A study of the relationship between service atmosphere and customer loyalty with specific reference to structural equation modelling

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ABSTRACT
The main purpose of this paper is to investigate the relationship between service atmosphere and customer loyalty. To this end, 650 questionnaire forms were administered to German tourists in Antalya; of these, 485 were deemed valid and used in the analysis. The results of the study suggest that there is a statistically significant relationship between the internal and external components of a hotel atmosphere and employee factors. The highest level of relationship was found for the items, 'nice music was played in the Hotel, landscape arrangements of hotel are pleasant' and 'waiting time during registration procedures is short'.

1. Introduction
Atmosphere is an important consideration in assessing any service delivery from the point of view of customers. Atmosphere is important because it influences repurchase behaviour and the cognitive, emotional and psychological status of the customer (Lin, 2004, 2010). There has been a variety of definitions by different researchers in the literature. Atmosphere has been defined by Baker (1987) as 'physical environment', by Turley and Milliman (2000) as 'marketing environment', by Arnold, Handelman, and Tigert (1996) as 'economic environment', by Mathwick, Malhotra, and Rigdon (2001) as 'interactive field', by Weinrach (2000) as 'environmental psychology', by Hutton and Richardson (1995) as 'healthscapes' and by Tombs and McColl-Kennedy (2003) as 'social servicescape' (Harris & Ve Ezeh, 2008). Conversely, Kotler (1973) defines atmosphere as 'the effort to design buying environments to produce specific emotional effects in the buyer that enhance purchase probability'. According to Kotler (1973), the main sensory channels for atmosphere are sight, sound, scent and touch. Additionally, in another definition, atmosphere refers to incorporation of tangible and intangible environmental features such as music, colour, brightness and furnishings (Bitner, 1992; Bogicevic, 2014; Turley & Milliman, 2000).
Bitner (1992) defines atmosphere in three dimensions: ‘environmental conditions’, ‘spatial order and functionality’ and ‘symbols, signs and artefacts’. Environmental conditions are such elements as illumination, colour and scent. Spatial order and functionality denote the appropriate arrangement of furnishings and materials; signs, symbols and artefacts are the elements through which people interact with a given environment (Liu & Jang, 2009). In an exploratory study, Heide and Grønhaug (2009) categorise atmosphere-related elements into four groups – distinctiveness, hospitality, relaxation and refinement – based on guests’ perceptions. Table 1 presents these stable and robust factors of atmosphere.

Turley and Milliman (2000) categorise atmosphere-related elements into five groups: external variables, general interior variables, layout and design variables, point-of-purchase and decoration variables and human variables. Table 2 presents the five groups and the sub-variables within the groups.

**Table 1. Atmospheric factors in guests’ perceptions.**

| Distinctiveness | Hospitality       | Relaxation | Refinement |
|-----------------|-------------------|------------|------------|
| Special         | Welcoming         | Pastoral   | Classical  |
| Fascinating     | Hospitable        | Resort     | Traditional|
| Different       | Professional      | Holiday    | Historical |
| Unusual         | Genial            | Family-like| Upper class|
| One of a kind   | Communicating     | Serene     | Rich       |
| Memorable       | Effective         | Quiet      | Luxurious  |
| Rarefied        | Civilised         | Easy       |            |
| Peculiar        | True              | Suburban   |            |
| Seductive       | Feel-good         | Simple     |            |
| Characteristic  | Flexible          |            |            |
| Attractive      | Serious           |            |            |
| Dream           | Well-being        |            |            |

Source: Heide and Grønhaug (2009).

**Table 2. Atmospheric variables.**

| External variables | General interior variables | Layout and design variables | Point-of-purchase and decoration variables | Human variables |
|--------------------|-----------------------------|-----------------------------|--------------------------------------------|-----------------|
| Exterior signs     | Flooring and carpeting      | Space design and allocation| Point-of-purchase displays                | Employee character-istics |
| Entrances          | Colour schemes              | Placement of merchandise    | Signs and cards                            | Uniforms        |
| Exterior display windows | Lighting | Grouping of merchandise | Wall decorations                          | Crowding        |
| Height of building | Music                       | Work station placement      | Degrees and certificates                  | Customer character-istics |
| Size of building   | P.A. usage                  | Placement of equipment      | Pictures                                   | Privacy         |
| Colour of building | Scents                      | Placement of cash registers |                                            |                 |
| Surrounding stores | Tobacco smoke               | Waiting areas               | Product displays                           |                 |
| Lawns and gardens  | Width of aisles             | Waiting rooms               | Usage instructions                         |                 |
| Address and location | Wall composition | Department locations    | Price displays                             |                 |
| Architectural style | Paint and wall paper       | Traffic flow                | Teletext                                   |                 |
| Surrounding area   | Ceiling composition         | Racks and cases             |                                            |                 |
| Parking availability| Merchandise                 | Waiting queues              |                                            |                 |
| Congestion and traffic | Temperature | Furniture |                                            |                 |
| Exterior walls     | Cleanliness                 | Dead areas                  |                                            |                 |

Source: Turley and Milliman (2000).
Researchers have considered the significance of creating and maintaining a characteristic atmosphere in the accommodation sector. Atmosphere has become an important factor in customer satisfaction, in revenue-increasing efforts and in maintaining market share (Ryu & Han, 2011). The literature includes a number of studies on atmosphere in the tourism sector, most of which focus on restaurants, bars and hotels (e.g., Ariffin, Bibon, & Abdullah, 2012; Countryman & Jang, 2006; Ha & Jang, 2010; Hau-siu Chow, Lau, Wing-chun Lo, Sha, & Yun, 2007; Heide & Grønhaug, 2009; Kim & Moon, 2009; Liu & Jang, 2009; Lucas, 2003; Reimer & Kuehn, 2006).

