

# *The Future of Hotel Revenue Management*

By Sheryl E. Kimes

---

## EXECUTIVE SUMMARY

**A** survey of some 400 revenue management (RM) professionals finds that the application of hotel RM has gradually become more strategic, and more centralized, but changes in RM practices have come more slowly than expected in the past six years. In particular, an earlier prediction that RM would be applied to all hotel revenue streams remains a work in progress, as does the use of mobile technology and social media as distribution channels. In addition, it is now more common for hotels to establish separate RM departments, as projected. Poll participants in the current research project suggested that, going forward, RM practices will be more fully integrated into all hotel operations, including function space (although these ideas have yet to gain much traction in the industry). These findings represent an update of a similar study on emerging trends in RM conducted by the author in 2010.

---

## ABOUT THE AUTHOR

**Sheryl E. Kimes**, Ph.D., is a professor of operations management in the School of Hotel Administration at Cornell University. From 2005 to 2006, she served as interim dean of the school, and from 2001 to 2005, she served as the school's director of graduate studies. Kimes teaches revenue management, restaurant revenue management, and service operations



management. She has been named the school's graduate teacher of the year three times and was awarded a Menschel Distinguished Teaching Fellowship by Cornell University in 2014. Her research interests revolve around revenue management in the restaurant, hotel, and golf industries. She has published more than 50 articles in leading journals such as *Interfaces*, *Journal of Operations Management*, *Journal of Service Research*, *Decision Sciences*, and the *Cornell Hospitality Quarterly*. Kimes has served as a consultant to many hospitality enterprises around the world, including Chevy's Fresh Mex Restaurants, Walt Disney World Resorts, Fairmont Hotels and Resorts, Starwood Asia-Pacific, and Troon Golf. Kimes earned her Ph.D. in operations management in 1987 from the University

of Texas at Austin. The author offers her thanks to HSMAl for its assistance in distributing the surveys used in this report. She also acknowledges the help of the SAS/IdeaS text analytics team in the Singapore SAS office. Without their help, this paper would not have been possible.

# *The Future of Hotel Revenue Management*

By Sheryl E. Kimes

**T**he findings from the two studies in this report are based on surveys involving revenue management professionals who offer their takes on how hotel RM practices have evolved over the past six years and where they are headed. Poll results show that total hotel RM is the wave of the future, and that technology and data analytics will be used to help enhance RM decisions. While survey respondents still believe that function space and restaurants are prime areas for RM, they acknowledge that their progress in doing so at their hotels has been uneven. Respondents suggest that mobile technology and social media are increasingly used for distribution by driving customer traffic to company websites and handling bookings and transactions. In addition, a significant percentage think that performance will be measured by available square foot, rather than by available room, and that RM is more likely to have its own department, while working closely with marketing.

In a 2010 study designed to determine what hotel revenue management (RM) will look like in the future, I conducted an online survey of about 500 RM professionals and interviewed 20 to 25 of these individuals.<sup>1</sup> Now, six years later, I wanted to learn how RM practices have changed since that earlier study and how RM professionals think that their roles will evolve over next five years.

As part of this international research I conducted two studies: an online survey of some 400 RM professionals and an additional online survey with a subset of the respondents.<sup>2</sup> The intent of the first was to determine how RM practices have changed over the past six years and to understand how RM professionals believe that these practices will change in the short term. The second study was designed to assess the accuracy of the predictions made in the 2010 study.

### Study 1

The first study was divided into six sections: **(1)** future challenges facing RM; **(2)** what RM will encompass in the future; **(3)** future pricing and distribution; **(4)** other areas of the hotel to which RM will be applied; **(5)** how RM will be organized in the future; and **(6)** the skills and education required of future revenue managers. Several demographic questions (e.g. experience, geographic location, industry, RM position) were included, and respondents were asked several open-ended questions about the future of RM.<sup>3</sup>

### The Respondents

Of the 381 completed surveys received, the majority (88.1 percent) of respondents were from the hotel industry, while the rest were from consulting, distribution, and other businesses. Of the hotel respondents, 69.3 percent were employed at the property level, 10.8 percent at the regional level, and 19.9 percent at the corporate level. About half (47.7 percent) of the respondents were from the Americas, 29.6 percent were from the Asia-Pacific region, and 22.8 percent from Europe, Africa, and the Middle East. Some 70 percent had more than five years of experience in RM (six to 10 years, 32.4 percent; 11 to 15 years, 15.9 percent; and 15 or more years, 22.3 percent).

