The influence of physical environment on emotions, customer satisfaction and behavioural intentions in Chinese resort hotel industry

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Abstract: The objective of this study is to examine the influence of physical environment on emotions, customer satisfaction and behavioural intentions in Chinese resort hotel industry. A convenient sampling technique was used to select the sample. A total of 500 questionnaires were distributed to customers of resort hotels in four different cities of China out of which 170 were returned (35% response rate). The result from the finding suggests that customers who have higher perceptions of the physical environment are more likely to have positive emotions, increasing customer satisfaction and behavioural intentions. Therefore, Chinese resort hotels need to pay attention to upgrading their facilities in order to elicit positive emotion and maintain their relationship with customer satisfaction.

Keywords: physical environment; customer emotions; satisfaction; behavioural intentions; resort hotels.


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1 Introduction

China is one of the most popular tourist destinations in Asia for both domestic and international tourists. The number of domestic tourist visits was 1.61 billion, with a total income of 777.1 billion Chinese Yuan (World Travel and Tourism Council, 2011) and the number of overseas tourists was 55.7 million in 2010, which is an all-time high number exceeding the past figures having a total foreign direct spending of US$ 72.6 billion in 2011 (UNWTO Tourism Highlights, 2012). This growth in Chinese tourism does not stop here. According to the United Nations’ World Tourism Organisation (2012), in 2030, China will become the largest tourist destination which points to the growth of Chinese tourism industry in the coming years (www.travelchinaguide.com). Operating in this intensified competition, service providers of Chinese tourism industry have to develop a differential advantage in delivering the services (Li et al., 2012). In this context, the physical environment itself becomes a fertile opportunity for service providers to differentiate them. Service providers must devote considerable resources to be certain of designing an appealing physical environment (Lin and Liang, 2011).

Consumers of hospitality industry have become more sophisticated, more familiar with tourism services and products. As a result, service providers can no longer largely rely on competitive/low price alone for their success (Ryu et al., 2012). Customers now are no longer willing to sacrifice atmosphere (physical environment) or poor service for good value when they seek a relaxing experience in a resort hotel. An excellent service quality via good and attractive physical environment needs to be created to meet their satisfaction. The influence of the physical environment on consumer behaviour has received significant attention from researchers and has also gained a wide acceptance (Andreu et al., 2006; Slatten et al., 2011; Turley and Milliman, 2000), however, there are still pages that are unturned. One of these least studied issues is the role of emotions while determining the effect of physical environment on the behavioural responses of the customers (Lin and Liang, 2011; Slatten et al., 2009). Other researchers also suggest examining various internal responses of customers while studying the effect of physical environment and behavioural intentions (Han and Ryu, 2009; Ryu et al., 2012).
In today’s intensely competitive market, it is generally assumed that the key to gaining an advantage lies in delivering high-quality service that will, in turn, lead to satisfied customers (Han and Ryu, 2007). Particularly, in the tourism and hospitality industry, customers generally use physical environment as key component of their experience in evaluating the service quality (Ryu and Han, 2010; Wu and Liang, 2009). A good and attractive physical environment should result in customers’ positive emotions, which in turn should enhance customer satisfaction and customer loyalty in resort hotels. However, little research has been conducted to investigate the influence of physical environment on customer emotions, satisfaction and behavioural intentions in resort hotels.

Although the importance of resort hotels in tourism and hospitality has been consistently growing (UNWTO, 2012), it has not gained much attention in research. In this context, Line and Runyan (2012) reviewed 274 articles published in four top hospitality journals published from 2008 to 2010. In their review paper, they state that resort hotels are the least studied comprising only 0.7% of the total industry studied. However, the presence of research targeting this industry in top hospitality journals suggests its relevance to the field. Consequently, this study aims to empirically test the influence of physical environment on customer emotions, satisfaction and behavioural intentions within Chinese resort hotels. Resort hotels are highly relevant service context while examining the role of customer emotions in service consumption. This is because such services are consumed primarily to fulfil the customer’s pursuit of pleasure in their lives (Madrigal, 2003; O’Shaughnessy and O’Shaughnessy, 2002; Ali et al., 2013).

