

Guest-based hotel equity: scale development and validation

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Abstract

Purpose – This paper aims to measure customer-based brand equity in the context of hotels, and to develop and empirically validate a new scale, named guest-based hotel equity (GBHE), by incorporating the customer perceived value of hotels as a multidimensional construct in addition to its traditional dimensions (i.e. brand awareness and brand image).

Design/methodology/approach – A structured and self-administered survey was used, targeting 348 hotel guests who were surveyed about their experience with the last hotel they had stayed in during the previous year. Exploratory and confirmatory factor analyses were used to assess the research constructs dimensions, unidimensionality, convergent and discriminant validity and composite reliability.

Findings – The empirical findings indicate that GBHE is a multidimensional construct with nine dimensions, namely, hotel awareness, hotel overall image and seven dimensions of customer perceived value (i.e. the values of price, quality, self-gratification, aesthetics, prestige, transaction and hedonism). The new scale is found to have excellent psychometric properties; it has demonstrated its predictive power on behavioral intentions.

Research limitations/implications – Although the authors believe that the sample size was reasonable and adequate for conducting CFA analysis, a bigger sample would be better and might increase the robustness of the proposed scale. In addition, to avoid the retrieval failure problem, hotel guests should be surveyed just after their stay in the hotel or not long afterwards. Further, the hotel classification or hotel star rating was not considered in developing and validating the GBHE scale.

Practical implications – The findings of this study provide hotel managers with a new tool to use in assessing the experiential value of the hotel brand equity, other than conventional hotel awareness and brand image. Further, using the multidimensional construct of perceived value provides hotel managers with more insights into what aspects of hotel brand equity they should focus on to influence the behavioral intentions of their guests.

Originality/value – The originality of this research is highlighted in several points. First, it develops and empirically validates a new scale to measure customer-based brand equity in the hotel context, that is, GBHE. Second, it incorporates the customer perceived value of hotels not as a unidimensional construct that is concerned only with cost, but as a multi-dimensional construct which includes in the GBHE scale dimensions that are both cognitive (i.e. of price and quality) and affective (i.e. of self-gratification, aesthetics, prestige, transaction and hedonism) in addition to its traditional dimensions (i.e. brand awareness and brand image). Third, it assesses the predictive power and relative importance of the GBHE dimensions for behavioral intentions (i.e. loyalty to hotels). Finally, no research has been done so far on the brand equity of hotels in the United Arab Emirates (UAE), although it is considered a fertile soil for tourism in the Arabian region.

Keywords Hotels, Scale development, UAE, Customer perceived value, Customer-based brand equity, Guest-based hotel equity, Hospitality service

Paper type Research paper

1. Introduction

Brand equity has been described, from the cognitive psychology standpoint, as the incremental utility or the added value conferred on a product by its brand name (Chen and Chang, 2008; Buil *et al.*, 2013). It can be measured from either a financial perspective, which emphasizes the value of a brand to a firm or from a consumer perspective, which stresses the conceptualization and

measurement of brand equity at the consumer level (Myers, 2003; Buil *et al.*, 2013). Indeed, this latter perspective, which is known as customer-based brand equity (CBBE), has been given much attention by both marketing academics and practitioners because it represents the product's position in the consumers' minds that provides equity for the brand and value for its firm (Yasin *et al.*, 2007). In addition, a brand with high equity from the consumers' perspective generates a competitive advantage that enables its firm to attain a price premium, larger margins, greater loyalty, a more inelastic consumer response to price increases and a more elastic consumer response to price reductions, less vulnerability to competitive marketing actions and increased effectiveness in its marketing communication (Keller, 2008). A high level of brand equity also increases consumer satisfaction, repurchase intention and loyalty (Kim *et al.*, 2008a).

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Since the introduction of CBBE by Aaker (1991, 1996) and Keller (1993), much effort has been made to theorize and/or to measure it in different contexts, such as durable goods (Lassar *et al.*, 1995; Yoo and Donthu, 2001; Pappu *et al.*, 2005, 2006; Tong and Hawley, 2009), non-durable goods (Netemeyer *et al.*, 2004), the co-branding of non-durable products (Washburn and Plank, 2002), health care (Kim *et al.*, 2008a), financial services (Mackay, 2001), retailing (Pappu and Quester, 2008; El Hedhli and Chebat, 2009; Allaway *et al.*, 2011; Gil-Saura *et al.*, 2016), restaurants (Kim and Kim, 2004), airlines (Chen and Chang, 2008), destinations (Boo *et al.*, 2009; Pike *et al.*, 2010) and hotels (Kim *et al.*, 2003; Kim and Kim, 2005; Kayaman and Arasli, 2007; Kimpakorn and Tocquer, 2010; Liu *et al.*, 2017).

Although CBBE has long been considered an important multi-dimensional concept in marketing, marketers are still not agreed about its dimensions, how to measure them, or which measures best capture this multi-faceted construct (Buil *et al.*, 2013; Veloutsou *et al.*, 2013). Most of the research has focused on four dimensions, specifically: brand awareness, brand associations, perceived quality and brand loyalty (Aaker, 1991; Yoo and Donthu, 2001; Washburn and Plank, 2002; Pappu *et al.*, 2005; Pappu and Quester, 2008; Buil *et al.*, 2008). However, other researchers have replaced brand associations with brand knowledge, which has two dimensions, namely, brand awareness and brand image (Keller, 1993, 2008; Kim and Kim, 2004; Esch *et al.*, 2006; El Hedhli and Chebat, 2009; Jara and Cliquet, 2012). Researchers have also added to the above dimensions new ones such as social value (Lassar *et al.*, 1995; Valette-Florence *et al.*, 2011), brand differentiation, brand relationships (Esch *et al.*, 2006; Kimpakorn and Tocquer, 2010), brand trust (Esch *et al.*, 2006; Kimpakorn and Tocquer, 2010), brand personality (Aaker, 1996; Pappu *et al.*, 2005; Kam Fung So and King, 2010; Jara and Cliquet, 2012), brand distinctiveness (Yasin *et al.*, 2007), brand trustworthiness, brand attachment, brand performance (Lassar *et al.*, 1995), management trust and brand reliability (Hsu *et al.*, 2012), brand affect and reputation (De Chernatony *et al.*, 2004; Han *et al.*, 2015), tangible prestige and motivation (Huang and Cai, 2015), sustainability and social influence (Baalbaki and Guzmán, 2016). Furthermore, Tolba and Hassan (2009) propose a model that breaks down the CBBE into three main dimensions: knowledge equity (i.e. awareness and familiarity); attitudinal equity (i.e. affect, prestige, perceived quality); relationship equity (i.e. perceived value for money, satisfaction, attitudinal loyalty). Recently, Veloutsou and Guzmán (2017) have made a thorough literature review of the content of the *Journal of Product and Brand Management* spanning the past 25 years and found that research has highlighted the need to improve the CBBE measurement.

Despite the observed proliferation of CBBE models, an important yet under-researched construct in brand equity research is customer perceived value. Appreciating the importance of experiential value in the CBBE model, Keller (2008) demonstrates that the power of a brand lies in what remains in a customer's mind as a result of enduring experience with the brand. Thus, the challenge for marketers in building up a strong brand is to make sure that customers have had the right combination of experiences with their products and

services. Bill Xu and Chan (2010) developed a conceptual model highlighting the role of quality of experience in the hotel industry. The authors recommended examining ways to enhance guests' perceptions of the quality of their experience and the way in which a multidimensional quality of experience can be created. Despite the importance of experiential value in creating brand equity from the consumer's perspective, only a few researchers, lacking consensus, have incorporated customer perceived value in their estimates of CBBE. It has been incorporated as a unidimensional construct that is concerned only with the perceived value of money, price or cost (Lassar *et al.*, 1995; Aaker, 1996; Mackay, 2001; Netemeyer *et al.*, 2004; Buil *et al.*, 2008; Kim *et al.*, 2008b; Boo *et al.*, 2009; Jara and Cliquet, 2012; Abu ELSamen, 2015; Gil-Saura *et al.*, 2016). Undoubtedly, having a multidimensional construct of perceived value in measuring brand equity that is wider than merely the perceived value of the outlay and the quality would increase the usefulness of the construct (Sweeney and Soutar, 2001; El-Adly and Eid, 2015) and give more insights into the consumer's complete experience with the brand.

