The Impact of Physical Environment Factors in Hotels on Arab Customers’ Loyalty

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Abstract
The study reported in this paper reports the results of examining the effects of physical factors at hotels (i.e., exterior design, equipments, and ambient conditions) on customer loyalty. Employing a questionnaire based on Parasuraman, Zeithaml, and Berry (1988), Bitner (1992), Wakefield and Blodgett (1996, 1999), and Skogland and Siguaw (2004), data were collected from 209 respondents in some hotels in Al-Ladhiqiyah, Syria. Data were analysed using descriptive statistics and regression analysis. This study reveals that all physical environment factors (i.e., the design of the hotel, the equipment at hotels and the ambient conditions) had the greatest influence on customers’ loyalty. The results also showed that among the three variables of physical environment, the design of hotels had the greatest influence on customers’ loyalty with \( p \leq 0.01 \). It is recommended that managers and owners of hotels can take into consideration of the important role of physical environment as one of the best drives for customers’ selection and recommendations of hotels to their friends and relatives.

Key words: Tangible factors, Physical environment, Customer Loyalty

Background on Tourism in Arab Countries
Tourism in Arab countries is progressing because these countries have realized the importance of tourism for their economy development and also for decreasing the rate of unemployment. The sector of travel and tourism in Arab countries has been a significant source for creating new jobs; contributing to the economic income of these countries (Blanke & Mia, 2005), and, in turn has become an important concern for policymakers. Due to the recent development and progress of tourism industries in the globalization era, Arab countries have been good destinations for western tourists, travelers and adventurers (Hazbun, 1997). Furthermore, developing national plans for tourism in Arab counties is one of the important aspects in most of Arab countries (Aziz, 2001). The recent new trends in the tourism industry in Arab world include (1) intraregional tourism in which both Syria and Lebanon, (2) innovation of new types of tourism such as medical, spa, ecological and sport tourism, and (3) the new interpretation of pilgrimage and other religious spots (Al-Hamarneh, 2005).
Due to the rich wealth of its ancient civilizations, an amazing culture, amazing history and the strategic location at the crossroads of Europe, Asia and Africa, Syria is considered to be a country one of the good choices for tourists (Phillips, 2010). Its capital city, Damascus, is the world’s oldest continuously inhabited urban centre. Syria is known for its seashores, mountains, forests and highlands and deserts. Syria has a coastline of about 193 kilometres (Englar, 2006). As one of the major tourists’ destinations among countries in the Middle East, Syria enjoys the growth and expansion of its tourism industry. In Syria, tourism remains one of the major sectors contributing to the prosperity of the economy of the country. The tourists’ attractions also include places and sites in Al-Ladhiqiyyah which is still a call for Mediterranean cruise ships, stopping for excursions to nearby Qalaat Saladin (Daher, 2007). Al-Ladhiqiyyah is the main port city in Syria and the largest Mediterranean town with an active cultural, tourist and sporting life (Darke, 2010). Another advantage of its location is that it is a manufacturing centre for surrounding agricultural towns and villages. The availability of accessible natural resources, such as beaches, natural areas and sunny weather in this city is one of the advantages that make Al-Ladhiqiyyah one of the preferred destinations for tourists who come to Syria.

Related Studies

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. 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). All of the tangible aspects, which include building design, décor, layout, ambience, furniture, fixture and equipment, are considered to have a direct influence on the customer’s perception of service quality. Bateson (1985) describes tangibles as important factors in managing the service encounter and reducing a perceived risk. Loyalty includes a variety of attitudes or behaviours or may well be situation specific (Kroenert et al., 2005). It is affected by a number of variables that are significant to be studied for finding out the correlation between aspects of services at hotels (i.e., tangible and intangible) and customer loyalty.

Recently, Skogland and Siguaw (2004) declare that “research on customer loyalty has primarily focused on customer satisfaction and involvement” (p. 221). However, they reported that results on the relationship between repeat-purchase behaviour and satisfaction were unclear. Numerous studies have indicated significant relationships, whereas others have argued that satisfaction explains little in regards to repeat purchases. Skogland and Siguaw suggest antecedent of involvement on loyalty received inadequate consideration. Their research examined the degree to which satisfaction impacts loyalty and they explored how satisfaction may affect involvement to better understand how involvement may directly influence loyalty.

The importance of the physical environment of a hotel has been emphasized by different researchers. 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 (Dube & Renaghan, 2000).

