An exploratory study of marketing, physical and people related performance criteria in hotels

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Abstract

Purpose – Using data from online guest ratings, the purpose of this paper is to explore how the performance of hotels in terms of various criteria influences loyalty behavior of customers.

Design/methodology/approach – Ratings of 333 hotels in the UK were collected from the web site www.laterooms.com and statistical analysis performed.

Findings – The criterion related to marketing management (Value for money) was found to be the most important criterion influencing loyalty behavior of customers in UK hotels. Further, it was found that good performance of hotels in terms of physical-product management can significantly influence the intentions of business guests to stay again, whereas leisure guests expect good performance both in terms of physical-product management and people and process management. While guests of independent hotels value performance in terms of people and process management, guests of chain hotels value both physical-product management and people and process management. Finally, it was found that the significance of criteria related to physical-product management and people and process management generally varies across star ratings.

Practical implications – Expectations of guests have been found to be quite different across various categories – star classifications, chain and independent hotels, and leisure and business guests. This implies that a general solution may not satisfy guests belonging to all these categories. For example, business and leisure guests perceive facilities differently and hence hotel managers need to provide different kinds of services to satisfy them. Similarly, the finding that business guests attach higher importance to criteria related to physical-property management, in deciding their intention to stay again in the UK hotels, compared to people and process management, has interesting practical implications. This indicates that good performance of hotels in maintaining room quality and cleanliness can significantly influence the intentions of business guests to stay again.

Originality/value – This is one of the first studies to statistically analyze online guest ratings. It extends the applicability of the frameworks developed in the earlier literature by employing them with the new data source (online ratings).

Keywords United Kingdom, Hotels, Customer loyalty, Web sites, Multivariate statistics, Marketing, Online guest ratings, Performance criteria

Paper type Research paper

Introduction

The hotel sector in the UK has generally registered growth in the past few years. As per the web site of VisitBritain (www.tourismtrade.org.uk accessed on March 2, 2011), the average occupancy level for all serviced accommodation throughout the UK was 59 percent in August 2010 which was higher by 1 percentage point compared to the figure for August 2009. This growth is set for a further boost due to the 2012 Olympics in London, though there seems to be a slow-down in the short run. For example, the
United Kingdom Tourism Survey (Visit Britain, 2010) has estimated that there were 97 million trips in England in the year ending September 2010, which was about 3.9 percent less than the numbers recorded for the year ending September 2009 (http://www.visitengland.org, accessed on March 2, 2011). The hotel sector, as well as the entire hospitality and the tourism industry, are highly responsive to the upward and downward changes in the economy (BOD Consulting, 1996). Hence, hotels need to be very competitive for survival and retain customer loyalty.

Ability of an organization to attract and retain customers is vital to its success. Customer loyalty requires that there is a strong desire by the customer for a product, and that there are several product vendors to choose the product based on his/her preferences (Dick and Basu, 1994; Otim and Grover, 2006). These two factors are very much applicable in the hotel sector as more and more people visit different places and need places to stay (Nunes and Spelman, 2008), and huge number of hotels are available. Customer loyalty in hotels is often shaped by experience by the guest before, during and after his/her stay in a hotel. A number of factors contribute to the experience – customer service, cleanliness, facilities, price, food, location, etc. The relationship between performance of hotels in terms of these factors and customer loyalty has been a topic of several research studies (e.g. Boulding et al., 1993; Callan, 1998; Chao, 2008; de Ruyter et al., 1998; Dube and Renaghan, 1999a, b; Lee and Jang, 2010).

Most of these studies have used data collected from primary surveys for their analysis. With the rapid growth of hotel reservations over the internet, a new and exciting set of data is available from online guest ratings of hotel guests. In this paper, we have used these online guest ratings of the UK hotels to empirically explore the relationships between hotel performance criteria and loyalty behavior of customers (interpreted in this paper as the intentions of guests to stay again). We then analyze the influence of star ratings, leisure and business guests, and chain and independent hotels on these relationships. Although our study uses online guest ratings in the hotel literature and is one of the first studies to do so, the use of online ratings is not new and has been heavily used in understanding the drivers in the e-commerce environment (e.g. Heim and Field, 2007; Heim and Sinha, 2001; Jiang and Rosenbloom, 2005).

**Literature review**

*Service quality and performance criteria in the hotel industry*

Guests use a variety of performance criteria to judge the quality of service they receive during their stay in a hotel. Some of the criteria are related to intangible service elements and some are related to tangible physical elements. Many research studies evaluating service quality in hotels have considered these criteria in different forms. The popular SERVQUAL instrument (Parasuraman et al., 1988) is based on five prominent dimensions of service quality (reliability, assurance, tangibles, empathy and responsiveness), and the instrument has been applied to hotels. Fernandez and Bedia (2004) have used SERVQUAL instrument to measure service quality of hotels in Spain and found that, in general, hotel star ratings system does not correspond to levels of service quality. Akbaba (2006) has used five dimensions that are broadly based on traditional SERVQUAL principles but are slightly different: tangibles, adequacy of service supply, understanding and caring, assurance, and convenience. His study has found that the most important dimension for business tourists was “tangibles” and that leisure tourists had the highest expectations for “convenience”.

