Do brands matter? A comparison of branded and independent hotels’ performance during a full economic cycle

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\begin{abstract}
By analyzing longitudinal data of more than 51,000 hotels operating in the United States during the previous economic cycle, it is possible to draw conclusions regarding the performance of branded hotels compared to independent operations under various economic conditions. The results of the study indicate that while branded properties experience significantly higher occupancy rate during the different phases of the economic cycle, independent hotels experience significantly higher average daily rate (ADR) and rooms revenues per available room (RevPAR) during the same time period. While branded hotels are faced with various payments attributable to the brand, such as royalty payments and other franchise fees, those fees do not have a deleterious effect on net operating income (NOI) compared to NOI for independent hotels, suggesting that independent hotels are unable to bring their ADR and RevPAR premiums to the bottom line despite their savings in franchise expenses. Instead, the results indicate similar NOI for branded hotels and independent hotels during economic expansion, but significantly higher NOI for branded hotels during economic recession. The results of this study suggest that the intangible asset value of hotel brands may include shared resources, guest loyalty programs, and yield management systems. These results contribute insight into the complex hotel owner decision of choosing between a brand affiliation and independent operation.
\end{abstract}

\begin{articleinfo}
\textbf{Keywords:}
Performance measurement
Intangible asset value
Branded hotels
Independent hotels
\end{articleinfo}

\section{Introduction}

The question regarding brand affiliation versus independent operation has been discussed and debated in the hotel industry for a long time, but the interest in the issue does not appear to wane (Bailey and Ball, 2006; Lomanno, 2010). In times when performance measurement is becoming increasingly ubiquitous and sophisticated, the need for more knowledge in this field becomes more apparent (Bailey and Ball, 2006; O’Neill and Xiao, 2006). Are affiliated hotels performing better than the independent ones, and if so, is that true in all phases of the economic cycle, i.e., in gloom as well as boom?

The aim of this study is to shed light on this heavily debated issue and to do so by using a large and unique data set to answer research questions. The longitudinal data set used here presents the opportunity to trace different hotels’ performance during different economic circumstances and compare brand affiliated versus independent operations. This information should be valuable not only for researchers active in the hospitality field, but also to a large extent to industry practitioners involved in hotel development and performance prognostication. This information may not only be applicable to larger stakeholders, such as international hotel chains, real estate conglomerates, and hotel franchise companies, but also to smaller independent hotel owners or managers in need of information on which to base future strategies and projections. Specifically, hoteliers could be considering the options of remaining/becoming independent, or pursuing affiliation or alternative affiliation.

An objective of this study is to analyze how economic expansion and recession affect the hotel industry at the property level. By using the widely accepted proxies for performance in the hotel industry; occupancy (as percentage), average daily rate (ADR, in U.S. dollars) and rooms revenue per available room (RevPAR, also in U.S. dollars) (Damonte et al., 1997), this study develops a picture regarding the performance of hotel properties under different economic conditions, which based on a large data set, should be fairly representative of the industry as a whole. As the data set used for this study also includes hotel net operating income (NOI), a further dimension is added which considers expenses attributable to belonging to a chain/affiliation.
The question regarding affiliation is more complex than that; and by analyzing the data covering an economic expansion as well as an economic contraction, more interesting facts should be revealed. Presenting results regarding how sensitive occupancy, ADR, RevPAR and NOI are to economic changes will bring valuable knowledge to academia and practitioners with an interest in the hospitality business.

This research should be able to pinpoint under what economic conditions hotel brand affiliation may be most important. Would branded properties perform better in prosperous times or would they hold their own better during a recession? A natural continuation of this analysis would be to identify if there are economic conditions under which brand affiliation is less important, or not important, and to establish when such economic conditions would occur. If brand affiliation is relatively less important during certain periods in the economic cycle, it would be beneficial to establish what drives hotel performance during those times.

2. Background

As the hospitality industry is growing, not only in size, but also in terms of sophistication and expectations of return on investment (ROI), the scene has shifted from the more traditional dominance of independent privately owned small outlets to larger multinationals and multiple brand affiliations (Bailey, 2007; Bailey and Ball, 2006; Cai and Hobson, 2004; Lomanno, 2010). Where it used to be a matter of small owner-run outlets operating in the same fashion for generations, it is now an industry where investors seek return on their invested capital, and the larger hospitality corporations now count as important and influential companies in most countries (Bailey, 2007; Imrie and Fyall, 2001; Martorell Cunill, 2006).