According to Pizam (2005), physical environment is defined as the material surroundings of a place (p. 21). For example, a physical environment may be the lobby of a hotel or the swimming pool/spa area of a property. Early research in the field of environmental psychology focused on how the physical environment affected
behavior in workplace, educational, and penal institutional/correctional settings. Studies on physical environment have focused on various service settings such as hotels (Countryman & Jang, 2006), restaurants (Jang & Namkung, 2009; Han & Ryu, 2009), casinos (Hirsh, 1995; Wakefield & Blodgett, 1996), sports stadiums (Wakefield & Blodgett, 1996), and events (Nelson, 2009). Bitner (1992) introduced the concept of “servicescape” to examine the effect of “physical surroundings” on behaviour of customer in the service industry. Bitner suggests three different environmental dimensions: surrounding condition, spatial layout and functionality and signs. While surrounding conditions can include temperature and music, spatial layout and functionality may include furniture and the layout features. Signs may include symbols, artefacts, signage and style of decor. All of these dimensions are supposed to create an overall perceived servicescape that activates internal cognitive, emotional and physiological responses with customers and employees.

Wakefield and Blodgett (1994) studied the servicescapes of two stadiums, one of high quality and one of low quality. It was determined that greater satisfaction was associated with the servicescape of higher quality and therefore, people were more inclined to go to games in that stadium. In another study, facility aesthetics, such as wall colour, wall covering, seats, and overall facility attractiveness, have been incorporated in the consideration of ambient conditions (Wakefield & Blodgett, 1996). The customer’s perception of seating comfort is an important component of ambient conditions. It is especially relevant in services where customers sit for long periods of time.

In another study, Wakefield and Blodgett (1999) tested a model that included the intangible and tangible elements of the service quality scale (SERVQUAL) that was established by Parasuraman, Zeithaml and Berry (1988). Wakefield and Blodgett included also an affective or emotional measurement of the customer’s level of excitement. They report 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.

In Arab countries, there have been studies on service quality, satisfaction and loyalty (e.g., Chaker & Jabnoun, 2010; Kassim & Ismail, 2009; Hossain & Leo (2009). However, none of these studies have been conducted on the service quality at hotels in Arab countries. Rather, these studies focused on service quality at banks and higher education. Most of the studies on service quality and customer loyalty in hotel industry have been conducted in five-star hotels in non-Arab countries. For example, Almossawi (2008) employed the SERVQUAL model to assess the quality of services provided at one of the popular five-star hotels in Bahrain, named the Gulf Hotel. Thus, the study reported in this paper can be considered the first study to focus on the effect of physical environment in hotel industry in Arab countries.

The Study

Although many studies discuss the relationship between customer satisfaction and loyalty (Skogland & Siguaw, 2004) and customers’ perceptions of service quality (Juwaheer & Ross, 2003), the impact of physical environment in hotel industries has not been addressed adequately. In other words, little research has been examined how the various component of physical environment attitudes and behaviours of customers; little empirical research has been done on the relationship between the physical environment and key antecedents of perceived quality (Baker,
Parasuraman, Grewal, & Voss, 2002; Bitner, 1992). As shown in Figure 1, the framework of the study conceptualizes that the components of the physical environment in a hotel have their effects on customer loyalty.

![Figure 1: Framework of the study](image)

**The Research Questions**

The present study attempts to answer the following questions:
1. How do customers’ perceptions of the design of hotels affect their loyalty?
2. How do customers’ perceptions of equipment at hotels affect their loyalty?
3. How do customers’ perceptions of the ambient conditions at hotels affect customer loyalty?

**The Design of the Study**

The design of the present study is a survey study employing quantitative approach. Most of the previous studies on service quality and loyalty in hotel industry adopted quantitative approach with a survey design. These studies include Saleh and Ryan (1991), Wakefield and Blodgett (1999), Kassim and Abdullah (2010) and Shahin and Dabestani (2010), just to quote few. Miller (2004) states that the major advantages of survey research are (a) the ability to collect a wide scope of information from a large population (b) dealing with a real situation in the sense that a researcher collects data in the actual situation and (c) providing a first step in developing hypotheses or in identifying more specific problems for research. The questionnaire used for data collection was based on previous studies of the components and characteristics of intangible service (e.g., Parasuraman et al., 1988, 1991a, 1991b, 1991c) and tangible service (Wakefield & Blodgett, 1996; Bitner, 1992).

