A Study of the Effects of Factors in the Physical Environment of Hotels on Customers’ Perceptions of Service Quality and Loyalty

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1. Background to the Study

Service quality can be considered to be the customers’ judgment about an entity’s overall excellence and superiority of service (Clow, Kurtz, Ozment, & Ong, 1997; Zeithaml, 1988). The most important aspects of service quality are tangible and intangible. Tangible aspects that may include building design and décor, ambient conditions, and equipment are considered to have a direct influence on the customer’s perception of service quality. Empirical studies (Wakefield & Blodgett, 1996; Wener, 1985) have been conducted to confirm the effect of ambient conditions, facility aesthetics, and cleanliness on customer perceptions of service quality. In a study of leisure activities of customers at professional baseball games, football games, and in casinos, facility aesthetics and cleanliness have been shown to have a positive impact on customers’ perceptions of quality (Wakefield & Blodgett, 1996, 1999). Bitner (1992) found that spatial layout and functionality are particularly salient in complex self-serve settings.

According to Wakefield and Blodgett (1999, p. 52), “the tangible physical surroundings may more directly influence consumers’ affective responses”. So, the environment with all its components is a key factor which has a great influence on people’s feelings, which is one of the reactions that encourage and force people to remain in the place where they are in or to leave (Russell & Ward, 1982). Berry and Parasuraman (1991) suggested that consumers develop their understanding of the relationship between the environment of a given service and the ‘quality’ of the service they may expect to receive. In addition, it has been confirmed that consumers depend on the physical and tangible evidence to which they have access to give
evaluation of the quality of the intangible service components (Namasivayam, 2004, p. 37). This can be applied to establishments, such as hotels, in which customers may use their interaction with the service provider to rate the service.

Wakefield and Blodgett (1999) tested a model that included the intangible and tangible elements of the service quality scale (hereafter referred to as SERVQUAL) (Parasuraman, Zeithaml, & Berry, 1988) with the tangible elements representing the physical environment. Wakefield and Blodgett (1999) also included an affective or emotional measurement of the customer's level of excitement. They have reported in their study that the tangible elements of the service environment had a positive effect on the excitement level experienced by customers, which led to a positive effect on repeat-patronage intentions and a greater willingness to recommend the leisure service to other people such as friends or relatives. However, the tangible elements were found not to have a significant effect on perceived quality.

Customer loyalty is particularly vital to the hotel industry, because of the intense competition among mature sectors of the industry (Bowen & Shoemaker, 1998). Customer loyalty has been described as the concept of repeat purchase behaviour, which can be regarded as some degree of repetitive purchase of the same brand by the same buyer. Moreover, customer loyalty has been viewed as one the various behavioural consequences of service quality (Zeithaml, 2000). As a behaviour intention after the performance of service, customer loyalty is considered to be related to perceptions of quality (Rust & Zahorik, 1993).

It has been confirmed that the architecture and design of hotels (i.e. components of tangible factors) are significant drivers for guests. In addition, customers’ satisfaction is greatly affected by the room design and amenities through the evaluation of perceived quality. Moreover, the attributes of the hotels may contribute to the customers’ determination of purchase decision (Dube & Renaghan, 2000). The physical environment is another factor that is related to the image of the facility includes extrinsic cues which influence the customer’s perception and satisfaction of the service (Harrell, Hutt, & Anderson, 1980). In addition, it has been argued that physical structure and interior design emerged at the top of the list when customers were asked what creates value and which attribute improves customer satisfaction and loyalty during their stay at hotels (Dube & Renaghan, 2000). Thus,
customers’ satisfaction and loyalty increase significantly when the customers positively evaluate their perceived quality about their stay at hotels.