### What Will Revenue Management Look Like in the Future?

The survey began with an open-ended question regarding what respondents thought hotel RM would look like five years

<sup>1</sup> Sheryl E. Kimes. 2010. "The Future of Hotel Revenue Management," *Cornell Center for Hospitality Research Report*.

<sup>2</sup> This was not a longitudinal study, so it is possible that the respondents in the 2016 study were different than those in the 2010 study. While the profile of both sets of respondents was similar, the results may not be directly comparable.

<sup>3</sup> See Exhibits 1 - 12 for a summary of results from all questions.

### EXHIBIT 1

#### What will hotel RM look like in 5 years?\*

Total Hotel RM	63%
More strategic	37%
Automated with analytics	35%
Channel and distribution	31%
Work with marketing and sales	30%
Technology-based	30%
Increase importance	14%

Notes: \* Indicates percentages may not total 100%, as respondents could provide multiple answers. \*\* Indicates that it was significantly different at the 0.05 level. \*\*\* Indicates question was not asked in the 2010 study.

### EXHIBIT 2

#### Drivers of change (5-point scale)

Information technology (IT)	4.66
Data analytics	4.61
Mobile technology	4.36
Economic conditions	4.24
OTAs	4.19
Competition	4.12
Customers	4.09
Google	3.98
Social media	3.88
Financial issues	3.81
Owner pressure	3.77
Managerial issues	3.23
HR issues	2.76

from now. Using SAS Text Analytics (and supported by the SAS/IDEaS team in Singapore), the comments were organized into seven common themes. The most common response (63 percent of all comments) was that RM would be applied to all revenue streams in the hotel. The second most common response (37 percent) was that RM would become more strategic in nature. Other recurring themes included more RM automation with analytics (35 percent), better channel and distribution management (31 percent), greater integration with marketing and sales (30 percent) and increased use of technology (30 percent).<sup>4</sup>

These results were noticeably different than those in the 2010 study, in which the most common theme (28.2 percent)

<sup>4</sup> Note: The totals do not add up to 100 percent since many respondents mentioned multiple themes.

### EXHIBIT 3

#### Which areas will grow in importance\*

Strategy	42.8%
Channel and distribution	30.5%
Operation	25.3%
Facilities	24.7%
Marketing	23.3%
Cost and Profit	20.9%
Information technology	20.2%

was that RM would be more strategic in nature, while less than 10 percent of comments mentioned total hotel RM. This study, in contrast, shows that 37 percent of the comments suggested that RM would become more strategic in nature and 63 percent projected the emergence of total hotel RM.

#### Drivers of Change

Respondents, asked to evaluate the major drivers of the changes they envisioned on a scale of 1 (unlikely) to 5 (very likely), cited information technology (4.66) and data analytics (4.61) as the most important. Other important factors influencing changes in RM were mobile technology (4.36) and economic conditions (4.24). The least important drivers were identified as HR issues (2.76) and managerial issues (3.23). These questions were not asked in the 2010 study, so there was no comparison of the results.

#### Which Areas Will Grow in Importance and Why?

Respondents were asked an open-ended question regarding the areas of RM they thought would grow in importance, and why they identified those specific areas. The most common theme was that RM strategy (mentioned in 43 percent of all comments) would become more significant. Other common themes included channel and distribution management (30 percent), operations (25 percent), facilities (25 percent), marketing (23 percent), cost and profit management (21 percent) and information technology (20 percent). Text mining was used to further understand why respondents thought these areas would grow in importance, and three main reasons emerged: **(1)** a focus on profitability rather than revenue; **(2)** the increased importance of data analytics to help boost profits; and **(3)** the increased importance of non-rooms revenue and profit.

#### Challenges Facing RM

Survey respondents cited economic conditions (4.11) and online travel agencies (OTAs) (4.03) as the biggest challenges facing hotel industry RM, while the least important challenges were HR issues (2.81) and managerial issues (3.17). The challenges presented in the 2010 study were slightly different than

### EXHIBIT 4

#### Future challenges (5-point scale)

Economic conditions	4.11
OTAs	4.03
Competition	3.93
Owner pressure	3.75
Information technology (IT)	3.72
Financial issues	3.71
Google	3.66
Customers	3.65
Mobile technology	3.60
Data analytics	3.55
Social media	3.37
Managerial issues	3.17
HR issues	2.81

### EXHIBIT 5

#### Non-rooms RM: 2016 vs. 2010 (5-point scale)\*\*

Department	2016	2010
Function space**	4.52	4.38
Restaurants**	4.25	3.86
Retail	3.58	3.81
Spa	4.03	3.16
Golf**	3.79	3.63
Parking**	3.66	3.19

those in the current study, so a comparison of the results was not made.