Performance criteria in hotels

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Su and Sun (2007) have used content analysis and SERVQUAL dimensions for analyzing Taiwan’s criteria of hotel service quality. Using data obtained from a primary questionnaire survey, Briggs et al. (2007) have shown that service quality determinants vary according to size of the hotel. They have also found that customer service ratings in terms of several operational criteria (friendliness, standards, personal service, and tangibles) differed significantly across hotels of various sizes (small, medium, large) except for the criterion “value for money”. Hsieh et al. (2008) have used the SERVQUAL instrument to measure service quality of Hot Spring hotels in Taiwan and then derived weights for service quality dimensions. Extending the SERVQUAL instrument for a rural context, Albacete-Saez et al. (2007) have developed measures and scales to assess quality of service in rurally located tourism lodgings. Using multivariate statistics (confirmatory factor analysis), they have found five dimensions as useful: personnel response, complementary offer, tourist relations, tangible elements and empathy.

Studies linking service quality and customer loyalty
A number of studies have explored the link between perceived service quality and customer loyalty (e.g. Cronin et al., 2000; Dube and Renaghan, 1999a, b; González et al., 2007; Ha and Jang, 2010; Hutchinson et al., 2009; Um et al., 2006). In their two-part study, Dube and Renaghan (1999a, b) have examined guests’ perceptions of building customer loyalty and the contribution of various hotel criteria in delivering promised benefits. They have conducted a primary survey of frequent business and leisure tourists in the USA to understand the relative contribution of 115 functional practices to customer loyalty. They have divided the practices into three broad functional areas – physical-property management, people and process management, and marketing management.

González et al. (2007) have used factor analysis and regression on the data from a primary survey and have found evidence for a positive relationship between perceived service quality and satisfaction. They also found that customer satisfaction and perceived service quality positively influenced behavioral intentions. Wilkins et al. (2007) have used survey of 63 items relating to hotel performance to understand the determinants of service quality in the first class and luxury hotel segments in Queensland, Australia. Using exploratory principal component factor analysis, they have found that the 63 items reduced to seven components. They have further found that the seven components could be grouped into three dimensions – service experience, physical product, and, quality of food and beverages using confirmatory factor analysis.

Some studies have attempted to identify the relative importance of various performance criteria of service quality in influencing customer satisfaction (Callan and Bowman, 2000; Knutson, 1988; Lockyer, 2002; McCleary et al., 1993). Cleanliness is generally reported as the most important criterion (Weaver and McCleary, 1991). Quality of rooms with comfortable beds and good towels have also been found to be important (Knutson, 1988; Weaver and McCleary, 1991; Weaver and Oh, 1993). Other criteria such as customer service (Knutson, 1988; Lockyer, 2002; Weaver and McCleary, 1991; Weaver and Oh, 1993), and, safety and security (Knutson, 1988; Lockyer, 2002; Weaver and McCleary, 1991) have also been found important.

Influence of star rating
The function offered by hotels is essentially a service function, which is only “experienced” by customers during their stay and makes the assessment of quality
difficult (Heineke and Davis, 2007). In order to guide potential guests on the nature of facilities and service that can be expected in hotels, a star rating of hotels is generally used. This rating usually varies between two and five. In general, the higher the star rating, the higher is the expected level of service and facilities in a hotel.

Several research studies have attempted to test the correctness of star ratings by comparing the ratings with the facilities available in hotels and the service experienced by hotel guests. There have been conflicting findings. For example, using data obtained from a primary questionnaire survey and customer reviews from Tripadvisor.com, Briggs et al. (2007) have argued that star grading schemes and associated standards are largely driven by physical facilities of the hotels, and that these schemes do not adequately take into account customer service orientation of hotels. As per Orfila-Sintes and Mattsson (2009), different levels of hotel quality do not really have an impact on the hotel operations as such, and the difference between high and low quality accommodation is in the quality of the extra services and tangibles. Fernandez and Bedia (2004) have also found that, in general, hotel star rating systems do not correspond to levels of service quality. Hashim et al. (2010) have recently found that star rating of hotels was significantly related to the levels of internet adoption in Malaysia.

Customer service offered by different star rated hotels in terms of their response to e-mail enquiries and adoption of information technology has been studied in the literature (e.g. Matzler et al., 2005; Siguaw et al., 2000; Wei et al., 2001). All these studies have found that the extent of information technology and email usage and the corresponding customer service level were higher as star ratings of hotels increased.