In the context of the hotel industry, the concept of perceived value as one of the dimensions of CBBE has been examined only in its narrow definition, as noted above (Kim *et al.*, 2008b), but previous research in the hospitality domain calls for a better understanding of the CBBE concept (Pappu *et al.*, 2005; Hsu *et al.*, 2012; Huang and Cai, 2015). Thus, the present study seeks to contribute in several ways to the sparse literature on the quantitative measurement of CBBE in the hotel context. First, it develops and empirically validates a new scale to measure CBBE in the hotel context. We name this parsimonious scale guest-based hotel equity (GBHE). The difference between this proposed scale and the conventional CBBE can be summed up by saying that the knowledge of CBBE has evolved from the cognitive psychology paradigm (Christodoulides and De Chernatony, 2004), while the realization of GBHE has emerged from the cognitive-affective psychology. This cognitive-affective psychology integrates the customers' cognitive evaluations with their affective evaluations of the designated object, which could be a product, a brand, or a place (San Martín and Del Bosque, 2008). The cognitive-affective psychology paradigm is crucial in the hotel context, as hotel guests' emotional response is a vital constituent in the complete hospitality experience and not less important than the cognitive component (del Bosque and San Martín, 2008). In addition, the conventional CBBE is a general concept that has been applied in several contexts, while the proposed GBHE is context-specific. This is because the experiential value – which we regard as a major component in measuring GBHE – is contextual in nature (Holbrook, 2006). Therefore, measuring the CBBE for a hotel may not be the same in another context such as a mall or a bank. Second, GBHE incorporates the customer perceived value of hotels not as a unidimensional construct that is concerned only with cost, but as a multi-dimensional construct which includes in the GBHE scale not only cognitive dimensions (i.e. price and quality) but also affective ones (i.e. self-gratification, aesthetics, prestige, transaction and hedonism), in addition to its traditional dimensions (i.e. brand awareness and brand image). We argue that adding the multi-dimensional construct of the customer

perceived value of hotels as one of the dimensions of the GBHE scale would give a clear picture of the complete hospitality experience that guests receive during their stay in a hotel, which would improve the precision, usefulness and comprehensiveness of the GBHE measurement in the hotel context. The customer perceived value as a multi-dimensional construct that includes both cognitive and affective components has not hitherto been studied in the hotel literature. Third, it assesses the predictive power and relative importance of the GBHE dimensions for behavioral intentions (i.e. loyalty to hotels). Finally, no research has been done so far on the brand equity of hotels in the United Arab Emirates (UAE), although it is considered a fertile soil for tourism in the Arabian region, as the number of guest arrivals in 2016 was nearly 22.9 million (UAE Federal Competitiveness and Statistical Authority, 2017) which represents 30 per cent of 76.6 million, the total number of arrivals in the Arab World in 2016 (World Tourism Organization, 2018). Additionally, the World Travel and Tourism Council (2017) notes an increasing contribution of tourism to the UAE GDP of 12 per cent in 2017, and it is expected to increase by 4.9 per cent in 2027. Similarly, the direct contribution of tourism to the UAE GDP in 2016 was US \$18.7bn compared with the average in the Middle East of US \$6.3bn.

The remainder of this paper is structured as follows. The literature on CBBE is briefly reviewed. This is followed by the development of a scale of GBHE. The next section describes the research method. Then the main results of different models of GBHE are presented. Finally, the results and implications of the study are discussed, as well as its limitations and some possible directions for future research.

2. Literature review

2.1 Customer-based brand equity

Most studies of CBBE have been developed within two theoretical frameworks, namely, those of Aaker (1991) and Keller (1993), and brand equity is represented as a combination of four elements: awareness, association, perceived quality and loyalty. The difference between the two models is that Aaker (1991) considers loyalty a source of equity, whereas Keller (1993) views loyalty as an outcome of equity. In the current study, we adopt Keller's framework, as we consider that loyalty is an outcome of brand equity. The two models have been examined several times in the past two decades, but with special reference to consumer goods, rather than services (Huang and Cai, 2015).

The dimensionality of the brand equity constructs in the hotel industry has not often been examined. However, Kim and Kim (2005) have found that brand loyalty, brand awareness, perceived quality and brand image are the main pillars of CBBE. The same is also found by Kim *et al.* (2008b). Kayaman and Arsali (2007) believe that in the hotel context CBBE is a three-dimensional construct consisting only of loyalty, image and perceived quality, as the brand awareness dimension is not found significant here. This latter result is also supported by Kam Fung So and King (2010), who infer that the brand awareness effect on brand equity is not significant. Moreover, Bill Xu and Chan (2010) consider CBBE a multidimensional

construct of four dimensions: brand awareness, brand associations, quality of experience and brand loyalty.

Certainly, the importance of brand equity arises from its ability to influence the consumer's behavioral outcomes and hotel performance. According to Forgacs (2006), branded hotels perform better than non-branded ones in terms of level of occupancy, revenue per room and revenue per available customer. This is confirmed by Kim *et al.* (2003), who maintain that brand equity dimensions positively influence a hotel's financial performance (i.e. revenue per room). In addition, Kim *et al.* (2008b), investigating the relationship between brand equity and a guest's perceived value of cost and revisit intention in the mid-priced hotel sector, have found that all dimensions of brand equity (i.e. brand loyalty, perceived quality, and brand awareness/association) positively affect the perceived value of cost, but only two dimensions (brand loyalty and brand awareness/association) can be claimed to significantly influence revisit intention. However, they have found that brand awareness alone and brand association alone do not have a significant effect on revisit intention. Liu *et al.* (2017) conclude that only three dimensions of CBBE (i.e. brand loyalty, perceived quality, brand image) have significant direct influence on the purchase intention of luxury hotels; brand awareness was not found to have significant influence on purchase intention.

In addition to testing the consequences of brand equity as mentioned above, previous research has also investigated the antecedents of brand equity in the hotel context. For instance, Berry (2000) conceptualizes the sources of brand equity in the context of service organizations as primary sources, such as brand meaning (i.e. customers' perception and impression of the brand) which is influenced by their experience with the company. The secondary sources in this regard are brand awareness, which is influenced by both a company's presented brand and external brand communications such as advertising, promotions, word-of-mouth communication and publicity. Adopting Berry's (2000) framework, Kam Fung So and King (2010) conclude that service experience is the most significant factor in shaping brand meaning, which in turn has the primary impact on brand equity. The effect of brand awareness on brand equity was found not to be significant. In addition, Bill Xu and Chan (2010) argue that the antecedents of CBBE in hotels are customers' direct experience generated by service performance, and their indirect experience through advertising and word of mouth.

Recently, Shan (2017) has developed a CBBE model for the luxury and upscale hotel sector. His study reveals that brand image, customer relationship management, social image congruence, brand affect, brand trust and consumer-generated content are antecedents of brand equity in the luxury and upscale hotel sector. In particular, the brand's effort to build relationships with individual customers (i.e. customer relationship management) was found to be the most powerful factor in brand equity development. The study also pointed out that a brand's symbolic benefit (i.e. social image congruence) and experiential benefits (i.e. brand affect) are critical drivers for brand equity development in the luxury and upscale hotel sector. This shows the importance of experiential and symbolic benefits that customers seek when staying in a hotel.

Hence, academic research in the hotel context has given greater attention to the concept of experiential value and benefits in hotels' brand equity models. However, the concept has been defined narrowly to encompass one aspect, that is, the perceived value of cost laid out, rather than, as recommended, to encompass the overall service experience. Herein lies the value of the present research, where the objective is to use a multi-dimensional customer perceived value construct to develop a GBHE model.

2.2 Conceptualization and development of GBHE scale

We conceptualize GBHE as a construct with nine dimensions, namely, hotel awareness, hotel image and seven customer perceived value dimensions. We base this concept on some theoretical frameworks about the sources of CBBE, specifically:

- the theoretical framework of Keller (1993), who conceptualizes the sources of CBBE as brand awareness and brand image;
- the theoretical framework of Berry (2000), who conceptualizes the consumer's experience with the brand as a primary source of brand equity in the service context;
- the conceptual model of Bill Xu and Chan (2010), who highlight the role of quality of experience in the hotel industry and attempt to inject experiential components into the study of brand equity at the customer level;
- the response to the call for further research by Bill Xu and Chan (2010) to empirically test the extent to which hotel guests' experiences are manifested in their socio-psychological needs (e.g. the need for relaxation, escape, pleasure, family togetherness, ego-enhancement, estheticism);
- the empirical determination whether brand associations (i.e. brand image) and quality of experience are distinct and separable constructs (Bill Xu and Chan, 2010); and
- attempts to fill the gap in the current literature that incorporates customer perceived value in CBBE models not as a multidimensional construct that include both cognitive and affective dimensions of experiential value to reflect the complete hospitality experience of hotel guest but as a unidimensional construct with focus on value for money.

In our study, customer perceived value is conceptualized as a construct of several cognitive and affective dimensions so as to reflect the complete hospitality experience of a hotel's guests, including those to do with price, quality, self-gratification, aesthetics, prestige, transaction and hedonism. A brief explanation of each of the nine dimensions of GBHE is presented in the following sections.