The independent or privately owned business has been researched extensively and it has been argued that this business format is the most efficient, due to limited effects relating to agency problems or costs (Jensen, 1983; Jensen and Meckling, 1976). More recent research has indicated that this situation might not be the case – the independent business could actually be a less effective business format as decision-making, the employee selection process, and managerial incentives are hindered by the fact that most of the power and knowledge lie within a small ownership structure (Schulze et al., 2001).

Since there appear to be differences in business practices between chain-affiliated hotels and independent operators, this study focuses on how those different business practices affect operating performance of independent versus branded hotels. Regardless, the major hotel companies are making their presence known in most markets and in most segments of the hotel industry. That puts the other party, the independent operator, in the delicate situation of having to decide whether to stay independent or to affiliate. The same question will face any new entry into the market (business owner or investor).

Hotel affiliations bring a package of useful tools for any aspiring business operator in the hotel industry. The large operations develop and maintain central reservations systems, yield/revenue management programs, cumulative purchasing power, loyalty programs, global distribution systems, brand awareness, and sales and marketing activities that independent business operators may not be able to match. These benefits come at a cost, and this cost can be considerable (Rushmore, 2001b). To operate independently presents advantages in addition to money saved on franchise royalty and marketing fees, such as giving the owner freedom to operate differently and to promote the hotel property based on its uniqueness.

It is therefore important to be aware of what a hotel affiliation yields in terms of occupancy, ADR, RevPAR and NOI and to compare those figures to the costs associated with that same affiliation. This topic has been studied previously, though the effects of economic conditions on these important performance metrics have not been previously considered (O’Neill, 2004; O’Neill and Belfrage, 2005), and the results from this study should bring some more substantial information that could be used for further theory development.

3. Theoretical framework and hypotheses development

Branding is becoming more and more important (O’Neill and Mattila, 2004), not just in the hospitality business. It has been argued that Statler’s old axiom “location, location, location” could now be replaced by “flag, flag, flag” as the three most important factors for a successful hospitality operation (Taylor, 1995). The expansion and importance of brands and branding is evident in all segments of hospitality, from small take-out food and beverage outlets to large multinational hospitality organizations. The increased importance of branding is also notable in the academic literature, where research has been presented from several disciplines which may be valid in other industries or contexts. In the marketing literature, for example, branding and related questions are heavenly debated and researched and a lot of the knowledge gleaned from that research could be applied to the hospitality industry, as well. Brand is being treated more and more as an asset (Tollington, 2002), and there is now an issue regarding how to define brand in the correct accounting manner (Standfield, 2005).

In the hospitality literature, research has been carried out to attempt to identify the value of the brand, which would be a part of the firm’s intangible asset value (IAV) (Mard et al., 2002; Anson, 2001; O’Neill, 2004; O’Neill and Belfrage, 2005). This research stream has dealt with the issue of actually measuring the value of the brand while subtracting brand-attributable expenses from brand-attributable revenue. It is important for many stakeholders in the hospitality industry to be able to define and calculate brand value. The calculation of hotel brand value constitutes a foundation for decision-making between different hotel brands. However, it is also important to be able to estimate whether hotel affiliation is warranted, during different economic circumstances. Hotel brands are expected to add value to individual hotel properties due to their global distribution systems, loyalty programs, and name recognition, all resulting in relatively higher operating volume for the individual hotels affiliated with the brand. Such benefits should accrue to branded hotels during both economic expansion and recession because previous research has concluded that, in general, branded products and services capture a larger market share than unbranded ones (Szymanski and Busch, 1987). Therefore, we make the following hypothesis:

**Hypothesis 1.** Branded hotels will have significantly higher occupancy levels than independent hotels under all economic conditions.

Hotels with certain attributes, such as unique locations or historic value potentially could manage well on their own without brand affiliation (Rushmore, 2004), and particularly may be able to generate rate premiums due to their uniqueness. It is therefore important for every owner/manager to evaluate the expense of affiliation because it can be quite costly at times (Rushmore, 2001a,b). It is also a question of whether the affiliation fulfills the need of the individual business owner (Carlbäck, 2008). Previous research regarding national versus store branded products concluded that consumers are willing to pay more for products they perceive as being unique and having a distinct personality (Beldona and Wysong, 2007). Due to the relative perceived uniqueness and personality of independent hotels, they should be able to drive both average daily rate (ADR) and rooms revenues per available room (RevPAR), and we make the following hypothesis:
Hypothesis 2. Independent hotels will have significantly higher ADR and RevPAR levels than branded hotels under all economic conditions.