**Influence of hotel management characteristics (independent hotels vs chain hotels)**

Hotels that are part of a chain have some advantages and disadvantages over hotels that operate independently. Chain hotels generally have access to valuable operating knowledge shared by other hotels in the chain (Ingram and Baum, 1997). They can also enjoy economies of scale (Chandler, 1977; Ingram, 1996). However, chain hotels are constrained strategically as they cannot make decisions on their own and are constrained by the strategic directions of the parent company. Much research has been carried out to compare performances of hotels that are part of a chain and independent hotels. The benefits of being in a chain have been highlighted by Ingram and Baum (1997). They have studied the modes of chain affiliations of hotels and their failure rates focusing on Manhattan hotels for the period 1898-1980, and have found that hotels that are part of a chain generally recorded higher survival rates.

In terms of the difference between the performance of independent hotels and hotels that belong to a chain, Briggs et al. (2007) have cited the works of Ingram (1996) and have argued that independent hotels normally take a transactional approach to their customer service while hotels that are part of a chain will take a more transformational approach. However, using data obtained from a primary questionnaire survey, they have found that customer service ratings in terms of several performance criteria (friendliness, standards, personal service, and tangibles) did not differ significantly between independent hotels and hotels that are part of a chain. Hashim et al. (2010) have found that hotel affiliation (chain or no-chain) was significantly related to the levels of internet adoption in Malaysian hotels.
Influence of guest segments (leisure vs business)

Both business and leisure guests use hotels. It is important that hotels deliver appropriate bundle of benefits for all guest segments. Some studies in the literature have attempted to explore the preferences of these two segments of guests (e.g. Gursoy and Gavcar, 2003). Past studies have indicated that business guests generally considered cleanliness and location as important attributes while leisure guests employed security, personal interactions, and room rates as prime attributes in their hotel selection (Clow et al., 1994; McCleary et al., 1993; Yavas and Babakus, 2005).

Dube and Renaghan (1999a, b) have summarized their detailed study on customer loyalty in American lodging industry, and have highlighted the differences in the preferences of three types of guests – leisure, business (transient) and business (meeting and convention). Their study has found that leisure guests preferred a comfortable stay while the other two business type guests preferred a worry-free stay. They have also found that leisure tourists attributed overall service quality and cleanliness in their perception of “Value for money”, while business tourists attributed convenient location and value-added service in their perception of “Value for money”.

Using a structural equation modeling framework applied on primary data, Kashyap and Bojanic (2000) have found that perceived price and quality of public areas were significant in explaining ratings and intention to revisit for both leisure and business guests. However, the impacts of other criteria were different for the two guest segments. They have found that quality of room was significant in explaining ratings and intention to revisit for business guests but was not significant in explaining the behavior of leisure guests. Similarly, quality of staff services was significant in explaining ratings and intention to revisit for leisure guests, but was not significant in explaining the behavior of business guests. Chu and Choi (2000) have used the theory of Importance-Performance Analysis framework in understanding the preferences of leisure and business tourists. They have found that preferences of both business and leisure tourists did not differ much; both the categories stressed service quality, value, room and front desk, and, security in making their hotel choices.

Yavas and Babakus (2005) have used a primary survey to investigate whether hotel choice attributes are comparable across these two guest segments. They have found that both the segments seem to provide the highest importance to the availability of general amenities. But, the next ranked attributes varied across the two categories. While business guests preferred convenience, core service, room amenities and ambiance in the same order, the order of preference of leisure guests were core service, convenience, ambiance, and room amenities. Akbaba (2006) has found that the most important dimension for business tourists was “tangibles” and that leisure tourists had the highest expectations for “convenience”.

Studies that used online ratings

We have used online ratings (i.e. numerical ratings) of hotel guests as our data in this paper. It is the first time a statistical analysis of such hotel ratings are used to explore the relationships between performance of hotels in terms of various criteria and loyalty behaviour of customers. However, the use of online ratings for exploring such relationships is not new, and several studies exist in the context of e-commerce web sites (e.g. Heim and Field, 2007; Heim and Sinha, 2001; Jiang and Rosenbloom, 2005; Ramanathan, 2010). In the context of hotels and tourism, some recent studies have used
information from the internet (e.g. Briggs et al., 2007; Christodoulidou et al., 2010; Law et al., 2004; Wen, 2009; Ye et al., 2010). However, they have used online customer reviews (i.e. verbal feedback) and not online customer ratings (i.e. numerical ratings). Briggs et al. (2007) have used online reviews and comments from TripAdvisor.com as a part of their study to identify the role of demand customers in improving performance of hotels, and explore gaps between service quality determinants by hotel management and customers. Ye et al. (2010) have shown that guest reviews have a significant impact on online sales of hotels, with a 10 percent increase in traveler review ratings boosting online bookings by more than five percent. Using 60,648 consumer ratings and comments from an online distribution site, Stringam and Gerdes (2010) have explored the factors that drive consumer ratings of hotels. Though they have collected customer ratings, their focus was more on analyzing verbal reviews and linking to customer ratings. They have identified unique words from reviews to provide clues to hotel management on actionable words: those that would suggest areas where a hotel could take action and thereby improve their customer satisfaction. They have argued that hotel management should deploy resources to improve ratings and guest comments from the online community. As a summary, based on the above literature review, we claim that ours is one of the first few to statistically analyse online guest ratings from hotels.