2.3 Hotel awareness

Aaker (1991) and Keller (1993) recognize the importance of brand awareness as a brand equity dimension. It refers to the consumer's ability to recognize and recall the brand in different circumstances. It is a necessary, but not always sufficient, step in building brand equity (Keller, 2008). Previous empirical research in the service sector echoes the importance of awareness in measuring brand equity. El Hedhli and Chebat (2009) assert that, in explaining mall equity, brand awareness is the most important dimension, twice as important as mall

image. Abu ELSamen (2015) also observes that brand awareness in online banking has a positive effect on customer perceived value, and Kim *et al.* (2008b) find that hotel brand awareness and loyalty directly increase hotel guests' intentions to re-visit.

Similarly, Huang and Cai (2015) develop a CBBE model for assessing a multinational hotel brand. Their model was tested on a sample of Chinese guests in their home country, and it was found that hotel awareness positively influences brand resonance and visit intention. Moreover, Cifci *et al.* (2016) add brand awareness in the retail sector to extend the concept of brand equity introduced by Nam *et al.* (2011), using two samples, one from Turkey and one from Spain. The authors found that adding awareness improves the model's psychometric properties and positively affects brand equity. Hence, hotel awareness plays a prominent role in managing a hotel's equity. Raising hotel awareness increases the likelihood that a particular hotel will be considered by the guests in their direct choice. Further, the strength of awareness of a hotel increases the chance that the hotel will be selected in competition with other brands. Finally, hotel awareness will influence the formation of associations which together constitute the hotel image. Based on our literature review, we adapted four items of hotel brand awareness from El Hedhli and Chebat (2009) and Boo *et al.* (2009).

2.4 Hotel overall image

Image is the perception of the brand that consumers have in mind. It is long-term oriented and thus includes all the information accumulated and developed over time through past experience with a hotel or from other sources of communication (Jani and Han, 2014). It acts as a differentiation mechanism that consumers use to distinguish one brand from its competitors (Keller, 1993; Kayaman and Arsali, 2007). Berry (2000) demonstrates that a strong brand enables consumers to better visualize the intangible product, as it boosts trust and reduces the perceived risk. In the hotel industry, brand image has been studied to reflect a hotel's overall position in the consumers' mind based on their experience with this hotel. Huang and Cai (2015) demonstrate that a hotel image of prestige is the most important predictor of brand resonance among Chinese customers. Similarly, hotel image is seen to have a strong effect on guests' loyalty to luxury hotels (Jani and Han, 2014; Šerić *et al.*, 2017).

Hence, brand image is conceptualized as an outcome of consumers' experience because consumers' awareness and previous experience with the brand build the perceptions about the brand (i.e. the image), which influences consumers' response (i.e. attitude, intention, satisfaction, loyalty) (Kayaman and Arsali, 2007; Jara and Cliquet, 2012; Abu ELSamen, 2015). On the basis of the literature reviewed, brand image (i.e. hotel overall image) is captured by four items adapted from Jani and Han (2014) and Kayaman and Arsali (2007).

2.5 Customer perceived value

Customers nowadays seek value from their experience with the brand, which is coined as "experiential value." Thus, companies pay greater attention to consumers' experiential value due to its importance in creating competitive advantage, especially with the declining scope of differentiation in

marketing offerings (Jamrozy and Lawonk, 2017; Varshneya and Das, 2017). However, due to the complexity of the service domain, previous research draw attention to the importance of adopting a multidimensional construct perceived value, rather than a single value dimension for money/quality (Jamrozy and Lawonk, 2017).

Although writers recognize the multidimensionality of the perceived value, there is no agreement on the dimensions constituting it (Gallarza *et al.*, 2015; Leroi-Werelds *et al.*, 2014). Several classifications and theories have evolved in the literature to conceptualize perceived value as a multidimensional construct (Sánchez-Fernández and Iniesta-Bonillo, 2007), for instance, the hedonic vs utilitarian approach (Holbrook and Hirschman, 1982), which has been studied in the service domain, more specifically in retailing (Babin *et al.*, 1994; Jones *et al.*, 2006); in hospitality (Ryu *et al.*, 2010); and in tourism (Babin and Kim, 2001). Holbrook (1999) developed this classical hedonic-utilitarian approach further and proposed a new classification of perceived value based on three determinants: intrinsic vs extrinsic, active vs reactive and self-oriented vs other oriented. The combination of these three determinants gives rise to eight forms of value: efficiency, excellence (quality), play, aesthetics, status, esteem, ethics and spirituality. Several authors have used this framework to assess value dimensionality. Taking the same approach, Mathwick *et al.* (2001) developed a four-dimensional customer experiential value in online shopping: aesthetic response, comprising visual appeal and entertainment, playfulness, which includes escapism and enjoyment, service excellence and customer return on investment which encompasses efficiency and economic value. This scale was successfully used to predict customer satisfaction with service encounters in luxury-hotel restaurants (Wu and Liang, 2009), revisit intention to ecotourism destination (Chien, 2016) and customer behavioral intentions to revisit or recommend shopping malls (Keng *et al.*, 2007).

Another typology of value multidimensionality is embodied in the consumption-value theory proposed by Sheth *et al.* (1991). This theory states that consumer choice of one brand over another entails a variety of forms of value. Sheth *et al.* (1991) categorized consumption value which influences choice behavior as functional, emotional, social, epistemic and conditional value. This work was the origin of the development of the PERVAL scale developed by Sweeney and Soutar (2001), where value consists of four dimensions: emotional, social, quality/performance, and price/value for money. Similarly, El-Adly and Eid (2016) have developed a scale of customer perceived value in malls called MALLVAL, consisting of seven dimensions: hedonic, self-gratification, utilitarian, epistemic, social interaction, time convenience and transaction value. They found that MALLVAL has a significant positive effect on both customer satisfaction and customer loyalty to malls.

As can be seen in the above discussion of consumer experiential value, writers agree on the importance of adopting a multidimensional conceptualization of value but there is no agreement on what dimensions to adopt. Furthermore, the dimensions of perceived value vary across industries (e.g. tourism vs retailing vs hospitality) and within industry (i.e. in tourism; Gallarza and Saura, 2006; Williams and Soutar, 2009; in retailing; Keng *et al.*, 2007; El-Adly and Eid, 2015; and in

hospitality; Wu and Liang, 2009; Sánchez-Fernández and Iniesta-Bonillo, 2009; Ryu *et al.*, 2010).

Hence, despite the great attention to the concept of experiential value, the brand equity models in the hotel industry examine only the narrow view of value, that is, the perceived value of money or cost which is nowadays considered too simplistic for consumption experiences (Sweeney and Soutar, 2001; Sánchez-Fernández and Iniesta-Bonillo, 2006). Therefore, several researchers have suggested the presence of both cognitive and affective aspects in the nature of perceived value (Sánchez-Fernández and Iniesta-Bonillo, 2006). A significant contribution of the present research is to incorporate the customer perceived value of hotels as a multi-dimensional construct in the development of the GBHE scale, rather than a unidimensional construct that is concerned only with cost, or price, or quality. Here the multidimensional construct includes both cognitive and affective dimensions in the GBHE scale. What follows is a discussion of the customer perceived value as a multidimensional construct used in building the GBHE scale for this research; it is based on a review of experiential value and brand equity literature.

2.6 Price value

Zeithaml (1988) defines customer value as “customers’ overall assessment of the utility of a product based on perceptions of what is received and what is given.” She argues that some consumers perceive value when the price paid is low, while others perceive value when the relationship between quality and price is balanced. On the same lines, Sweeney and Soutar (2001) define price value as the utility derived from the product due to a reduction of its costs. Previous research in the hospitality context finds that the perceived value of price is a significant predictor of customer satisfaction and behavioral intention (Ryu *et al.*, 2012; Eid and El-Gohary, 2015). Kim *et al.* (2008b) also introduce the perceived value of price to their hotel brand equity model and discover that the perceived value of price is the strongest predictor of the intention to revisit a hotel. In addition, Jamrozy and Lawonk (2017) found that the functional value (price) is a major determinant of consumers’ intention to purchase eco-tourism trips. Finally, Kam Fung So and King (2010) show that a hotel’s perceived price value is a strong predictor of brand meaning. Hence, when hotels provide accommodation along with food and beverages and supplementary services at a reasonable price, the overall value perception of the hotel rises, and hence, guests respond in terms of increased revisiting and recommendation. In the present research, four items were adapted from Kam Fung So and King (2010); Ryu *et al.* (2012) and Eid and El-Gohary (2015) to measure the price value.

2.7 Quality value

The importance of quality arises from the role that it plays in both customers’ perceived value and CBBE. In one way, quality is an economic, functional or cognitive component of value (Sweeney and Soutar, 2001; Sánchez-Fernández and Iniesta-Bonillo, 2009). Thus, improving quality is important for providing better value to customers. At the same time, perceived quality is considered an important component of CBBE (see, for instance, Netemeyer *et al.*, 2004; Chen and Chang, 2008; Pike *et al.*, 2010). It is defined as the consumer’s

judgement of the overall excellence or superiority of a brand over its rivals (Netemeyer *et al.*, 2004).