In a study on casinos in Las Vegas, Lucas (2003) determined that atmosphere influences customer satisfaction. In their 1145-respondent study on banks and restaurants in Sweden, Reimer and Kuehn (2006) determined that atmosphere has an effect on perceived service quality. Countryman and Jang (2006) investigated the effect of the atmosphere of hotel lobbies on the impressions of customers and determined that atmospheric features such as colour, illumination and style influence customers’ impressions. In a recent study, Ha and Jang (2010) aimed to identify the effects of service and food quality on customer satisfaction and loyalty along with effect of atmospheric variables. It was revealed that customers’ perceptions of quality significantly influenced their satisfaction and loyalty. The study also concluded that the degree of this effect changed according to customers’ perception of the physical environment.

In their 348-customer study in Chinese restaurants in a Midwestern city, Liu and Jang (2009) stated that the dining atmosphere has an effect on perceived value and the positive and negative feelings of customers. In their study in Norway on hotel customers, Heide and Grønhaug (2009) concluded that atmosphere is an influential factor on the behaviour of customers and has an effect on customer satisfaction, repeat visits and recommendations. In their study on theme restaurants in Canada, Kim and Moon (2009) indicated that atmosphere affects perceived service quality. In their study on restaurant atmosphere, Ariffin et al. (2012) determined that atmospheric characteristics such as colour, design and illumination influence young customers and that restaurant layout and illumination have an effect on recommendations and repeat visits. In another study, Hau-siu Chow et al. (2007) investigated the relationship of service quality, customer satisfaction and the frequency of patronage. Although no significant relationship was found between customer satisfaction and repeated patronage, the results showed that service quality was correlated with both customer satisfaction and the frequency of patronage. Based on their findings, the authors suggested that physical environment and the quality of interaction were the basic elements that influenced customer satisfaction and loyalty.

2. Customer loyalty

It has been well established for years that customer loyalty has an important role in the success of businesses and, due to this importance, it has received a considerable attention as a research topic since the 1990s (Yoo & Bai, 2013). Customer loyalty matters not only in creating loyal customers but also in gaining sustainable competitive advantage (Mandhachitara & Poolthong, 2011; Morgan & Hunt, 1994). Visit frequency and purchase probability of loyal customers are higher compared with non-loyal customers. Additionally, there is a low probability that loyal customers will shift to rival firms (Petrick, 2004) and since loyal
customers generate word-of-mouth, they contribute to the promotion of the firm, hence contributing to a decrease in advertising costs (Yoo & Bai, 2013).

Loyalty, in a general sense, ‘is something that consumers may exhibit to brands, services, stores, product categories and activities’ (Uncles, Dowling, & Hammond, 2003, p. 295). Customer loyalty is defined as repurchase or revisit of a given service or product and emotional commitment to a service or product (Yoo & Bai, 2013). Evanschitzky and Wunderlich (2006) presents loyalty as a hierarchical concept having sub-constructs such as cognitive loyalty and affective loyalty. According to Oliver (1997, p. 372), customer loyalty is ‘the deeply held commitment to rebuy or re-patronise a preferred product despite situational influences and rivals’. In the literature, customer loyalty is considered by a variety of researchers to have three dimensions: behavioural, attitudinal and mixed. Although these dimensions are used in measuring customer satisfaction (Bowen & Chen, 2001), Han and Ryu (2009) maintain that behavioural loyalty itself may not provide a direct measure of true loyalty.

According to researchers, attitudinal loyalty is a requirement for establishing genuine loyalty. Additionally, in assessing customer satisfaction, a mixed dimension should be employed. In other words, in evaluating customer satisfaction, both behavioural and attitudinal loyalty should be incorporated (Mandhachitara & Poolthong, 2011). Behavioural loyalty is associated with purchase or re-purchase behaviour. In measuring behavioural loyalty, the amount purchased, frequency of purchase and re-purchase probability are considered (Dick & Basu, 1994). Conversely, attitudinal loyalty relates to repurchase intention, positive word-of-mouth and recommendation (Jaiswal & Niraj, 2011; Yoo & Bai, 2013). In the related literature, there are a number of studies of customer loyalty. In their study in New Zealand, Kandampully and Suhartanto (2000) revealed a positive correlation among image of hotel, customer satisfaction and customer loyalty. In another study, Jani and Han (2014) examined the relationship of personality, satisfaction, loyalty, ambience, and image in a hotel setting using structural equation modelling. The results showed that satisfaction was mainly influenced by extraversion, agreeableness, and neuroticism, and it had a significant impact on hotel image and guests’ loyalty. Mechinda, Serirat, and Gulid (2009) conducted a study in Thailand with native and foreign respondents and concluded that satisfaction and perceived value are important factors affecting both behavioural loyalty and attitudinal loyalty. In addition, Jani and Han (2015) concluded that hotel ambience had a significant effect on guests’ consumption emotions and these emotions were influential on their loyalty. Dlačić and Žabkar (2012) examined the relationship of customer loyalty, commitment, relational equity and company image. The results showed that customer loyalty was significantly and positively influenced by relationship commitment and relational equity. In their study in Spain on country hotels, Polo Peña, Frías Jamilena, and Rodríguez Molina (2013) concluded that business reputation and satisfaction have an effect on both intention to purchase and recommendation.

