	Significant
Utulitarian	→	Customer Loyalty	.236	.072	3.287	.001	Significant
Customer Satisfaction	→	Customer Loyalty	.906	.064	14.256	***	Significant

In addition to the previous significant paths, Layout → Utulitarian path has become significant.

Conclusions

The aim of this study is to determine how the physical environment characteristics of the growing restaurant businesses are perceived by consumers and to determine how they affect customer satisfaction and loyalty through the perceived value. As a result of the analysis of the findings obtained from the interviews conducted with the first class restaurant business customers with the tourism operation certificate in Istanbul; when the relation between physical environmental elements and perceived (hedonic and utilitarian) value is examined, it is seen that background music playing in the business positively affects hedonic value. In particular, the background music playing in restaurant businesses can be said to be effective for consumers to feel better, in other words, to change their moods. The summary of the results are presented in Table 5.

Table 5: Results of the structure model

Hypothesis Statement		Decision
H1a	The aesthetic dimension has a positive effect on the hedonic value	Not Supported
H1b	The aesthetic dimension has a positive effect on the utulitarian value	Supported
H1c	The ambience dimension has a positive effect on the hedonic value	Not Supported
H1d	The ambience dimension has a positive effect on the utulitarian value	Not Supported
H1e	The lighting dimension has a positive effect on the hedonic value	Not Supported
H1f	The lighting dimension has a positive effect on the utulitarian value	Not Supported
H1g	The table setting dimension has a positive effect on the hedonic value	Not Supported
H1h	The table setting dimension has a positive effect on the utulitarian value	Not Supported
H1i	The layout dimension has a positive effect on the hedonic value	Not Supported
H1i	The layout dimension has a positive effect on the utulitarian value	Supported
H1j	The staff dimension has a positive effect on the hedonic value	Supported
H1k	The staff dimension has a positive effect on the utulitarian value	Supported
H1l	The music dimension has a positive effect on the hedonic value	Supported
H1m	The music dimension has a positive effect on the utulitarian value	Not Supported
H2a	The hedonic value has a positive effect on the customer satisfaction	Supported

H2b	The utilitarian value has a positive effect on the customer satisfaction.	Supported
H3a	The hedonic value has a positive effect on the customer loyalty	Not Supported
H3b	The utilitarian value has a positive effect on the customer loyalty	Supported
H4	The customer satisfaction has a positive effect on the customer loyalty	Supported

The other result that the physical environmental elements of the staff has a positive effect on the hedonic consumption of the customers. Customers care the staffs are well groomed and the number of staff is sufficient in the business. Sufficient number of staff creates the feeling that customers are interested in themselves. This makes customers feel good in terms of hedonic value. Because it is often difficult to reach the staff to order something and something extra and to pay a bill in restaurants.

When the relationship between utilitarian value and physical environment elements was examined, it was found that there was a significant and positive relationship between layout, staff and aesthetics. The layout in other words, space between the tables in the atmosphere and a comfortable seating area, remarkable paintings, color and wall decoration and well groomed and sufficient number of the staffs are the factors that affect the utility value. In short, customers who prefer first class restaurant business benefit from aesthetics, layout and personnel. This situation is an important issue that should be emphasized by the businesses.

As a result, hedonic and utilitarian value is effective in the formation of satisfaction. However, it was concluded that only utilitarian value was effective in formation of loyalty. This situation shows that having a pleasant time in a place is not effective in buying and recommending again.

However, it can be said that the consumers tend to have a greater loyalty tendency if the businesses offer tasty dishes, variety of menu choices and healthy food options. In addition, it was concluded that customer satisfaction also positively affects loyalty. These results could not be discussed with the results of other studies due to the lack of a similar study.