#### Future Applications of RM

When asked to evaluate which non-rooms areas RM would be applied to in the next five years, respondents identified function space as the most likely (4.51), followed by restaurants (4.25) and spas (3.98). While the order of these areas was the largely the same as in 2010, the rankings varied. In 2016, respondents gave significantly more importance to RM being applied to function space, restaurants, spas, and parking than they did in 2010, and less significance to RM being applied to retail. There was no significant difference for RM's role in golf in the two surveys.<sup>5</sup>

In evaluating and categorizing the responses to an open-ended question about the evolution of non-rooms RM over the next five years, using text analytics, three themes emerged:

<sup>5</sup> All differences mentioned are statistically significant at the 0.05 level.

**EXHIBIT 6****Current non-rooms RM vs. 2010 Prediction (5-point scale)**

Department	Current Level	2010
Function space**	3.02	4.38
Restaurants**	2.59	3.86
Spa**	2.12	3.81
Retail**	1.57	3.63
Parking**	1.57	3.24
Golf**	1.48	3.18

**1. Food and beverage:** Key terms used in the responses were potential, demand, price, and opportunity. The conclusion drawn from these responses was that hotels can apply RM to food and beverage by targeting potential outlets and using demand-based pricing to increase profits.

**2. Facilities (function space, spa, golf, parking):** Key terms that arose were optimization, price, opportunity, and future, indicating that hotels can apply RM to facilities by optimizing pricing strategies to create more opportunities.

**3. Restaurant, event, outlet, and banquet services:** Key terms included focus, spend, future, offer, and total, which suggests that hotels should present offers to customers based on their spending habits. In addition, respondents noted the need for hotels to reduce their allocations to these ancillary services.

### The Current Status of Non-Rooms RM

In the 2010 study respondents indicated that RM would be applied to function space (4.38 out of 5) and restaurants (3.86) by 2015. To determine if this had indeed happened, the 2016 respondents who worked in the hotel industry were asked to indicate the current level of RM implementation in non-rooms departments. The overall average was fairly low (2.06 out of 5), with function space (3.02) cited as the area where implementation had made the most progress.

### Pricing and Analytics

Respondents in 2016 were asked to assess how pricing would be addressed in the future, and the top-rated approach was analytical models (4.35), followed by segment-based pricing. In 2010, respondents suggested that pricing would become more analytical, but the techniques that they thought would be used were slightly different than those offered in the recent survey. In 2016, respondents rated the use of analytical models and of individual customer pricing as significantly more likely than in 2010, but evaluated pricing set through CRM and competitive pricing significantly lower than in 2010.

**EXHIBIT 7****Pricing (5-point scale)**

Pricing method	2016	2010
Analytical models**	4.27	4.12
Segment-based	3.94	4.02
CRM**	3.92	4.12
Individual customer**	3.92	3.77
Competitive**	3.85	4.02

**EXHIBIT 8****Data analytics and RM\***

Important	26.7%
Understand consumer behavior	21.3%
Support decision making	19.6%
Necessary	17.9%
Better strategy	16.2%

The 2016 respondents were also asked an open-ended question about the importance of data analytics in hotel RM. The text analysis results show that the integration of data analytics with RM will be important (27 percent) and necessary (18 percent) since they are used to understand consumer behavior (21 percent) and support decision making (20 percent). As a result, it was suggested that data analytics would help develop better RM strategies (16 percent).

### Distribution, Then and Now

Regarding the future of hotel distribution, 2016 survey respondents indicated that a greater emphasis will be placed on mobile technology (4.64) and better integration of new technologies with RM systems (4.56), with less emphasis placed on call centers (2.62) and hotel reservations offices (2.54).

These responses differ, for the most part, from those provided six years ago, as might be expected. In 2010, for example, respondents suggested that hotel websites would become more important as a distribution channel, but in 2016 they rated mobile technology and better integration with RM as significantly more likely, while they rated distribution through the hotel website, better integration with reservations, distribution through social media, the global distribution centers, call centers and hotel reservations office as significantly less likely.