Some research indicates that affiliated properties perform better than unaffiliated ones, and that the size of the property will influence its performance, as well (Damonte et al., 1997). Contradicting research suggests that independent hotels may perform better (Meyers & Higgins, 2006). This contradiction makes the question regarding how the two different groups actually perform even more paramount, a topic to which this study is able to contribute. We believe that such studies may reach different conclusions based on the time period of study. Previous research regarding national versus private branded products concluded that the state of the economy affects consumer decisions regarding whether to purchase national versus private label brands, with consumers switching to private label brands relatively rapidly after the end of economic recessions (Lamey et al., 2007). This previous research also concluded that the intensity of organizational marketing can have a significant effect on such consumer decisions (Lamey et al., 2007). We believe that during periods of economic recession, when travel and lodging demand decline, the support systems in place at brands, including their global marketing programs, distribution systems and guest loyalty programs, will be particularly beneficial to branded hotels, resulting in relatively greater profitability for those properties during those times. Therefore, we make the following hypothesis:

Hypothesis 3. Branded hotels will have significantly higher NOI levels than independent hotels during economic recessions.

Consistent with the previous hypothesis, we believe that one way to account for the contradictory conclusions in previous research regarding branded versus independent operations is based on economic conditions. That is the reason, as previously discussed, that we have focused our research on a full economic cycle. We believe that, in general, due to the previously discussed uniqueness and variability in independent hotels, they are relatively riskier business enterprises that should be expected to have greater variability in their revenue and profitability indicators during all economic conditions, but that such variability will be more noticeable during periods of economic recession when independent hotels are not benefiting from the consistency of hotel brand managerial, distribution, and promotional systems. Earlier research has shown that branded hotel properties are superior in terms of producing higher sales revenue and gross operating profit which is explained by a powerful combination of brand name and professional management services (Brown and Dev, 1999, 2000), something that is more important during a recession, when strategies and management are more crucial. A brand with excellent customer loyalty should be able to ensure a smoother transition in between different economic conditions (O’Neill and Mattila, 2004). Therefore, we make this final hypothesis:

Hypothesis 4. Independent hotels will have greater variation in occupancy, ADR, RevPAR, and NOI than branded hotels during economic recessions.

4. Method

4.1. Proxies for performance

To be able to make valuable analyses regarding each hotel’s performance throughout the economic cycle, the following key indicators have been selected as proxies for performance: Occupancy percentage, average daily rate (ADR), rooms revenue per available room (RevPAR) and net operating income (NOI). The first three variables are widely accepted as important in previous research in this context (Brown and Dev, 1999; Damonte et al., 1997). With the addition of NOI, this set of data will provide a more complete picture regarding hotel performance, including profitability, during a relatively long time span.

4.2. Economic cycles

To define the different phases during the economic cycle, this study relies on economic indicators from the B.E.A. (Bureau of Economic Analysis – U.S. Department of Commerce) and B.L.S. (Bureau of Labor Statistics – U.S. Department of Labor), obtained for the same time span as the data regarding hotel performance. The following key indices have been selected to identify the fluctuations in the economic cycle:

- GDP (Gross Domestic Product) – the output of goods and services produced by labor and property located in the United States (BEA, 2009).
- Personal Income and Outlays (BEA, 2009).
- Employment (BLS, 2009).

These same variables have been used to evaluate economic trends in several previous economic analyses and reports regarding the historical and anticipated macro nature of the U.S. hotel industry (PricewaterhouseCoopers, 2009).

The widely used definition from U.S. National Bureau of Economic Research (NBER) defines an economic recession as: “a significant decline in economic activity spread across the country, lasting more than a few months, normally visible in real GDP, real personal income, employment (non-farm payrolls), industrial production, and wholesale-retail sales.”

This definition is widely accepted by economists in most countries as a valid way of defining a recession. Attempts have been made to combine several of these indicators to one single forecasting tool for the hospitality industry (Choi, 2003). However, we believe that although it is beneficial to consider the relevant economic statistics in aggregate, it is also worthwhile to consider each statistic individually.

4.3. Sample

The sample for this research project included a data set regarding 51,981 hotels located in all 50 United States and Washington, DC. The data were graciously provided to us by Smith Travel Research and included performance data for the full economic cycle of 2002 through 2008. There were between 125 (Rhode Island) and 5505 (California) hotel properties from each state, and 115 hotels from Washington, DC. A total of 29,418 of the hotels were chain affiliated (56.6%) and 22,572 were independent (43.4%) operations. Chains were defined according to the American Hotel & Lodging Association as three or more hotels operated under a single brand name (Bailey and Ball, 2006; Rushmore, 1992).