The remainder of this paper is organised as follows. First, the theoretical background and concepts that are central to this study are reviewed followed by presentation of a theoretical framework model and discussion of the relationships among model elements. Research methodology, including data collection, sampling and instrument development will be presented. Finally, the findings, implications and future research directions will be presented.

2 Literature review

2.1 Resort hotels

Resort hotels are one of the fastest growing segments of tourism attractions and are rapidly growing in number, diversity and popularity since the economic boom of 1960s. Today a large number of people travel to resort hotels situated in exotic and beautiful destinations in order to enjoy themselves and escape from their daily routine (Walker, 2006; Yang and Chan, 2010). While the lodging industry has not established a definitive, comprehensive and consistent definition of a resort, it can be defined as a place frequented by people for relaxation or recreation (Knutson et al., 2004). Moreover, Gee (2000, p.22) states that, “The core principle of the resort concept is the creation of an environment that will promote and enhance a feeling of well-being and enjoyment”. In actual design and operation, the resort concept is accomplished through the outdoor environment and amenities in addition to the provision of quality services and relevant facilities by the hotel itself. This is the main difference between a resort hotel and a traditional or commercial hotel (Mill, 2008). Additionally, Richardson (2000) also
identified two characteristics of a resort hotel. One is that it supplies sufficient indoor amenities, pleasant physical surroundings and convenient entertainment facilities whereas the second characteristic of the resort hotel is having a unique vacation spot that is desirable because of its climate, scenery and recreational attractions. These two criteria of the resort hotel are also emphasised in the hospitality literature and by practitioners (Barrows et al., 2012; Dittmer, 2002). In this context, Knutson et al. (2004) stated that performance of resorts can be significantly influenced by various factors such as weather, economic trends, etc. that are beyond the control of management. Moreover, from an operational viewpoint resort hotels can directly control one of the most important and influential aspects of the resort experience – physical environment – in order to ensure superior customer perceived quality, and elicit positive emotions in order to ensure customers’ loyalty and favourable behavioural intentions (Brey and Choi, 2010; Hu et al., 2009).

2.2 Physical environment

Organisation’s physical environment includes its overall layout, design, decoration and aesthetics (Lee and Jeong, 2012). Bitner (1992, p.58) used the term ‘servicescape’ to describe the man-made physical environment in which the delivery of service products takes place. This phenomenon has recently been found to be an important part of consumer evaluation of satisfaction with services (Ruiz et al., 2012). In this sense, adequate physical environment leads to more favourable customers’ responses such as perception of comfort and increased positive word of mouth intentions (Ryu et al., 2012).

The importance of creating an attractive atmosphere has gained growing attention among scholars and hospitality managers as it is a key factor for attracting and satisfying customers in hospitality industry (Han and Ryu, 2009). In this context, physical environment plays a critical role in differentiating service firms and influencing the nature of customer experiences (Bitner, 1992; Pareigis et al., 2011). Since physical environment is described as an outward appearance of the service provider, it can be critical in setting up customer expectations (Simpeh et al., 2011) by providing evidence towards the quality of the intangible service through the tangible cues (Berry and Parasuraman, 1991).

2.3 Emotions

Customer emotion has been studied as a central element by the researchers while investigating perceptions of service experiences (Lin and Liang, 2011). For example, Bagozzi et al. (1999) define emotion as “a mental state of readiness that arises from cognitive appraisals of events or thoughts; has a phenomenological tone; is accompanied by physiological processes; is often expressed physically; and may result in specific actions to affirm or cope with the emotion, depending on its nature and the person having it” (p.184). Emotions are viewed as intentional and based on specific objects or referents (Burns and Neisner, 2006). Consequently, emotions are not merely reactions to appraisals, but also include tendencies to action (Martin et al., 2008). Emotions are a person’s positive (pleased, relaxed) and negative (nervous, annoyed) feelings. People in positive emotional states have shorter decision times compared with the people in negative emotional states (Lee et al., 2009). Numerous researchers have pointed
out the significant contribution of customer emotions in selection of service providers, evaluation of service quality, determination of repeat purchasing behaviours and development of brand loyalty (Burns and Neisner, 2006; Lee et al., 2009; Martin et al., 2008).

