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The relationship between brand equity and firms' performance in luxury hotels and chain restaurants ☆

Hong-bumm Kim[a,1], Woo Gon Kim[b,*]

[a] College of Hospitality & Tourism, Sejong University, Kwang-jin Gu, Gun-ja Dong 98, Seoul 143-747, Republic of Korea
[b] School of Hotel and Restaurant Administration, Oklahoma State University, 210 HESW, Stillwater, OK 74078-6173, USA

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Abstract

There is a growing emphasis on building and managing brand equity as the primary drivers of a hospitality firm's success. Success in brand management results from understanding brand equity correctly and managing them to produce solid financial performance. This study examines the underlying dimensions of brand equity and how they affect firms' performance in the hospitality industry—in particular, luxury hotels and chain restaurants. The results of this empirical study indicate that brand loyalty, perceived quality, and brand image are important components of customer-based brand equity. A positive relationship was found to exist between the components of customer-based brand equity and the firms' performance in luxury hotels and chain restaurants. A somewhat different scenario was delineated from the relationship between the components of customer-based brand equity and firms' performance in luxury hotels and chain restaurants.

Keywords: Customer-based brand equity; Firms' performance; Chain restaurants; Luxury hotels; Brand awareness

1. Introduction

Brands have been increasingly considered as primary capital for many businesses. Financial professionals have developed the notion that a brand has an equity that may exceed its conventional asset value. Indeed, the cost of introducing a new brand to its market has been approximated at $100 million with a 50 percent probability of failure (Ourusoff, 1993; Crawford, 1993). Long-standing brand power, instead of management strategies for short-term performance, has been re-evaluated by many American companies. In addition, some firms seeking growth opportunities have preferred to acquire existing brands, thus establishing brand management as a formal component of corporate strategy. For example, instead of developing a new luxury hotel brand, Marriott International Inc. decided to acquire an existing luxury hotel chain, the Ritz-Carlton, in 1995. Thus, the concept and measurement of brand equity has interested academicians and practitioners for more than a decade, primarily due to the importance in today's marketplace of building, maintaining and using brands to obtain a definite competitive advantage.

A brand symbolizes the essence of the customers' perceptions of the hospitality organizations. The term "brand" has multiple connotations. At one end of the spectrum, brand constitutes a name, a logo, a symbol, and identity, or a trademark. At the other end, brand embraces all tangible and intangible attributes that the business stands for (Prasad & Dev, 2000).

Although numerous local or global brands of different product categories have been employed to measure the brand equity, literature on brand equity within the hospitality industry has not been fully investigated. Only recently, Prasad and Dev (2000) demonstrated that brands would be a quick way for hotel chains to identify and differentiate themselves in

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*Corresponding author. School of Hotel and Restaurant Administration, Oklahoma State University, 210 HESW, Stillwater, OK 74078-6173, USA.

E-mail addresses: kimhb@sejong.ac.kr (H.-b. Kim), kwoo@okstate.edu (W.G. Kim).

[1] College of Hospitality & Tourism, Sejong University, Kwang-jin Gu, Gun-ja Dong 98, Seoul 143-747, Republic of Korea. Tel.: +822-3408-3172; fax: +822-3408-3312.

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the minds of the customers. They showed a method for converting customers' awareness of a brand and their view of a brand's performance into a brand equity index. The computation of brand equity allows top managers of hospitality companies to compare the strength of brands in a competitive set, to track a hotel brand's equity over time, and to formulate remedial marketing strategies (Prasad & Dev, 2000).

A hospitality company can use an endorsed brand extension strategy to extend the power of well-accepted brand identity to a number of diverse concepts differentiated by market segment (Jiang, Dev, & Rao, 2002). The endorsed brand strategy puts a well-established name on a cluster of products or services. By endorsing a range of products, the lead brand can lend its good name and image to the entire brand family (Muller, 1998). In service marketing, the company brand is the primary brand, whereas in packaged goods marketing the product brand is referred to as the primary brand (Low & Lamb Jr., 2000). In the hospitality industry, customers often base their purchase decisions on their perceptions of a company's brand (e.g., Marriott, Hilton, Hyatt, McDonald's, Burger King, Wendy's, Chili's, Applebee's, and TGI Friday's). That is, customers develop company brand associations rather than the brand association of product items.

A strong brand increases the consumer's attitude strength toward the product associated with the brand. Attitude strength is built by experience with a product. The consumer's awareness and associations lead to perceived quality, inferred attributes, and eventually, brand loyalty (Keller, 1993). This perspective is labeled as customer-based brand equity (Shocker, Srivastava, & Ruekert, 1994). The advantage of conceptualizing brand equity from this perspective is that it enables marketing managers to consider how their marketing programs improve the value of their brands in the minds of consumers (Keller, 1993). As a result, effective marketing programs on branding foster greater confidence of consumers. This confidence induces consumers' loyalty and their willingness to pay a premium price for the brand.

A strong brand provides a series of benefits to a service firm, such as greater customer loyalty and higher resiliency to endure crisis situations, higher profit margins, more favorable customer response to price change, and licensing and brand extension opportunities (Keller, 2001). For example, adding the "by Marriott" name tag on distinctive brand names aids the Marriott corporation in maintaining the differentiation, lowers operating risk, limits new-product introduction costs, and results in an improvement in corporate performance (Muller, 1998).