With this in mind, Nasution and Mavondo (2008) maintain that different classes of hotel (prime vs standard vs budget) deliver significantly different levels of customer value resulting from their reputation for quality as seen by customers. They contend that prime hotels are perceived to have a higher reputation for quality than standard hotels, which in turn are considered to be higher in this respect than budget hotels. Consequently, customers in hotels of higher classification see that they are receiving superior value to that received by people in hotels of lower classification, which justifies their paying more to stay where they do. Additionally, service quality was found to be the most important factor affecting guests' perceived value and loyalty in hotels (Gallarza *et al.*, 2015). Quality value in this research is captured by four items adopted from Nasution and Mavondo (2008) and Gallarza *et al.* (2015).

2.8 Self-gratification value

Mood management and tension reduction theories posit that people strive to be in a good mood, reduce tension, keep a sense of inner balance and recover themselves to a state of homeostasis (Arnold and Reynolds, 2003). Therefore, people are inclined to make consumption decisions to reverse a bad mood, forget about problems and relax (Davis and Hodges, 2012; El-Adly and Eid, 2015). A hotel's facilities can help customers relieve stress and improve their mood by visiting its lounges and restaurants, using the spa and swimming pool and enjoying value added services to make their stay more comfortable, encouraging them to use their stay as an escape from their daily routine. In this research, the value of self-gratification is captured by four items adapted from Davis and Hodges (2012); El-Adly and Eid (2015).

2.9 Aesthetics value

The value of aesthetics is one of the experiential values that, despite its importance, and has been little studied with reference to services in general and in the hotel context in particular. In the service literature, the concept of aesthetic value generally refers to a consumer's self-oriented reactive appreciation of the physical environment (Kim, 2002). Based on the typology of experiential values provided by Mathwick *et al.* (2001), aesthetics as a value is intrinsic/reactive in nature and is concerned with the perception of and reaction to the ambience, architecture, interiors and visual displays of the servicescape (Keng *et al.*, 2007). Previous research has shown that aesthetics affects overall customer satisfaction and future behaviors such as willingness to recommend (Keng *et al.*, 2007; Wu and Liang, 2009). Additionally, the importance of aesthetics is manifested in its role in creating positive emotions, which leads to higher customer loyalty (Breiby and Slåtten, 2015; Gallarza *et al.*, 2015). Based on the above review, this research captures aesthetics as a value by measurements attached to four items: hotel exterior, interior, furniture and view, as adapted from Keng *et al.* (2007); Wu and Liang (2009); Breiby and Slåtten (2015) and Gallarza *et al.* (2015).

2.10 Prestige value

Brand prestige refers to the high status of brand positioning, which induces the feeling in a consumer of belonging to a

superior upper class, as it enhances the social value and social self-concept (Hwang and Han, 2014). On the same lines, Nasution and Mavondo (2008) affirm that prestige is related to social value and represents what "important others" think about the consumer when he/she is patronizing a certain hotel. This may explain why consumers are motivated to accept higher prices to obtain prestige in this way, as it is a signal of social status (Hwang and Han, 2014). The importance of prestige as a value in brand equity is derived from its significant outcomes. Previous research in the hospitality sector designates brand prestige as a significant cause of brand identification and loyalty (Hwang and Han, 2014; Choi *et al.*, 2011), trust and satisfaction in upscale restaurants (Jin *et al.*, 2016), and the intention to revisit a hotel (Huang and Cai, 2015). Hence, when the hotel experience reflects high status and makes consumers proud of themselves for their choice, the hotel then reflects a prestigious status. Four items were drawn from Nasution and Mavondo (2008); Hwang and Han (2014) and Jin *et al.* (2016) to measure the prestige value in a hotel.

2.11 Transaction value

Transaction value is defined as the psychological satisfaction and the positive emotional perception or pleasure gained from getting a good deal (Davis and Hodges, 2012). Customers usually hunt for a bargain not only for economic gain but also largely for purposes of emotional satisfaction (Cox *et al.*, 2005) because the emotional value resulting from paying less multiplies the value obtained from product acquisition (El-Adly and Eid, 2015) and creates excitement among customers when they enjoy the thrill of finding unexpected good offers (Davis and Hodges, 2012). In the hotel context, customers seek to fulfil transaction value through using the hotel service discounts that can be applied in the hotel rooms, restaurants and other facilities. Additionally, the loyalty programs offered by hotels, for example, those which give complimentary nights and dinners may motivate customers to use a hotel's facilities more frequently, which will have its effect on the overall judgment of the hotel itself. Transaction value in this research is captured through three items adopted from El-Adly and Eid (2015).

2.12 Hedonic value

Hedonic value is the fun and enjoyment, beyond simple product acquisition, that is derived from a pleasure-oriented consumption experience (Babin *et al.*, 1994; Diep and Sweeney, 2008). The influence of hedonic value has been established in the marketing literature to increase customer satisfaction and behavioral intentions (Ryu *et al.*, 2010; Kesari and Atulkar, 2016). In the hotel context, the fun resulting from experiencing the hotel facilities themselves represents the hedonic value that customers gain from their consumption experience. A hotel's ambience, interior, music, lighting and entertainment programs can create hedonic value for its customers. Gallarza *et al.* (2015) assert that the hedonic value represented by play has a positive significant direct effect on the hotel's loyalty. In this research, four items, adapted from Diep and Sweeney (2008) and Kesari and Atulkar (2016), were used to measure hotel hedonic value.

3. Research method

3.1 GBHE scale generation

To ensure the face or content validity of the GBHE scale, the above literature review was undertaken initially, and based on the literature review, forty-four items needed for the GBHE scale were adapted from previous studies to conceptualize hotel awareness as a unidimensional construct (4 items), hotel overall image as a unidimensional construct (4 items), hotel customer perceived value as a multi-dimensional construct (36 items) and to provide the basis of the current study measures. All of these items, in addition to the other items related to behavioral intentions that will be used later in this research, were measured in a questionnaire survey using a five-point Likert scale anchored by *strongly agree* and *strongly disagree*. Demographic questions were also included at the end of the questionnaire.

The preliminary questionnaire was investigated by 3 professors who were experts in the fields of research methods, consumer behavior, and hospitality and tourism. As a result of their insightful revision, four items related to the customer perceived value of hotels were removed from the questionnaire, and some modification was made to the wording of other items. The questionnaire was originally written in English and translated to provide a second version in Arabic to allow both Arabic and non-Arabic speakers to participate in the survey. The back-translation method was used to ensure the accuracy of the translation from English to Arabic. The questionnaire was piloted by 15 UAE residents (Arabic- and non-Arabic speaking) with experience of staying in hotels inside and/or outside the UAE, who were intercepted and asked to complete the questionnaire about their experience with the last hotel they had stayed in; their remarks were taken into consideration. A slight amendment to the questionnaire was made after the pre-testing.

3.2 Sampling design and data collection

Two sub-samples were used in order to purify and validate the proposed scale. To purify the scale, an intercept sample, along with a self-administered questionnaire, was used to collect data from residents in the UAE who were asked by 5 well-trained senior university students about their experience as hotel guests with the last hotel inside or outside the UAE they had stayed in during the previous year. A total of 192 questionnaires was collected, but 26 questionnaires were disqualified for analysis because of incompleteness and/or inconsistent answers. Thus, 166 completed questionnaires were used in the purification stage of the proposed scale. The second sub-sample was an online sample that was conducted for scale validation purposes. A total of 206 questionnaires was received, but 24 questionnaires were excluded from analysis due to their incompleteness, inconsistency, or their being received after the data analysis had finished. Therefore, 182 usable questionnaires were used in the cross-validation stage.

To make sure that there was no non-response bias due to the sampling procedures, the answers from the intercept sample were compared with the answers from the online sample. A *t*-test showed no significant differences between the two groups of respondents at the 5 per cent significance level, indicating that non-response bias need not be a concern. The

demographic characteristics of all respondents (348) show that more than half of the respondents were males (50.9 per cent); nearly two thirds (61.2 per cent) were married, 36.2 per cent were single, and 2.6 per cent were categorized as of other marital status. The age of 18.1 per cent of respondents ranged from 18 years to 25 years, 36.8 per cent were aged between 26 and 35 years, 24.7 per cent between 36 and 45 years, 14.4 per cent between 46 and 55 years, 5.5 per cent between 56 and 65 years, and only 0.5 per cent were above 65 years. The monthly income of 9.8 per cent of the respondents was less than \$3000; 21.6 per cent of the respondents earned between \$3000 and \$5000; while the monthly income of 17 per cent of the respondents ranged from \$5001 to \$7000; 19.5 per cent had incomes ranging from \$7001 to \$10000; 13.1 per cent had incomes ranging from \$10001 to \$15000; and finally, 19 per cent of the respondents had incomes above \$15000 per month. Finally, in terms of occupation, the sample was dominated by employees (77.9 per cent), 14.1 per cent of the respondents were students, while 4.9 per cent were entrepreneurial businessmen/women, and only 3.1 per cent were retired.