Contextual setting and hypotheses development

Conceptual framework

Figure 1 provides the conceptual framework of our analysis. We consider the intention of guests to stay in the hotel again as an indication of the performance of a hotel in winning a customer. This notion is consistent with similar studies in the literature (e.g. Dube and Renaghan, 1999a, b; Heim and Sinha, 2001; Otim and Grover, 2006). We aim to identify the relationship between performance of hotels in terms of different criteria and loyalty behavior of customers. We conjecture that this relationship is influenced by star ratings, hotel management characteristics (chain or independent) and guest segments. The hypotheses developed below are also shown in the figure.

Hypotheses development

Dube and Renaghan (1999a, b) have reported 115 functional practices that can be focused by hotel managers for improving customer loyalty, and categorized them into three broad functional areas:

(1) Physical-property management comprising aspects such as public spaces (including landscaping and general architecture), guest rooms (including design, furniture, amenities) and atmosphere.
People and process management comprising aspects such as personnel, check-in and check-out processes, and on-site hotel services.

Marketing management comprising aspects such as marketing efforts directed to the customer, brand name and reputation, and value for money.

Their study did not consider food in their survey. In our study, we draw upon these categories to divide the hotel service criteria in to the three broad functional areas, but include food also in our analysis. This classification of criteria is consistent with other studies in the literature. For example, Wilkins et al. (2007) have also used three sets of criteria – service experience, physical product, and quality of food and beverages in order to explore their relationships with performance.

Based on these classifications and the literature survey in the second section, we propose the following hypotheses on the relationships between performance of hotels in terms of different criteria and guests' intention to stay again.

H1a-H1c focus on the influence of star ratings. As we discussed earlier, there is a general view that star grading of a hotel is driven by physical facilities in the hotel (e.g. Briggs et al., 2007). Following this, we formulate H1a below:

H1a. The significance of criteria related to physical-property management in explaining guests' intention to stay again will increase as star ratings of properties increase.

Following the observation by Matzler et al. (2005), Siguaw et al. (2000) and Wei et al. (2001) that customer service level was higher as star ratings of hotels increased, we formulate H1b below:

H1b. The significance of criteria related to people and process management in explaining guests' intention to stay again will increase as star ratings of properties increase.

A main criterion related to marketing management, namely “value for money”, has been consistently recognized by previous studies (e.g. Dube and Renaghan, 1999a, b) as a very important criterion irrespective of star ratings of hotels. Hence, we formulate H1c as follows:

H1c. Criteria related to marketing management will remain significant in explaining guests' intention to stay again across all-star ratings of properties.

Our next set of hypotheses (H2a-H2c) focus on the role of hotel management characteristics (i.e. chain vs independent hotels). Following Briggs et al. (2007) who have cited the works of Ingram (1996), independent hotels normally take a transactional approach to their customer service while hotels that are part of a chain will take a more transformational approach. Hotels that are part of a chain have incentives to perform better in terms of consistent physical criteria and service criteria so as to attract the guest to the branch of the hotel in the location of his next visit. In contrast, independent hotels would stress more on value for money (a criterion for marketing management) in order to attract the customer again:
H2a. The significance of criteria related to physical-property management in explaining guests’ intention to stay again will be higher for properties belonging to chains than for independent properties.

H2b. The significance of criteria related to people and process management in explaining guests’ intention to stay again will be higher for properties belonging to chains than for independent properties.

H2c. Criteria related to marketing management in explaining guests’ intention to stay again will remain significant for independent properties and for properties belonging to chains.

Our final set of hypotheses (H3a-H3b) focus on the role of guest segments (i.e. leisure guests vs business guests). Drawing on Dube and Reneghan (1999a, b), Kashyap and Bojanic (2000) and others, we formulate the following two hypotheses:

H3a. Leisure guests attach higher importance to criteria related to people and process management in deciding their intention to stay again compared to physical-property management.

H3b. Business guests attach higher importance to criteria related to physical-property management in deciding their intention to stay again compared to people and process management.

Data and empirical analysis
Sample and measurement
Data used in our analysis have been obtained from the customer ratings in www.laterooms.com/, during August-September 2008.

LateRooms is a database offering hotel deals across the UK and worldwide. About 42 percent of the total number of accommodations available in LateRooms is in the UK and Ireland. Since its launch in 1999, the website has diversified its offerings by including additional services such as theatre and restaurant bookings. It has strategically partnered with travel agents (e.g. www.thetrainline.com) for wider appeal. As per the press pack of LateRooms in its website, the company’s total transaction value was £172 million (about $258 million) in 2008.