There have also been some assertions concerning the positive correlation between brand equity and a firm's performance (Park & Srinivasan, 1994; Aaker, 1996). The rationale of the hotel industry, for example, is quite straightforward—hotels with strong brand equity are expected to command higher occupancy and average room rates, due to high customer satisfaction and a positive price–value relationship. It will result in higher operational performance, RevPAR[2] (Prasad & Dev, 2000). Little empirical research, however, actually demonstrated the correlation between brand equity and corporate performance in hospitality brands.

The purpose of this study is to examine the possible relationship between customer-based brand equity and firms' performance in the hospitality industry through an empirical study. Logical reasoning behind the study hypothesizes that the more customers are satisfied, the more they prefer the brand and the more they return. This should translate into higher sales revenue. The study's results could offer a diagnostic decision-making tool to help top hotel managers maximize the value of their brands.

2. Literature review

2.1. Different perspectives of brand equity

The issue of brand equity has emerged as one of the most crucial topics for marketing management in the 1990s (Leuthesser, 1988; Keller, 1993; Cobb-Walgren, Ruble, & Donthu, 1995; Lassar, Mittal, & Sharma, 1995; Aaker, 1996; Dyson, Farr, & Hollis, 1996). Brand equity has been considered in many contexts: the added value endowed by the brand name (Farquhar, 1989); brand loyalty, brand awareness, perceived quality, brand associations, and other proprietary brand assets (Aaker, 1991); differential effect of brand knowledge on consumer response to the marketing of the brand (Keller, 1993); incremental utility (Simon & Sullivan, 1993); total utility (Swait, Erdem, Louviere, & Dubelaar, 1993); the difference between overall brand preference and multi-attributed preference based on objectively measured attribute levels (Park & Srinivasan, 1994); and overall quality and choice intention (Agarwal & Rao, 1996). These numerous definitions imply that brand equity is the incremental value of a product due to the brand name (Srivastava & Shocker, 1991).

There have been three different perspectives for considering brand equity: the customer-based perspective, the financial perspective, and the combined perspective. The customer-based brand equity subsumes two multi-dimensional concepts of brand strength and brand value (Srivastava & Shocker, 1991). Here, brand strength is based on perceptions and behaviors of customers that allow the brand to enjoy sustainable and differentiated competitive advantages. Brand value

[2] Revenue Per Available Rooms.

is the financial outcome of the management's ability to leverage brand strength via strategic actions to provide superior current and future profits. Brand equity is defined as "a set of brand assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service to a firm and/or to that firm's consumers (Aaker, 1991)". Blackston (1995), on the other hand, has referred to brand equity as brand value and brand meaning, where brand meaning implies brand saliency, brand associations, and brand personality and where brand value is the outcome of managing the brand meaning. Keller (1993) has also defined brand equity as the differential effect of brand knowledge on consumer response to the marketing of the brand. Within the marketing literature, operationalizations of customer-based brand equity usually fall into two groups (Cobb-Walgren et al., 1995; Yoo & Donthu, 2001): consumer perception (brand awareness, brand associations, perceived quality) and consumer behavior (brand loyalty, willingness to pay a high price). Brand equity has been operationalized by Lassar et al. (1995) as an enhancement of the perceived utility and desirability that a brand name confers on a product. According to them, customer-based brand equity indicates only perceptual dimensions, excluding behavioral or attitudinal dimensions, such as loyalty or usage intention, which differs from Aaker's (1991) incorporated definition. The four dimensions of brand equity—brand loyalty, brand awareness, perceived quality, and brand image—suggested by Aaker (1991, 1996) have been broadly accepted and employed by many researchers (Keller, 1993; Motameni & Shahrokhi, 1998; Low & Lamb Jr., 2000; Prasad & Dev, 2000; Yoo & Donthu, 2001).

Financial perspective is based on the incremental discounted future cash flows that would result from a branded product's revenue over the revenue of an unbranded product (Simon & Sullivan, 1993). The asset representing the brand is included in the firm's assets on the balance sheet. The financial perspectives also adopt the financial market value-based technique to estimate a firm's brand equity (Simon & Sullivan, 1993). One of the most publicized financial methods is used by Financial World in its annual listing of worldwide brand valuation (Ourusoff, 1993). Financial World's formula calculates net brand-related profits and assigns a multiple based on brand strength. Obviously, the stronger the brand, the higher the multiple applied to earnings. Brand strength is defined as a combination of leadership, stability, trading environment, internationality, ongoing direction, communication support, and legal protection. Based on the financial market value of the company, their estimation technique extracts the value of brand equity from the value of a firm's other assets. The methodology separates the value of a firm's securities into tangible and intangible assets and then carves brand equity out from the other intangible assets. The realization that the full value of brand-owning companies was neither explicitly shown in the accounts nor always reflected in stock market value led to a reappraisal of the importance of intangible assets in general, and brands in particular. Leading brand-owning companies have used the brand finance methodology. The approach is based on a discounted cash flow (DCF) analysis of forecasted, incremental cash flows earned as a result of owning a brand–the brand's contribution to the business.