2.4 Customer satisfaction

Literature has taken two approaches to define customer satisfaction. It is defined as “a judgement that a product, or service feature, or the product or service itself, provides a pleasurable level of consumption-related fulfilment, including levels of under or over fulfilment” (Oliver, 1997, p.13). On the other hand Day (1984, p.497) described satisfaction from a cognitive perspective as “a post-choice evaluative judgement concerning a specific purchase selection”. However, Churchill and Surprenant (1982) stated that customer satisfaction is more complex than could be explained by the cognitive evaluative process. Nowadays most researchers support the value of understanding customer satisfaction concepts from a broader perspective to capture the interplay between cognition and emotion (Teixeira et al., 2012).

Numerous researchers have studied customer satisfaction across hospitality industry. For instance, Westbrook and Oliver (1991) used four emotions-laden items to study customer satisfaction. On the other hand, Barsky and Labagh (1992) distinguished nine customer satisfaction attributes of hotel services for the better understanding of satisfaction: employee attitudes, location, room, price, facilities, reception, services, parking, and food and beverage. Similarly, Poon and Low (2005) pointed out that customer satisfaction is based on hospitality, accommodation, food and beverage, recreation and entertainment, supplementary services, security and safety, innovation and value-added services, transportation, location and appearance, as well as on the more basic concerns of pricing and payment. A recent study by Amin et al. (2013) pointed out that customer satisfaction is based on four factors, i.e., reception, food and beverage, house-keeping and price. There is a high tendency for the critical attributes to receive compliments for good performance and vice versa. Thus, many researchers tried to find the best attributes for enhancing customer satisfaction effectively by focusing on the attribute. Consequently, satisfying customers is the ultimate goal of every business due to its potential impact on repeat purchasing behaviour and profits (Jani and Han, 2011; Ryu et al., 2012; Slatten et al., 2011).

2.5 Behavioural intentions

Zeithaml et al. (1996, p.33) states that behavioural intentions “… signal whether customers will remain with or defect from the company”. These behavioural intentions are either favourable or unfavourable. Favourable intentions include positive word of mouth, more spending with the service provider, paying a price premium and remaining loyal whereas the unfavourable intentions include customer defection, negative word of mouth, reduced spending with the company and/or taking legal action (Ladhari, 2009). Similarly, Oliver (1997) described behavioural intentions as “a stated likelihood to engage in a behaviour” (p.28). Behavioural intentions are considered to include revisit and word-of-mouth intentions (Jani and Han, 2011). Consequently, customers’ previous experiences with a product or service results in formation of an attitude toward the
provider that is greatly associated with consumer intentions to repurchase and recommend (Han and Kim, 2009).

Owing to the multi-dimensional nature of loyalty, such behavioural intentions are also stated as loyalty intentions by some researchers (Han and Kim, 2009). It is evident from the literature that loyalty involves both behavioural and intentional dimensions where the former one represents repeated purchase of a product/service while the later one represents intentions to repurchase/recommend (Wong and Sohal, 2003). It therefore suffices to use behavioural intentions in place of loyalty in this framework as the previous line of argument clearly equates loyalty to the positive combination of the two behavioural intention components.

3 Hypotheses development

3.1 Influence of physical environment on consumer emotions

It is apparent from the literature that physical environment in any service setting is used by the customer as a tangible cue for making judgements (Lin and Liang, 2011). It has been empirically proved by various studies that physical environments can elicit an emotional response from the customers (Pareigs et al., 2011; Ladhari, 2009; Bitner, 1992). A service setting’s physical environment is comprised of a variety of different elements including both the design and ambient factors such as colour, air, scent, illumination, facilities and layout (Lin and Liang, 2011; Han and Ryu, 2009; Andreau, 2006; Baker et al., 1994). These factors are all interrelated and they work together (Mehrabian and Russell, 1974) to influence consumer behaviour holistically, not as separate individual factors (Bitner, 1992). Previous studies have found that physical environment effect customers both cognitively and emotionally (Kim et al., 2009; Burns and Niesner, 2006). For example, in-store experiences developed by the physical environment also trigger customer emotions (Lin and Liang, 2011). In this context, customer’s emotions are influenced by both the design and the ambient factors of physical environment that generate excitement among the customers (Harris and Ezeh, 2008). A well-designed and pleasant physical environment reduces pressure and evokes positive emotions and vice versa (Wong, 2004). Therefore, it is hypothesised;

\[ H1. \text{Physical environment is positively related to customer emotions.} \]