Chains were represented by between one (because all data were not provided for all chain-affiliated hotels) and 2009 hotel properties for each chain. Due to the confidential nature of the data, the actual brand names of the individual hotels were not revealed to us, but rather were coded with unique numbers for each brand. Hotel operating data represented the years 2002 through 2008. Therefore, we analyzed economic data for the same time period. Specifically, we obtained economic indicators from the United States Bureau of Labor Statistics (for employment data) and the United States Bureau of Economic Analysis for other data. Those data, presented as Table 1, indicate the years 2002 and 2008 as being recessionary years. Notably, those are the only 2 years during our study period that overall U.S. gross domestic product (GDP) increased less than 2%, average personal income increased less than...
Hypotheses were tested using hotels based on hotel type or service level. Data were analyzed and found no significant differences between branded and independent significantly higher NOI, as expected. Therefore, Hypothesis 3 was supported. In summary, we conclude that 2002 and 2008 were economic recession years, and 2003 through 2007 were expansion years. We evaluate those years as such in our subsequent analyses. Specifically, to analyze differences between the performance of branded and independent hotels during each of those years, we applied t-tests evaluating the equality of the means.

4.4. Data and analysis

This study made use of raw data and not survey scales. Data were provided to us by Smith Travel Research. Operating data, including occupancy percentage, average daily rate (ADR), and rooms revenue per available room (RevPAR) were provided for 51,991 hotels for 2002 through 2008. In addition, we were able to obtain profitability data, i.e., net operating income (NOI) regarding 5827 of the hotels. Hotels had an average of 92.5 guest rooms and 6436 of the hotels (12.4%) were all-suite properties, 2817 (5.4%) were extended-stay properties, and 12,088 (23.3%) operated full-service food and beverage facilities. For 2008, hotel properties reported a mean occupancy of 58.9%, ADR of $91.88, and RevPAR of $55.97. Also, properties reported mean NOI of $2,524,991 for 2008. We found branded hotels, on average, to be larger than independent hotels in terms of number of guest rooms (F = 38.643, p < 0.001). We found no significant differences between branded and independent hotels based on hotel type or service level. Data were analyzed and hypotheses were tested using t-tests as described in detail in the following section.

5. Results

Branded hotels operated with significantly higher occupancy rates than independent hotels during all years of study, 2002 through 2008, as expected. Therefore, Hypothesis 1 was supported. Independent hotel operated with significantly higher average daily rate (ADR) and room revenues per available room (RevPAR) than branded hotels during all years of study. Thus, Hypothesis 2 was supported.

There was no significant difference in net operating income (NOI) between branded and independent hotels between 2003 and 2007, i.e., each hotel type performed similarly in terms of profitability during years of economic expansion. However, in 2002 and 2008, the years of economic recession, branded hotels had significantly higher NOI, as expected. Therefore, Hypothesis 3 was supported.

These results are summarized in Table 2. We analyzed Hypothesis 4 using Levene’s test. Levene’s test is an inferential statistic used to assess the homogeneity of variances in different samples. It tests the null hypothesis that the variances are equal. If the resulting p-value of Levene’s test is less than some critical amount (typically 0.05 or 0.01), then the differences in sample variances are unlikely to have occurred at random. Thus, the null hypothesis of equal variances is rejected and it is concluded that there is a significant difference between the variances in the population. Independent hotels had significantly greater variances than branded hotels in occupancy, ADR, RevPAR and NOI in all years (2002 through 2008), as presented in Table 3.

Independent hotels had higher standard deviations than branded hotels in occupancy in all years (2002 through 2008), ADR in all years, and RevPAR in all years, indicating greater variability in all revenue indicators for independent hotels during all economic time periods. However, independent hotels had a higher standard deviation in NOI than branded hotels in 2008 only (a recessionary year). In all other years, 2002 through 2007, branded hotels had a higher standard deviation in NOI. The differences in the standard deviations in 2008 were as expected, while the differences in 2002 were not as expected. Therefore, because our hypothesis predicted only the most recent recession and did so only for profitability (NOI), Hypothesis 4 was only partially supported.

We conducted regression analyses to evaluate whether certain brands provided a more acute financial benefit to their hotel properties than other brands during the most recent year of data, 2008. We found that within branded hotels, the individual brand was a significant predictor of occupancy (F[1,25185] = 12.452, p < 0.001), ADR (F[1,25185] = 18.270, p < 0.001), and NOI (F[1,5340] = 51.299, p < 0.001), and that brand had a trend effect on RevPAR (F[1,25185] = 3.777, p < 0.10). In other words, in addition to whether or not an individual hotel is brand affiliated, the actual brand affiliation itself is one of the factors that predict the financial success of hotels.