3. Aim and methodology of the study

The main objective of this paper is to determine the relationship between service atmosphere and customer loyalty. The related literature includes a number of studies of service atmosphere and customer loyalty (e.g., Chang, 2008; Clemes, Gan, & Ren, 2011; Han & Ryu, 2009; Kim & Moon, 2009; Tsaur, Chiu, & Huang, 2002; Zhang, Fu, Cai, & Lu, 2014). A questionnaire survey was employed to collect data. The first part of the questionnaire form
has four questions on demographics. The second part has six questions on attitudinal loyalty, and the third part included 21 questions in total; nine questions on interior and six questions on exterior variables and finally six questions on employees. Additionally, a questionnaire that was answered on a 5-point Likert type scale (1=strongly disagree; 5=strongly agree) was developed by the author through reviewing the related literature (Clemes et al., 2009; Canoğlu, 2008; Han & Ryu, 2009; Karkin, 2008; Kim, Kim, Park, Lee, & Jee, 2012; Koçoglu, 2009; Musa & Thirumoorthi, 2011; Brunner-Sperdin & Peters, 2009) and subsequently seeking specialists’ opinions to finalise the questionnaire in terms of content and readability. The quantitative data obtained in this study were found have normal distribution, and in this context, data were analysed through a Structural Equation Model (hereafter referred to as SEM). The sample of the study consisted of tourists at five-star hotels in the summer months (i.e., June, July and August) in 2012 in Antalya, Kundu, a popular tourist destination in Turkey. Convenience sampling formula suggested for quantitative studies and infinite populations by Lohr (2010, p. 47) is:

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 n_0 = \frac{S^2 Z_{\alpha/2}^2}{e^2} \tag{1}
\]

In the formula, the symbols represent the elements as follows: \( n_0 \): sample size; \( Z_{\alpha/2} \): theoretical value for significant level; \( S \): standard deviation; \( e \): sampling error; \( Z_{\alpha/2} = 1.96 \) (for 0.05); \( S=1 \) and \( e=0.1 \). According to these values, the sample size was calculated to be 385. However, to increase the reliability of the study considering that there might be incomplete and non-usable questionnaire forms, 650 forms were distributed, and 485 forms were considered fit for analysis.

4. Findings

Table 3 reports the frequency and percentage values of demographic profiles of the respondents. To test the internal validity of SEM, factor analysis was conducted. Kaiser-Meyer-Olkin (KMO) was calculated to be 0.632, which shows that the data are fit for factor analysis. The percentage of total variance explained is 62%. The result of the SEM analysis is presented in Table 4 and the output indices taking place in this table are identified in the light of Alcántara-Pilar and Del Barrio-García’s (2015) research.

Figure 1 shows the SEM built on customer loyalty. In the model, ‘IF’ denotes ‘Internal Factors’, ‘EF’, External Factors, ‘E’, Employees and ‘CL’, Customer Loyalty. According to Figure 1, of the internal factors, the most powerful variable affecting the service atmosphere is IF2: ‘nice music was played in the hotel’. A change of 1 unit in IF2 results in an increase of 0.91 in the IF factor. The second most powerful variable affecting IF factor is IF1. A change of 1 unit in ‘great importance was given to colour compatibility in common areas’ causes an increase of 0.71. The least powerful variable affecting IF factor is IF3, ‘pleasant smell surrounds the rooms and common areas’, with a rating of 0.47. The results suggest that the IF2 variable has the most powerful effect on customer loyalty (Figure 1). As a result of the analysis, the measurement model, and structural model is given in Figures 2 and 3 respectively.

The \( \chi^2/df \) value used in assessing model fit and fit criteria is less than 3. This model fit shows that there is goodness of fit (Byrne, 2012). \( \chi^2/df \) SEM was calculated to be 1.81.
Software packages in SEM analyses reveal different goodness of fit indices. LISREL software incorporates Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Root Mean Square Error (RMSEA), Comparative Fit Index (CFI) and Non-Normed Fit Index (NNFI) model fit indices (Byrne, 2012). Table 5 reports the model fit indices, which are within the range of good fit and acceptable fit.

5. Discussion

There are studies that emphasise that music is an atmospheric variable with the power to affect emotions, psychology, time perception, the interaction between the buyers and seller, product choice, purchase time, amount of purchase and behaviour (Cameron, Baker, Peterson, & Braunsberger, 2003; Duncan Herrington & Capella, 1996; McDonnell, 2007; Spangenberg, Grohmann, & Sprott, 2005). Hence, music is of substantial influence and significance in setting the hotel atmosphere, which should be considered by hoteliers. Through the choice of appropriate music, interior areas can be vitalised due to the tremendous effect of music on perceived hotel image, atmosphere, employee performance and post-purchase evaluation (Kurt, 2008). The key factor in selecting appropriate music is to select music appropriate to the hotel image and the target population (Arslan, 2004).