**Hypotheses of the Study**

The main hypotheses of this study are:
Hypothesis 1: The interior design of hotels has effects on customer loyalty.
Hypothesis 2: the equipment at hotels has effects on customer loyalty.
Hypothesis 3: The ambient conditions of the hotel have effects on customer loyalty.

The null hypothesis and the alternative for each hypothesis are listed below.
Hypothesis 1 was that the design of the hotel had effects on customers’ loyalty. The null hypothesis and the alternative one were:
1. The design of the hotel had effects on customers’ loyalty.
2. The design of the hotel had no effects on customers’ loyalty.

Hypothesis 2 was that the equipment at the hotels had effects on customers’ loyalty. The null hypothesis and the alternative one were:
2. Equipment at the hotels had effects on customers’ loyalty,
2. Equipment at the hotels had no effects on customers’ loyalty.

Hypothesis 3 was that ambient conditions had effects on customers’ loyalty. The null hypothesis and the alternative one were:
3. The ambient conditions had effects on customers’ loyalty,
3. The ambient conditions had no effects on customers’ loyalty.

Based on these three hypotheses, the regression model is:

Customers’ Loyalty = β₀ + β₁ (Design) + β₂ (Equipment) + β₃ (Ambient Conditions)

Respondents and Sampling Design
In this study, customers who stayed overnight at hotels located in Al-Ladhiqiyah, a coastal city in Syria were the target population. The respondents in this study were selected randomly from the target population. The sampling design in the present study was convenience sampling, a type of non-probability sampling, in which the hotels’ customers were selected, in part or in whole, at the convenience of the researcher. 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. Convenience sampling is a non-probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher; the respondents are selected without pre-specified or known probabilities (Sekaran, 2009; Anderson, Sweeney & Williams, 2009). This sampling has been used in measuring customers’ perceived service quality and customer loyalty in several researches, such as Kim, Jin and Swinney (2009), Master and Prideaux (2000), and Tsang and Qu (2000).

Moreover, the researcher tried to distribute the survey questionnaire to guests when they checked in. With the help of managers at hotels, the questionnaires were distributed to the respondents who were requested to return the questionnaires after completion of responding to items of the questionnaire to the researcher when they check out. Regarding the sampling of the hotels, they were selected randomly because Al-Ladhiqiyah is a small town in which there were no many hotels.

Data Collection
The instrument that was employed for data collection in the present study was a questionnaire that was based on Parasuraman et al. (1988, 1991a, 1991b, 1991c), Wakefield & Blodgett (1996, 1999), Bitner (1992), and Skogland and Siguaw (2004). The questionnaire (see appendix A) was piloted for testing its validity and reliability. Moreover, it was shown to experts to obtain their views on the items of all dimensions. These experts have been teaching and researching in business, marketing and management for a number of years. The questionnaire consists of three sections. The first section was designed to obtain personal information
concerning the demographic characteristics of respondents including gender, age, annual income, number of visits to hotels in the past year and the purpose of visits per a year. The second section of the questionnaire focused on indentifying the customers’ perceptions of tangible aspects, including the design of the building, equipment in the hotel and the ambient conditions. The total of items in this section is 15 items: eight items for design, three items for equipment and four items for ambient conditions. This section was adopted with some modification from Wakefield & Blodgett (1999). Some items were added to better fit within the context of the study and the hotel industry. Respondents were asked to express their opinion on the 15 items of tangible service quality attributes on a seven-point Likert scale, ranging from ‘strongly disagree’ to ‘strongly agree’ with value 1 and 7 respectively. To create a list of tangible service quality attributes for the questionnaire, previous studies were reviewed. Frequently used attributes in tangible service quality studies (Parasuraman et al., 1988, 1991a, 1991b, 1991c; Bitner, 1992; Wakefield & Blodgett, 1996, 1999) were referred to.

The third section of the questionnaire was designed to identify customers’ loyalty. Respondents in this study were asked to express their opinions on their loyalty to the hotel they were staying in. The total number of items in this section was 7 items. This section was adopted from Skogland and Siguaw (2004). Moreover, using the dimensions with the seven items mentioned above was suggested by different researcher (Hayes, 2008). The respondents were requested to express their opinions on a seven-point Likert scale ranging from ‘strongly disagree’ to ‘strongly agree’ with values 1 and 7 respectively.