To sum up, the physical environment of hotels has some effects on the behaviour and attitudes of customers. However, little research has been examined how the various component of physical environment and intangible factors affect attitudes and behaviours of customers and little empirical research has been done on the relationship between physical environment and key antecedents of perceived quality (Baker, Parasuraman, Grewal, & Voss 2002; Baker, Levy, & Grewal, 1992; Bitner, 1992). In the case of tourism in Syria and according to the best knowledge of the researcher, there are no published studies on the impact of physical environment of hotels on the customers’ perceptions of service quality. The importance of a hotel’s physical environment has been emphasized by different researcher. Although the physical appearance of hotels’ exterior, the appearance of public spaces, brand name, and location of a hotel are the four important attributes customers use to choose a hotel, the exterior design and the appearances of public spaces are the most important ones. According to (Dube & Rennghan, 2000), the physical appearances of the hotels’ exterior and public spaces are considered two of the most attributes that are related to having a decision for selecting a hotel to stay.

Although Wakefield and Blodgett (1996, 1999) tested their models in a variety of different leisure settings that included stadiums, casinos, family recreation centres, and movie theatres, they did not test them in the environment of hotels. In addition, scales for both of the models developed by Wakefield and Blodgett (1996, 1999) were not developed from the perspective of a hotel and more specifically, they were not developed to evaluate the physical environment of a hotel lobby. Therefore, the effects of tangible and tangible elements in hotel industry have not been studied and have been the focus of studies on service quality in hotel industry in Arab countries.

2. THE STUDY

After reviewing the literature on hotel industry, it was decided that the present study had to include the exterior design, the equipment, and the ambient conditions. Moreover, there is growing evidence that hotel design has both marketing and strategic implications. Average daily room rate, occupancy, and revenue per available room are all positively related to good hotel design. Ransley and Ingram
(2001) argued that good design can lead to greater profitability. Zeithaml and Bitner (1996) found that overall service quality perceptions directly influence customers’ behavioural intentions, including their tendency to say positive things, to recommend the company, and to remain loyal to the company. Similar to these findings, Boulding, Kalra, Staelin, and Zeithaml (1993) found that there is a connection between service quality, and repurchase intention and willingness to recommend the place to others. Therefore, many of the messages hotels wish to convey to their guests can be effectively communicated through the design of hotels and other tangible factors.

In addition, for the improvement of tourism in a country, hotel managers and owners need to know how customers use and enjoy together the property and the manner in which specific architecture and design components contribute to creating distinctive value. Therefore, factors related to tangible factors should be crucial for most hotel operators (Dube & Renaghan, 2000; Hinkin & Tracey, 2003) because the physical environment of hotels, such as hotel exterior, layout, cleanliness, electric equipment quality, are key factors to get positive perceived service quality evaluation from customers. In other words, hotel properties’ elaborate physical surroundings require a large capital investment to create an impressive physical presence. Operators should consider whether those financial investments are truly worth the money.

3. **RESEARCH QUESTIONS**

The present study attempts to answer the following questions:

1. How do tangible variables of service affect customers’ overall perceived quality of tangible factors?

2. How do customers’ perceptions of tangible factors affect their loyalty?

4. **METHODOLOGY**

The present study is a survey study in which data were collected using a questionnaire based on Parasuraman et al. (1988, 1991a, 1991b, 1991c), Bitner (1992), Wakefield and Blodgett (1996, 1999), and Skogland and Siguaw (2004). Data were collected from 209 customers who stayed overnight at hotels located in Al-Ladhiqiyyah, a coastal city in Syria. The sampling design in the present study was convenience sampling. The researcher made no attempt, or only a limited attempt, to
insure that this sample is an accurate representation of some larger group or population. The researcher distributed the survey questionnaire to guests when they checked in. Data obtained were tabulated and entered in SPSS. To answer the research questions and to test the hypotheses, regression analysis was employed. Regression analysis explains if there is a relationship between two or more variables. Regression analysis was used to analyze the relationship between a dependent variable and one or more independent variables. The technique could show the proportion of variance between variables due to the independent variables. The parameters are estimated so as to give a best fit of the data.