Aksu and Bozok (2012) state that interior variables such as cleanliness, music, scent, temperature and illumination and decoration texture have a great part in the service atmosphere, which is a point to be addressed by interested hoteliers. Öktem (2007) also indicates that hotel designers need to design the interior in a manner that will deliberately affect the psychology of customers. Analysis yielded that colour (IF1) was one of the influential factors, as an internal factor, on customer loyalty. An intangible factor, colour (IF1) is an influential factor on human behaviour. Viewed from a psychological perspective, ranges of colours leave strong emotional impressions on people (Çeliköz, 2001). Studies in the field of psycho-physiology suggest that such warm colours as red, orange and yellow have physiological effects different from cool colours as blue, green and white (Chebat & Morrin, 2007). For this reason, it is of great benefit to hoteliers that the above-mentioned

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**Table 3.** Demographic profile of respondents.

| Factor        | Category          | Frequency | Percentage |
|---------------|-------------------|-----------|------------|
| Gender        | Male              | 232       | 47.8       |
|               | Female            | 253       | 52.2       |
| Age           | Under 24          | 102       | 21.03      |
|               | 25–34             | 167       | 34.43      |
|               | 35–44             | 94        | 19.38      |
|               | 45–54             | 84        | 17.33      |
|               | 55+               | 38        | 7.83       |
| Education Level | Primary school   | 84        | 10.52      |
|               | Secondary school  | 117       | 36.49      |
|               | Faculty           | 173       | 35.67      |
|               | Master’s Degree   | 51        | 17.32      |
| Duration of stay | 1–3 days         | 63        | 13         |
|               | 4–6 days          | 117       | 24.1       |
|               | 7–9 days          | 132       | 27.2       |
|               | 10–13 days        | 78        | 16.1       |
|               | 14–16 days        | 80        | 16.5       |
|               | 17+               | 15        | 3.1        |

Source: Author’s analysis.
Table 4. Explanatory factor analysis results.

| Factors | Loadings | t-Value | $R^2$ | CR  | Eigenvalues | AVE | % of variance | $a$ |
|---------|----------|---------|-------|-----|-------------|-----|---------------|----|
| IF      | INTERNAL FACTORS |          |       |     |             |     |               |    |
| IF1     | Great importance was given to colour compatibility in common areas. | 0.826 | 14.07 | 0.50 | 0.75 | 2.184 | 0.94 | 18.155 | 0.704 |
| IF2     | Nice music was played in the hotel. | 0.887 | 17.14 | 0.83 |     |       |     |       |    |
| IF3     | Pleasant scent surrounds the rooms and common areas. | 0.661 | 9.86  | 0.22 |     |       |     |       |    |
| EF      | EXTERNAL FACTORS |          |       |     |             |     |               |    |
| EF1     | Landscape arrangements of hotel are pleasant. | 0.760 | 3.35  | 0.21 |     |       |     |       |    |
| EF2     | Signposting is adequate at the hotel. | 0.717 | 3.15  | 0.09 |     |       |     |       |    |
| E       | EMPLOYEES |          |       |     |             |     |               |    |
| E1      | Hotel staff have all information and knowledge required. | 0.767 | 13.43 | 0.47 |     |       |     |       |    |
| E2      | Waiting time during registration procedures is short. | 0.829 | 15.01 | 0.62 |     |       |     |       |    |
| E3      | Hotel staff give importance to cleanliness and hygiene. | 0.779 | 11.34 | 0.32 |     |       |     |       |    |
| CL      | CUSTOMER LOYALTY |          |       |     |             |     |               |    |
| CL1     | I will recommend this hotel to people around me. | 0.736 | 5.94  | 0.21 |     |       |     |       |    |
| CL2     | I prefer staying at this hotel even if the prices are increased a bit. | 0.745 | 6.07  | 0.33 |     |       |     |       |    |
| CL3     | This hotel is my priority preference. | 0.745 | 6.07  | 0.33 |     |       |     |       |    |

Source: Author's analysis.
factors are considered and that specialists’ be consulted. It should also be taken into account that colour perceptions vary by culture, age, gender, race and personality (Karkin, 2008).

Another internal factor affecting customer loyalty is scent (IF3). The hotel atmosphere is profoundly influenced by the scent (Hoffman & Bateson, 1997). Scent is examined in three independent dimensions: excitement, emotional quality and intensity (Mattila & Wirtz, 2001). Of all of the senses, scent has the strongest effect, leading to changes in our emotional state and in perceptions of the length of time, long or short, spent in a place (Arslan & Bayçu, 2006: 195). Each hotel has its unique scent. To illustrate, it is necessary that spa centres, restaurants, hotel rooms and gyms should possess their specific scent (Öktem, 2007). Additionally, depending upon the purpose of the operation, scent issue should be focused on specifically. For example, flower scent should come into prominence in thermal hotels, whereas sea scent should come into prominence in resort hotels. Conversely,
individual characteristics of customers might differ concerning choice of scent. Although some customers favour herbal scent, others may not (Karkın, 2008). As stated in this paper, scent is a significant component of hotel atmosphere and in establishing customer loyalty.