### Performance Measurement

Respondents to the 2016 survey identified gross operating profit per available room (GOPPAR) as the most important

**EXHIBIT 9**

**Distribution: 2016 vs. 2010 (5-point scale)**

Distribution method	2016	2010
Mobile**	4.65	4.28
Better integration with RM**	4.57	4.35
Hotel website**	4.34	4.51
Better integration with res	4.18	4.27
Social media**	4.01	4.20
Metasearch***	3.98	
Google***	3.97	
OTAs	3.32	3.45
GDS**	3.15	3.56
Call centers**	2.63	2.93
Hotel res offices**	2.53	2.81

**EXHIBIT 10**

**Performance measurement (5-point scale)\*\*\***

Measurement	2016	2010
GOPPAR**	33.6%	29.6%
TotRevPAR**	17.3%	20.9%
GOPPASF***	15.2%	
RevPAR**	11.5%	18.5%
ConPAR	6.0%	7.6%
LVPAR	5.0%	5.4%
TotRevPASF*	5.0%	13.7%
Other	5.0%	4.3%
ConPASF**	1.3%	

performance benchmark for the near future (33.7 percent). Other performance metrics under consideration included total revenue per available room (17.5 percent) and GOP per available square foot (15.4 percent). As in 2010, respondents indicated that revenue per available room (RevPAR) will not be the best way to measure performance in the next five years (2016, 11.4 percent; 2010, 18.6 percent).

The 2016 respondents were significantly more likely to select a GOP- or contribution-based performance measurement (2016: 49 percent; 2010: 29 percent) and also more likely to choose a square-foot-based measurement than the 2010 respondents (2016, 25.8 percent; 2010, 17.6 percent).

**EXHIBIT 11**

**Centralization: 2016 vs. 2010 (5-point scale)**

Level	2016	2010
Decentralized	19.2%	15.9%
Regional**	45.4%	39.3%
Centralized	31.8%	33.3%
Outsourced**	3.7%	6.7%
Other		4.8%

**EXHIBIT 12**

**Department: 2016 vs. 2010 (5-point scale)**

Department	2016	2010
Rooms**	2.6%	5.4%
Sales and marketing**	21.3%	30.0%
Separate department**	59.1%	53.7%
Finance	6.0%	6.5%
Other**	11.0%	4.3%

**Organizational Issues**

**Current Organization.** The level of RM centralization among the companies represented by respondents to the 2016 survey varied, with 38.0 percent stating that RM was completely decentralized, 33.1 percent indicating that it was managed regionally, and 27.1 percent saying that it was centralized. Only 1.8 percent stated that RM was outsourced by their companies.

About half of the respondents (47.6 percent) indicated that RM was part of sales and marketing operations, with 28.3 percent stating that it was in a separate department. Only 8.1 percent said that RM was in the rooms department.

**Centralization in the Future.** As in 2010, the 2016 respondents suggested that, going forward, RM revenue would be handled either at a regional (45.4 percent) or centralized (31.8 percent) level, while just 19.1 percent felt that RM would be completely decentralized. Respondents in the 2016 survey significantly favored RM being handled on a regional basis.

**Department in the Future.** Nearly 60 percent of the current survey respondents thought that RM would be a stand-alone department within five years, while only 2.4 percent thought that it would be part of the rooms division. Conversely, respondents to the 2010 poll were less likely to suggest that RM would be located in a separate department and more likely to think that it would be located in sales and marketing.

Results from an open-ended question in the 2016 survey about the future interaction between RM and marketing



## 2016 outcomes versus 2010 predictions

2010 Prediction	2016 Outcome
Revenue management will become more strategic.	Revenue management has become somewhat more strategic, but this remains a work in progress.
Revenue management will be applied to all (or more) hotel revenue streams.	Technology and a “silo mentality” have slowed progress on this idea, which remains in an early stage.
Revenue managers will have stronger analytical and communications skills.	Revenue managers have generally improved their skills, but the number of people with appropriate skill levels remains limited.
Revenue management will become more centralized (at the corporate level).	Despite strong encouragement from the chains, centralization remains modest.
Pricing will be supported by analytical models.	Some models are in use, but this is not yet commonplace.
Distribution will increasingly rely on social media.	Direct distribution via social media remains limited, but these media are used as merchandising channels to drive website traffic.
Distribution will occur via mobile devices.	Although many reservations are made via PCs following research on mobile devices, mobile supports an increasing volume of business, particularly last-minute bookings.
GOPPAR or another profit measure will supplant RevPAR as a primary performance measure.	Although GOPPAR may be on the horizon for some operators, RevPAR (or a revenue generation index) remains the chief benchmark.