According to the results of the study, the suggestions for sector managers are; (1) staff factor should be considered. because it is an important element that affects both hedonic and utilitarian value. (2) although satisfied customers are likely to be loyal customers, it is important that businesses do not ignore the utilitarian value in order to obtain loyal customers (3) gender factor should be addressed. Women or men pay more attention to physical environment. According to that physical environment elements should be marketed by them. and the suggestions for future studies are; (1) the physical environment dimensions can be handled one by one and the effect of each dimension can be revealed. (2) physical environment-price relationship can be examined. (3) physical environment-image relationship can be examined. (4) impacts of the social physical environment can be discussed.

REFERENCES

- Amould, E.J., Price L.L. and Tierney P. (1998), "Communicative Staging of the Wilderness Servicescape", *The Service Industries Journal*, Vol. 18 No. 3, pp. 90-115.
- Anderson, E.W., Fornell, C. (2000), "Foundations of the American Customer Satisfaction Index," *Total Quality Management*, Vol. 11 No. 6 pp. S869-S82.

- Ariffin, H.F., M.F. Bibon, R.P. Saadiah, R. Abdullah (2012), "Restaurant's atmospheric elements: what the customer wants", *Procedia, Social and Behavioral Sciences*, Vol. 38 pp. 380 – 387.
- Awang, Z. (2011), *A Handbook on SEM: Structural Equation Modelling, 2nd ed.*, Universiti Teknologi MARA, Kelantan.
- Babin, B. J., Y. K. Lee, E. J. Kim, M. Griffin (2005), "Modelling Consumer Satisfaction and Word of Mouth: Restaurant Patronage in Korea", *Journal of Services Marketing*, Vol. 19 No.3, pp. 133 – 139.
- Babin, B. J., Darden W. R. and Griffin, M. (1994), "Work and / or Fun: Mesasuring Hedonic and Utulitarian Shopping Value", *Journal of Consumer Research*, Vol. 20, pp.644-656.
- Baker, J. (1987) "The Role of the Environment in Marketing Services: The consumer perspective". In Czepiel, J., Congram, C.A. & Shanahan, J. (Eds.), *The Services Challenge: Integrating for Competitive Advantage* (79-84). Chicago, IL: American Marketing Association.
- Bitner, M. J., (1992), "Servicescapes: The Impact of Physical Surroundings On Customers and Employees", *Journal of Marketing*, 56(2): 57-71
- Byrne, B. M. (2010), *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming. 2nd Edition*, Routledge Taylor & Francis Group.
- Chow, I.H., V.P. Lau, T.W. Lo, Z. Sha, H. Yun (2007), "Service quality in restaurant operations in China: decision- and experiential-oriented perspectives", *International Journal of Hospitality Management*, Vol. 26 No. 3, pp. 698–710.
- Davis, B., A. Lockwood, P. Alcott, I. S. Pantelidis (2008), *Food and Beverage Management Fourth Edition*. UK: Elsevier.
- Donovan, R.J., J. R. Rossiter, G. Marcoolyn, A. Nesdale (1994), "Store Atmosphere and Purchasing Behavior", *Journal of Retailing*, Vol. 70 No. 3, pp. 198-199.
- Durna, U., B. B. Dedeoglu, S. Balıkçioğlu (2015), "The role of servicescape and image perceptions of customers on behavioral intentions in the hotel industry", *International Journal of Contemporary Hospitality Management*, Vol. 27 No. 7, pp. 1728-1748.
- Ellen, T., R. Zhang (2014), "Measuring the Effect of Company Restaurant Servicescape on Patrons' Emotional States and Behavioral Intentions", *Journal of Foodservice Business Research*, Vol. 17 No. 2, pp. 85-102, DOI: 10.1080/15378020.2014.902642.
- Fornell, C. and Larcker, D. F. (1981), Evaluating Structural Equation Models with Unobservable Variables and Measurement Error, *Journal of Marketing Research*, Vol. 18 No. 1 (Feb., 1981), pp. 39-50.
- Fornell, C., M. D. Johnson, E. W. Anderson, J. Cha, B. E. Bryant (1996), "The American Customer Satisfaction Index: Nature, Purpose, and Findings", *Journal of Marketing*, Vol. 60, pp. 7-18.