6. Discussion

The results of this study suggest that the intangible asset value of a hotel brand may not be a static construct, but may vary by time. In particular, our research appears to indicate that hotel brands may be most valuable to hotel properties during periods of economic recession and the actual brand may create a relatively high intangible asset value for the particular hotel. This conclusion is consistent with previous research indicating that the power within the hotel brand and the organization behind the brand would bring advantages to the business (Damonte et al., 1997), but the results presented here indicate that this advantage may vary within the economic cycle and is possibly most notable when the economic climate is relatively harsh. Different explanations could exist regarding exactly how hotel brands may create this value for their member properties. One explanation could be that hotels under the same brand umbrella may share resources providing them with economies of scale and superior cost control compared to independent properties.

Table 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross domestic product (GDP) (billions)</th>
<th>GDP change (%)</th>
<th>Average personal income</th>
<th>Personal income change (%)</th>
<th>Average personal outlays</th>
<th>Personal outlay change (%)</th>
<th>Employment (thousands)</th>
<th>Employment change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>$11,347.2</td>
<td>1.8%</td>
<td>$8,883.3</td>
<td>2.0%</td>
<td>$7,443.5</td>
<td>3.8%</td>
<td>136,933</td>
<td>-0.3%</td>
</tr>
<tr>
<td>2002</td>
<td>$11,533.0</td>
<td>2.5%</td>
<td>$9,060.1</td>
<td>3.5%</td>
<td>$7,727.5</td>
<td>4.7%</td>
<td>136,485</td>
<td>0.9%</td>
</tr>
<tr>
<td>2003</td>
<td>$11,840.7</td>
<td>4.4%</td>
<td>$9,378.1</td>
<td>6.0%</td>
<td>$8,088.0</td>
<td>6.2%</td>
<td>137,252</td>
<td>1.1%</td>
</tr>
<tr>
<td>2004</td>
<td>$12,638.4</td>
<td>3.1%</td>
<td>$10,485.9</td>
<td>5.5%</td>
<td>$9,149.6</td>
<td>6.6%</td>
<td>141,730</td>
<td>1.8%</td>
</tr>
<tr>
<td>2005</td>
<td>$12,976.2</td>
<td>2.7%</td>
<td>$11,268.1</td>
<td>7.5%</td>
<td>$9,680.7</td>
<td>5.8%</td>
<td>144,427</td>
<td>1.9%</td>
</tr>
<tr>
<td>2006</td>
<td>$13,254.1</td>
<td>2.1%</td>
<td>$11,894.1</td>
<td>5.6%</td>
<td>$10,224.3</td>
<td>5.6%</td>
<td>146,047</td>
<td>1.1%</td>
</tr>
<tr>
<td>2007</td>
<td>$13,122.2</td>
<td>0.4%</td>
<td>$12,238.8</td>
<td>2.9%</td>
<td>$10,520.0</td>
<td>2.9%</td>
<td>145,362</td>
<td>-0.5%</td>
</tr>
</tbody>
</table>

Sources: United States Bureau of Labor Statistics for employment data; United States Bureau of Economic Analysis for other data.

3%, average personal outlays increased less than 4%, and employment levels declined.

Results presented here indicate that this advantage may vary within the economic cycle and is possibly most notable when the economic climate is relatively harsh. Different explanations could exist regarding exactly how hotel brands may create this value for their member properties. One explanation could be that hotels under the same brand umbrella may share resources providing them with economies of scale and superior cost control compared to independent properties.
The guest loyalty associated with hotel brands, including the brand loyalty programs, also could be important to consider regarding how hotel brands create value for their member properties. The loyalty programs in combination with the possibility of more commercial accounts negotiated at the corporate level could ensure a relatively more consistent occupancy for the branded properties during recessionary time periods when both business and government customers are seeking value and consistency.

The results for branded hotels could be a function of more effective yield management on their part, a tool which could be more sophisticated in branded operations, as the parent companies/franchisors possess greater resources and power to develop and implement such technologies. With a well-designed yield management system, branded properties may be better positioned to handle fluctuations in the demand curve and may be quicker to identify opportunities to enhance the rate structure in order to maintain occupancy at an acceptable level. This could possibly explain the fact that the independent hotels are experiencing higher ADR and RevPAR than branded hotels, as their management systems may allow lesser flexibility in adapting their pricing structure in accordance with fluctuations in demand. While branded organizations present their members with sophisticated revenue management tools that allow them to align room rates with demand in the market, independent operations may remain more static in terms of prices offered, even if the demand is low. By this, the branded operations could ensure a better flow of guests if the market is slow, and hence a relatively higher occupancy level at all times.