4. Analysis and results

The main objective of this study is to develop and validate a scale to measure GBHE; therefore, it is crucial to conduct confirmatory factor analysis (CFA) to confirm the GBHE conceptualization, to test the unidimensionality of each single construct, and to assess the convergent validity, discriminant validity, and composite reliability of the proposed scale. However, using two sub-samples (i.e. the purification sample and the validation sample) requires certain CFA procedures before combining them into one pooled sample to estimate the CFA psychometric properties of the GBHE scale. First, the CFA model for each individual sample has to be estimated for the purpose of cross-validation. Second, multi-group analysis using configural and metric invariance tests has to be performed to ensure that the factor structure of GBHE CFA model will function in a similar manner in both samples. Third, when the configural invariance and metric invariance across the two samples exist, the two samples will be pooled in a single sample to estimate the CFA psychometric properties of the GBHE scale.

However, conducting exploratory factor analysis (EFA) before proceeding with CFA procedures is considered essential in this study. That is because GBHE is a new scale that combines the traditional dimensions of CBHE (i.e. hotel awareness and hotel overall image) along with customer perceived value of hotels as a multidimensional construct. The combination of these constructs has not been examined previously in the literature, particularly in the context of hotels in the UAE. The following sections present the analysis and results of this research.

4.1 Guest-based hotel equity scale purification

To purify the GBHE proposed scale, EFA, as suggested by [Anderson and Gerbing \(1982\)](#), was carried out using maximum likelihood analysis with Promax rotation on the intercept sample of 166 respondents, to explore the latent factors of the 40 items left from the pre-testing stage. The

sample was found suitable for EFA, as the high significant value of Bartlett's test of sphericity (approximately chi-square = 5377.86, $df = 630$, $p = 0.000$) in the data set reflected the high correlations that were needed for conducting factor analysis. In addition, the high value of the Kaiser–Meyer–Olkin (KMO) measure of 0.933 ensured that the sample was appropriate for factor analysis. The final results of the purification sample showed that 36 items out of 40 were loaded in their designated nine constructs, accounting for 80.271 per cent of the total variance explained. Following the same procedure on the cross-validation sample of 182 respondents, a further item was removed. As there was no non-response bias between the two samples, we combined them, making the total sample 348. Using this new total size, the remaining 35 items were subjected to further exploratory factor analysis with a maximum likelihood analysis and Promax rotation. As a result, another item was removed, as its loading was lower than the cut-off point of 0.60 of factor loadings which had been set as the criteria for removing additional items (Kim *et al.*, 2001; El Hedhli and Chebat, 2009). Thirty-four items were highly loaded on nine significant factors and accounted for 80.301 per cent of the total variance explained. In addition, the Cronbach's alpha reliability coefficients were calculated to assess the psychometric properties of the nine factors, and they were found to range from 0.861 to 0.945, exceeding the cut-off level of 0.70 set for basic research (Nunnally and Bernstein, 1994) as shown in Table I. Then these nine factors were subjected to CFA, as discussed in the following sections.

4.2 Confirmatory factor analysis

Once the GBHE scale had been purified using EFA and a reliability analysis, the nine factors resulting from the EFA were subjected to three phases of CFA to confirm the conceptualization and dimensionality of the GBHE scale. First, individual CFA for each sample (i.e. the purification and validation samples) was examined for cross-validation purposes. Second, multi-group analysis was conducted using configural and metric invariance tests to make sure that the factor structure and loadings were sufficiently equivalent across the two samples. Finally, if the configural and metric invariances conducted in the second phase had been established, the two sub-samples were combined into one single sample in order to assess the CFA psychometric properties of the GBHE scale.

4.3 Individual analysis for the purification and validation samples

Using AMOS 24, the 34 items generated from EFA underlying the nine latent factors were separately subjected to CFA for both the purification and validation samples. The model fit indices of each sample were acceptable except for the AGFI which was lower than the threshold of 0.80 as recommended by Hu and Bentler (1999), as follows: For the first sample, $\chi^2 = 797.912$, $df = 491$, $p = 0.000$; $\chi^2/df = 1.625$; AGFI = 0.745; CFI = 0.931; IFI = 0.940; RMSEA = 0.062; and for the second sample, $\chi^2 = 883.825$, $df = 491$, $p = 0.000$; $\chi^2/df = 1.800$; AGFI = 0.740; CFI = 0.922; IFI = 0.923; RMSEA = 0.066.

4.4 Multi-group analysis using configural and metric invariance tests

To make sure that the factor structure of GBHE CFA model behaved in a similar fashion in both groups (i.e. the purification and validation samples), a configural invariance test was performed where the two independent samples were tested together freely. Having adequate model fit ensured that the configural invariance had been achieved (Gaskin, 2016). The results showed a very good fit when analyzing a freely estimated model across the two groups, as $\chi^2 = 1566.35$, $df = 970$, $p = 0.000$; $\chi^2/df = 1.615$; CFI = 0.941; TLI = 0.932; RMSEA = 0.042; SRMAR = 0.0491. In addition, a metric invariance test was carried out as recommended by Steenkamp and Baumgartner (1998) and Vandenberg and Lance (2000), by comparing the regression weights obtained from each sample along with critical ratios for differences to test the metric equivalence of the factor loadings. Steenkamp and Baumgartner (1998) note that full metric equivalence of the factor loadings will often not be supported, and in such cases, they recommended examining partial metric equivalence, which can be supported if at least one item per each latent factor is metrically invariant (MacKenzie *et al.*, 2011). Table II shows that at least one item per each latent factor was insignificant, which indicated that partial metric equivalence was supported. Table II also shows how a comparison of the two samples reveals that all variables except eight are insignificant, and hence that the two samples – to a great extent – are similar. As the configural invariance and partial metric invariance across the two groups were established, the two groups were pooled in a single sample ($N = 348$) to estimate the CFA psychometric properties of the GBHE scale. The size of this pooled sample ($N = 348$) was considered reasonable since the number of observed variables (p) included in the study was 34 and the rule of thumb in CFA is $N/p \geq 10$ (Myers *et al.*, 2011). Because we had 348 cases for 34 variables, the rule of thumb was not violated.

4.5 Measuring the goodness-of-fit indices for the measurement model

To confirm the conceptualization of GBHE as a multidimensional scale, CFA was conducted on a series of models, as suggested by Bollen (1989). First, a null CFA model (M1) was analyzed, where no factors underlying the 34 observed variables were determined, zero correlations were found between them, and the variances of the observed variables were not restricted. This null model (M1) was tested against a series of models to determine which model had the best comparative goodness-of-fit indices (Table III). The null model was followed by a one-factor CFA model (M2), where the 34 observed variables were suggested to represent the GBHE as a unidimensional construct. Then a two-factor CFA model (M3) was created which combined the observed variables of both hotel awareness and hotel overall image dimensions, forming hotel knowledge as a unidimensional construct (i.e. factor one). The observed variables of hotel perceived value were then combined in their turn, creating hotel perceived value as another uni-dimensional construct (i.e. factor two), M4, where hotel knowledge is considered as a second-order multidimensional construct of both hotel