External factors also matter in creating the desired service atmosphere. Exterior areas include such factors as signposts, parks, landscape and surroundings (Kozak, 2014). Aksu

**Figure 2.** Measurement model. Source: Author’s analysis.

**Figure 3.** Structural model. Source: Author’s analysis.
and Bozok (2012) therefore underline the importance of such external factors as signposts, height of building, location, proximity to other hotels, architectural structure, colours used on the facade and ease of entrance in creating the service atmosphere. The most effective variable in customer loyalty in terms of exterior factors was found to be as 'landscape arrangements of hotel are pleasant' in the present study. A change of 1 unit in the EF1 variable will cause an increase of 0.46 in the EF factor. Conversely, the least powerful variable effective on EF is EF2 'sign posting is adequate at the hotel'. A change of 1 unit in the EF2 variable will lead to a change of 0.31 units in the EF factor. Signposts and signboards constitute important dimensions of a service structure (Bitner, 1992). Because services are intangible, there is rarely physical evidence to appreciate the product. For this reason, tangible signs pave the way for shaping the attitudes and behaviours of customers. As products become less tangible, the effects of signs on customers’ appraisals increase in importance (Chebat & Dubé, 2000; Koernig, 2003). Because small changes in environmental factors may lead to positive outcomes, this should be within the scope and the focus of hotel managers. Therefore, realising the importance level of environmental factors will be advantageous for hotel managers (Bonn, Joseph-Mathews, Dai, Hayes, & Cave, 2007).

The most powerful variable in 'employee factors' affecting customer loyalty is 'waiting time during registration procedures is short'. A 1-unit change in the E2 variable will cause a 0.79-unit increase on employee factors. The E1 variable 'hotel staff has all information and knowledge required' has an effect of 0.68 units. The least powerful effect is E3, 'hotel staff give importance to cleanliness and hygiene', with 0.56. Customers should not be kept waiting during check-in procedures (Aksu, 2012). To this end, paperwork procedures should be reduced to the fullest extent possible, thus facilitating customers’ completion of the procedures. According to a study by Sharma and Stafford (2000), it is necessary that atmospheric features and employees should compensate for one another. In situations in which the physical atmosphere falls short of expectations, this should be compensated through skilled labour. Conversely, Nguyen and Leblanc (2002) in their study advanced that the employees-area part of the total ‘servicescape’ and employees are the first point of both service delivery and firm image. Ryu and Jang (2007) evaluated employees with reference to environmental factors and emphasised that professional appearance and appeal of employees are influential in a firm’s image and customer satisfaction. Cleanliness is one of the most important factors influencing the preference of customers and undoubtedly is an issue of great consideration for hoteliers. Therefore, it is correct to maintain that cleanliness of employee uniforms positively affects the mood of customers (Arslan, 2004, 106). Aksu (2012) revealed that the most important factors in revisiting the same hotel are hospitality, service quality, cleanliness and customer profile. Cleanliness, hygiene, outside appearance and the attitude of employees to customers are among the important quality characteristics. This being the case, hoteliers with a focus on customer loyalty should focus on physical quality characteristics and service operations (Koçoğlu, 2009). As seen, employees are an important factor in hotels, as in other sectors. Documents or stars that hotels possess reflect a certain standard. However, the employees will fulfil the standards. For this reason, hotels need to place emphasis on developing the quality of human resources.

Of the above-mentioned IF, EF and E factors, the most powerful effect was found to be internal factors (IF), with 0.22. In other words, a change of one unit in the IF factor will lead to an increase of 0.22 units in customer loyalty. Following the IF factor, the most effective factor on customer loyalty is external factors, with an increase rate of 0.16. The least effective
factor in customer loyalty is employee factor (E), with 0.10. In other words, a change of one unit in employee factor will lead to an increase of 0.10 units in customer loyalty. The results of the analysis suggest that the most powerful effect on the Customer Loyalty (CF) factor is CL1, ‘I will recommend this hotel to people around me,’ with a coefficient of 0.68. The least powerful variable is CL2, ‘I prefer staying at this hotel even if the prices are increased a bit.’ In other words, a one-unit change in the CL2 variable will lead to an increase of 0.45 in customer loyalty (Figure 1). Customers spend most of their time within the hotel. Therefore, atmosphere components such as music played, scent and colour have a tremendous effect on the perceptions of customers. Conversely, such external factors as location and signposts play an important role in shaping the perceptions of customers. Customers are inclined to encounter the dimensions that comprise the internal and external factors in the right place and right time. The components of a service atmosphere are made up of intangible elements, a point that must be considered by all stakeholders in hotel management. Additionally, customers satisfied with the service atmosphere express positive opinions about these factors in the context of recommending the hotel to others and revisiting.

Customers will make their final decisions based on gaps between expectations and perceived service. Thus, hotel management should concentrate on the service components that will meet the expectations of customers and boost their satisfaction. Tangible factors in the components of a hotel atmosphere signal the role undertaken by employees. Timing of service delivery, accuracy, courtesy and lenience are some of the key qualities employees should possess. The general objective of hotels is to create customer satisfaction and do their best to have loyal customers. As noted in the study, factors in a service atmosphere are influential in creating customer loyalty. Hoteliers should focus specifically on customers’ expectations in creating a service atmosphere. As mentioned above, when satisfied with the atmosphere, customers are likely to recommend the hotel to others. Even if prices increase, customers state that they will revisit the hotel. In other words, a desired service atmosphere will help customers tolerate price increases. Therefore, it is of great benefit to hoteliers to grasp the significance and the effects of the components of a service atmosphere on customer satisfaction and loyalty.