Lastly, comprehensive perspectives incorporate both customer-based brand equity and financial brand equity. This approach has appeared to make up for the insufficiencies that may exist when only one of the two understandings is emphasized. Dyson et al. (1996), for instance, described a survey research system designed to place a financially related value on the consumer-based equity of brand images and associations. Motameni and Shahrokhi (1998) proposed global brand equity valuations, which combine brand equity from the marketing perspective and brand equity from the financial perspective.

2.2. *Brand equity research in the hospitality industry*

Relatively limited empirical evidence can be found with respect to the consumer-based equity of service brands (Smith, 1991) due to the fact that most studies have been concerned with the goods or have applied a non-altered framework to suggest brand equity value. Muller and Woods (1994), for example, emphasized brand management rather than product management in the restaurant industry, outlining a clear concept of the restaurant, dependability of brand name, and developing brand image. Muller (1998) suggested three key issues that a service brand should focus on in order to build equity and acceptance in the marketplace: quality products and services, execution of service delivery, and establishing a symbolic and evocative image. He insisted that, through the combination of these three elements in restaurant-brand development, the opportunity would come for charging price premium and enhancing customer loyalty. Murphy (1990) identified generic brand strategies such as simple, monolithic, and endorsed in the restaurant industry.

A recent study by Prasad and Dev (2000) is a good example of understanding and estimating brand equity in the lodging industry. They developed a customer-centric index of hotel brand equity considering customers as the source of all cash flow and resulting profits. Here, the customer-centric brand equity index is a measure for converting customers' awareness of a brand and their view of a brand's performance into a numerical index. Another study by Cobb-Walgren et al. (1995) focused on a consumer-based, perceptual measure of brand equity. The study employed the perceptual components of Aaker's (1991) definition of brand equity, as advocated by Keller (1993)—brand awareness, brand associations and perceived quality. Two sets of brand, from service category (hotels) and from product category (household cleansers), were employed to examine the effect of brand equity on consumer preferences and purchase intentions.

Table 1 summarizes previous related research on brand equity from a customer-based, financial, and comprehensive perspective.

3. Method

3.1. Survey framework and hypothesis

Two separate surveys were conducted to collect data for luxury hotels and chain restaurants. The hotel data were collected from Korean travelers for departure. In order to maintain the consistency of the data gathering process, graduate students majoring in hospitality and tourism management were trained. Trained graduate students conducted intercept surveys at Kimpo airport, South Korea. The main reason of selecting an airport for a survey site was that most luxury hotels were reluctant to do surveys for customers inside their hotels. Travelers, immediately after entering the gate of the departure lounge of the airport, were interviewed at various times of the day on three weekdays and the weekends over a three-week period in 2002. Every effort was made to get a representative sample. Respondents were approached and informed about the purpose of the study in advance of being given the questionnaire. At the beginning of the questionnaire, one screening question was asked to identify if respondents had stayed at a luxury hotel in the last two years. Those who met this criterion were given a copy of the self-administered questionnaire. Instructions included in the cover letter stipulated that the questionnaire be completed and returned directly to the students who had administered the survey. A total of 840 Korean travelers were approached, of which 602 (71.7%) responded and completed the questionnaires. Of these, 89 were excluded, since they had not been fully completed. Thus, a total of 513 questionnaires were used for further analysis. A method of increasing the response rate was the use of monetary incentives. The high response rate of 71.7% was partly attributed to the US$3 gift certificates offered in return for participation. Previous studies showed the effectiveness of using various monetary incentives in improving mail survey response rates (Brennan, Hoek, & Astridge, 1991; Brennan, 1992).

In order to measure brand equity and performance of chain restaurant firms, the respondents were selected from the city of Seoul, because most international fast food and chain restaurants are located in Seoul. The data were collected through a self-administered questionnaire using an intercept approach in a large shopping mall from June 15, 2002 to June 28, 2002. The subjects were selected from the stream of shoppers entering the mall between the hours of 1 p.m. and 6 p.m., Monday, Wednesday, and Saturday at a single location. Shoppers were asked to participate in a study conducted as part of a university project. Subjects were shoppers selected via a non-probability sampling technique. Those who agreed to participate were given a self-administered questionnaire, which they were instructed to complete and return directly to survey administrators. The surveyed sample represents a diverse group of 950 adults. A total of 409 questionnaires were returned by the shoppers, of which 394 were usable and represented a response rate of 41.5%.

The basic conceptual framework of this study is to examine the relationship between customer-based brand equity and a firm's performance in the hotel and chain restaurant industry. Evidence for this conjecture can be found in the research of Prasad and Dev (2000) who have proposed the straightforward rationale that hotels with strong brand equity, based on customers' positive evaluations of brand attributes, will command higher occupancy percentage and daily room rates, resulting in higher Revenue Per Available Room (RevPAR). Here, four dimensions of brand equity, namely brand loyalty, brand awareness, perceived brand quality, and brand image, are assumed to construct the context of brand equity.

The primary hypothesis of this study was formulated as follows:

Hypothesis. Customer-based brand equity and these four components in the hospitality industry will have a significant relationship with the performance of the firms of the corresponding brands.