3.2 Physical environment on customer satisfaction and behavioural intentions

Various studies have focused on how customers’ perceptions of servicescape influence the level of satisfaction (Slatten et al., 2011; Cornelius et al., 2009; Wakefield and Blodgett, 1996). For example, Zeithaml et al. (1993) studied customer satisfaction by comparing their expectations and perceptions. They state that customers have expectations regarding the physical environment of a service setting and once these expectations are met, customers are likely to be satisfied. In this context, aesthetic design and ambience of a physical environment attracts customers and directly affects their satisfaction levels (Ha and Jang, 2012; Han and Ryu, 2009).

It is evident from the literature that behavioural intentions are influenced by the physical environment of a service setting (Ruiz et al., 2012; Han and Ryu, 2009;
Wakefield and Blodgett, 1996). In hospitality industry, physical surroundings can influence the avoid/approach behaviour of customers, level of their patronage and the level of their spending as well (Chen et al., 2013; Ryu et al., 2012; Wu and Liang, 2009). Previous researchers have incorporated behavioural intentions, such as willingness to repeat purchase, willingness to recommend to others, and willingness to say positive words to others, within the Mehrabian and Russell’s framework (Jang et al., 2011). Studies in environmental psychology have studied and observed a link between the perceived physical environment and approach-avoidance behaviour shown by the customers (Jang et al., 2011; Martin et al., 2008; Wakefield and Blodgett, 1996; Mehrabian and Russell, 1974). It is therefore hypothesised that;

**H2. Physical environment are positively related to customer satisfaction.**

**H3. Physical environment are positively related to behavioural intentions.**

### 3.3 Influence of consumer emotions on customer satisfaction and behavioural intentions

Oliver (1997) states that a strong theoretical support regarding the link between positive emotion and customer satisfaction is evident. While assessing a service experience, customers basically draw on their emotional state and any change in this emotional state influences their satisfaction levels (Lin and Liang, 2011). Psychology literature has demonstrated that emotions can affect evaluative processes (Mehrabian and Russell, 1974). Consumers’ emotions and evaluations are observed to have a strong correlation with customer satisfaction (Burns and Neisner, 2006).

There is now a growing body of literature in marketing that suggests that emotions associated with the service encounter play an important role in predicting behavioural intentions (Weng and Run, 2013; Liang and Zhang, 2012; Martin et al., 2008; Oliver, 1997). It is very obvious now that the role of emotions in service consumption is being studied by researcher while predicting their future intentions (Westbrook and Oliver, 1991; Andreu et al., 2006). Past research has indicated the positive and significant association between a customer’s positive affect and intentions (Wong, 2004). When a customer experiences positive emotions in a service encounter, he/she will express higher levels of satisfaction which will lead them to stay with the same service provider and spread positive word of mouth (Jang and Namkung, 2009). It is, therefore, hypothesised that;

**H4. Customer emotions is positively related to customer satisfaction.**

**H5. Customer emotions is positively related to behavioural intentions.**

### 3.4 Influence of customer satisfaction on behavioural intentions

The positive relationship between customer satisfaction and behavioural intention has generally been recognised in previous marketing, hospitality and management studies (Clemes et al., 2011; Ladhari, 2009). Oliver (1997) states satisfaction has been a predictor of customers’ behavioural intentions. The positive relationship between overall satisfaction and behavioural intention has been widely validated by previous researchers (Kumar, 2010). The link between customer satisfaction and behavioural intentions was
also studied and verified by Rust and Zahorik (1993) across banking and hotel industry. Taylor and Baker (1994) in their study also demonstrated that satisfaction can better predict purchase intentions. Findings from the study of Lin and Liang (2011) also support the existence of positive link between customers’ satisfaction and their behavioural intentions. A study conducted by Ladhari (2009) in hospitality industry also witnessed a positive relationship between satisfaction and customer’s behavioural intentions. On the basis of these empirical and theoretical arguments, it is hypothesised that:

\[ H6. \text{Customer satisfaction is positively related to behavioural intentions.} \]

4 Research methodology

4.1 Research instrument

To ensure the validity, all the measurement items were taken from previous studies; however, little modifications were done to make them adequate for the present study. Physical environment was measured using five items adapted from (Wu and Liang, 2009). Emotions were measured using four items adopted from Lin and Liang (2011), while customer satisfaction was operationalised using the four emotion-laden items proposed by Westbrook and Oliver (1991). Four items for behavioural intentions were adopted from (Jani and Han, 2011). A five-point Likert scale were employed in this study starting from 1 (strongly disagree) to 5 (strongly agree).