The LateRooms database comprises many options, properties from hotels to self-catering apartments, from budget hotels to five-star hotels, and booking options from ordering online to telephone booking. A mobile version of the main site is also available. The website provides extra information to potential tourists by providing city guides. Hotel star classifications are either based on self-classification by the hotels themselves, or are assessed by the Automobile Association (AA) of the UK, VisitBritain, VisitWales or VisitScotland.

One of the attractive features of LateRooms is the availability of user reviews. Users can read from over 190,000 reviews written by guests who have booked through LateRooms and actually stayed at the hotel. Guests utilizing the service of a hotel (booked through LateRooms) are subsequently asked by LateRooms to rate the performance of the hotel. The rating is captured in terms of six different criteria namely customer service, cleanliness of hotel, quality of room, value for money, quality of food, and family friendliness of the hotel using a Likert type scale varying from Low (1) to
High (6) with an additional option for non-availability or non-applicability (NA). In addition, customer is asked whether he/she would stay in the hotel again (Yes/No) and whether he/she would recommend the hotel to a friend (Yes/No). The ratings from all the reviewers of a hotel are then summarized such that the hotel is rated using the 1-6 Likert scale ratings for the six criteria. The answers to the two Yes/No questions is summarized as percentages (per cent of reviewers that said they would stay in the hotel again and per cent of the reviewers that said they would recommend the hotel to a friend).

Before delving into further analysis, it is appropriate to mention some limitations of using the data from LateRooms for the analysis in this study. First of all, LateRooms is one of the many online hotel web sites. It specializes in offering discounted hotel rooms. Though no statistics is available to directly compare the share of LateRooms, some inferences may be made with the available data. As mentioned earlier, total transaction value of LateRooms in 2008 was £172 million (about $258 million). Using the share of properties (39 percent of total accommodation booked via LateRooms is in the UK) as a proxy for the UK share of this transaction value, about £67 million (about $100 million) may be attributed to the transaction values of LateRooms via its operations in the UK. This represents about 0.3 percent of total expenditure of overnight tourists in the UK in 2008 (£21.1 billion or about $32 billion as per data from the UK national statistics). This may represent a very small proportion, but the share may be higher when only online transactions are taken into account for which no data are available.

Second, the internet is not the only source for bookings for hotels in the UK, although the percentage of internet hotel bookings is not readily available. However, use of ratings provided by online guests is appropriate to this study as it aims to understand the behavior of online guests and not the entire super-set of the UK hotel customers. Also, given that internet has been growing over the years in all sectors of the UK economy including the hotel sector (as per the UK E-commerce Survey (www.statistics.gov.uk, accessed on April 9, 2009) and Wei et al. (2001)), understanding the behavior of online guests becomes more and more important.

Finally, as mentioned in the literature review, data from online customer ratings has been accepted in the literature to derive further insights on the behavior of online customers (e.g. Heim and Field, 2007).

For our data collection, we selected only those properties (hotels or guesthouses) that received ratings from at least 30 customers. Since our focus is not on any specific characteristic of hotels or guesthouses, we do not distinguish between the two in the remainder of this paper, and collectively refer them simply as hotels. Total ratings of 333 hotels were collected separately for ratings from leisure customers and for ratings from business customers. The 333 hotels received ratings from a total of 24,544 guests, of which 16,739 are leisure guests and 7,805 are business guests. The breakdown of the properties is:

- 150 are part of hotel chains and 183 are independent; and
- 112 are three-star hotels, 161 are four-star, 41 are five-star while the rest are two-star and budget hotels.

The ratings of business guests and leisure guests are independent of each other as a guest can identify himself/herself as a business guest or leisure guest but not both while recording his/her ratings. For this reason, we consider the effective number of
hotels in our analysis as 666 comprising 333 hotels based on ratings from leisure guests and an equal number for ratings from business guests.

Table I provides overall summary of the data. Most of the correlations are below or just around 0.7. Ratings for “Customer service”, “Cleanliness”, “Quality of room” and “Value for money” ranged from 2 to 6, while the ratings for the other two criteria ranged from 1 to 6. Hotels received the highest possible rating of 6 in terms of all the performance criteria, and also the highest possible rating of 100 percent in terms of “Stay again” and “Recommend to friends.” The standard deviation of ratings in terms of “Quality of food” and “Family friendliness” were higher than that of the other four criteria.

Empirical analysis
For validating the hypotheses, we adopt the theoretical framework of Dube and Renaghan (1999a, b) and categorize the six criteria collected by Laterooms into the three functional areas as follows:

(1) Physical-property management comprising “Cleanliness”, “Room quality” and “Family friendliness.”

(2) People and process management comprising “Customer service.”

(3) Marketing management comprising “Value for money.”