Table I Results of EFA and Cronbach's alpha coefficients for the GBHE factors

GBBE factors	Factor								
	1	2	3	4	5	6	7	8	9
SGR1: Staying experience at that hotel truly felt as an escape from life pressure	0.806								
SGR2: During my stay at that hotel, I was able to forget my problems	0.883								
SGR3: Staying experience at that hotel helped me to release stress and to relax	0.866								
SGR4: For me, staying at that hotel was a way to do something different from my daily routine	0.741								
AES1: The exterior appearance of that hotel was elegant		0.770							
AES2: The furnishing of that hotel was aesthetically appealing		0.758							
AES3: The view from that hotel was wonderful		0.642							
AES4: The interior of that hotel was artistically designed and decorated		0.955							
AWE1: That hotel brand name was very well-known to me			0.891						
AWE2: I was able to recognize that hotel among other competing hotels.			0.816						
AWE3: When I decided to stay at a hotel, that hotel came to my mind immediately.			0.803						
AWE4: I was really aware of that hotel when I decided to stay at a hotel			0.775						
PRC1: That hotel provided good accommodation that is worth its price				0.758					
PRC2: The food and beverages served at that hotel worth its price				0.737					
PRC3: That hotel offered other good services (e.g., laundry, car rental, room service, spa, etc.) that was worth its price				0.725					
PRC4: In general, that hotel price was acceptable				0.936					
PRS1: Staying at that hotel was considered prestigious					0.763				
PRS2: I consider staying at that hotel a status symbol					0.945				
PRS3: My staying at that hotel matched my social status					0.888				
PRS4: I feel proud when staying at that hotel					0.670				
TRA1: I felt really smart when I got some real special rates, offers, or discounts at that hotel						0.828			
TRA2: I enjoy the thrill of finding that one expensive room or service at that hotel was really on special rate						0.824			
TRA3: I consider my staying experience at that hotel as fortunate when I found some bargains (e.g., special rates, offers, discounts, etc.)						0.773			
IMG1: The reputation of that hotel is good							0.856		
IMG2: The overall image of that hotel is good							0.883		
IMG3: Compared to other hotels with the same star rating, that hotel has a good image							0.585		
HED1: For me, the ambience (atmosphere) of that hotel made my staying a sense of joy								0.800	
HED2: It was fun to be at that hotel								0.787	
HED3: I was happy during my stay at that hotel because of its ambience (atmosphere)								0.764	
HED4: The time spent at that hotel was truly enjoyable								0.810	
QUA1: That hotel delivered services of the highest quality									0.693
QUA2: The quality of that hotel service was consistently high									0.822
QUA3: That hotel service was considered very reliable									0.824
QUA4: That hotel is considered a 'top quality hotel'									0.663
Initial Eigen value	15.883	2.523	2.295	1.703	1.333	1.079	1.036	0.783	0.666
% of variance	46.716	7.419	6.751	5.010	3.921	3.173	3.048	2.304	1.959
Cumulative %	46.716	54.135	60.887	65.897	69.817	72.990	76.038	78.342	80.301
Cronbach's alpha	0.920	0.895	0.890	0.878	0.922	0.861	0.867	0.945	0.918

Notes: SGR stands for Self-Gratification; AES stands for Aesthetics; AWE stands for Awareness; PRC stands for Price; PRS stands for Prestige; IMG stands for Image; TRA stands for Transaction; HED stands for Hedonic; QUA stands for Quality

Table II The results of the metric invariance test for the purification and validation samples

Items of latent factors	Intercept sample (the purification)		Online sample (the validation)		z-score
	Estimate	p	Estimate	p	
AWE2 ← AWE	1.378	0.000	1.072	0.000	−1.423
AWE3 ← AWE	1.281	0.000	0.726	0.000	−2.295**
AWE4 ← AWE	1.442	0.000	1.001	0.000	−1.842*
IMG2 ← IMG	1.066	0.000	0.999	0.000	−0.632
IMG3 ← IMG	1.085	0.000	0.993	0.000	−0.742
PRC2 ← PRC	1.107	0.000	0.843	0.000	−2.201**
PRC3 ← PRC	1.213	0.000	0.747	0.000	−3.85***
PRC4 ← PRC	0.975	0.000	0.866	0.000	−0.981
QUA2 ← QUA	1.179	0.000	0.991	0.000	−1.751*
QUA3 ← QUA	1.186	0.000	0.820	0.000	−3.289***
QUA4 ← QUA	1.350	0.000	1.061	0.000	−2.333**
SGR2 ← SEG	1.057	0.000	0.937	0.000	−1.312
SGR3 ← SEG	1.087	0.000	0.889	0.000	−2.332**
SGR4 ← SEG	0.932	0.000	0.857	0.000	−0.820
AES2 ← AES	1.131	0.000	0.945	0.000	−1.631
AES3 ← AES	1.018	0.000	1.037	0.000	0.143
AES4 ← AES	1.125	0.000	1.122	0.000	−0.023
PRS2 ← PRS	1.051	0.000	0.866	0.000	−2.238**
PRS3 ← PRS	0.983	0.000	0.756	0.000	−2.765***
PRS4 ← PRS	0.938	0.000	0.827	0.000	−1.250
TRA2 ← TRA	1.007	0.000	1.044	0.000	0.273
TRA3 ← TRA	1.086	0.000	1.020	0.000	−0.490
HED2 ← HED	0.961	0.000	0.952	0.000	−0.114
HED3 ← HED	0.962	0.000	1.090	0.000	1.630
HED4 ← HED	0.983	0.000	0.969	0.000	−0.178

Notes: ***p-value < 0.01; **p-value < 0.05; *p-value < 0.10

Table III Comparative analysis of models of various dimensionalities

Models	χ^2/DF	AGFI	CFI	IFI	RMSEA
M1: Null model	10577.88/561 = 18.855	0.071	0.000	0.000	0.227
M2: GBHE as uni-dimensional construct	4128.21/528 = 7.819	0.466	0.641	0.642	0.140
M3: Hotel knowledge as uni-dimensional construct and hotel perceived value as uni-dimensional construct	3726.16/526 = 7.084	0.493	0.681	0.682	0.132
M4: Hotel knowledge as a 2nd order multidimensional construct while hotel perceived value as a unidimensional construct	2223.73/502 = 4.430	0.669	0.828	0.829	0.099
M5: 3rd order CFA model (hotel knowledge as a multidimensional construct and hotel perceived value as a multidimensional construct)	1071.79/515 = 2.081	0.820	0.944	0.945	0.056
M6: GBHE as a multidimensional construct of 9 factors	942.81/485 = 1.944	0.832	0.954	0.955	0.052
Statistics				Suggested	
χ^2/DF				≤5	
Adjusted goodness-of-fit index (AGFI)				≥0.80	
Comparative fit index (CFI)				≥0.90	
Incremental fit index (IFI)				≥0.90	
Root mean square residual (RMSEA)				≤0.10	

awareness and hotel overall image, while all the observed values of hotel perceived value formed a unidimensional construct. The rationale behind considering hotel awareness and hotel image to fall under the hotel knowledge construct is based on the theoretical framework of Keller (1993, 2008). In addition,

there is a third-order CFA model (M5), where hotel knowledge is seen as a multidimensional construct of two factors and hotel perceived value as a multidimensional construct of seven factors. Finally, there is M6 where GBHE is considered as a first-order multidimensional construct consisting of nine

dimensions, namely, hotel awareness, hotel overall image, and the values of price, quality, self-gratification, aesthetics, prestige, transaction and hedonism. Table III shows the goodness-of-fit indices for the six models, which clearly indicate the superiority of the proposed GBHE scale as a first-order multidimensional construct over the other five rival models. Figure 1 depicts the three latest models: M4, M5 and M6.

4.6 Unidimensionality analysis

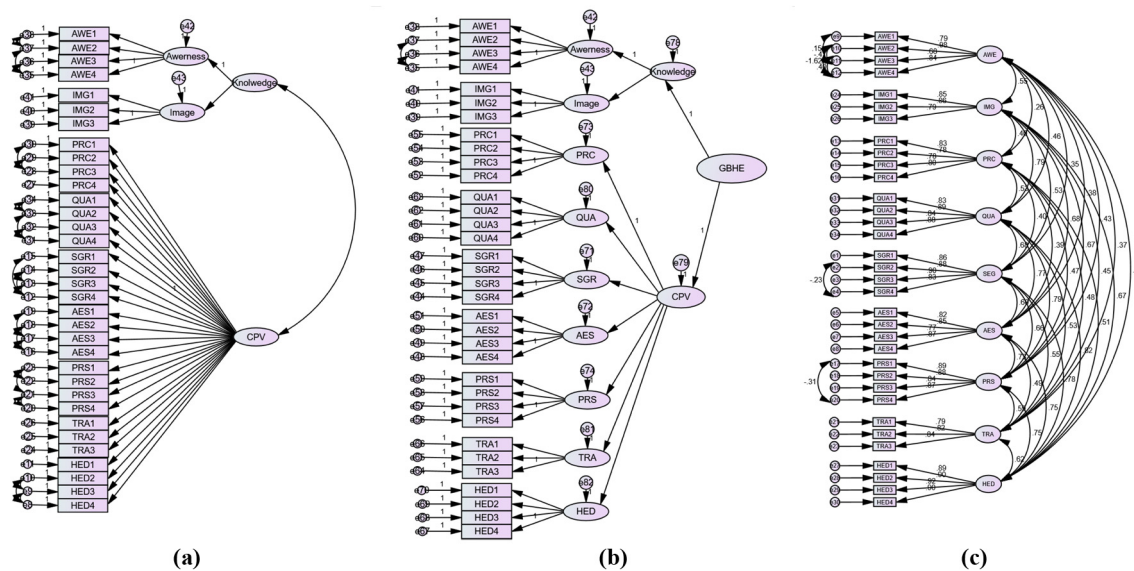
According to Ahire and Dreyfus (2000), unidimensionality, which means the extent to which the scale items are closely associated with each other and represent a single concept, is a prerequisite in assessing convergent and discriminant validity.

As illustrated in Table IV, all the items of a single dimension were investigated using CFA to determine how closely they came to representing the same dimension. Typically, goodness-of-fit (GFI) index values of 0.90 or higher indicated high evidence of unidimensionality (Ahire, 1996). Each one of the nine dimensions of the GBHE exhibited highly satisfactory unidimensionality.