4.2 Sample design and data collection

The assessment of customers’ perception of physical environment within resort hotels, their emotions, satisfaction and behavioural intentions employed a methodology, which includes a survey that was conducted on sample of guests staying at Resort Hotels in three cities of China including Nanjing, Hangzhou and Shanghai. The target population for this study was limited to those guests who had stayed at Chinese resort Hotels at least once for a night or more. A self-administered survey was conducted through face-to-face interaction with the guests at various locations at selected resort hotels at different times of the day, over 4-week period. A convenience sample was drawn for the survey because of limitation of time and cost. Although there may be possible bias associated with convenience sampling, it was hard and nearly impossible to use other methods (e.g., random sampling methods). The difficulty in identifying the total population of guests who had stayed or staying at Chinese resort hotels and the inequality in being chosen as participants made it impossible to follow pure random sampling. Because of these limitations in sampling, most of the studies conducted on different types of hotels have employed convenience sampling (Back, 2005; Line and Runyan, 2012). To reduce the referrals to participate, guests were explained with the purpose of the research. Questionnaires were distributed to 500 customers at resort hotels out of which 170 were returned back and deemed fit for the analysis, representing a response rate of 34%. Out of these 170 respondents, 48.2% were male whereas 51.8% were female. 12.4% were having 16–20 years of age, 64.1% were between 21 and 30 years, 17.1% were between the ages of 31–40 years and 6.5% were older than 41 years. 40.6% of the total
respondents had bachelor degree whereas 48.2% had a master degree. Amongst the 170 respondents, 59.4% were Chinese whereas 40.6% were foreigners.

4.3 Analytical methods

SPSS statistics 20 and AMOS were used to analyse the collected data. As suggested by Anderson and Gerbing (1988), a measurement model was estimated before the structural model. Further, to test the measurement model, data quality, reliability and construct validity, confirmatory factor analysis (CFA) was employed. Finally, structural equation modelling (SEM) was employed to assess overall fit of the proposed model and hypotheses testing. The reason for using SEM is because it is capable of estimating a series of inter-relationships among latent constructs simultaneously in a model while also dealing with the measurement errors in the model (Iacobucci, 2009). Moreover, SEM is an efficient analytical method to handle the CFA for measurement models, analyse the causal relationships among latent constructs in a structural model, estimating their variance and covariance, and test the hypotheses in a model simultaneously (Awang, 2011; Nachtigall et al., 2003).

5 Results

5.1 Measurement model

A measurement model was estimated to refine all measures for the structural model using the maximum likelihood estimation method. CFA was employed on the initial 17 items developed for measurement and because of low factor loadings and low squared multiple correlations, one item from ‘Physical environment’ was deleted (i.e., “The resort’s lighting is appropriate”). The results of CFA on the remaining 16 items showed an excellent fit to the data. The chi-square value ($\chi^2$) of the measurement model was 154.795 (df = 98, $p = 0.000$). The $\chi^2$/df value of 1.580 falls within a range of below 5 as suggested by Marsh and Hocevar (1988). Other practical fit indices demonstrated that the measurement model fit the data well (RMSEA = 0.059; CFI = 0.957; GFI = 0.901). Consequently, this measurement model was used for all further analyses.

As shown in Table 1, the CR values were well above the 0.70 level suggested by Nunnally (1978), ranging from 0.77 to 0.87. All standardised factor loadings emerged fairly high and significant, ranging from 0.62 to 0.87. This suggested convergence of the indicators with the appropriate underlying factors (Anderson and Gerbing, 1988). The average variance extracted (AVE) values for each construct were all ~0.50. Further, none of the squared correlations between pairs of constructs was greater than AVE by each construct (Yang et al., 2012; Fornell and Larcker, 1981). Overall, these results showed strong evidence of the uni-dimensionality, reliability and validity of the measures.