We use multiple ordinary least squares regression analysis for testing $H_1 \rightarrow H_3$ because of the need to assess the marginal predictive contribution of theoretical variables. Regression analysis is a popular methodology used for assessing marginal predictive contributions (e.g. Heim and Sinha, 2001). We carried out the usual tests and verified that the assumptions of regression are valid for the data. We tested for normality assumption of the error terms, checked for the presence of outliers in the data and checked for multi-collinearity and heteroskedasticity. All these assumptions are satisfied.

Results of the multiple regression analysis are presented in Table II considering all the 666 hotels. We have used loyalty behavior of customers (i.e. guest ratings in terms of staying again) as the dependent variable and guest ratings in terms of other performance criteria as independent variables. The regression is significant as shown

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<th>A</th>
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<td>Cleanliness (B)</td>
<td>0.642</td>
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<td>Quality of room (C)</td>
<td>0.596</td>
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<td>1.0</td>
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<td>Value for money (D)</td>
<td>0.581</td>
<td>0.582</td>
<td>0.671</td>
<td>1.0</td>
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<td>Quality of food (E)</td>
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<td>1.0</td>
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<td>Family friendliness (F)</td>
<td>0.515</td>
<td>0.433</td>
<td>0.443</td>
<td>0.468</td>
<td>0.493</td>
<td>1.0</td>
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<td>Loyalty behavior of customers (G)</td>
<td>0.618</td>
<td>0.643</td>
<td>0.689</td>
<td>0.679</td>
<td>0.556</td>
<td>0.461</td>
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<td>Recommend to friends (H)</td>
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<td>0.693</td>
<td>0.726</td>
<td>0.699</td>
<td>0.610</td>
<td>0.490</td>
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<td>Maximum</td>
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<td>Mean</td>
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<td>4.66</td>
<td>4.56</td>
<td>4.44</td>
<td>4.19</td>
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<td>Std deviation</td>
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<td>0.766</td>
<td>0.674</td>
<td>0.866</td>
<td>0.838</td>
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</table>
by the high value of $F$-statistic ( = 165), which, as the triple asterisk next to it shows, is highly significant at 1 percent level. The value of $R^2$ is also high (0.619) signifying that the independent variables are able to explain 61.9 percent of variability in the dependent variable. The coefficient for the criterion “Customer service” has a value of 2.668 and this criterion is significant at 1 percent level (shown by the triple asterisk, which as the footnote to the table explains is interpreted as $p < 0.01$). Other entries of this table can be interpreted in a similar way. Thus, we find that all the six criteria are significant in explaining loyalty behavior of customers.

Table III provides the results for hotels with various star ratings, chain and independent hotels, and leisure and business guests. Note that the sum of all the three categories of star ratings do not add to 666 as there were some two-star and budget hotels that are not considered in these regressions. The results of this table shows that our $H1a$ is not supported as “Cleanliness” and “Room quality” are significant for three-star hotels and four-star hotels, but not for five-star hotels. “Family friendliness” is significant only for four-star hotels. Thus we conclude that the significance of criteria related to physical-property management in explaining guests’ intention to stay again does not increase as star ratings of hotels increase. $H1b$ is partially supported as customer service is not significant for three-star hotels but is significant for four- and five-star hotels. Since “Value for money” is significant for all the three levels of star ratings, we have support for $H1c$.

Looking at the columns of Table III for chain and independent hotels, we find that $H2a$ is not supported as “Cleanliness” and “Room quality” are significant and “Family friendliness” is not significant for both chain and independent hotels. We hence conclude that the significance of criteria related to physical-property management in explaining guests’ intention to stay again does not vary for hotels belonging to chains and for independent hotels. We find that “Customer service” is not significant for chain hotels but is significant for independent properties. This result does not support $H2b$, but supports the exact opposite; guests of independent hotels value performance in terms of people and process management. Since “Value for money” is significant for both chain and independent hotels, $H2c$ is supported.