- Gallarza, M. G., I. Gil Saura (2006), “Value Dimensions, Perceived Value, Satisfaction and Loyalty: An Investigation of University Students’ Travel Behaviour”, *Tourism Management*, Vol. 27, pp. 437-452.
- Ha, J. and Jang, S. (2010), “Perceived Values, Satisfaction and Behavioral Intentions the Role of Familiarity in Korean Restaurants”, *International Journal of Hospitality Management*, Vol. 29 No. 1, pp. 2-13.
- Hair, J. F. JR., Anderson R. E., Tahtam R. L. and Black W. C. (1998), *Multivariate Data Analysis*, Upper Saddle River, N.J. : Prentice Hall. Fifth Edition.
- Han, H., K. Ryu (2009), “The Roles of The Physical Environment, Price Perception, and Customer Satisfaction in Determining Customer Loyalty in The Restaurant Industry”, *Journal of Hospitality & Tourism Research*, Vol. 33 No. 4, pp. 487-510.
- Hanzaee, K. H., Y. Khonsari (2011) “A review of the role of hedonic and utilitarian values on customer’s satisfaction and behavioral intentions”, *Interdisciplinary Journal of Research in Business*, Vol. 1 No. 5, pp. 34-45.
- Harris, L.C., C. Ezeh (2008), “Servicescape and Loyalty Intentions: an Empirical Investigation”, *European Journal of Marketing*, Vol. 42 No. ¾, pp. 390-422.
- Hutchinson, J., F. Lai, Y. Wang (2009), “Understanding the Relationships of Quality, Value, Equity, Satisfaction, and Behavioral Intentions Among Golf Travelers” *Tourism Management*, Vol. 30 No. 2, pp. 298-308.
- Ismail, A., Y. S. M. Yunan (2016), “Service Quality as a Predictor of Customer Satisfaction and Customer Loyalty”, *Scientific Journal of Logistics*, Vol. 12 No. 4, pp. 269-283.
- Jalil, N. A. A., A. Fikry, A. Zainuddina (2016), “The Impact of Store Atmospherics, Perceived Value, and Customer Satisfaction on Behavioural Intention”, *Procedia Economics and Finance*, Vol. 37, pp. 538 – 544.
- Jones, M.A., Reynolds K.E. and Arnold M.J. (2006), “Hedonic and utilitarian shopping value: Investigating differential effects on retail outcomes”, *Journal of Business Research*, Vol. 59, pp. 974-981.
- Kivela, J., R. Inbakaran, J. Reece (2000), “Consumer research in the restaurant environment, Part 3: Analysis, findings and conclusions”, *International Journal of Contemporary Hospitality Management*, Vol. 12 No. 1, pp. 13-30.
- Kivela, J., R. Inbakaran, J. Reece (1999), “Consumer research in the restaurant environment, Part 1: A conceptual model of dining satisfaction and return patronage”, *International Journal of Contemporary Hospitality Management*, Vol. 11 No. 5, pp. 205-222.
- Kim, W.G. and Moon Y. J. (2009), “Customers’ cognitive, emotional, and actionable response to the servicescape: A test of the moderating effect of the restaurant type” *International Journal of Hospitality Management*, Vol. 28, pp. 144-156.
- Kotler, P. (1973), “Atmospherics as a Marketing Tool”, *Journal of Retailing*, Vol. 49 No. 4, pp. 48-64.