Table 2 shows the discriminant validity of the construct. Since the square root of the AVE between each pair of factors (bold values) was higher than the correlation estimated between factors, thus ratifying its discriminant validity (Amin et al., 201; Hair et al., 2006).
Table 1  Validity and reliability for constructs

<table>
<thead>
<tr>
<th>Physical environment (PE)</th>
<th>Factor Loadings</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE2 The resort’s temperature is comfortable</td>
<td>0.691</td>
<td>0.515</td>
<td>0.775</td>
</tr>
<tr>
<td>PE3 The resort’s environment is clean</td>
<td>0.692</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE4 The resort’s architecture is impressive</td>
<td>0.772</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE5 The colours within the resort are complementary and coordinating</td>
<td>0.728</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Customer emotions (EM)</th>
<th>Factor Loadings</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM1 After visiting this resort, I feel Elated</td>
<td>0.731</td>
<td>0.568</td>
<td>0.839</td>
</tr>
<tr>
<td>EM2 After visiting this resort, I feel Peppy</td>
<td>0.681</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EM3 After visiting this resort, I feel Enthusiastic</td>
<td>0.781</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EM4 After visiting this resort, I feel Excited</td>
<td>0.814</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Customer satisfaction (CS)</th>
<th>Factor Loadings</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS1 I am satisfied with my decision to use this resort as service provider</td>
<td>0.756</td>
<td>0.641</td>
<td>0.877</td>
</tr>
<tr>
<td>CS2 My choice to choose this resort as a service provider was a wise one</td>
<td>0.743</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS3 I think I did the right thing when I chose to stay at this resort</td>
<td>0.872</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS4 I feel that my experience with this resort has been enjoyable</td>
<td>0.825</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Behavioural intentions (BI)</th>
<th>Factor Loadings</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI1 I intend to continue visiting this resort hotel</td>
<td>0.630</td>
<td>0.539</td>
<td>0.821</td>
</tr>
<tr>
<td>BI2 I will consider this resort hotel as my first choice</td>
<td>0.643</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BI3 I will spread positive word-of-mouth about this resort hotel</td>
<td>0.765</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BI4 I will recommend this resort hotel to my friends and others</td>
<td>0.872</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ x^2 = 154.795, \text{CMIN/df} = 1.580, \text{GFI} = 0.901, \text{CFI} = 0.957, \text{RMSEA} = 0.059, p = 0.000. \]

Table 2  Discriminant validity

<table>
<thead>
<tr>
<th></th>
<th>EM</th>
<th>BI</th>
<th>CS</th>
<th>PE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM</td>
<td>0.754</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BI</td>
<td>0.597</td>
<td>0.734</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>0.477</td>
<td>0.483</td>
<td>0.801</td>
<td></td>
</tr>
<tr>
<td>PE</td>
<td>0.279</td>
<td>0.352</td>
<td>0.325</td>
<td>0.682</td>
</tr>
</tbody>
</table>