showed that it will become more important (77 percent) for the two areas to work in tandem. Respondents also said that data analytics would be involved with RM (15 percent), that marketing would report to RM (7 percent), that RM would support marketing (7 percent), and that these relationships would be more strategic (65 percent). About 4 percent of respondents thought that there would be no change in the future regarding the integration of RM and marketing.

### Necessary Skills and Education

**Characteristics of future revenue managers.** The most important attributes of the revenue manager of the future will be analytical skills (4.48) and leadership skills (4.35), followed by distribution skills (4.24) and communications skills (4.22). The least important attributes will be a reservations background (3.06) and a rooms background (3.16). These 2016 survey results represent a noteworthy difference from the 2010 numbers. While analytical skills were also considered the most important then, they were significantly lower in 2016. Other attributes considered significantly less important in 2016 were a university degree, a sales and marketing background, a rooms background, and a reservations background.

**What universities and colleges should be teaching.** In 2016, respondents considered revenue management, data analytics, pricing, and distribution management as the most important courses for future revenue managers, while room operations and HR were the least important. While there were some similarities with the 2010 results, respondents in 2016 rated data

analytics, pricing, distribution, statistics, economics, communications and training as significantly more important than in 2010.<sup>6</sup>

### Study 2: How Accurate Were the 2010 Predictions?

In the 2010 study, nine results-based predictions were made regarding what RM would look like in 2015. Rather than assessing the accuracy of these predictions personally, I conducted a follow-up study with the 285 participants in Study 1 who had provided their email address and received 104 responses (40 percent). Respondents were asked to assess the accuracy of the 2010 predictions on a scale of 1 (not at all) to 5 (commonplace). The findings are as follows:

**1. RM will be more strategic.** Study 2 results show that RM had become more strategic in nature since 2010 (4.01 out of 5), but more work is required on this front. As one respondent said, “Looking back at last five years, one thing I would expect to see is continued growth in the importance of good RM to the hotels, and increased reliance on it. The focus will even more shift to understanding the demand better by segment and especially by booking window—who books what and when and why—and based on this information long- and short-term strategies will be set. And more importantly, these strategies will have better support from the higher-level execs within the company and with the owners.”

<sup>6</sup> Note that revenue management as a stand-alone course was not presented as an option in the 2010 survey.



**2. Total hotel RM.** The 2010 respondents predicted that RM would be applied to all revenue streams by 2015, but the Study 2 respondents in 2016 indicated that this, too, is still a work in progress (3.50). This conclusion is further supported by the results of the 2016 Study 1 in which respondents said that on average non-rooms RM implementation was still at an early stage at their hotels (2.06). One respondent stated, “Technology is still a barrier to total RM, as well as the usual silo mentality that isolates the need to meet targets, sandbagging of group business, the complete lack of data integrity when working with sales and catering data, financial controllers believing that their forecasts will always overrule RM, and GMs overruling the financial controllers with ‘Take last year’s numbers and add 2 percent.’ It’s business as usual.”

**3. Revenue managers will have stronger skills.** Respondents in 2016 confirmed that revenue managers have stronger analytical and communications skills than they did in 2010 (4.05), noting that it’s difficult to find RM people with the appropriate skill sets. As one respondent said, “We can’t find enough of the right people with the right skills and mindset to become revenue managers. The good ones are prone to burnout because we end up making them run clusters because we can’t staff adequately. We have a lot of junior people who are taking on these roles and they’ve been promoted from areas such as reservations or front office or distribution, which results in a vast variety of baseline skillsets. It is a major area where we focus to get everyone to a level where they are self-sufficient and can properly analyze data, make strategic recommendations, then communicate and lead their hotels to driving revenue.”

**4. RM in its own department.** Respondents indicated that it was now more common for RM to be in its own department than it was in 2010 (4.05). “This has been a big change in the last five years,” one respondent said. “RM is oftentimes its own department now. In some organizations, RM is increasingly a sub-department under a larger umbrella called ‘commercial department’ which houses sales, brand, marketing, e-commerce, and revenue as it is recognized that all of these sub-departments don’t work in silos.” This finding is supported by the Study 1 results in which respondents indicated that RM is in a separate department and their hotel(s).