- Küçükergin, K. G., B. B. Dedeoğlu (2014), “Fast Food Restoranlarda Fiziksel Çevre, Fiyat Algısı ve Tekrar Satın Alma Eğilimi Arasındaki İlişki”, *Uluslararası Alanya İşletme Fakültesi Dergisi*, Vol. 6 No. 1, pp. 101-107.
- Lee, C. K., Y. S. Yoon, S. K. Lee (2007), “Investigating the relationships among perceived value, satisfaction, and recommendations”, *Tourism Management*, Vol. 28 No. 1, pp. 204-214.
- Lee, S. Y. and Kim, J. H. (2014), Effects of Servicescape on Perceived Service Quality, Satisfaction and Behavioral Outcomes in Public Service Facilities, *Journal of Asian Architecture and Building Engineering*, Vol. 13 No. 1, pp. 125-131.
- Lin, Y. I., S. A. Mattila (2010), “Restaurant Servicescape, Service Encounter, and Perceived Congruency on Customers’ Emotions and Satisfaction”, *Journal of Hospitality Marketing & Management*, Vol. 19, pp. 819-841.
- Liu, Y., S. Jang (2009), “The Effect of Dining Atmospherics: An Extended Mehrabian-Russell Model”, *International Journal of Hospitality Management*, Vol. 28 No. 4, pp. 494-503.
- Loewenthal, K. M. (2004), *An Introduction to Psychological Tests and Scales (2 ed.)*, Hove, UK: Psychology Press.
- Lucas, A. F. (2003), “The Determinants and Effects of Slot Servicescape Satisfaction in a Las Vegas Hotel Casino”, *UNLV Gaming Research & Review Journal*, Vol. 7 No. 1, pp. 1-19.
- Mattila, A.S. 1999, “The role of culture in the service evaluation process”, *Journal of Service Research*, Vol. 1, pp. 250-261.
- Mattila, A.S. and Ro, H. (2008), Discrete negative emotions and customer dissatisfaction responses in a casual restaurant setting, *Journal of Hospitality and Tourism Research*, Vol. 32 No. 1, pp. 89-107.
- Mehrabian, A., J. A. Russell (1974), *An Approach to Environmental Psychology*, Cambridge, MA: MIT Press.
- Meydan, C.H. and Şeşen, H. (2011). “*Yapısal Eşitlik Modellemesi (AMOS Uygulamaları)*”, ISBN: 978-605-5437-01-5, Detay Yayıncılık, Ankara.
- Nejati, M., P. P. Moghaddam (2013), “The Effect of Hedonic and Utilitarian Values on Satisfaction and Behavioural Intentions For Dining in Fast-Casual Restaurants in Iran”, *British Food Journal*, Vol.115 No. 11, pp. 1583 – 1596.
- Newman, A. J. (2007) “Uncovering Dimensionality in The Servicescape: Towards Legibility”, *The Service Industries Journal*, Vol. 27 No. 1, pp. 15-28.
- Nunnally, J. C. and Bernstein, I. H. (1994), *Psychometric theory (3rd ed.)*, New York, NY: McGraw-Hill, Inc.
- Odabaşı, Y. (2004), “*Satışta ve Pazarlamada Müşteri İlişkileri Yönetimi*”, İstanbul: Sistem Yayıncılık.
- Oh H. (1999), "Service quality, customer satisfaction, and customer value: A holistic perspective". *Int. J. Hosp. Management*, Vol. 18 No. 1, pp. 67-82.