6. Limitations and suggestions for further research

Although the current study puts forward important findings regarding the relationship between the service atmosphere and customer loyalty, it has several limitations like any other study. First of all, it was conducted on a specific number of tourists having their holiday in five-star hotels in Kundu, a town in Antalya, Turkey. For that reason, it might not be possible to generalise the findings. Secondly, the participants included only German tourists, which is another weakness in terms of the participants. Finally, collecting the data in a limited time period, the summer season, also limits the findings of this study. As Yoo and Bai (2013) highlight, there has been increasing attention on customer loyalty as a research topic for the last two decades. For all these reasons, it will be better for further studies to examine the relationship between the service atmosphere and customer loyalty cross-culturally, with more participants and using different types of statistical models and analysis. Such studies will contribute to the understanding of scholars regarding the relationship between these two phenomena.
7. Implications

The findings of the study also have certain practical implications for the institutions in the tourism sector. First of all, a strong relationship was found between the service atmosphere and the customer loyalty and it is demonstrated how the internal and external atmospheric factors are important in customer loyalty. Among these factors, it is seen that the choice of appropriate music in the institution will influence the perceived hotel image positively. It is suggested that interior elements such as illumination and decoration have a positive influence on customers’ psychology and it would be a good idea for managements to consult specialists on this issue. In addition, managements should also pay attention to landscape arrangements, which is found to be an important external factor that customers are interested in. Finally, managements should also be careful about the behaviours of employees and focus on their trainings since customers are significantly influenced by them.

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References

Aksu, M. (2012). The effect of the atmosphere as a component of service quality on the customer loyalty: a research on to the domestic tourists staying at the hotels in Bozcaada (Unpublished Doctoral Thesis), The Institute of Social Sciences, Balikesir University.

Aksu, M., & Bozok, D. (2012). The effects of hotel atmosphere on tourists’ expectations and perceptions: an application at bozcaada. Balikesir University The Journal of Social Science Institute, 15, 297–317.

Alcantara-Pilar, J. M., & Del Barrio-Garcia, S. (2015). Antecedents of attitudes toward the website. Cross Cultural Management: An International Journal, 22, 379–404. doi:10.1108/CCM-04-2014-0044.

Ariffin, H. F., Bibon, M. F., & Abdullah, R. P. S. R. (2012). Restaurant’s atmospheric elements: What the customer wants. Procedia-Social and Behavioral Sciences, 38, 380–387. doi:10.1016/j.sbspro.2012.03.360.

Arnold, S. J., Handelman, J., & Tigert, D. J. (1996). Organisational legitimacy and retail store patronage. Journal of Business Research, 35, 229–239. doi:10.1016/0148-2963(95)00128-X.

Arslan, M. (2004). The Atmosphere in Retail Industry. Istanbul: Derin Publications.

Arslan, M., & Baycu, S. (2006). Atmosphere of the store (1th Edition). Eskişehir: Anadolu University Publications.

Baker, J. (1987). The role of the environment in marketing services: The consumer perspective. In J. Czepiel, C. A. Congram, & J. Shanahan (Eds.), The services challenge: Integrating for competitive advantage (pp. 79–84). Chicago, IL: American Marketing Association.

Bittner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and employees. Journal of Marketing, 56, 57–71. doi:10.2307/1252042.
Bogicevic, V. (2014). *The effect of airport servicescape features on traveler anxiety and enjoyment* (Graduate Theses and Dissertations). Retrieved from http://scholarcommons.usf.edu/etd/4987

Bonn, M. A., Joseph-Mathews, S. M., Dai, M., Hayes, S., & Cave, J. (2007). *Heritage/cultural attraction atmospherics: Creating the right environment for the heritage/cultural visitor.* *Journal of Travel Research, 45*, 345. doi:10.1177/0047287506295947

Bowen, J. T., & Chen, S. (2001). *The relationship between customer loyalty and customer satisfaction.* *International Journal of Contemporary Hospitality Management, 13*, 213–217. doi:10.1108/09596110110395893

Brunner-Sperdin, A. B., & Peters, M. (2009). What influences guests’ emotions? The case of high-quality hotels. *International Journal of Tourism Research, 11*, 171–183.

Byrne, M. B. (2012). *Structural equation modelling with amos bacis concepts, applications, and programing.* New York, NY: Taylor & Francis Group LLC.

Cameron, M. A., Baker, J., Peterson, M., & Braunsberger, K. (2003). *The effects of music, wait-length evaluation, and mood on a low-cost wait experience.* *Journal of Business Research, 56*, 421–430. doi:10.1016/S0148-2963(01)00244-2.

Chebat, J., & Dubé, L. (2000). *Evolution and challenges facing retail atmospherics: The apprentice sorcerer is dying.* *Journal of Business Research, 49*, 89–90. doi:10.1016/S0148-2963(99)00012-0.

Chebat, J., & Morrin, M. (2007). *Colors and cultures: Exploring the effects of mall décor on consumer perceptions.* *Journal of Business Research, 60*, 189–196. doi:10.1016/j.jbusres.2006.11.003.

Clements, M. D., Wu, H. C. J., Hu, B. D., & Gan, C. (2009). *An empirical study of behavioral intentions in the taiwan hotel industry.* *Innovative Marketing, 5*(5), 30–50.

Clements, M. D., Gan, C., & Ren, M. (2011). *Synthesizing the effects of service quality, value, and customer satisfaction on behavioral intentions in the motel industry: An empirical analysis.* *Journal of Hospitality & Tourism Research, 35*, 530–568. doi:10.1177/1096348010382239.

Countryman, C. C., & Jang, S. (2006). *The effects of atmospheric elements on customer impression: The case of hotel lobbies.* *International Journal of Contemporary Hospitality Management, 18*, 534–545. doi:10.1108/09596110610702968.