The English questionnaire was translated into Arabic language by an expert in translating from Arabic to English. The Arabic version of the questionnaire was then translated back to English to ensure consistency by a professor who is an expert in translating from Arabic to English. The English version of the questionnaire is presented in appendix A and the Arabic version is presented in appendix B.

Reliability and Validity

All standardized factor loading of each construct was high (above .64) that ensured the convergent validity. For establishing content-based validity evidence, the questionnaire was submitted to a panel of three experts who possess a substantial amount of knowledge and research experience in the field of business marketing and management to ensure the validity of each of the constructs. First, the panel of experts was provided with detailed information about the fundamental purpose and overall design of the study to assist them in making improvement decisions. After that, the panel of experts was asked to carefully review the questionnaire to determine whether the individual items adequately represent the domains of the underlying constructs in terms of wording, clarity, format and adequacy.

The reliability coefficients of the three dimensions of tangible factors were consistent with the original version developed by Parasuraman et al. (1988). Cronbach’s coefficient of the total scale of the original SERVQUAL had very high internal consistency (a=.90). As shown in Table 1, the reliability of the measures was assessed using the inter-item consistency measure of Cronbach’s alpha. The alpha for all the independent variables and dependent variable ranged from 0.867 to 0.934 and exceeded the minimum acceptable value of 0.7 (Nunnally, 1978). Therefore, no item was deleted.

Table 1: Reliability Coefficient for the major variables
<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>8</td>
<td>0.867</td>
</tr>
<tr>
<td>Equipment</td>
<td>3</td>
<td>0.805</td>
</tr>
<tr>
<td>Ambient Conditions</td>
<td>4</td>
<td>0.859</td>
</tr>
<tr>
<td>Customer Loyalty</td>
<td>7</td>
<td>0.934</td>
</tr>
<tr>
<td>Total</td>
<td>22 items</td>
<td></td>
</tr>
</tbody>
</table>

**Analysis of Data**

After the researcher collected all the completed surveys, invalid surveys were discarded. The questionnaires were administered to 221 customers. The response rate was 94.6% because the valid questionnaires were 209. The data obtained through the questionnaire were analyzed using SPSS (Statistical Package for Social Sciences). The data were tabulated and entered in SPSS for descriptive statistics and regression analysis. Descriptive statistics for all questionnaire items and research variables were computed in order to check for missing data and errors in data entry. Data entries were then listed and checked against the original questionnaires. A frequency analysis was conducted for all the questions to examine the distribution of the responses. In addition, hotel guests’ demographic information was analyzed.

Multiple regression analysis was employed to determine the relative impact of tangible service dimensions on customer loyalty. The level of significance was set at 0.05 because it is the most standard in social sciences (Burns & Burns, 2008). Regression analysis is a statistical technique to analyze the relationship between a dependent variable and a set of independent variables; it is used in this study to provide measurements of the accuracy of the predictors, based on the explained variance and measures the importance of the predictor variables that is, independent variables in explaining the variance in the criterion variable (i.e. dependent variable).

Assumptions in multiple regression analysis include linear relationship, constant variance of the error terms (homoscedasticity), independence of the error terms (uncorrelated) and normality of the error term distribution. These assumptions are detected by residual plots, Levene’s test and Kolmogorov Smirnov test. As suggested by Hair Anderson, Tatham & Black (1998), multiple R and R Squared were used to assess overall model fit. Multiple R is the correlation coefficient for the simple regression of X and the dependent variable Y. R-square is the correlation coefficient squared, also referred to as the coefficient of determination. This value indicates the percentage of total variation of Y which explained by X (Pallant, 2007). Another measure of the accuracy of predictions is the standard error of the estimate which is the square root of the sum of the squared errors divided by the degrees of freedom. It represents an estimate of the standard deviation of the actual dependent values around the regression line.

As recommended by Hair et al. (1998), several measures need to be defined for each variable in the equation. Those are the regression coefficient, the standard error of the coefficient and the t value of variables in the equation. The beta value is the value calculated from standardized data. The beta value allows us to compare the effect of one independent variable on Y to the effect on Y of other independent variables at each stage. The standard error of the coefficient is the standard error of the estimate of b value. It is an estimate of how much the regression coefficient varies between samples of the same size taken from the same population. The t-value of variables in the equation, measures the significance of the correlation of the variable reflected in the regression coefficient. Correlation and t values are available.
to assess their potential contribution as for variables which are not in the equation (Hair et al., 1998).