In this study, we extend the aforementioned hypothesis to examine how the relationship between brand equity and firms' performance varies in the different categories of the hospitality industry—hotel and chain restaurants. The reason for selecting these two categories mainly stems from the fact that lodging and restaurants are representative sectors reflecting the characteristics of the hospitality industry properly. Additionally, in these sectors several different brands compete heavily with each other in order to have a competitive advantage by constructing definite brand equity. For the lodging category, 12 brands of luxury hotels located in Seoul, Korea were chosen to receive survey responses. For the restaurants, 13 brands of fast food and chain restaurants in Korea were selected to provide the database of responses. The detailed brands

Table 1
Previous research on brand equity

Researchers	Concept	Measurement
Customer-based perspectives		
Aaker (1991, 1996)	Brand awareness Brand loyalty Perceived quality Brand associations	Perceptual and behavioral conceptualization
Srivastava and Shocker (1991)	Brand strength	Brand strength (customers' perception and behavior) + fit = brand value (financial outcome)
Keller (1993, 2001)	Brand knowledge	Brand knowledge = brand awareness + brand image
Blackston (1995)	Brand meaning	Brand relationships model: objective brand (personality characteristics, brand image) + subjective brand (brand attitude)
Kamakura and Russell (1993)	Brand value	Brand value = tangible value + intangible Value: Segmentwise logit model on single-source scanner panel data
Swait et al. (1993)	Total utility	Equalization price measuring
Park and Srinivasan (1994)	Difference between overall preference and preference on the basis of objectively measured attribute levels	Brand equity = attribute based + non-attribute based
Francois and MacLachlan (1995)	Brand strength	Intrinsic brand strength Extrinsic brand strength
Lassar et al. (1995)	Performance Social image Commitment Value Trustworthiness	Evaluate only perceptual dimensions Discover a halo across dimensions of brand equity
Agarwal and Rao (1996)	Overall quality Choice intention	Brand perception/brand preference/brand choice paradigm
Yoo and Donthu (2001)	Brand loyalty Perceived quality Brand awareness/associations	Validating Aaker's conceptualization
Cobb-Walgren et al. (1995)	Brand awareness Perceived quality Brand associations	Relationship with brand preference and usage intentions (Aaker, 1991)
Prasad and Dev (2000)	Brand performance Brand awareness	Hotel brand equity index = satisfaction + return intent + value perception + brand preference + brand awareness
Financial perspectives		
Simon and Sullivan (1993)	Incremental cash flows which accrue to branded products	Brand equity = intangible assets − (nonbrand factors + anticompetitive industry structure)
Comprehensive perspectives		
Farquhar (1989)	Added value with which a given brand endows a product	Respective evaluation on firm's, trade's, and consumer's perspective
Dyson et al. (1996)	Brand loyalty Brand attitude	Consumer value model: proportion of expenditure × weight of consumption
Motameni and Shahrokhi (1998)	Global Brand Equity (GBE)	Brand strength (customer, competitive, global potency) × brand net earnings

of the two categories selected are Ritz-Carlton, Intercontinental, Westin Chosun, Marriott, Hyatt, Hilton, Lotte, Radisson Plaza, Ramada Renaissance, Sheraton Walker-hill, Shilla, and Swiss Grand among the luxury hotels, and Burger King, Pizza Hut, Little Ceasars Pizza, Hardee's, Jakob's, KFC, Lotteria, McDonald's, Popeye's, Subway, Sbarro, Ponderosa, and Sizzler among the fast food and chain restaurants.

3.2. Measures

For a better illustration of questionnaire design, the Appendix contains a summary of scale items and the scale reliability for the luxury hotels and chain restaurants. Measures of brand equity consist of the four dimensions of brand loyalty, brand awareness, perceived quality, and brand image. The reasoning for including brand loyalty as a component of consumer-based brand equity comes from the importance of customer satisfaction in developing a brand (Aaker, 1991). If customers are not satisfied with a brand, they will not be loyal to the brand, but search for another. This study employed six measurement items of brand loyalty, with a seven-point Likert scale anchored from 1 (strongly disagree) to 7 (strongly agree); "I regularly visit this hotel (restaurant)", "I intend to visit this hotel (restaurant) again", "I usually use this hotel (restaurant) as the first choice compared to other ones", "I am satisfied with this visit", "I would recommend this hotel (restaurant) to others", and finally "I would not switch to another hotel (restaurant) the next time".

Brand awareness, another component of brand equity, refers to the strength of a brand's presence in the customer's mind (Aaker, 1996). Three scale items were employed to measure brand awareness such as top-of-mind brand, unaided brand recall, and brand recognition (Kapferer, 1994; Francois & MacLachlan, 1995; Yoo & Donthu, 2001). "Write down the name of a luxury hotel (a chain restaurant) located in Seoul that first comes to your mind" is an example of the top-of-mind brand test, while "List three other names of luxury hotels (and chain restaurants) located in Seoul that come to your mind at this moment" constitutes unaided brand recall. To measure brand recognition, the respondents were asked to choose the brand names of which they were aware of from a list of selected luxury hotels (and chain restaurants). Since these items are open-ended or multiple choice questions, the Likert-type scale cannot be applied. Haley and Case (1979) insisted that brand awareness should be considered differently from other attitude scales of the Likert-type, and employed a 5-point scoring of open-ended questions to measure brand awareness, such as "top of mind (4)", "second unaided mention (3)", "other unaided mention (2)", "aided recall (1)", and "never heard of (0)". In this study we employed a 7-point rather than a 5-point scaling. The respondents' answers were coded as 1 for "unrecognized brand in the aided recall", 2 for "recognized brand in the aided recall", 4–6 for "recalled brand without aid", and 7 for "top-of-mind brand" in order to transfer them to approximate metric scales. Respondents were asked to list three brands instead of two to derive a recalled brand without aid. The three "recalled brand without aid" were coded as 6 for "first recalled brand without aid", 5 for "second recalled without aid", 4 for "third recalled without aid", reflecting their orders. One interval (3) was put between "without aid" and "aided" recall to clearly distinguish the two and to make our scale with a neutral point, as is generally preferred in formulating attitude scales.