- Oliver, R. L. (1980), "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions", *Journal of Marketing Research*, Vol. 17 No. 3, pp. 460-469.
- Parasuraman, A., V.A. Zeithaml, L.L. Berry (1994), "Reassessment Of Expectations As A Comparison Standard On Measuring Service Quality: Implications For Further Research", *Journal of Marketing*, Vol. 58 No. 1, pp. 111-24.
- Park, C. (2004), "Efficient or enjoyable? Consumer values of eating-out and fast food restaurant consumption in Korea", *Hospitality Management*, Vol. 23, pp. 87-94.
- Patterson, P. G., R. A. Spreng (1997), "Modelling the Relationship Between Perceived Value, Satisfaction and Repurchase Intentions in a Business-To-Business, Services Context: An Empirical Examination", *International Journal of Service Industry Management*, Vol. 8 No. 5, pp. 414-434.
- Ping, R. A. (2009), "Is There any Way to Improve Average Variance Extracted (AVE) in a Latent Variable (LV) X (Revised)?", available at: <http://home.att.net/~rpingrj/ImproveAVE1.doc>, (accessed 05 July 2017).
- Ryu, K. and Han H. (2011), "New or Repeat Customers: How Does Physical Environment Influence Their Restaurant Experience?", *International Journal of Hospitality Management*, 30(3), 599-611.
- Ryu, K. and Jang S. (2008a), "Dinescape: A Scale for Customers' Perception of Dining Environments", *Journal of Foodservice Business Research*, Vol. 11 No. 1, pp. 2-22. DOI: 10.1080/15378020801926551.
- Ryu, K. and Jang S. (2008b) , "Influence of Restaurants' Physical Environments On Emotion And Behavioral Intention", *The Service Industries Journal*, Vol. 28 No. 8, pp.1151-1165, DOI: 10.1080/02642060802188023
- Ryu, K., H. Han (2011), "New or Repeat Customers: How Does Physical Environment Influence Their Restaurant Experience?", *International Journal of Hospitality Management*, Vol. 30 No. 3, pp. 599-611.
- Ryu, K., H. R. Lee, W. G. Kim (2012), "The influence of the quality of the physical environment, food, and service on restaurant image, customer perceived value, customer satisfaction, and behavioral intentions", *International Journal of Contemporary Hospitality Management*, Vol. 24 No. 2, pp. 200-223.
- Ryu, K., Han, A., S. Jang (2010), "Relationships among hedonic and utilitarian values- satisfaction and behavioral intentions in quick-casual restaurants: moderating role of perceived price", *Journal of Hospitality & Tourism Research*, Vol. 27 No.3, pp. 459-469.
- Sekaran, U., 2003, "Research Methods for Business", USA: John Wiley & Sons, Inc.
- T. C. Kültür Ve Turizm Bakanlığı Yatırım Ve İşletmeler Genel Müdürlüğü (2015), "Turizm Belgeli Tesisler" available at: <http://ktbyatirimisletmeler.gov.tr/TR,9860/turizmbelgeli-tesisler.html>. (accessed 15 May 2016).
- Turley, L.W. and Milliman, R.E. (2000), "Atmospheric Effects on Shopping behavior: A review of the experimental evidence", *Journal of Business Research*, Vol. 49, pp. 193-211.

- Türkiye İstatistik Kurumu (2016), “Nüfus ve Demografi”, available at: http://www.tuik.gov.tr/PreTablo.do?alt_id=1047 (accessed 05 May 2016).
- Voon, B. H. (2011), “Service environments of restaurants: Findings from the youth customers”, *Journal of Asian Behavioural Studies*, Vol. 1, No. 2, pp. 45-56.
- Voon, B. H. (2012), “Role of Service Environment for Restaurants: The Youth Customers’ Perspective”, *Procedia - Social and Behavioral Sciences*, Vol. 38, pp. 388 – 395.
- Voss, K. E., E. R. Spangenberg, B. Grohmann (2003), “Measuring the hedonic and utilitarian dimensions of consumer attitude”, *Journal of Marketing Research*, Vol. 40, pp. 310–320.
- Wakefield, K. L. and Blodgett J. G. (1996), “The effect of the servicescape on customers’ behavioral intentions in leisure service settings”, *Journal of Services Marketing*, Vol. 10 No.6, pp. 45-61.
- Weiss, R., A. H. Feinstein, M. Dalbor (2004), “Customer Satisfaction of Theme Restaurant Attributes and Their Influence on Return Intent”, *Journal of Foodservice Business Research*, Vol. 7 No.1, pp. 23-41.
- Yap, K., Soetarto B. and Sweeney J. C. (2013), “Antecedents of Electronic Word of Mouths Characteristics: Comparing Sender’s Views across Positive and Negative Messages” *Australian Marketing Journal*, Vol. 2, pp. 66-74.
- Yazıcıoğlu, Y., S. Erdoğan (2004), “*SPSS Uygulamalı Bilimsel Araştırma Yöntemleri*”, Ankara: Detay Yayıncılık.