Looking at the significance of criteria in the last two columns of Table III, we find that two of the three criteria related to physical-property management (“Cleanliness” and “Room quality”) are significant and also “Customer service” is significant for leisure
<table>
<thead>
<tr>
<th></th>
<th>Three star</th>
<th>Four star</th>
<th>Five star</th>
<th>Chain</th>
<th>Independent</th>
<th>Leisure</th>
<th>Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>224</td>
<td>322</td>
<td>82</td>
<td>300</td>
<td>366</td>
<td>333</td>
<td>333</td>
</tr>
<tr>
<td>Intercept</td>
<td>-2.77</td>
<td>-18.69**</td>
<td>5.57</td>
<td>-13.91**</td>
<td>-2.66</td>
<td>-5.07</td>
<td>-8.07**</td>
</tr>
<tr>
<td>Criteria related to physical-property management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleanliness</td>
<td>7.30**</td>
<td>2.28*</td>
<td>1.46</td>
<td>5.19**</td>
<td>2.13*</td>
<td>2.95**</td>
<td>3.75**</td>
</tr>
<tr>
<td>Room quality</td>
<td>2.77*</td>
<td>7.56**</td>
<td>1.88</td>
<td>4.99**</td>
<td>4.88**</td>
<td>4.14**</td>
<td>5.41**</td>
</tr>
<tr>
<td>Family friendliness</td>
<td>0.15</td>
<td>1.35*</td>
<td>-1.46</td>
<td>0.73</td>
<td>0.71</td>
<td>0.95</td>
<td>1.09</td>
</tr>
<tr>
<td>Criterion related to people and process management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer service</td>
<td>0.34</td>
<td>4.43**</td>
<td>5.42*</td>
<td>1.44</td>
<td>3.31**</td>
<td>3.76**</td>
<td>1.26</td>
</tr>
<tr>
<td>Criterion related to Marketing management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value for money</td>
<td>6.01**</td>
<td>5.53**</td>
<td>4.77**</td>
<td>6.81**</td>
<td>5.37**</td>
<td>5.75**</td>
<td>6.75**</td>
</tr>
<tr>
<td>Criterion related to food and beverages</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of food</td>
<td>1.72</td>
<td>0.69</td>
<td>3.90**</td>
<td>1.72*</td>
<td>1.87*</td>
<td>1.12</td>
<td>1.54*</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.59</td>
<td>0.64</td>
<td>0.58</td>
<td>0.59</td>
<td>0.63</td>
<td>0.57</td>
<td>0.64</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.58</td>
<td>0.63</td>
<td>0.55</td>
<td>0.58</td>
<td>0.62</td>
<td>0.56</td>
<td>0.64</td>
</tr>
<tr>
<td>$F$ statistic</td>
<td>52.1**</td>
<td>91.44**</td>
<td>17.56**</td>
<td>70.96**</td>
<td>101.95**</td>
<td>73.28**</td>
<td>95.54**</td>
</tr>
</tbody>
</table>

Notes: *$p < 0.05$; **$p < 0.01$; dependent variable: loyalty behavior of customers
guests. This result does not show overwhelming preference for people and process management. Hence, \( H3a \) is not supported. But, \( H3b \) is supported because two of the three criteria related to physical-property management ("Cleanliness" and "Room quality") are significant but "Customer service" is not significant in the case of business guests. Further, the criterion "Quality of food" is significant only in some of the columns of Table III – five-star hotels, hotels that are part of chains, independent hotels and for business guests.

**Discussion and managerial implications**

Table IV provides a summary of acceptance or rejection of our hypotheses. Thus \( H1a, H2a, H2b \) and \( H3a \) have not been supported while hypotheses 1c, 2c and 3b have been supported. \( H1b \) is partially supported.

We believe that these results provide useful information for managers of hotels in the UK in particular and for worldwide hotels in general. The most important result of our analysis is the universal significance of the criterion related to marketing management, “Value for money”, evidenced by the support of \( H1c \) and \( H2c \). As mentioned earlier, this is a complex criterion that is related to the price and discounts on the room rate, and other value added features of hotels such as overall service quality, convenient location, uncommon services, cleanliness, etc. (Dube and Renaghan, 1999a). As per Tables III and IV, this criterion is significant in all the regressions. This finding calls for efficient operational practices that minimize the cost of operation, which will be ultimately passed on to guests who will perceive getting good service for the best possible price. The importance of this criterion has been stressed in several studies on hotel performance (Briggs et al., 2007; Chen and Schwartz, 2008; Dube and Renaghan, 1999a, b; Gallarza and Saura, 2006).

As mentioned in the literature survey, Dube and Renaghan (1999a, b) have found “Value for money” as an important criterion in explaining customer loyalty in the USA, with 80 percent of their respondents identifying this as a major criterion for their choice of a preferred hotel. Chen and Schwartz (2008) have stressed the importance of value when guests book a room on the internet and showed that the patterns of changes in room rates observed by guests while searching for a deal affects their propensity to book. Using a structural equation modeling study, Gallarza and Saura (2006) have confirmed the existence of a quality-value-satisfaction-loyalty chain in explaining the behavior of tourist customers in Spain.

<table>
<thead>
<tr>
<th>Criteria related to physical-property management</th>
<th>Star rating</th>
<th>Chain or independent hotels</th>
<th>Leisure guests</th>
<th>Business guests</th>
</tr>
</thead>
<tbody>
<tr>
<td>( H1a ) not supported</td>
<td>( H2a ) not supported</td>
<td>( H3a ) not supported</td>
<td>( H3b ) supported</td>
<td></td>
</tr>
<tr>
<td>Criterion related to people and process management</td>
<td>( H1b ) partially supported</td>
<td>( H2b ) not supported</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criterion related to marketing management</td>
<td>( H1c ) supported</td>
<td>( H2c ) supported</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table IV.* A summary of acceptance or rejection of the hypotheses
Table II shows that all the criteria are significant in explaining guests' intention to stay again in the UK hotels when all the hotels are considered in the analysis. This result points to the need for generally performing well in terms of all the hotel service criteria in order to influence the repeat stay intentions of guests. This result is consistent with the finding of Dube and Renaghan (1999a, b) that has found quality standards of hotel-stay services, guest room design, amenities, personnel, brand name, and value for money as the five top functional areas of customer loyalty. These functional areas were mentioned by 80 percent to 85 percent of guests for choosing their preferred hotel.