The third component of brand equity—perceived quality—was measured by a performance-based approach that focused only on customer perception rather than considering customer expectation as well. That is, our measurement scheme is much similar to that of SERVPERF than the well-known SERQUAL's approach (Lee & Hing, 1995; Parasuraman, Zeithml, & Berry, 1985; Fick & Ritchie, 1991; Bojanic & Rosen, 1993; Bolton & Drew, 1991; Cronin & Taylor, 1992; Saleh & Ryan, 1991). This study employed 10 seven-point Likert scale items for the chain restaurants and 11 items of the same type for the luxury hotels, such as 1 for "strongly disagree" and 7 for "strongly agree".

The final measure—brand image—requires the development of scale items specific to a product category (Dobni & Zinkhan, 1990; Low & Lamb Jr., 2000). For example, Timex watches are associated with functionality, whereas Rolex watches are associated with prestige (Park, Milberg, & Lawson, 1991). According to the pretest framework suggested by Low and Lamb Jr. (2000), this study developed different scale items for each category. For delineating appropriate brand image construct by pretest, 27 respondents of the purposive sample were asked to express any feelings, ideas, or attitudes that they could associate with fast food and chain restaurants. Similarly, another purposive sample of 28 respondents was gathered to derive suitable measures of brand image for luxury hotels. The open-ended responses were tabulated, and the most frequently mentioned responses (14 items for both fast food and chain restaurants and luxury hotels) were selected as the scale items for their respective category. In addition, three other variables such as "long history", "differentiated from other brands", and "familiar to me" were supplemented to both categories (Aaker, 1991; Keller, 1993). All of these items concerning brand image were measured on a seven-point Likert scale with 1 for "strongly disagree" and 7 for "strongly agree". Here, we presume that a high scale point of brand image indicates that the brand not only has a positive image to the customer but also exhibits a greater level of brand image strength in comparison with others.

There are several possible tools to measure a hospitality firm's performance. Such profitability measures as return on equity (ROE), return on sale (ROS), and return on asset (ROA) are the most popular ratios to measure financial performance for hospitality operators and investors. However, such profitability measure as ROE and ROS are strongly related to the management ability of a firm rather than to the level of direct earnings from customers or buyers. This study used only sales as a firm performance measure in order to examine mainly the direct influence of customers' use without considering any expense or investment scale of the company. Therefore, common financial performance measures such as ROS, ROE, and ROA are not included in this study.

The sales amount used in this study indicates the revenue directly occurred, which concerns the main products, such as room, food & beverage, banquet, and other facilities for luxury hotels. In order to solve problems of comparability caused by different scale of selected hotels, the Revenue Per Available Room (RevPAR) rather than total sales was used. The RevPAR for 12 selected hotels from 1998 to 2001 was calculated by multiplying occupancy percentage and average room rates that were obtained from an existing database of the Korea Hotel Association.

The sales information in the same period in 13 selected international chain fast food and chain restaurants was obtained from the Korean Restaurant Association. This study used sales per unit, because the scales of restaurant companies are not identical. Sales per unit were calculated by dividing total sales amount by the number of units available during the survey period.

4. Results

The resulting respondents of the restaurants' sample consisted of 174 men (44.2%) and 220 women (55.8%), where the average age was 25.3 years old. In case of hotels, the samples included 303 men (59.1%) and 210 women (40.9%), whose average age was 35.4 years old. Factor analysis was first employed to examine the validity of brand equity structure, which consists of four underlying dimensions including brand loyalty, brand awareness, perceived quality, and brand image. Factor analysis with principal components and Varimax rotations produced one factor in both sample categories, which had eigenvalue greater than 1.0 and a factor loading of 0.50 or greater. Only one factor solution in each product category exhibits positive construct validity of the brand equity structure.

The results in Table 2 show that brand equity is a principal factor in each category, where the four dimensions of brand equity are loaded significantly except for brand awareness in hotels. It generally supports the assertion that the four dimensions are valid underlying variables of brand equity. It is of interest to notice that brand image and brand loyalty are loaded highly in the brand equity of chain restaurants, whereas perceived quality, brand loyalty, and brand image are loaded highly in that of hotels.

Table 2
Brand equity structure—Factor analysis[a]

Brand equity	Factor loadings	
	Chain restaurants	Luxury hotels
Brand loyalty	0.774	0.866
Brand awareness	0.545	0.309[b]
Perceived quality	0.741	0.881
Brand image	0.834	0.865
Eigenvalue	2.140	2.370
Variance explained	53.5%	59.3%

[a] Principal component factor analysis was employed in each category with iterations: Varimax rotation in SPSS/PC routine.

[b] Although brand awareness in luxury hotels appeared to have relatively low value of factor loading, it was included in the table for explanatory purpose.