A higher occupancy, albeit at lower room rates could be beneficial to properties offering an array of auxiliary services, increasing the possibility of additional income, such as F&B, spa, entertainment, etc. Branded hotels will then have the possibility to earn extra revenue in the other departments, by promoting those other services, thereby supplementing the reduced income from guest rooms. This supplemental income could affect NOI in a positive fashion during recessions. An operational challenge with such ancillary revenue is that it tends to be relatively less profitable than room revenue, requiring operators to generate significantly more ancillary revenue than room revenue to generate the same NOI.

One important issue in a scenario as the one described above could be that while independent hotels are maintaining higher rates relative to branded hotels (as indicated by their ADR and RevPAR) during recessions, this situation could present a problem for branded hotels when the economic indicators become more favorable, as branded hotels will have relatively more ground to make up to increase rates (and consequently ADR and RevPAR) to pre-recessionary levels without negatively affecting occupancy (Lomanno, 2008). Certain leisure travellers and the business sector with contracted rates could be relatively price-sensitive and inflexible demand segments.

We found evidence that branded hotels are not only relatively more profitable during economic recessions, but that the variability of their profit, i.e., risk, may be lower during recessions, as well. A branded hotel would therefore be a less risky investment, as its business plan may be relatively easier to develop, due to lesser fluctuations in operating performance during economic recessions.

### Table 2
Summary of results by year.

<table>
<thead>
<tr>
<th>Year</th>
<th>Variable</th>
<th>All hotels</th>
<th>Branded hotels</th>
<th>Independent hotels</th>
<th>Significant difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>Occupancy</td>
<td>57.4%</td>
<td>58.2%</td>
<td>52.4%</td>
<td>-</td>
</tr>
<tr>
<td>2003</td>
<td>Occupancy</td>
<td>57.3%</td>
<td>58.1%</td>
<td>52.2%</td>
<td>-</td>
</tr>
<tr>
<td>2004</td>
<td>Occupancy</td>
<td>60.0%</td>
<td>60.7%</td>
<td>54.3%</td>
<td>-</td>
</tr>
<tr>
<td>2005</td>
<td>Occupancy</td>
<td>61.8%</td>
<td>62.5%</td>
<td>56.3%</td>
<td>-</td>
</tr>
<tr>
<td>2006</td>
<td>Occupancy</td>
<td>62.2%</td>
<td>62.8%</td>
<td>57.1%</td>
<td>-</td>
</tr>
<tr>
<td>2007</td>
<td>Occupancy</td>
<td>61.8%</td>
<td>62.2%</td>
<td>57.8%</td>
<td>-</td>
</tr>
<tr>
<td>2008</td>
<td>Occupancy</td>
<td>58.9%</td>
<td>59.1%</td>
<td>56.2%</td>
<td>-</td>
</tr>
<tr>
<td>2002</td>
<td>ADR</td>
<td>$71.77</td>
<td>$69.44</td>
<td>$86.39</td>
<td>-</td>
</tr>
<tr>
<td>2003</td>
<td>ADR</td>
<td>$72.16</td>
<td>$69.56</td>
<td>$89.75</td>
<td>-</td>
</tr>
<tr>
<td>2004</td>
<td>ADR</td>
<td>$73.58</td>
<td>$70.76</td>
<td>$96.50</td>
<td>-</td>
</tr>
<tr>
<td>2005</td>
<td>ADR</td>
<td>$78.32</td>
<td>$75.18</td>
<td>$105.58</td>
<td>-</td>
</tr>
<tr>
<td>2006</td>
<td>ADR</td>
<td>$84.12</td>
<td>$80.52</td>
<td>$117.78</td>
<td>-</td>
</tr>
<tr>
<td>2007</td>
<td>ADR</td>
<td>$89.47</td>
<td>$85.45</td>
<td>$129.39</td>
<td>-</td>
</tr>
<tr>
<td>2008</td>
<td>ADR</td>
<td>$91.88</td>
<td>$87.63</td>
<td>$139.36</td>
<td>-</td>
</tr>
<tr>
<td>2002</td>
<td>RevPAR</td>
<td>$42.38</td>
<td>$41.47</td>
<td>$48.13</td>
<td>-</td>
</tr>
<tr>
<td>2003</td>
<td>RevPAR</td>
<td>$42.61</td>
<td>$41.53</td>
<td>$49.91</td>
<td>-</td>
</tr>
<tr>
<td>2004</td>
<td>RevPAR</td>
<td>$45.54</td>
<td>$44.26</td>
<td>$55.95</td>
<td>-</td>
</tr>
<tr>
<td>2005</td>
<td>RevPAR</td>
<td>$49.99</td>
<td>$48.48</td>
<td>$63.15</td>
<td>-</td>
</tr>
<tr>
<td>2006</td>
<td>RevPAR</td>
<td>$53.99</td>
<td>$52.16</td>
<td>$71.11</td>
<td>-</td>
</tr>
<tr>
<td>2007</td>
<td>RevPAR</td>
<td>$57.16</td>
<td>$54.91</td>
<td>$79.58</td>
<td>-</td>
</tr>
<tr>
<td>2008</td>
<td>RevPAR</td>
<td>$55.97</td>
<td>$53.59</td>
<td>$82.51</td>
<td>-</td>
</tr>
<tr>
<td>2002</td>
<td>NOI</td>
<td>$2,001,888</td>
<td>$2,070,979</td>
<td>$1,305,267</td>
<td>-</td>
</tr>
<tr>
<td>2003</td>
<td>NOI</td>
<td>$1,729,521</td>
<td>$1,754,234</td>
<td>$1,500,864</td>
<td>-</td>
</tr>
<tr>
<td>2004</td>
<td>NOI</td>
<td>$1,802,547</td>
<td>$1,820,775</td>
<td>$1,584,909</td>
<td>-</td>
</tr>
<tr>
<td>2005</td>
<td>NOI</td>
<td>$2,175,745</td>
<td>$2,192,124</td>
<td>$1,976,732</td>
<td>-</td>
</tr>
<tr>
<td>2006</td>
<td>NOI</td>
<td>$2,512,873</td>
<td>$2,540,689</td>
<td>$2,163,657</td>
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</tr>
<tr>
<td>2007</td>
<td>NOI</td>
<td>$2,759,977</td>
<td>$2,754,747</td>
<td>$2,819,442</td>
<td>-</td>
</tr>
<tr>
<td>2008</td>
<td>NOI</td>
<td>$2,524,991</td>
<td>$2,528,029</td>
<td>$2,491,519</td>
<td>-</td>
</tr>
</tbody>
</table>