5. RESULTS AND DISCUSSION
5.1 Tangibles and Overall Perceived Service Quality

As it is shown in Table 1, the results of the first regression model indicates that the regression model was statistically significant \((p = 0.00)\), and 54% of the OPSQ of tangible factors was explained by the three tangible factors of service quality. Moreover, the results of the regression coefficient from the first multiple regression showed the influence of the three independent variables on the OPSQ of tangible factors. The coefficients indicated that all variables (i.e. design, equipment, and ambient conditions) had high contribution to explaining the dependent variable. However, the variable of hotel design exerted the strongest influence on the overall perception of tangibles factors, followed by other independent variables.

Table 1

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent variables</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Design</td>
<td>OPSQ</td>
<td>.385</td>
<td>.296</td>
<td>3.863</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Equipment</td>
<td></td>
<td>.278</td>
<td>.260</td>
<td>3.782</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Ambient conditions</td>
<td></td>
<td>.308</td>
<td>.270</td>
<td>3.635</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(a) Hypotheses 1-1, 1-2 and 1-3 Testing

Hypothesis 1-1 was that the design of the hotel had effect on customers’ overall perceived service tangible quality. The null hypothesis and the alternative one were:

\( H_0 \) 1-1: The design of the hotel had effect on customers’ overall perceived service tangible quality,
H₁ 1-1: The design of the hotel had no effect on customers’ overall perceived service tangible quality.

Hypothesis 1-2 was that the equipment at the hotels had effect on customers’ overall perceived service tangible quality. The null hypothesis and the alternative one were:

H₀ 1-2: The equipment at the hotels had effect on customers’ overall perceived service tangible quality,
Hₐ 1-2: The equipment at hotel had no effect on customers’ overall perceived service tangible quality.

Hypothesis 1-3 was that the ambient conditions of the hotel had effect on customers’ overall perceived service tangible quality. The null hypothesis and the alternative one were:

H₀ 1-3: The ambient conditions at the hotels had effect on customers’ overall perceived service tangible quality,
Hₐ 1-3: The ambient conditions at the hotels had no effect on customers’ overall perceived service tangible quality.

As shown in Table 1, hypotheses 1-1, 1-2 and 1-3 are supported by the results of regression analysis. Therefore, the factors of design, equipment and ambient conditions were good predictors of OPSQ of tangible factors. Accordingly, there was a relationship between these factors and the dependent variable (i.e. OPSQ of tangible factors).

5.2 **Tangibles and Customers’ Loyalty**

Research question two proposed that tangible service factors had an effect on customers’ loyalty. To answer this research question, three hypotheses were developed. The three hypotheses were:

2.1 The design of the hotel has effect on customers’ loyalty.
2.2 The equipment of the hotel has effects on customers’ loyalty.
2.3 The ambient conditions in the hotel have effect on customers’ loyalty.

To test these three hypotheses and find out the relationship between these three independent variables and the dependent variable of customers’ loyalty,
regression analysis was used. The three tangible factors: design of the hotel, equipment in the hotel and ambient conditions. On the other hand, based on Skogland and Siguaw (2004), seven items measuring customers’ loyalty were included in the questionnaire of the current study. It was proposed that these three tangible factors had effect on customers’ loyalty.

Table 2
The Influence of the Independent Variables in Regression Model 2

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variables</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Design</td>
<td>Customers’ Loyalty</td>
<td>.493</td>
<td>.486</td>
<td>.455</td>
<td>.394</td>
<td>4.860</td>
<td>.000</td>
</tr>
<tr>
<td>2. Equipment</td>
<td></td>
<td></td>
<td></td>
<td>.198</td>
<td>.209</td>
<td>2.862</td>
<td>.005</td>
</tr>
<tr>
<td>3. Ambient conditions</td>
<td></td>
<td></td>
<td></td>
<td>.175</td>
<td>.173</td>
<td>2.193</td>
<td>.029</td>
</tr>
</tbody>
</table>

As provided in Table 2, the results of the regression coefficient showed that there was a great influence of the three independent variables on the customers’ loyalty. As presented in Table 2, all variables (i.e. design, equipment, and ambient conditions) had high contribution to explaining the dependent variable (loyalty). However, the variable of design exerted the strongest influence on loyalty, followed by variables of equipment and ambient conditions.