The results imply that all four dimensions are found to construct brand equity in chain restaurants, where perceived quality is most important and brand awareness is least significant for establishing brand equity in luxury hotels. In this study, the factor scores of brand equity in the two categories were further employed to analyze the relationship between the entire context of brand equity and firms' performance.

Next, regression analyses were employed for both hotels and restaurants in order to examine the relationship between brand equity and firms' performance. We checked the normality of the error term of the variate with a visual examination of the normal probability plots of residuals. Since the plot does not show a substantial or systematic departure, the regression variate was found to meet the normality assumption (Hair, Anderson, Tatham, & Black, 1992). In addition, the null hypothesis that each variable is normally distributed was tested using the Kolmogorov–Smirnov One-sample Test. This conservative procedure tests the goodness-of-fit of the data to a normal distribution with the parameters estimated from the data. The test confirmed that both hotel and restaurant data fit a normal distribution. Here, brand equity was presumed to be a predictor variable and was first considered as one independent variable measured in its entirety, and then as four independent variables of underlying dimensions constructing the brand equity. The Revenue Per Available Room (RevPAR) for luxury chain hotels was used as a dependent variable, while sales per unit for the chain restaurants was entered as a response variable.

Table 3
Impact of brand equity on firms' performance—4 stepwise regression analyses

	Chain restaurants		Luxury hotels	
	Standardized regression coefficients (t-values)	Tolerance value	Standardized regression coefficients (t-values)	Tolerance value
Dependent variable:				
Firms' performance[a]				
Independent variable:				
Brand equity[b]	0.757 (2.591)[c]		0.789 (4.060)[d]	
R^2	0.573		0.622	
F	6.715		16.482	
Significance level	0.001		0.001	
Brand loyalty	—		0.958 (4.919)[d]	0.387
Brand awareness	0.835 (3.392)[d]	0.542	0.897 (4.588)[d]	0.576
Perceived quality	0.730 (2.498)[c]	0.422	0.476(2.432)[c]	0.603
Brand image	—		—	
R^2	0.697		0.706	
Adjusted R^2	0.573		0.588	
F	10.795		11.506	
Significance level	0.001		0.001	

[a] Sales per restaurant unit in restaurants and RevPAR (Revenue Per Available Rooms) in hotels.
[b] As an input variable of entire brand equity, a factor score coefficient from the factor analysis as depicted in Table 2 was employed to examine its impact on the firms' performance.
[c] Significant at 0.05 level.
[d] Significant at 0.01 level.

The results from stepwise regression analyses in Table 3 show how brand equity itself, or the four underlying dimensions constructing brand equity, affects performance of chain restaurants and luxury hotel firms. When considering brand equity in its entirety as an independent variable, the results show that brand equity has a significant positive relationship with its performance in both fast food and chain restaurants ($R^2 = 0.573$) and in luxury hotels ($R^2 = 0.622$). This result supports our prior assertion that customer-based brand equity can be a critical factor for influencing firms' performance in the hospitality industry. In order to detect the presence of multicollinearity, the tolerance value is calculated and presented in Table 3. Tolerance is the amount of variability of the selected independent variable not explained by the other independent variables. Thus, very small tolerance values denote high collinearity. A common cutoff threshold is a tolerance value of 0.10. (Hair et al., 1992). Since all significant variables in Table 3 have much higher tolerance values than 0.10, no significant collinearity is found.

Other results from stepwise regression analyses show that among the four underlying dimensions, brand awareness and perceived quality appear to be significant independent variables that influence the performance of fast food and chain restaurant firms. It is surprising that brand loyalty and brand image, which are loaded highly to construct brand equity in fast food and chain restaurants, do not appear to support a positive relationship with firms' performance. One plausible conclusion is that brand awareness may be an important criterion for customers making low-involvement purchasing decisions, thus explaining why brand awareness appears to be a significant variable to fast food and chain restaurants' performance. That is, when we consider the relationship between brand equity and performance in fast food and chain restaurants, brand awareness and perceived quality seem to dominate the other two underlying dimensions of the brand equity, even though all four underlying dimensions are found to be important elements constructing brand equity from factor analysis.

In case of luxury hotels, however, the result of stepwise regression analysis shows that brand loyalty, brand awareness, and perceived quality have a significant positive effect on firms' performance. It is noteworthy that brand awareness appears as a significant variable affecting firms' performance, even though it is not loaded highly in the context of brand equity. The result implies brand awareness by itself may be not sufficient but somewhat spurious to establish the context of brand equity, particularly in luxury hotels. It shows, however, a hotel company must design its marketing mix to get its brand into the prospect's awareness set, which is finally transferred to the choice set. This result provides fairly convincing evidence of the effect that customer-based brand equity has on firms' performance in the hospitality industry, where brand loyalty, brand awareness, and perceived quality from the customers' perspective affect firms' performance in the luxury hotel business.

In summary, overall brand equity, delineated from four underlying dimensions, has shown a significant positive effect on performance in both chain restaurants and luxury hotels. The nature of the relationship between each underlying dimension of the brand equity and firms' performance, however, differs, while brand awareness and perceived quality are significant for performance in chain restaurants, and brand loyalty, brand awareness, and perceived quality are found to have significantly positive effects on performance in luxury hotels. The finding demonstrates that brand awareness, among all the other elements, is the most important dimension of hospitality brand equity in having a positive effect on firms' performance, even though it is rather insignificant or of relatively low importance in constructing brand equity itself.