Dick, A. S., & Basu, K. (1994). *Customer loyalty: Toward an integrated conceptual framework.* *Journal of the Academy of Marketing Science, 22*, 99–113. doi:10.1177/009207009207394222001.

Dlačić, J., & Žabkar, V. (2012). *Relationship commitment, relational equity and company image in customer loyalty development.* *Economic Research-Ekonomska Istraživanja, 25*, 503–523. doi:10.1080/1331677X.2012.11517520.

Duncan Herrington, J., & Capella, L. M. (1996). *Effects of music in service environments: A field study.* *Journal of Services Marketing, 10*, 26–41. doi:10.1108/08876049610114249.

Evanschitzky, H., & Wunderlich, M. (2006). *An examination of moderator effects in the four-stage loyalty model.* *Journal of Service Research, 8*, 330–345.

Ha, J., & Jang, S. S. (2010). *Effects of service quality and food quality: The moderating role of atmospherics in an ethnic restaurant segment.* *International Journal of Hospitality Management, 29*, 520–529. doi:10.1016/j.ijhm.2009.12.005.

Han, H., & Ryu, K. (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, 33*, 487–510. doi:10.1177/1096348009344212.

Harris, Lloyd C., & Ve Ezeh, Chris (2008). *Servicescape and loyalty intentions: An empirical investigation.* *European Journal of Marketing, 42*, 390–422. doi:10.1108/03090560810852995.
Hau-siu Chow, I. H., Lau, V. P., Wing-chun Lo, T. W., Sha, Z., & Yun, H. (2007). Service quality in restaurant operations in China: Decision- and experiential-oriented perspectives. *International Journal of Hospitality Management, 26*, 698–710. doi:10.1016/j.ijhm.2006.07.001.

Heide, M., & Grønhaug, K. (2009). Key factors in guests’ perception of hotel atmosphere. *Cornell Hospitality Quarterly, 50*, 29–43. doi:10.1177/1938965508328240.

Hoffman, K. D., & Bateson, J. (1997). *Essentials of services marketing*. New York, NY: Dryden Press.

Hutton, J. D., & Richardson, L. D. (1995). Healthscapes: The role of the facility and physical environment on consumer attitudes, satisfaction, quality assessments and behaviours. *Health Care Management Review, 20*, 48–61.

Jaiswal, A. K., & Niraj, R. (2011). Examining mediating role of attitudinal loyalty and nonlinear effects in satisfaction-behavioral intentions relationship. *Journal of Services Marketing, 25*, 165–175. doi:10.1108/08876041111129155.

Jani, D., & Han, H. (2014). Personality, satisfaction, image, ambience, and loyalty: Testing their relationships in the hotel industry. *International Journal of Hospitality Management, 37*, 11–20. doi:10.1016/j.ijhm.2013.10.007.

Jani, D., & Han, H. (2015). Influence of environmental stimuli on hotel customer emotional loyalty response: Testing the moderating effect of the big five personality factors. *International Journal of Hospitality Management, 44*, 48–57. doi:10.1016/j.ijhm.2014.10.006.

Kandampully, J., & Suhartanto, D. (2000). Customer loyalty in the hotel industry: The role of customer satisfaction and image. *International Journal of Contemporary Hospitality Management, 12*, 346–351. doi:10.1108/09596110010342559.

Karkin, G. (2008). *Physical evidence as a component of services marketing and atmospherics in hotels* (Unpublished Master Thesis). The Institute of Social Sciences, Inonu University.

Kim, T. T., Kim, W. G., Park, S. S. S., Lee, G., & Jee, B. (2012). Intellectual capital and business performance: What structural relationships do they have in upper-upscale hotels? *International Journal of Tourism Research, 14*, 391–408. doi:10.1002/jtr.1868.

Kim, W. G., & 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, 28*, 144–156. doi:10.1016/j.ijhm.2008.06.010.

Kocoğlu, C. M. (2009). *The impact of service quality on customer loyalty and implementation in a 5 stars hotel business* (Unpublished Master Thesis). The Institute of Social Sciences, Duzce University.

Koernig, S. K. (2003). *E-Scapes: The electronic physical environment and service intangibility. Psychology & Marketing, 20*, 151–167. doi:10.1002/mar.10065.

Kotler, P. (1973). Atmospherics as a marketing tool. *Journal of Retailing, 49*, 48–64.

Kozak, N. (2014). *Tourism Marketing*. (5th Edition). Ankara: Detay Publications.

Kurt, G. (2008). The role of store atmosphere in developing customer loyalty: a study in big food retailing (Unpublished Master Thesis). The Institute of Social Sciences, Dokuz Eylul University, Izmir.

Lin, I. Y. (2004). Evaluating a servicescape: The effect of cognition and emotion. *International Journal of Hospitality Management, 23*, 163–178. doi:10.1016/j.ijhm.2003.01.001.

Lin, I. Y. (2010). The combined effect of color and music on customer satisfaction in hotel bars. *Journal of Hospitality Marketing & Management, 19*, 22–37. doi:10.1080/19368620903327675.

Liu, Y., & Jang, S. S. (2009). The effects of dining atmospherics: An extended Mehrabian-Russell model. *International Journal of Hospitality Management, 28*, 494–503. doi:10.1016/j.ijhm.2009.01.002.

Lohr, L. S. (2010). *Sampling: Design and analysis* (Sec ed.). Boston, MA: Brooks/Cole.