In addition, some more interesting results emerge based on validating the hypotheses. Our results generally indicated that guests perceive performance of the UK hotels differently across various categories – star classifications, chain and independent hotels, and leisure and business guests. This shows that the expectations of guests are quite different across these categories, and a general solution may not satisfy all these categories. For example, business and leisure guests perceive facilities differently and hence hotel managers need to provide different kinds of services to satisfy them. This finding is consistent with those of Dube and Renaghan (1999a, b) for the USA. This result is also similar to that of Briggs et al. (2007) that have found for Scotland that customer service ratings in terms of several performance criteria (friendliness, standards, personal service, and tangibles) differed significantly across hotels of various sizes (small, medium, large) except for the factor “value for money”.

**Summary and conclusions**

We studied the significance of performance of hotels in terms of six customer service criteria on the intentions of guests to stay in the UK hotels again. We used the online ratings available at www.laterooms.com as our data, and employed regression for the empirical analysis.

Results of $H1-H3$ provide specific insights on the significant criteria across these categories. The most important result is the support for Hypothesis 3b that found business guests exhibit higher importance to criteria related to physical-property management in deciding their intention to stay again in the UK hotels compared to people and process management. This indicates that good performance of hotels in maintaining room quality and cleanliness can significantly influence the intentions of business guests to stay again. This result agrees well with those of Kashyap and Bojanic (2000), who have found quality of room was significant for business guests’ intention to revisit the USA. However, this result is somewhat contrary to the findings of Brown and Maxwell (2002) for the UK and Tsaour and Lin (2004) for Taiwan, who have found that good performance in terms of service-specific criteria was important to hotels. However, as the result of $H3a$ shows, leisure guests expect good performance both in terms of physical-property management and, people and process management.

Results of $H1a$ and $H1b$ indicate that the significance of criteria related to physical-product management and people and process management generally vary across star ratings in the UK hotels. It may be because guests’ expectation of the quality differed depending on star rating, and their ratings accounted for such differences in expectations. This finding is somewhat contrary to the belief that star ratings are mainly based on physical facilities (Briggs et al. (2007) for Scotland) or based on service (Matzler et al. (2005) for Austria; Orfila-Sintes and Mattsson (2009) for the Balearic Islands). Our finding generally agrees with that of Fernandez and Bedia...
(2004) who did not identify significant relationships between hotel star ratings system and the levels of service quality in the Spanish context.

From Table III, we see that physical-property management is significant in explaining loyalty behavior for three-star and four-star hotels, but not for five-star hotels. This may be due to the differing expectations from hotels of various star ratings. A guest satisfied with physical facilities has a positive impact on his loyalty intentions in the case of three-star or four-star hotels. But they may consider good physical facilities as a basic necessity for five-star hotels and hence a satisfaction in terms of physical facilities does not influence their intentions to visit the same five-star hotel again.

Results of H2a and H2b generally point that criteria related to people and process management are valued by guests of independent hotels. This finding is somewhat contrary to previous observations by Briggs et al. (2007) that hotels that are part of a chain take a transformational approach by providing a consistently efficient service. Guests of chain hotels do not consider the criteria related to people and process management as significant. Further, two of the three criteria related to physical-product management are significant for these guests. These results indicate that chain hotels in the UK tend to emphasize uniform levels of physical products across chains and are valued by guests.

Table III also shows that customer service is significant for four-star and five-star hotels and not for three-star hotels. Thus, customer service could be considered as a service differentiator for higher star hotels.

While our study has provided important results, we wish to stress some of the limitations of our study and scope for future research. The most important limitation of our study is the use of secondary data in our analysis. Unlike a primary questionnaire survey, our data is not based responses of individual customers but is based on the aggregated ratings provided by several customers (minimum 30) for a hotel. The aggregation might have concealed some differences in individual responses. Because we have used secondary data, the hotel service criteria chosen in this study are limited by those collected at the web site. While all the six criteria considered in this study are important, some other potentially important criteria (e.g. location, use of technology, etc.) could not be considered in the analysis. Our analysis has been limited to the UK hotels but more geographical regions could be considered and related to the cultural perspectives of the region. We focused on the web site of LateRooms for collecting our data, but data could also be collected from more hotel rating sites (e.g. tripadvisor.co.uk, expedia.co.uk, etc.). However, in spite of these limitations, we hope that the present study is useful to hotel managers in understanding the drivers of guests’ intention to stay again.

References


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