**5. RM will be more centralized.** Responses to the current survey indicated that the RM function was a somewhat more centralized than in 2010 (3.43). One respondent stated, “While to a large extent there is the drive and push from central RM entities, the progress has been slow as much of the execution takes place at hotel level, and it remains a challenge to change the culture, mindset and adoption due to several hurdles. Some owners are unwilling to pay more for the RM role to attract the right talent, or to move to a centralized structure. Also, HR may find it financially challenging to elevate the role of RM across the board, or lack the talent to find strategic thinkers.”

**6. Analytical models used for pricing.** The use of analytical models for pricing is more popular than in 2010 (4.08), Study 2 findings show, but it is not yet commonplace. “Pricing models are too complex for most revenue managers,” one respondent said. “It’ll take a lot more time before these complex models are widely adopted.”

**7. Social media will be used for distribution.** Study 2 respondents said that social media are not yet dominant distribution channels (3.06), but they are used to increase online business. “Social media isn’t a distribution channel for us per se, but we often use social media to drive brand site traffic,” one respondent said. “The use of promo codes via social media that can be redeemed on brand.com is very common.”

**8. Mobile technology will be used for distribution.** Respondents indicated that mobile technology was increasingly used for distribution (4.16), with one Study 2 participant stating that, “If you haven’t accepted that mobile is the wave of the future, you are severely behind at this point. Adaptive website design to handle multiple devices from desktop to tablet and mobile is the norm. We see an increase in last-minute bookings via mobile. We also see a lot of preliminary research via mobile, followed by booking and transaction via PC. The bottom line is, whatever the customer’s eyes are looking at, we want to be there and make it easy for them to find us.”

**9. RevPAR will no longer be the main performance metric.** Respondents in Study 2 indicated that this projection was off the mark (2.18), primarily because of the ongoing reliance on STR data and the variable definitions of profit. One respondent noted, “Even though we hear more and more about other key performance indicators such as GOPPAR, the benchmarking is still mostly done on RevPAR and revenue generation index, and therefore the distributed resource management goal is still (mostly) based on RGI. The companies want to benchmark themselves and I don’t see them using another KPI until it can be benchmarked against competition. Most of the markets still only have RGI as a benchmark.”

## Discussion

The key trend identified in this report on emerging RM practices is that total hotel RM is the wave of the future, and that technology and data analytics will help enhance RM decisions. Survey respondents emphasized the need to maximize profits for individual revenue streams, rather than focusing on total revenue. While respondents still believe that function space and restaurants are prime areas for RM, they acknowledged that progress in implementing this at their hotels has been spotty. Other projections include a belief that pricing will be affected by advances in data analytics and that gross operating profit, or a similar profit-centric measure, will replace RevPAR as the performance metric of the future. In addition, a significant percentage of survey respondents think that performance will be measured per available square foot, rather than per available

room. They also believe that RM will continue to become more centralized or regionalized. Finally, survey participants suggest that RM is more likely to have its own department, but work very closely with marketing. These themes, each of which has major implications for hotel RM, are interrelated, and are tied together by a belief that RM will be focused on maximizing total hotel profitability.

### Study Limitations

This was not a longitudinal study, so it is possible that the respondents in the 2016 study were different than those in the 2010 study. While the profile of both sets of respondents was similar, the results might not be directly comparable. In addition, this was a voluntary response survey of revenue manage-

ment professionals, so the sample may not be representative of RM practitioners a whole.

### Conclusion

While all of these potential changes hold great potential, RM professionals must determine how to enhance and develop their individual practices so that they are well positioned for the future. Given the relative inaccuracy of the 2010 predictions, it is possible that these predictions may be flawed as well. Several things are clear: hotel RM will continue to grow in importance; technology and data analytics will play an increasingly important role; the focus will be on total profit rather than just RevPAR; and mobile technology will be increasingly used for distribution. The challenge to hoteliers is how best to position themselves to maximize total hotel profit in the future. ■

# Center for Hospitality Research Publication Index

chr.cornell.edu

## 2016 Reports

Vol. 16 No. 27 Do You Look Like Me? How Bias Affects Affirmative Action in Hiring, Ozias Moore, Ph.D., Alex M. Susskind, Ph.D., and Beth Livingston, Ph.D.