Lucas, F. A. (2003). The determinants and effect of slot servicescape satisfaction in a Las Vegas hotel casino. *UNLV Gaming Research & Review Journal, 7*(1), 1–19.

Mandhachitara, R., & Poolthong, Y. (2011). A model of customer loyalty and corporate social responsibility. *Journal of Services Marketing, 25*, 122–133. doi:10.1108/08876041111119840.

Mathwick, C., Malhotra, N., & Rigdon, E. (2001). Experiential value: Conceptualization, measurement and application in the catalogue and internet shopping environment. *Journal of Retailing, 77*, 39–56. doi:10.1016/S0022-4359(00)00045-2.

Mattila, A. S., & Wirtz, J. (2001). Congruency of scent and music as a driver of in-store evaluations and behavior. *Journal of Retailing, 77*, 273–289. doi:10.1016/S0022-4359(01)00042-2.
McDonnell, J. (2007). Music, scent and time preferences for waiting lines. *International Journal of Bank Marketing*, 25, 223–237. doi:10.1108/02652320710754015.

Mechinda, P., Serirat, S., & Gulid, N. (2009). An examination of tourists’ attitudinal and behavioral loyalty: Comparison between domestic and international tourists. *Journal of Vacation Marketing*, 15, 129–148. doi:10.1177/1356766708100820.

Morgan, R. M., & Hunt, S. D. (1994). The commitment–trust theory of relationship marketing. *Journal of Marketing*, 58, 20–38.

Musa, G., & Thirumoorthi, T. (2011). Red palm: Exploring service quality and servicescape of the best backpacker hostel in Asia. *Current Issues in Tourism*, 14, 103–120. doi:10.1080/13683500903511125.

Nguyen, N., & Leblanc, G. (2002). Contact personnel, physical environment and the perceived corporate image of intangible services by new clients. *International Journal of Service Industry Management*, 13, 242–262. doi:10.1108/09564230210431965.

Öktem, D. (2007). Perception of spaces & formation of identity in hotel interior design (Unpublished Master Thesis). The Institute of Science, Mimar Sinan University, Istanbul.

Oliver, R. L. (1997). *Satisfaction: A behavioral perspective on the consumer*. New York, NY: McGraw-Hill.

Petrick, J. F. (2004). Are loyal visitors desired visitors? *Tourism Management*, 25, 463–470.

Polo Peña, A. I., Frias Jamilena, D. M., & Rodríguez Molina, M. Á. (2013). Antecedents of loyalty toward rural hospitality enterprises: The moderating effect of the customer's previous experience. *International Journal of Hospitality Management*, 34, 127–137. doi:10.1016/j.ijhm.2013.02.011.

Reimer, A., & Kuehn, R. (2006). The impact of servicescape on quality perception. *European Journal of Marketing*, 39, 785–808.

Ryu, K., & Han, H. (2011). New or repeat customers: How does physical environment influence their restaurant experience? *International Journal of Hospitality Management*, 30, 599–611. doi:10.1016/j.ijhm.2010.11.004.

Ryu, K., & Jang, S. S. (2007). The effect of environmental perceptions on behavioral intentions through emotions: The case of upscale restaurants. *Journal of Hospitality & Tourism Research*, 31, 56–72. doi:10.1177/1096348006295506.

Schermelleh-Engel, K., & Moosbrugger, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research*, 8, 23–74.

Sharma, A., & Stafford, T. F. (2000). The effect of retail atmospherics on consumers’ perceptions of salespeople and customer persuasion: An empirical investigation. *Journal of Business Research*, 49, 183–191. doi:10.1016/S0148-2963(99)00004-1.

Spangenberg, E. R., Grohmann, B., & Sprott, D. E. (2005). It's beginning to smell (and sound) a lot like Christmas: The interactive effects of ambient scent and music in a retail setting. *Journal of Business Research*, 58, 1583–1589. doi:10.1016/j.jbusres.2004.09.005.

Tombs, A., & McColl-Kennedy, J. R. (2003). Social-servicescape conceptual model. *Marketing Theory*, 3, 447–475. doi:10.1177/1470593103040785.

Tsaur, S., Chiu, Y., & Huang, C. (2002). Determinants of guest loyalty to international tourist hotels—a neural network approach. *Tourism Management*, 23, 397–405. doi:10.1016/S0261-5177(01)00097-8.

Turley, L. W., & Milliman, R. E. (2000). Atmospheric effects on shopping behavior: A review of the experimental evidence. *Journal of Business Research*, 49, 193–211. doi:10.1016/S0148-2963(99)00010-7.

Uncles, M. D., Dowling, G. R., & Hammond, K. (2003). Customer loyalty and customer loyalty programs. *Journal of Consumer Marketing*, 20, 294–316. doi:10.1108/07363760310483676.

Weinrach, J. (2000). Environmental psychology: Why should we care? *Environmental Quality Management*, 10, 83–86.

Yoo, M., & Bai, B. (2013). Customer loyalty marketing research: A comparative approach between hospitality and business journals. *International Journal of Hospitality Management*, 33, 166–177. doi:10.1016/j.ijhm.2012.07.009.

Zhang, H., Fu, X., Cai, L. A., & Lu, L. (2014). Destination image and tourist loyalty: A meta-analysis. *Tourism Management*, 40, 213–223. doi:10.1016/j.tourman.2013.06.006.