*p < 0.01.

### Table 3
Test of homogeneity of variances.

<table>
<thead>
<tr>
<th>Year</th>
<th>Variable</th>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Significant Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>Occ.</td>
<td>76.257</td>
<td>1</td>
<td>18,716</td>
<td>-</td>
</tr>
<tr>
<td>2008</td>
<td>Occ.</td>
<td>70.158</td>
<td>1</td>
<td>27,440</td>
<td>-</td>
</tr>
<tr>
<td>2002</td>
<td>ADR</td>
<td>1,025,385</td>
<td>1</td>
<td>18,716</td>
<td>-</td>
</tr>
<tr>
<td>2008</td>
<td>ADR</td>
<td>895.866</td>
<td>1</td>
<td>27,440</td>
<td>-</td>
</tr>
<tr>
<td>2002</td>
<td>RevPAR</td>
<td>684.228</td>
<td>1</td>
<td>18,716</td>
<td>-</td>
</tr>
<tr>
<td>2008</td>
<td>RevPAR</td>
<td>1,447,322</td>
<td>1</td>
<td>27,440</td>
<td>-</td>
</tr>
<tr>
<td>2002</td>
<td>NOI</td>
<td>8.956</td>
<td>1</td>
<td>3,755</td>
<td>-</td>
</tr>
<tr>
<td>2008</td>
<td>NOI</td>
<td>4.921</td>
<td>1</td>
<td>5,825</td>
<td>-</td>
</tr>
</tbody>
</table>

*p < 0.01.
the quest for attracting equity investment, these results present support for the importance of having a brand name to buttress the application for new or additional funds for acquisition, expansion, or possible affiliation.

At the same time, it is entirely possible that independent hotels could be a satisfactory or even superior investment to branded properties if they operated with effective cost control systems, particularly during economic downturns. Perhaps the average independent hotel operation is relatively slow to forecast and react to declines in lodging demand, and to adopt retrenchment tactics during recessions, such as by reducing labor costs. This situation may be typical of family firms.

We also found that while brand affiliation matters in general, the individual brand matters, as well. This finding is consistent with previous research which found differential performance by hotel brand (O’Neill and Mattila, 2004), where the corporate strategies for the brand play an important part in the development, growth, and success of the brand. Previous research has suggested there to be a trade off in terms of hotel brand corporations focusing on rapid growth in number of hotels versus brands focusing more on guest satisfaction (O’Neill and Mattila, 2004). Even though the aim of this study was not specifically to differentiate between various brands in terms of hotel unit operating performance, the results suggest that actual brand affiliation affects individual hotel unit performance.