Vol. 16 No. 26 The Effect of Rise in Interest Rates on Hotel Capitalization Rates, by John B. Corgel, Ph.D.

Vol. 16 No. 25 High-Tech, High Touch: Highlights from the 2016 Entrepreneurship Roundtable, by Mona Anita K. Olsen, Ph.D.

Vol. 16 No. 24 Differential Evolution: A Tool for Global Optimization, by Andrey D. Ukhov, Ph.D.

Vol. 16 No. 23 Short-term Trading in Long-term Funds: Implications for Financial Managers, by Pamela Moulton, Ph.D.

Vol. 16 No. 22 The Influence of Table Top Technology in Full-service Restaurants, by Alex M. Susskind, Ph.D., and Benjamin Curry, Ph.D.

Vol. 16 No. 21 FRESH: A Food-service Sustainability Rating for Hospitality Sector Events, by Sanaa I. Pirani, Ph.D., Hassan A. Arafat, Ph.D., and Gary M. Thompson, Ph.D.

Vol. 16 No. 20 Instructions for the Early Bird & Night Owl Evaluation Tool (EBNOET) v2015, by Gary M. Thompson, Ph.D.

Vol. 16 No. 19 Experimental Evidence that Retaliation Claims Are Unlike Other Employment Discrimination Claims, by David Sherwyn, J.D., and Zev J. Eigen, J.D.

Vol. 16 No. 18 CIHLER Roundtable: Dealing with Shifting Labor Employment Sands, by David Sherwyn, J.D.

Vol. 16 No. 17 Highlights from the 2016 Sustainable and Social Entrepreneurship Enterprises Roundtable, by Jeanne Varney

Vol. 16 No. 16 Hotel Sustainability Benchmarking Index 2016: Energy, Water, and Carbon, by Eric Ricaurte

Vol. 16 No. 15 Hotel Profit Implications from Rising Wages and Inflation in the U.S., by Jack Corgel, Ph.D.

Vol. 16 No. 14 The Business Case for (and Against) Restaurant Tipping, by Michael Lynn, Ph.D.

Vol. 16 No. 13 The Changing Relationship between Supervisors and Subordinates: How Managing This Relationship Evolves over Time, by Michael Sturman, Ph.D. and Sanghee Park, Ph.D.

Vol. 16 No. 12 Environmental Implications of Hotel Growth in China: Integrating Sustainability with Hotel Development, by Gert Noordzy, Eric Ricaurte, Georgette James, and Meng Wu

Vol. 16 No. 11 The International Hotel Management Agreement: Origins, Evolution, and Status, by Michael Evanoff

Vol. 16 No. 10 Performance Impact of Socially Engaging with Consumers, by Chris Anderson, Ph.D., and Saram Han

Vol. 16 No. 9 Fitting Restaurant Service Style to Brand Image for Greater Customer Satisfaction, by Michael Giebelhausen, Ph.D., Evelyn Chan, and Nancy J. Sirianni, Ph.D.

Vol. 16 No. 8 Revenue Management in Restaurants: Unbundling Pricing for Reservations from the Core Service, by Sheryl Kimes, Ph.D., and Jochen Wirtz, Ph.D.

Vol. 16 No. 7 Instructions for the Food Preparation Scheduling Tool v2015, by Gary Thompson, Ph.D.

Vol. 16 No. 6 Compendium 2016

Vol. 16 No. 5 Executive Insights on Leader Integrity: The Credibility Challenge, by Tony Simons, Ph.D., with Kurt Schnaubelt, John Longstreet, Michele Sarkisian, Heather Allen, and Charles Feltman

Vol. 16 No. 4 Authenticity in Scaling the Vision: Defining Boundaries in the Food and Beverage Entrepreneurship Development Cycle, by Mona Anita K. Olsen, Ph.D., and Cheryl Stanley

Vol. 16 No. 3 Communication Planning: A Template for Organizational Change, by Amy Newman

Vol. 16 No. 2 What Guests Really Think of Your Hotel: Text Analytics of Online Customer Reviews, by Hyun Jeong “Spring” Han, Ph.D., Shawn Mankad, Ph.D., Nagesh Gavirneni, Ph.D., and Rohit Verma, Ph.D.