4.7 Convergent validity

Convergent validity measures the extent to which the items of a specific construct converge on or share the greatest proportion of variance (Hair *et al.*, 2010). To assess convergent validity, four criteria were used, as illustrated in Table V. First, the standardized factor loading for an item

Figure 1 Diagrams of different models M4, M5 and M6



Notes: (a) M4: Hotel knowledge as second-order CFA model and customer perceived value as a unidimensional construct; (b) M5: 3rd CFA model (hotel knowledge as a second-order construct and customer perceived value as a second order construct); (c) M6: GBHE a multidimensional measurement model of nine dimensions

Table IV Model fit indices to assess the unidimensionality of each dimension of the GBHE scale

Dimensions	No. of items	χ^2/df	GFI	AGFI	Obtained fit indices				CFI	NFI
					SRMR	RMSEA				
Hotel awareness	4	31.446	0.911	0.557	0.0495	0.296			0.928	0.926
Hotel overall image	3	—	1.000	—	0.0000	0.711			1.000	1.000
Price	4	1.711	0.995	0.975	0.0116	0.045			0.998	0.995
Quality	4	4.381	0.988	0.942	0.0131	0.099			0.0993	0.991
Self-gratification	4	5.512	0.985	0.927	0.0144	0.114			0.991	0.989
Aesthetics	4	1.307	0.996	0.982	0.0087	0.030			0.999	0.997
Prestige	4	3.244	0.990	0.952	0.0116	0.080			0.996	0.994
Transaction	3	—	1.000	—	0.0000	0.678			1.000	1.000
Hedonic	4	2.681	0.992	0.961	0.0075	0.070			0.997	0.996
Suggested fit indices										
		≤ 5	≥ 0.90	≥ 0.80	≤ 0.08	≤ 0.10		≥ 0.90		≥ 0.90

Table V Convergent validity of GBHE factors

GBHE factors	Measurement items	Standardized loading	AVE	CR	MaxR(H)
Hotel awareness	That hotel brand name was very well-known to me	0.794	0.691	0.898	0.985
	I was able to recognize that hotel among other competing hotels	0.979			
	When I decided to stay at a hotel, that hotel came to my mind immediately	0.684			
Hotel overall image	I was really aware of that hotel when I decided to stay at a hotel	0.841	0.696	0.873	0.990
	The reputation of that hotel is good	0.849			
	The overall image of that hotel is good	0.861			
Price	Compared to other hotels with the same star rating, that hotel has a good image	0.791	0.644	0.878	0.987
	That hotel provided good accommodation that is worth its price	0.834			
	The food and beverages served at that hotel worth its price	0.785			
Quality	That hotel offered other good services (e.g. laundry, car rental, room service, spa, etc.) that was worth its price	0.785	0.740	0.919	0.991
	In general, that hotel price was acceptable	0.804			
	That hotel delivered services of the highest quality	0.832			
Self-gratification	The quality of that hotel service was consistently high	0.889	0.754	0.924	0.968
	That hotel service was considered very reliable	0.842			
	That hotel is considered a 'top quality hotel'	0.877			
Aesthetics	Staying experience at that hotel truly felt as an escape from life pressure	0.863	0.686	0.897	0.975
	During my stay at that hotel, I was able to forget my problems	0.882			
	Staying experience at that hotel helped me to release stress and to relax	0.896			
Prestige	For me, staying at that hotel was a way to do something different from my daily routine	0.830	0.758	0.926	0.989
	The exterior appearance of that hotel was elegant	0.817			
	The furnishing of that hotel was aesthetically appealing	0.852			
Transaction	The view from that hotel was wonderful	0.772	0.673	0.860	0.989
	The interior of that hotel was artistically designed and decorated	0.869			
	Staying at that hotel was considered prestigious	0.890			
Hedonic	I consider staying at that hotel a status symbol	0.880	0.812	0.945	0.946
	My staying at that hotel matched my social status	0.840			
	I feel proud when staying at that hotel	0.871			
	I felt really smart when I got some real special rates, offers, or discounts at that hotel	0.794	0.822	0.945	0.946
	I enjoy the thrill of finding that one expensive room or service at that hotel was really on special rate	0.822			
	I consider my staying experience at that hotel as fortunate when I found some bargains (e.g. special rates, offers, discounts, etc.)	0.844			
	For me, the ambience (atmosphere) of that hotel made my staying a sense of joy	0.887	0.812	0.945	0.946
	It was fun to be at that hotel	0.899			
	I was happy during my stay at that hotel because of its ambience (atmosphere)	0.917			
	The time spent at that hotel was truly enjoyable	0.901			

Note: *AVE stands for average variance extracted, CR stands for composite reliability, MaxR(H) stands for maximal reliability

was at least 0.7 and significant. Second, the composite reliability (CR) was a minimum of 0.7. Third, the average variance extracted (AVE) for a construct was greater than 0.5 (Fornell and Larcker, 1981; Hair *et al.*, 2010; Malhotra and Dash, 2011). Finally, the maximal reliability MaxR(H) of each construct was at least 0.8 (Hancock and Mueller, 2001). Table V demonstrates that all the constructs fulfilled the four

criteria, supporting the convergent validity of the constructs in question.

4.8 Discriminant validity

According to Fornell and Larcker (1981), discriminant validity is achieved when the squared root of the AVE of each construct

is higher than the inter-construct correlations in the model. This means that each construct should have more variance from its components than it shares with other constructs. Table VI shows that the squared root of the AVE values for each construct were found to be higher than the correlations between it and any other construct in the model. Therefore, the discriminant validity for the GBHE measurement model of nine factors was established according to the criteria of Fornell and Larcker (1981).

4.9 Correlations among the constructs of the measurement model

Having GBHE as a multidimensional construct of nine factors representing hotel awareness, hotel overall image, and the seven other factors belonging to the customer perceived value of hotel encapsulates all the hospitality experience that guests could amass during their stay in the hotel. As demonstrated in Table VI, the significant and positive correlations between the different factors constituting GBHE tell hotel managers that they should adopt not a progressive but a holistic approach in implementing the GBHE construct and its components.

4.10 The relative importance of the GBHE dimensions in predicting behavior

This study adopts the theoretical framework of Keller (1993) in considering loyalty as an outcome of CBBE. Thus, once the reliability, convergent validity and discriminant validity of the GBHE as a multidimensional construct are established, as discussed above, it is important to assess the predictive power and relative importance of the GBHE dimensions on behavioral intentions (i.e. loyalty to a hotel). According to Kim *et al.* (2008a), a high level of brand equity would be expected to strengthen consumer satisfaction, repurchase intention, and loyalty. Therefore, we expect that having a high level of GBHE will strengthen the behavioral intentions of guests towards a specific hotel, since the likelihood of their return to this hotel in the future, given the chance, is high; they would tend to come back to this hotel in the future, and be willing to recommend it to their friends. As illustrated in Table VII, the results support these expectations, since the explained variance or adjusted R^2 for these three attitudinal loyalty measures is high, ranging from 53 to 63 per cent. Table VII also demonstrates that different

dimensions of GBHE have different effects on the three behavioral intentions. In general, seven different dimensions of GBHE were found to have a significant positive effect on behavioral intentions. However, the hedonic, quality, transaction, price and self-gratification values have more predictive power on behavioral intentions than the other GBHE dimensions have. This reflects the importance of incorporating the customer perceived value dimensions into the GBHE construct. If we look deeper into these dimensions, we find that they belong to the affective dimensions of customer perceived value (i.e. hedonic, transaction, and self-gratification values) and cognitive dimensions (i.e. quality, price). This means that, when creating GBHE, the affective and cognitive dimensions of customer perceived value, and not the cognitive ones alone, are together in importance, as discussed earlier in the introduction to this study. In the meantime, using step-wise regression, each of the above dimensions entered the equation independently and significantly, which means that each dimension played a separate and important role in forming the behavioral intentions as a result of the whole hospitality experience (Sweeney and Soutar, 2001).

5. Discussion and implications

Although CBBE which takes the consumer perspective of brand equity has been studied throughout the past two decades in different contexts, there is a lack of consensus among researchers and practitioners about its measurement and dimensions. Research in this field adopts one of two models initiated by Aaker (1991, 1996) and Keller (1993) to measure CBBE. Many academic papers have added to or decreased the number of original dimensions of CBBE. Academics and practitioners are still calling for better and richer conceptualization of the CBBE (Veloutsou *et al.*, 2013).