Results and Discussion

Demographic Characteristics of Respondents

To assess the representatives of the final data-producing sample with the target population and implications for external validity, the percentage difference in five demographic characteristics between the data-producing samples was conducted. The respondents in the current study were 209: 107 (48.8%) males and 102 (51.2%) females. Rankings in age groups were as follows: about 27.3% of the respondents were 28-37, followed by 24.9% at 38-47, 21.5% at 18-27 and 18.7% at 47-57. For annual income, 37.3% of respondents were in the range of less than $20000, followed by 25.4% in the range of $20001 to $35000, 16.3% between $35001 to $50000 and 13.9% in the range of 50001 to $75000 and 7.2% above 75000 $. In terms of number of visits per a year, 38.3% of the respondents visited Al-Ladhiqiyah between one to two times per a year, followed by 21.5% of the respondents visited that city between three to four times per a year. Regarding the purpose of visit, 345 of the respondents visited that city for leisure, followed by 24.9% of the respondents visited that city for the purpose of coming to see relatives and 22.5% of the respondents came for both leisure and business (see Table 2).

Results of Regression Analysis

To test the three hypotheses and find out the relationship between the independent variables and the dependent variable (i.e., customers’ loyalty), regression analysis was used. The three independent variables were the design of the hotel, the equipment in the hotel and the ambient conditions at the hotel. The results of the regression analysis for the regression model are presented in Tables 3 and 4. The findings of the current study indicated which environmental elements produced effects on customer loyalty, so that hotel managers and owners can use the findings as a guide in planning pleasant and arousing environments in their businesses.

The results of the regression of independent variables (design of the hotels, equipment at hotels and ambient conditions at hotels) with the dependent variable “customer loyalty” are listed in Tables 3 and 4. The regression the equation indicated an adjusted R2 of .486. This indicates that almost 49% of the variation was explained by this equation. The F- ratio of 66.572 was significant (p=.000), indicating that the results of the equation hardly could have occurred by chance. All of the tests were satisfied and there was no significant violation of the assumptions and outliers found in the model.

As provided in Tables 3 and 4, the results of the regression coefficient showed that there was a great influence of the design of hotels, including the decor and the furniture in the public spaces and rooms, on the customers’ loyalty with value significance of $p \leq 0.01$. The results also show that there was a great influence of the equipment at hotels on the customers’ loyalty with value significance of $p \leq 0.01$. With reference to the ambient conditions at hotels, the results of the regression coefficient revealed that there was a great influence of ambient conditions on the customers’ loyalty with value significance of $p \leq 0.05$.

It is important to recognize that the physical elements of design, equipment and ambient conditions should be managed to a large extent by hotel managers. Although managing design and ambience is probably one of the most expensive ways to enhance customer perceptions of physical environment in hotels, taking this
into account can have its positive effects on customer loyalty. For instance, music is more easily controllable than other physical elements. Hotel managers and owners can change background music, varying its volume, genre (classical or jazz), and tempo (slow to fast) based on the customer preferences to help them feel pleased or relaxed. Thus, restaurateurs should seriously consider physical attributes related to ambience as an operational tool.