5.2  Structural model

A structural model was estimated to test H1 through H6. The goodness-of-fit statistics of the proposed model showed that the model reasonably fit the current data. Chi-square value of the model (\( \chi^2 = 154.795, \text{df} = 98, p = 0.000 \)) and other goodness of fit indices (RMSEA = 0.059; CFI 0.957; GFI = 0.901) revealed that the model fits the data reasonably well. The structural results of the proposed model are depicted in Figure 1.
The hypothesised relationship between the perception of physical environment and emotions was supported by the corresponding estimate of 0.258 ($p < 0.05$). These results indicated that customers who have higher perceptions of the physical environment are more likely to have positive emotions, which supported H1. The path coefficient of the relationship between the perception of physical environment and customer satisfaction was 0.11 ($p < 0.05$) indicating that the perception of physical environment was also a significant predictor for customers’ satisfaction. This result supported H2. These findings suggest that a better environment helps customers to get satisfied. The relationship between the perception of physical environment and behavioural intentions (H3) was also supported by an estimate of 0.06 ($p < 0.05$), suggesting that a more positive perception of physical environment leads to more favourable behavioural intentions. This result confirmed previous studies verifying that the perception of physical environment positively influences customers’ behavioural intentions. The conceptual paradigm proposed by Mehrabian and Russell (1974), in which psychological states created by environments influence an individual’s behaviour in terms of approach or avoidance, also supports the results of this study. This finding emphasised the direct influence of the physical environment on behavioural intentions. The path coefficients of the relationship between customer emotions and customer satisfaction and customer emotions and behavioural intentions were 0.73 ($p = 0.00$) and 0.29 ($p < 0.05$), respectively, indicating that emotions of the customers are significant predictor for customers’ satisfaction and behavioural intentions. This result supported H4 and H5. Lastly, as expected, the linkage between customer satisfaction and behavioural intentions (H6) was supported by an estimate of 0.68 ($p = 0.00$), supporting hypothesis 6 and suggesting that customer satisfaction leads to more favourable behavioural intentions. The summary of the results are presented in Table 3.
Table 3  Results of the structural model

<table>
<thead>
<tr>
<th>Hypothesised path</th>
<th>Standardised coefficients</th>
<th>T</th>
<th>P</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 PE → EM</td>
<td>0.258</td>
<td>2.899</td>
<td>0.040</td>
<td>Supported</td>
</tr>
<tr>
<td>H2 PE → CS</td>
<td>0.111</td>
<td>3.633</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H3 PE → BI</td>
<td>0.06</td>
<td>2.036</td>
<td>0.030</td>
<td>Supported</td>
</tr>
<tr>
<td>H4 EM → CS</td>
<td>0.734</td>
<td>8.378</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>H5 EM → BI</td>
<td>0.29</td>
<td>2.731</td>
<td>0.006</td>
<td>Supported</td>
</tr>
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<td>H6 CS → BI</td>
<td>0.658</td>
<td>5.716</td>
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6 Discussion and conclusions

The influence of the physical environment on consumer behaviour has received significant attention from researchers (Andreu et al., 2006), and has also gained a wide acceptance from the academicians and practitioners (Turley and Milliman, 2000). However, few studies have focused on the role of emotions while determining the effect of physical environment on the behavioural responses of the customers (Lin and Liang, 2011), especially in the context of collective hedonic services (Ryu et al., 2012). This study fills this gap by investigating the effect of physical environment/servicescape on customer emotions, satisfaction and future behavioural intentions within the Chinese resort hotels. The SEM approach was used to test the constructs framework that customer emotions, satisfaction and behavioural intentions were influenced by the perception of physical environment of resort hotels.

A total of six hypotheses were developed and tested using SEM. All of the six hypotheses were upheld. The results indicated that all the variables had appropriate reliability and each independent variable has a positive significant influence over the dependent variables. In particular, physical environment influences customer emotions, satisfaction and behavioural intentions positively and significantly. These findings were consistent with previous studies identifying the role of atmospherics on customer emotions (Lin and Liang, 2011; Kim et al., 2009; Harris and Ezeh, 2008) and customers’ satisfaction and post-consumption behaviours (Ruiz et al., 2012; Ha and Jang, 2012; Jang et al., 2011; Wakefield and Blodgett, 1994; Bitner, 1992). The findings also show that customer emotions also significantly influenced customer satisfaction and behavioural intentions. These findings are also in line with the previous literature (Lin and Linag, 2011; Jang and Namkung, 2009; Lee et al., 2009; Martin et al., 2008; Burns and Neisner, 2006). From the standardised coefficient of the paths in the model, it appeared that the physical environment is a significant predictor of customer emotions, satisfaction and behavioural intentions. However, in terms of the strength of the influence, physical environment has the strongest influence over customer emotions and the weakest influence over customer’s behavioural intentions. This refers to the fact that even though a good perception of physical environment can elicit positive and favourable emotions in customers, but generation of positive behavioural intentions as well is not necessary.
Additionally, this study was conducted in Chinese resort hotels. It is very surprising that despite being one of the fastest growing tourist spots, Chinese hospitality in general and Chinese resort hotels in specific are overlooked by the researchers. Most of the studies focusing on service environment, customer emotions and satisfaction and/or behavioural intentions in hospitality industry focused on restaurants (Chow et al., 2007; Ryu et al., 2012; Ryu and Han, 2010). Furthermore, this study is an extension of the Mehrabian and Russell’s (1974) stimuli-organism-response paradigm (S-O-R) by including satisfaction in the current model, confirming that physical environment within any service setting does not only influence customer emotions and behaviours, but also their perceptions such as satisfaction.