(a) Hypothesis 2-1, 2-2 and 2-3 Testing

Hypothesis 2-1 was that the design of the hotel had effect on customers’ loyalty. The null hypothesis and the alternative one were:

H₀ 2-1: The design of the hotel had effect on customers’ loyalty.
Hₐ 2-1: The design of the hotel had no effect on customers’ loyalty.

Hypothesis 2-2 was that the equipment at the hotels had effect on customers’ loyalty. The null hypothesis and the alternative one were:

H₀ 2-2: equipment at the hotels had effect on customers’ loyalty,
Hₐ 2-2: equipment at the hotels had no effect on customers’ loyalty.

Hypothesis 2-3 was that ambient conditions had effect on customers’ loyalty. The null hypothesis and the alternative one were:

H₀ 2-3: The ambient conditions had effect on customers’ loyalty,
Hₐ 2-3: The ambient conditions had no effect on customers’ loyalty.
As shown in Table 2, all these hypotheses were supported. Therefore, the factors of design, equipment and ambient conditions were good predictors of customers’ loyalty. Accordingly, there was a relationship between these factors and the dependent variable (i.e. customers’ loyalty).

6. Conclusion

Research question one focuses on examining the effect of tangible variables on OPSQ (Overall Perceived Service Quality). In this research question, the dependent variable is OPSQ of tangible factors; the three independent variables are design, equipment, and ambient conditions. The present study shows that the design of the equipment, and the ambient conditions at hotels have their great influence on customers’ OPSQ of tangible factors. Moreover, the factors of design and ambient conditions have the strongest influence on customers’ OPSQ of tangible factors, followed by the factor of equipment in hotels.

Research question two focuses on examining the effect of tangible factors on customers’ loyalty. In this research question, the dependent variable is customers’ loyalty; the three independent variables are design, equipment, and ambient conditions. The results of this research question show that the three independent variables have great effects on customers’ loyalty. The results also showed that among the tangible factors at hotels, the design of the hotel has the greatest influence on customers’ loyalty, followed by the other tangible variables.

Therefore, the present study shows that the exterior design of a hotel including the decor and the furniture in the public spaces and rooms have their effect on the customers’ perceptions of service quality and loyalty. Moreover, the equipment found at hotels and the conditions of the rooms and the public spaces in hotels influence customers’ evaluation of the service quality. For example, the padding and available seat space for a particular chair may affect a customer’s impression of the service. This is because a customer may be psychologically uncomfortable if seated too close to other patrons. In this research, ambient conditions are defined as capturing the overall appearance of the facility’s design (Wakefield & Blodgett, 1996). Therefore, the owners and managers of hotels should pay attention for this issue as it may maintain loyal customers that will be a good source for the profitability of the hotels.
Finally, this study emphasizes that the physical environment of hotels is one of the best drives for customers’ selection and recommendations of hotels to their friends and relatives. It has been confirmed that all of these items have their affect on customers’ perceptions and responses to the environment (Baker & Collier, 2005; Parasuraman et al., 1988). This study argues that physical environment influences the perceived service quality that relate to customer loyalty. This conclusion is in agreement with the findings of other studies that emphasized the role the physical environment does play in customers’ loyalty and satisfaction process (Bitner, 1992; Lucas, 2003). According to Bateson (1985), tangibles are described as an important factor in managing the service encounter and reducing a perceived risk. Therefore, managers and owners of hotels should take into consideration of such factors taking care of the cleanliness of the furniture, rooms, and public places at hotels.

REFERENCES