5. Summary and conclusions

Previous research shows that brand equity can be expressed numerically from a financial perspective and also from the customers' perception and attitude. This study focused on identifying the underlying dimensions of customer-based brand equity and their relationship with firms' performance in the hospitality industry sectors of chain restaurants and luxury hotels, where customer-based brand equity is assumed to be constituted by brand awareness, brand loyalty, perceived quality, and brand image.

The findings generally confirm our original hypothesis that brand equity is best understood as a composite context represented by four underlying dimensions, and has a positive effect on its firms' performance. Although brand awareness was not loaded highly as a customer-based brand equity factor for both chain restaurants and luxury hotels, it was found to have a significantly positive relationship with firms' performance in both categories. In the case of luxury hotels, brand loyalty, brand awareness, and perceived quality significantly affected the corporate performance, as compared with chain restaurants where brand awareness and perceived quality were related with corporate performance. This shows that the relationship between brand equity and corporate performance is not the same in different sectors of the hospitality industry.

The results imply that hospitality firms like chain restaurants or luxury hotels should significantly consider brand loyalty, perceived quality, and brand image when attempting to establish definite brand equity from the customers' viewpoint. Additionally, increasing brand awareness through various promotional and communication strategies may be integral for increasing sales revenue. Heavy and successive promotional activities through the mass media seem to vastly prevail in the competitive markets of hospitality firms. But advanced methods of building brands, which do not rely on mass media, have been developed recently. These changes in the communication environment have led to more creative ways to approach customers. Besides TV commercials or magazine advertising, support activities, and charity involvement in social, cultural, sports, or other kinds of public events can improve a firm's brand awareness.

One of the most important conclusions that may be drawn from this study lies in the fact that perceived quality of a specific brand is found to significantly affect firms' performance in the hotel and restaurant business. This may stem from the rationale that luxury hotels and chain restaurants require better service delivery systems to customers. The results imply that brand awareness alone is not enough to generate satisfactory firms' performance and perceived quality should be managed carefully to produce good financial results.

It is noteworthy that brand loyalty had a significantly positive effect on performance of only luxury hotel firms. It seems that brand loyalty in fast food and chain restaurants may not be a detrimental factor affecting a firm's performance in comparison to other factors, such as brand awareness and perceived quality. The fact that brand loyalty is not significant in chain restaurants seems logical since there may be a definite value in variety when eating out; however, there may be no necessary value in variety when staying in luxury hotels. Brand loyalty will be considered as a repeat purchase behavior under conditions of strong sensitivity. A luxury hotel guest who repeatedly tends to stay at the same brand hotel and who attaches great importance to hotel brands in his or her choice is said to be brand loyal (Odin, Odin, & Valette-Florence, 2001). Loyal customers are less likely to switch to a competitor solely because of price, and loyal customers also make more frequent purchases than comparable non-loyal customers (Bowen & Shoemaker, 1998). These results show that brand loyalty, a component of brand equity that determines whether the customer is committed to the brand, can make a significant contribution in improving the operational performance of hotel companies. It is very rare that a single purchase by each customer is sufficient for the attainment of long-term financial profitability, so hotel marketers should remember the importance of repeat purchases and customer satisfaction. Brand-loyal customers rarely buy as a simple reaction to the stimulus of promotion. They may be satisfied, intend to visit again, or recommend to others through customers' learning, which is built up from experience of various services, from word-of-mouth reports from other customers, and from recollections of advertising and promotions. Most of the time, promotion can reinforce the existing behavior of existing customers. Most repeat purchases, however, are made on the basis of long-term views and attitudes. This type of buying is what most hotel companies are aiming at; it is, in essence, brand loyalty. The result of the study implies that to build a brand loyalty and eventually good performance, a hotel company has to get into the black box of dealing with customer attitudes, such that they are, first of all, satisfied, have intentions to visit the hotel again, and recommend it as a first-choice hotel to others.

In conclusion, the results of this study imply that strong brand equity can cause a significant increase in profitability and a lack of brand equity in hospitality firms can damage potential cash flow. That is, if a marketer in hospitality firms does not make efforts to improve customer-based brand equity, then the marketer should expect declining income over time.

As with any study, this one contains a number of limitations that should be surmounted in future research. First, this study did not investigate every possible extraneous effect that could affect or influence a firm's performance besides brand equity. These may include, for instance, sales promotions, management strategies, and innovative activities. Hopefully, future studies will incorporate these variables into their research scope. Second, this study was constrained to respondents from a single country, and this may well limit generalizations that may be made to the hospitality industry in other countries. A third limitation is the sampling framework. The quality of the data used in this research may be vulnerable due to the non-probability sampling method for hotels and restaurants. It may be that those respondents included in this study did not truly represent populations of customers in luxury hotels and chain restaurants. The results of this study will be more representative if the research is conducted through random sampling. More systematic and probability sampling would bring higher reliability and validity to the data and findings.

Future research may contrive a more sophisticated measure of financial performance, such as Return on Sale (ROA), Return on Equity (ROE), and Return on Asset (ROA). The financial ratios may represent a hospitality firm's performance better than operational performance, such as sales and RevPAR in this study. Finally, future research may develop a more hybrid and composite scale for approximating customer-based brand equity in multiple service industries including hospitality brands. In light of these considerations, it is hoped that the findings of this study will provide a firm basis on which to undertake additional research work.