7 Managerial implications

In line with the previous studies, this study verified that physical environment had an impact on customer emotions, satisfaction and behavioural intentions. Thus, Chinese resort hotels should make an effort to ensure customer satisfaction by designing and maintaining good physical environment, which leads to favourable behavioural intentions. The study results indicated that better physical environments would help eliciting positive customer emotions. It is evident that creating a high quality and attractive environment is not an option for the management, but a substantial aspect of service quality. As stated earlier, resort hotels emphasise more on the hedonic aspects of customer experiences through an environment that reflects beautiful views and recreational facilities to create more leisurely surroundings (Mill, 2008). Thus, atmospherics might be a critical cue for customers to elicit positive customer emotions as services in resort hotels are consumed primarily to fulfil the customer’s pursuit of pleasure in their lives (Madrigal, 2003; O’Shaughnessy and O’Shaughnessy, 2002).

With a drastic increase in the number of resort hotels in China, resort hotel management must aim to accommodate increasingly demanding and sophisticated consumers. Traditionally, there was a fine distinction between types of resort hotels including business, tourists, conference, or convention resorts. All these resorts were only meant to be for high class customers. However, with booming economy and increasing middle class with disposable income, today large numbers of people travel to resort hotels situated in exotic and beautiful destinations in order to enjoy themselves and escape from their daily routine (Walker, 2006; Yang and Chan, 2010). The findings from this study have implications for the managers of resort hotels. Literature shows that resorts are characterised by sufficient indoor amenities, pleasant physical surroundings, convenient entertainment/recreational facilities and a unique vacation spot. It has also been established that from an operational point of view, management of resorts can directly control the physical environment, which is one of the most important and influential aspects of the resort experience. The findings of this study help Chinese resort hotels’ management to understand the actual role of physical environment in inducing favourable emotions and behavioural intentions. The results suggest that positive perception of physical environment effects emotions, behavioural intentions and also customer satisfaction. This offers additional support that Chinese resort hotels need to consider physical environment as an effective marketing strategy in order to appeal to customers from other Asian or Western counties. Similarly, having good quality services would be in vain if the physical environment is not attractive and well
maintained, since a bad physical environment can change customers’ perception of the actual service quality levels resulting in negative behavioural intentions. Consequently, resort hotels in China must ensure providing a better physical environment.

The results of this study could also help resort hotel managers to understand that physical environment is very critical in eliciting favourable and positive emotional responses towards the behavioural intentions of customers. For instance, for resort hotels, key touch points where emotions are created include the welcome a guest receives in every part of a resort hotel. Also, managers might need to recognise the importance of playing pleasant music in order to encourage a refreshing and relaxing atmosphere. Related to this, resort hotel managers could understand the impact of presentation and cleanliness, which are important determinants of emotions, and not irritate customers and discourage re-patronage. Thus, resort hotel operators might make a careful effort to monitor and improve presentation and cleanliness of living areas as well as the recreational areas and go above customers’ standards to outpace competitors.

It should be noted that although the results of the current study shed light on several important issues, some limitations need to be considered in future research. A convenience sampling approach was used to collect data from resort hotel visitors who had stayed at Chinese resort hotels at least once. Thus, the generalisation of the results needs to be cautiously conducted. For instance the findings should be interpreted with caution when applied to different types of hotels or different industries. Future research should examine the proposed relationships in other types of hotels and industries. Besides, this study employed a uni-dimensional construct of physical environment. It is advisable to use multi-components of physical environment in future studies. Additionally, customers’ demographic characteristics including gender, age and level of income may also influence their perception of physical environment in resort hotels. Therefore, future studies might consider how people having different characteristics perceive physical environment and its effect on their consumption behaviours.

References
The influence of physical environment on emotions, customer satisfaction


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