The pursuit of hotel firms to sustain their competitive edge, especially with the proliferation of hotel brands available to hotel guests, has made brand equity one of the top issues in the hotel industry these days (Kim *et al.*, 2008b). Thus, building upon Keller's (1993) brand equity conceptualization and the hotel equity literature, this research introduces a new scale of CBBE in the hotel context, that of GBHE. We believe that the conventional CBBE dimensions (i.e. brand awareness, brand

Table VI Discriminant validity of GBHE constructs according to Fornell–Larcker criterion

GBHE factors	Correlations**								
	Awareness	Image	Price	Quality	Self-gratification	Aesthetics	Prestige	Transaction	Hedonic
Hotel awareness	<i>0.831</i>								
Hotel overall image	0.548	<i>0.834</i>							
Price	0.255	0.400	<i>0.802</i>						
Quality	0.463	0.788	0.532	<i>0.860</i>					
Self-gratification	0.348	0.530	0.396	0.676	<i>0.868</i>				
Aesthetics	0.383	0.678	0.395	0.767	0.604	<i>0.828</i>			
Prestige	0.431	0.672	0.470	0.789	0.662	0.732	<i>0.870</i>		
Transaction	0.372	0.455	0.478	0.530	0.548	0.486	0.595	<i>0.820</i>	
Hedonic	0.357	0.671	0.510	0.815	0.776	0.747	0.746	0.618	<i>0.901</i>

Notes: **Correlation is significant at the 0.001 level (Two-tailed). The diagonals (numbers in italics) represent the square root of AVE and the lower cells represent the correlation among constructs

Table VII Relative importance of the GBHE dimensions in predicting behavioral intentions – results of stepwise regression

Behavioral intentions	Dimension	Standardized coefficients	T-values	Sig.	Adjusted R ²
There is high likelihood to return to that hotel in the future if there is a chance				0.000	0.610
	Hedonic	0.228	3.638	0.000	
	Quality	0.213	3.497	0.001	
	Transaction	0.134	3.163	0.000	
	Price	0.141	3.542	0.000	
	Hotel awareness	0.090	2.264	0.024	
	Hotel image	0.110	2.151	0.032	
	Self-gratification	0.101	2.008	0.045	
I will continue staying at that hotel in the future				0.000	0.530
	Quality	0.357	6.704	0.000	
	Transaction	0.190	4.184	0.000	
	Price	0.170	3.922	0.000	
	Self-gratification	0.149	3.018	0.003	
	Hotel awareness	0.085	2.047	0.041	
I would be willing to recommend that hotel to my friends				0.000	0.628
	Quality	0.322	5.456	0.000	
	Hedonic	0.188	3.088	0.002	
	Transaction	0.108	2.646	0.009	
	Self-gratification	0.153	3.107	0.002	
	Price	0.095	2.450	0.015	
	Hotel image	0.107	2.238	0.026	

image, perceived quality, brand loyalty) may not be adequate alone to measure brand equity from the consumer's perspective in the hotel context, as it is grounded only on the cognitive psychology paradigm and ignores the affective psychology counterpart. The emotional response of a hotel's guest is a fundamental component of the complete hospitality experience (del Bosque and San Martín, 2008). In addition, in their attempt to enrich the dimensionality of CBBE in the hotel context, some researchers (Kim *et al.*, 2008b; Kam Fung So and King, 2010) have added to the dimensions of CBBE perceived value, but treating it as a unidimensional construct with a focus on value for money, price and cost. However, this perspective takes a narrow view of customer perceived value and has obscured other important dimensions of experiential value that are derived from the hotel's guest complete hospitality experience during a guest's stay and may enrich the measurement of CBBE in the hotel context.

Hence, the findings of this research contribute in several ways to the current literature on hotel brand equity measurement. First, this research develops and empirically validates a new scale to measure the CBBE in the hotel context. We named this parsimonious and practical scale GBHE. EFA and a series of CFA models were examined to conceptualize brand equity in the hotel context and reveal that GBHE is best conceptualized in terms of nine constructs, of hotel awareness, hotel image, and seven dimensions of customer perceived value (i.e. the values of price, quality, self-gratification, aesthetics, prestige, transaction and hedonism). This result supports the findings of Kim *et al.* (2008b); Bill Xu and Chan (2010); Liu *et al.* (2017) that brand awareness and brand image are important components of brand equity of hotels, but it

contradicts the findings of Kim and Kim (2005); Kayaman and Arsali (2007); Kam Fung So and King (2010) who found that brand awareness is not significant in constructing the brand equity of hotels. It also supports the theoretical framework suggested by Bill Xu and Chan (2010) in the importance it gives to incorporating the quality of experience in the measurement of hotel brand equity. Second, incorporating a multidimensional perceived value construct in the measurement of CBBE responds to previous research that calls for a better understanding of CBBE (Keller, 1993; Kim *et al.*, 2008b; Christodoulides and De Chernatony, 2010; Huang and Cai, 2015) because perceived value used to be examined in its narrow definition which is concerned with only one aspect of the product/service utility (i.e. money or price) rather than with the holistically perceived values (i.e. both cognitive and affective) that are derived from the complete hospitality experience of hotel guests. Third, the psychometric properties of the GBHE scale were excellent. The analysis reveals the importance of incorporating a perceived value construct into the GBHE scale, as both the affective dimensions of perceived value (i.e. the values of hedonism, self-gratification and transaction) and the cognitive dimensions of perceived value (i.e. quality and price) were shown to have a significant effect on guests' behavioral intentions. Fourth, hotel awareness and hotel image were also found to significantly predict the behavioral intentions of hotel guests, but to a lesser degree than most customer perceived value dimensions have. This latter result is congruent with the findings of Liu *et al.* (2017); that brand image has the least significant effect on purchase intention of all the dimensions of CBBE (i.e. brand loyalty and perceived quality). However, it does not support Liu *et al.*

(2017), who found that brand awareness does not significantly affect purchase intention. Neither does it support the results of Kim *et al.* (2008b) and Esch *et al.* (2006), who found that brand awareness and brand association/image do not have any significant effect on revisit intention or future purchase.

From a managerial perspective, the findings of this research benefit hotel managers in several ways. First, the research provides managers with a new tool that they can use to assess the experiential value of their hotel brand equity according to the current guests, compared to their present tool, which focuses only on hotel awareness and image. Second, adding the multidimensional construct of perceived value allows managers to allocate their resources more efficiently and provides them with more insights into what aspects of hotel brand equity they should focus on to enhance the behavioral intentions of their guests. More specifically, the results show that hotel awareness and image play a minimal role in predicting behavioral intentions, compared with a hotel's perceived values (i.e. of quality, hedonism, transaction, self-gratification and price). Hence, rather than investing in communication programs that focus on hotel awareness, managers should concentrate on providing and promoting the requirements of their hotel's affective and cognitive perceived values. Third, the new scale has been shown to be not only valid and robust but also simple, allowing hotel managers to assess customer perceived value regularly, which will improve their understanding of the effectiveness of their marketing program.

6. Limitations and suggestions for future research

Although this research provides evidence of the validity and robustness of the GBHE scale in the hotel context in the UAE, this scale should be brought in to assess the attributes of hotels in other countries as well as in other lodging services, such as hotel apartments and medical resorts, to provide further evidence of scale generalizability. Surveying hotel guests about their experience with the last hotel they had stayed in during the previous year could be a limitation of this study, due to the retrieval failure problem. It would better to survey hotel guests just after they had finished their stay in the hotel or within three months at most of their stay. Another limitation of this study is related to the sampling procedures. Although we believe that the sample size was reasonable and adequate to conduct CFA analysis, a bigger sample would be better and might increase the robustness of the proposed scale. In addition, the hotel classification or hotel star rating was not considered in developing and validating the GBHE scale. Therefore, future research could, as this study suggests, use the star rating of hotels as a moderator. Moreover, future research could compare the incorporation of perceived value for money as a unidimensional construct in the measurement of hotel equity with GBHE which considers customer perceived value as a multidimensional construct. Furthermore, future research might consider expanding the definition of customer perceived value to include more dimensions, such as the utilitarian value, health and well-being value. Future research could also investigate the causal relationship between GBHE dimensions and customer loyalty to the hotel. Finally, this research examined the effect of GBHE dimensions on behavioral

intentions using self-reported measures. Future research could consider using financial indicators such as the rate of occupancy and sales targets.

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Further reading

Varshneya, G., Das, G. and Khare, A. (2017), “Experiential value: a review and future research directions”, *Marketing Intelligence & Planning*, Vol. 35 No. 3, pp. 339–357.

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value of malls in a non-Western context: the case of the UAE, *International Journal of Retail & Distribution Management*, Vol. 43, No. 9, pp. 849 – 869” has won the Outstanding Paper Award in Emerald Literati Network Awards for Excellence 2016 and became the journal sample article for 2 years. He is also a reviewer for international journals published by Elsevier and Emerald. Dr. El-Adly has a large experience in consulting and professional training in marketing and management. Mohammed Ismail El-Adly is the corresponding author and can be contacted at: m.eladly@adu.ac.ae

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