Table 2: Demographic Characteristics of Respondents

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Categories</th>
<th>Frequencies</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>Male</td>
<td>107</td>
<td>48.8%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>102</td>
<td>51.2%</td>
</tr>
<tr>
<td>2. Age</td>
<td>18-27</td>
<td>45</td>
<td>21.5%</td>
</tr>
<tr>
<td></td>
<td>28-37</td>
<td>57</td>
<td>27.3%</td>
</tr>
<tr>
<td></td>
<td>38-47</td>
<td>52</td>
<td>24.9%</td>
</tr>
<tr>
<td></td>
<td>47-57</td>
<td>39</td>
<td>18.7%</td>
</tr>
<tr>
<td></td>
<td>Above 57</td>
<td>16</td>
<td>7.7%</td>
</tr>
<tr>
<td>3. Annual income</td>
<td>Less than $20000</td>
<td>78</td>
<td>37.3%</td>
</tr>
<tr>
<td></td>
<td>Between $20001- $35000</td>
<td>53</td>
<td>25.4%</td>
</tr>
<tr>
<td></td>
<td>Between $35001- $50000</td>
<td>34</td>
<td>16.3%</td>
</tr>
<tr>
<td></td>
<td>Between $50001- $75000</td>
<td>29</td>
<td>13.9%</td>
</tr>
<tr>
<td></td>
<td>Above $75000</td>
<td>15</td>
<td>7.2%</td>
</tr>
<tr>
<td>4. Visits per year</td>
<td>1-2 times</td>
<td>80</td>
<td>38.3%</td>
</tr>
<tr>
<td></td>
<td>3-4 times</td>
<td>45</td>
<td>21.5%</td>
</tr>
<tr>
<td></td>
<td>5-6 times</td>
<td>35</td>
<td>16.7%</td>
</tr>
<tr>
<td></td>
<td>7-8 times</td>
<td>36</td>
<td>17.2%</td>
</tr>
<tr>
<td></td>
<td>More than 8 times</td>
<td>13</td>
<td>6.2%</td>
</tr>
<tr>
<td>5. Purpose of visit</td>
<td>Business</td>
<td>23</td>
<td>11.0%</td>
</tr>
<tr>
<td></td>
<td>Leisure</td>
<td>71</td>
<td>34.0%</td>
</tr>
<tr>
<td></td>
<td>Leisure and business</td>
<td>47</td>
<td>22.5%</td>
</tr>
<tr>
<td></td>
<td>Meeting or conference</td>
<td>16</td>
<td>7.7%</td>
</tr>
<tr>
<td></td>
<td>Visiting relatives</td>
<td>52</td>
<td>24.9%</td>
</tr>
</tbody>
</table>

As provided in Tables 3 and 4, 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 3 and 4, all variables (i.e. design, equipment, and ambient conditions) had high contribution to explaining the dependent variable (customer loyalty). However, the variable of design exerted the strongest influence on loyalty, followed by variables of equipment and ambient conditions. A summary of the results of testing the three hypotheses is provided in Table 5 which shows that all hypotheses are supported by the output of regression analysis.

Table 3: Summary of the Regression Model (N=209)

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variables</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer</td>
<td>Design</td>
<td>.493</td>
<td>.486</td>
<td>66.572</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Equipment</td>
<td>Ambient Conditions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>-----------</td>
<td>--------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>loyalty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p≤ 0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4: The Influence of the Independent Variables (N=209)

<table>
<thead>
<tr>
<th>Regression Model</th>
<th>Independent Variables</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td></td>
<td>.455</td>
<td>.394</td>
<td>4.860</td>
<td>.000**</td>
</tr>
<tr>
<td>Equipment</td>
<td></td>
<td>.198</td>
<td>.209</td>
<td>2.862</td>
<td>.005*</td>
</tr>
<tr>
<td>Ambient Conditions</td>
<td></td>
<td>.175</td>
<td>.173</td>
<td>2.193</td>
<td>.029*</td>
</tr>
</tbody>
</table>

Dependent variable: customer Loyalty *p≤ 0.05  **p≤ 0.01

Table 5: Summary Hypotheses Testing

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Sig.</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 The design of the hotel has effect on customer loyalty</td>
<td>.000**</td>
<td>Supported</td>
</tr>
<tr>
<td>2 The equipment of the hotel has effects on customer loyalty</td>
<td>.005*</td>
<td>Supported</td>
</tr>
<tr>
<td>3 The ambient conditions in the hotel have effect on customer loyalty</td>
<td>.029*</td>
<td>Supported</td>
</tr>
</tbody>
</table>

*p≤ 0.05  *p≤ 0.01

Conclusion

The results of a regression analysis in the present study show different results in relation to the relative importance of the three variables of tangible factors of physical environment. The results reveal that the factors of design, equipment and ambient conditions have great influence on customer loyalty. In this respect, it seems necessary to critically consider those factors. In more detail, the factor of tangibles indicates the physical evidence of the service, such as physical facilities, appearance of personnel, other customers in the service facility and tools or equipment utilized to provide the services (Parasuraman et al., 1985).

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. The study results showed 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).

Similar to the findings of Zeithaml and Bitner (1996) and Boulding, Kalra, Staelin and Zeithaml (1993), the findings of this study indicate that overall perception of service quality 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), this study shows that there is a connection between service quality and repurchase intention and willingness to recommend the place to others.
As given in Skogland and Siguaw (2004), this study adopted the seven items on customers’ loyalty for obtaining respondents’ perceptions of their loyalty. This study does confirm the findings of Skogland and Siguaw (2004) which revealed that the main factors influencing customer loyalty are hotel design and facilities provided at the hotels. This is because this study shows that tangibles dimensions of service quality were significant explanatory variables of customer loyalty. The recognition of the importance of hotel design both from an architectural and interior design perspective should be realized by managers and owners of hotels.