Vol. 16 No. 1 The Role of Service Improvisation in Improving Hotel Customer Satisfaction, by Enrico Secchi, Ph.D., Aleda Roth, Ph.D., and Rohit Verma, Ph.D.

## CREF Cornell Hotel Indices

Vol. 5 No. 4 Third Quarter 2016: Hotels Exhibit Positive Momentum, by Crocker Liu, Ph.D., Adam D. Novak, Ph.D., and Robert M. White, Jr.

Vol. 5 No. 3 Second Quarter 2016: Slowdown for Large Hotels Continues: Small Hotels Have Now Slowed as Well, by Crocker Liu, Ph.D., Adam D. Novak, Ph.D., and Robert M. White, Jr.

## Advisory Board

---

Syed Mansoor Ahmad, Vice President, Global Business  
Head for Energy Management Services, Wipro EcoEnergy

Marco Benvenuti MMH '05, Cofounder, Chief Analytics and  
Product Officer, Duetto

Scott Berman '84, Principal, Real Estate Business Advisory  
Services, Industry Leader, Hospitality & Leisure, PwC

Erik Browning '96, Vice President of Business Consulting,  
The Rainmaker Group

Bhanu Chopra, Founder and Chief Executive Officer,  
RateGain

Susan Devine '85, Senior Vice President—Strategic  
Development, Preferred Hotels & Resorts

Ed Evans '74, MBA '75, Executive Vice President & Chief  
Human Resources Officer, Four Seasons Hotels and  
Resorts

Kevin Fliess, Vice President of Product Marketing, CVENT,  
Inc.

Chuck Floyd, P '15, P '18 Global President of Operations,  
Hyatt

R.J. Friedlander, Founder and CEO, ReviewPro

Gregg Gilman ILR '85, Partner, Co-Chair, Labor &  
Employment Practices, Davis & Gilbert LLP

Dario Gonzalez, Vice President—Enterprise Architecture,  
DerbySoft

Linda Hatfield, Vice President, Knowledge Management,  
IDeaS—SAS

Bob Highland, Head of Partnership Development,  
Barclaycard US

Steve Hood, Senior Vice President of Research, STR

Sanjeev Khanna, Vice President and Head of Business Unit,  
Tata Consultancy Services

Josh Lesnick '87, Executive Vice President and Chief  
Marketing Officer, Wyndham Hotel Group

Faith Marshall, Director, Business Development, NTT DATA

David Mei '94, Vice President, Owner and Franchise  
Services, InterContinental Hotels Group

David Meltzer MMH '96, Chief Commercial Officer, Sabre  
Hospitality Solutions

Nabil Ramadhan, Group Chief Real Estate & Asset  
Management Officer, Jumeirah Group

Umar Riaz, Managing Director—Hospitality, North American  
Lead, Accenture

## Cornell Hospitality Report

Vol. 16, No. 23 (October 2016)

© 2016 Cornell University. This report may not be  
reproduced or distributed without the express permission  
of the publisher.

Cornell Hospitality Report is produced for the benefit  
of the hospitality industry by  
The Center for Hospitality Research  
at Cornell University.

**Christopher K. Anderson**, Director  
**Carol Zhe**, Program Manager  
**Jay Wroldstad**, Editor  
**Glenn Withiam**, Executive Editor  
**Kate Walsh**, Interim Dean, School of Hotel  
Administration

Center for Hospitality Research  
Cornell University  
School of Hotel Administration  
389 Statler Hall  
Ithaca, NY 14853

607-254-4504

---

Carolyn D. Richmond ILR '91, Partner, Hospitality Practice,  
Fox Rothschild LLP

David Roberts ENG '87, MS ENG '88, Senior Vice President,  
Consumer Insight and Revenue Strategy, Marriott  
International, Inc.

Rakesh Sarna, Managing Director and CEO, Indian Hotels  
Company Ltd.

Berry van Weelden, MMH '08, Director, Reporting and  
Analysis, priceline.com's hotel group

Adam Weissenberg '85, Global Sector Leader Travel,  
Hospitality, and Leisure, Deloitte

Rick Werber '83, Senior Vice President, Engineering and  
Sustainability, Development, Design, and Construction, Host  
Hotels & Resorts, Inc.

Dexter Wood, Jr. '87, Senior Vice President, Global Head—  
Business and Investment Analysis, Hilton Worldwide

Jon S. Wright, President and Chief Executive Officer, Access  
Point Financial