7. Managerial applications

Our research discovered very few potential downsides to hotel brand affiliation. Although independent hotels, in general, achieve higher ADRs and RevPARs than branded ones, we found no evidence that typical independent hotels are able to bring this revenue advantage to their bottom line. Even though branded hotels have extraordinary expenses in terms of franchise fees, royalty fees, reservation fees, marketing fees, guest loyalty program fees, and possibly other fees associated with their brand affiliations, it appears that such fees result in no significantly deleterious effects on their bottom line. On the other hand, typical independent hotels may operate with relatively higher expenditures in some areas at the property level, such as for sales, marketing, and promotional activities. As a result, there appears to be no significant difference in NOI for branded versus independent hotels, except during recessions, when it appears that branded hotels are more profitable.

The relatively limited fluctuations in the operating performance of branded hotel properties, especially during recessions, should improve planning, budgeting and cash flow projections, but also be an advantage when it comes to financing, as the operation would appear less risky to the potential investor. From a strategic viewpoint, it would be beneficial for any manager or owner of an independent hotel to be aware of the findings presented here as a basis for future decisions. An affiliation could lead to lower ADR and RevPAR, but may also smooth out operating performance during recessions. It would be important to consider both the potential for enhanced operating performance and the royalty payments and other fees for the brand affiliation to fully evaluate the potential benefit of brand affiliation. These quantitative analyses would then have to be weighed against other aspects of being affiliated, such as potential loss of independence and flexibility. Rushmore (2004) pointed out several attributes that could make independent operations preferable for a given hotel, including unique locations or special features. This research project should add another perspective to the complexity of owners and managers choosing between operating a hotel as an independent property or to affiliate with a brand.

8. Limitations and suggestions for future research

As with any research, the results of this study should be interpreted with caution. First, this study used Smith Travel Research data which are confidential. Therefore, it is not possible for us to know the actual brand names that are represented. However, Smith Travel Research possesses the most complete data regarding U.S. hotel operating performance. Virtually all hotel chains with U.S. operations (including all of the major chains), as well as a significant number of independent hotels (as evidenced herein), provide revenue data to Smith Travel Research. In addition, many of these properties provide profitability data on an annual basis, as well. The sample presented here represents the most complete data set available for this type of research. In this case, we have sacrificed knowing the individual hotel identities for having completeness of data.

This study is limited to the United States. While it is beyond the scope of this study, future research regarding hotel branding should include non-American locations and could compare the results in different countries. As the issue of brand affiliation in the international hospitality industry stems from the U.S. to a large extent, and most of the brand-related research in the hospitality field has been conducted with American data, future research should identify whether other geographic markets, notably markets where U.S. brands have a large influence, are experiencing similar results and trends. One aspect could be to identify whether brands from different cultural environments (such as different countries/cultural heritages) would show similar results in a study of markets with a large presence of international brands. For example, a future research question could be: Would the brand’s country of origin affect the brand affiliation’s performance in markets outside the country of origin and would this performance vary under different economic conditions? Could it be, for example, that brands of a certain national origin are better suited for a particular market than others such as to produce relatively strong performance in all phases of the economic cycle?

9. Conclusions

Our research illustrates the importance of hotel brands in general, and particularly during periods of economic recession. While independent hotels generally appear to operate with higher ADR and RevPAR than branded ones, branded hotels typically operate with higher occupancy levels. More importantly, while there does not appear to be any significant differences in NOI between branded and independent hotels during periods of economic growth, branded hotels appear to achieve significantly higher NOI than independent hotels during periods of economic recession. Further, independent hotels may be relatively riskier business ventures because in general, they have greater variance in all revenue indicators, and also, they may have greater variance in NOI during recessions. Though the Smith Travel Research data do not allow researchers to draw definitive conclusions regarding the potential for independent hotels to operate more profitably, it is plausible that with improved cost controls, they could do so.

It appears that branded hotels, perhaps based on more sophisticated managerial tools, can sacrifice higher room rates during recessions to achieve higher occupancy and profitability. Brand matters, and brand seems to matter more when times are bad because brands may reduce the volatility of the business and present a less risky investment. Brand also matters as a driver of the business value itself, as the intangible asset value in terms of the brand name may be evident through this research. It appears that the intangible asset value may not be static, and this knowledge should further add to the already complex discussion of identifi-
cation and assessment of intangible asset value in the hospitality industry.

References

Rushmore, S., 2001a. Six things to consider before obtaining a hotel franchise. Hotels (September).