With reference to the practical implications of this study, this 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 customers’ loyalty. In addition, the equipment found at hotels and the conditions of the rooms and the public spaces in hotels influence customers’ loyalty. 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.

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. The study results showed that physical environment influences the perceived service quality that relate to customer loyalty. Thus, 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.

**Recommendations for Future Research**

Studies on tourism and hospitality in Arab courtiers are still very few. First, this study suggests that future research can combine both qualitative and quantitative research for investigating the effects of tangible factors on loyalty. Using a mixed research design is recommended because it can help researcher to triangulate data sources and methods of data collection. In such mixed research design, a researcher can interview customers to gain deep information about their perceptions of service quality at hotel industry and more reliable information on their suggestions for improving service quality.

Third, the researchers recommend that other studies can investigate other tangible factors because this study focused only three tangible factors: design, equipment and ambient conditions. Other factors that can be included in recommended future studies are layout accessibility, seating comfort and music perceptions.

Fourth, studies on customers’ perceptions of tangible and intangible factors in hotel industry and their effects on customers’ loyalty can be conducted across some cultures in order to compare the differences of customers’ perceptions of service quality and loyalty.

Finally, future studies can focus on conducting a replication study using a larger sample size and encompassing different cities in Syria to strengthen generalizability of findings about the relationships between service quality and customer loyalty.
References


Consumer Services, 16(4), 239-247.

**Appendix A**

**The questionnaire**

**Introduction:**
This survey is about your perceptions of tangible and intangible factors in the hotel you are currently staying in. This questionnaire consists of three sections. Please answer them all.

**Section 1: Demographic Data**
The following questions are related to demographic information. For each question, please choose one answer that is the most appropriate for you.

1. What is your gender? Male ☐ Female ☐
2. What is your age? 18 – 27 ☐ 28 – 37 ☐ 38 – 47 ☐ 48 – 57 ☐ Over 57 ☐
3. What is your annual income in US Dollars?
Less than $20000 □  Between $20000 – $35000 □
Between $35001 - $50000 □  Between $50001- 75000 □
More than $75001 □

4. How many times per year do you visit this hotel?
   1– 2 □  3 – 4 □  5 – 6 □  7 – 8 □  Over 8 □

5. What is your purpose of this travel?
   For business □  For leisure □  For leisure and business □
   To join a convention □  Visit relatives □

Section 2: Tangible Factors of Service Quality  (16 Items)
Tangible factors are factors that can be seen and touched. These factors are related to
the design of the hotel, the equipment in the hotel and surrounding conditions. Please
indicate how you strongly agree or disagree to the statement given by circling the
most appropriate options to you. The options are as follows:
1 Strongly disagree 2 Disagree 3 Moderately disagree 4 Neutral
5 Moderately agree 6 Agree 7 Strongly agree

<table>
<thead>
<tr>
<th>Building Design</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 The overall outside appearance is attractive.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>2 The interior design is attractive.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>3 Layout makes it easy to get around.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>4 Seats in this hotel are comfortable.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>5 Lights in the environment of this hotel are appropriate.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>6 The furniture in this hotel is comfortable.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>7 The decoration in this hotel is attractive.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>8 The signs in this hotel provide adequate direction.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 The electronic equipment in this hotel is of high quality.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>10 Equipment in this hotel is modern-looking.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>11 The audio/video machines in this hotel are interesting.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ambient Conditions</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 The hotel is kept clean all time.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>13 The temperature in this hotel is comfortable</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>14 The appearance of the employees in this hotel is neat.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>15 Walkways and exits in the hotel are kept clean.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

Section 3
Customer’s loyalty is a concept that is used to refer to the customers’ repeat of
purchase and his/her recommendation of the hotel he visited to friends and others.
Please indicate how you strongly agree or disagree to the statement given by circling
the most appropriate options to you.

The options are as follows:
1 I consider myself to be a loyal guest of the hotel.
2 In the near future, I intend to use this hotel more often
3 As long as I travel to this area, I do not foresee myself switching to a different hotel.
4 If the hotel were to raise the price of my stay, I would still continue to be a guest of the hotel.
5 If a competing hotel were to offer a better rate or discount on their services I would switch.
6 I would highly recommend the hotel to my friends and family.
7 I am likely to make negative comments about the hotel to my friends and family.

The researchers
Thank you very much