Appendix. List of scale items for hotels and restaurants

A. Brand equity questionnaire for luxury hotels

I. *Brand loyalty scale: Cronbach's alpha=0.861 (strongly agree 7 … strongly disagree 1)*

1. I regularly visit this hotel (mean = 3.03)
2. I intend to visit this hotel again (4.70)
3. I usually use this hotel as my first choice compared to other hotels (4.01)
4. I am satisfied with the visit to this hotel (4.71)
5. I would recommend this hotel to others (4.56)
6. I would not switch to another hotel the next time (3.47)

II. *Perceived quality scale: Cronbach's alpha=0.907 (strongly agree 7 … strongly disagree 1)*

7. The staff treated you as a special and valued customer (mean = 5.01)
8. The hotel has up-to-date equipment (5.12)
9. The appearance of staff members (clean, neat, appropriately dressed) (5.29)
10. The hotel staff exhibits a good manner (5.21)
11. The hotel provides its services at promised times (5.02)
12. The hotel staff handles complaints of customers effectively (4.78)
13. The hotel staff actively communicates with customers (4.67)
14. Attractiveness of the hotel (4.73)
15. The knowledge and confidence of the staff (4.69)
16. The quality of food and beverages (4.93)
17. The hotel staff anticipates your specific needs and serves you appropriately (4.17)

III. *Brand image scale: Cronbach's alpha=0.909 (strongly agree 7 … strongly disagree 1)*

18. It is comfortable (mean = 4.73)
19. It offers a high level of service (4.93)
20. It has a very clean image (5.13)
21. It is luxurious (5.14)
22. It is expensive (4.81)
23. It is a suitable place for high class (0.93)
24. I become special by visiting this hotel (4.35)
25. The staff is very kind (4.98)
26. It is big and spacious (4.95)
27. It is quiet and restful (4.71)
28. Service is sometimes excessive to me (4.06)
29. It has a long history (4.43)
30. It has a differentiated image from other hotel brands (4.53)
31. Its brand is familiar to me (4.42)

IV. *Brand awareness (no Cronbach's alpha is available due to the conversion of 3 original items to one-scale measure by transferring "do not know at all" to "1",* *"aided recall" to "2", "unaided recall" to "4–6", and "recalling top-of-mind brand" to "7")*

32. Write down the name of a luxury hotel in Seoul that comes first to your mind (top-of-mind brand)
33. List three other names of luxury hotels in Seoul that come to your mind at this moment (unaided brand recall)
34. Of the following 12 luxury hotels, please circle the name of the hotel name(s) you do not know (recognized and unrecognized brand in the aided recall)

B. Brand equity questionnaire for chain restaurants

I. *Brand loyalty scale: Cronbach's alpha=0.860 (strongly agree 7 … strongly disagree 1)*

1. I regularly visit this restaurant (mean = 3.53)
2. I intend to visit this restaurant again (4.70)
3. I usually use this restaurant as my first choice compared to other restaurants (3.71)
4. I am satisfied with the visit to this restaurant (4.45)
5. I would recommend this restaurant to others (4.08)
6. I would not switch to another restaurant the next time (3.65)

II. *Perceived quality scale: Cronbach's alpha = 0.916 (strongly agree 7 … strongly disagree 1)*

7. The physical facilities (e.g., building, sign, room décor, illumination) are visually appealing (mean = 4.50)
8. The restaurant staff gives customers individual attention (3.45)
9. The appearance of staff members (clean, neat, appropriately dressed) (3.67)
10. The restaurant has operating hours convenient to all their customers (3.95)
11. The staff provides its prompt services at promised times (3.93)
12. The staff handles complaints of customers effectively (3.85)
13. The staff is always willing to help customers (4.10)
14. The knowledge and confidence of the staff (3.54)
15. The food quality of the restaurant is good (3.68)
16. The restaurant insists on error-free service (4.04)

III. *Brand image scale: Cronbach's alpha = 0.804 (strongly agree 7 … strongly disagree 1)*

17. It is crowded (mean = 4.16)
18. It is noisy (4.56)
19. The price is reasonable (3.51)
20. Service is prompt (4.18)
21. It is conveniently located (4.67)
22. It has a differentiated image from other restaurant brands (4.06)
23. It tastes good compared with price (3.91)
24. Employees are very kind (3.90)
25. It has a very clean image (3.98)
26. It has cheerful and enchanting atmosphere (4.40)
27. There are many events (3.08)
28. I feel comfortable to visit alone (3.15)
29. It has a long history (3.71)
30. Its brand is familiar to me (4.05)

IV. *Brand awareness (No Cronbach's alpha is available due to the conversion of 3 original items to one-scale measure by transferring "do not know at all" to "1", "aided recall" to "2", "unaided recall" to "4–6", and "recalling top-of-mind brand" to "7")*

31. Write down the name of a chain restaurant in Seoul that comes first to your mind (top-of-mind brand)
32. List three other names of chain restaurants in Seoul that come to your mind at this moment (unaided brand recall)
33. Of the following 13 chain restaurants, please circle the name of the restaurant name(s) you do not know (recognized and unrecognized brand in the aided recall)

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