Journal of Business Studies Quarterly
2015, Volume 7, Number 2 ISSN 2152-1034

Journal of Business Studies Quarterly jbsq.org

Revenue Management in the Hotel Industry: Comparing US and Canadian Properties

Paul Willie, Niagara College
Ruth Clarke, Nova Southeastern University
Ramdas Chandra, Nova Southeastern University

Introduction

Revenue management is most commonly defined as the "the process of allocating the right type of capacity to the right kind of customer at the right price so at maximize revenue or yield" (Kimes, 1989; Guillet and Mohammed, 2015). It is the art and science of constantly and closely monitoring consumer market conditions, such as shifts in level of demand or changes in consumer preferences, and responding appropriately by applying various product bundling, packaging, pricing, capacity allocation, forecasting, and market distribution channel strategies and tactics (Ng, Maull and Godsiff, 2008; Ng and Yip, 2011; Lee et. al., 2012;). Embraced and identified approximately five decades ago as yield management within the international airline industry, revenue management quickly gained acceptance as an important core operations management tool for commercial carriers shortly after the Carter administration introduced deregulation within the United States airline industry (Haley & Inge, 2004). Following the airline industry's lead, as well as achieved success, as a result of applying revenue management strategies and techniques, the discipline quickly found new support and users in other sectors of the hospitality industry and in particular with hotel companies. Today, revenue management is widely used by the leaders in the hotel industry such as the Mariott and Hilton, as an essential strategy to enhance revenue generation performance and ultimately increase shareholder wealth (Burgess & Bryant, 2001; Murphy et. al., 2013).

This study analyzes the application and influence of revenue management within the international hotel industry, in the geographical context of the Niagara region. It is proposed that hotel properties who utilize revenue management human capital and technology in a synergistic effort will achieve the most satisfactory revenue performance results.

There are several key justifications for this study. First, while past studies have addressed how external factors have an impact on hotel performance, few studies analyze how the combination of external and internal factors influence revenue management activities. Next, Guillet and Mohammed (2015) find that less than 5% of studies in the hospitality sector examine performance. Further, while Crystal (2007) and others do examine the role of internal factors in revenue management, very little research work has examined this in an international context. Finally, as Guillet and Mohammed (2015) point out, the lack of institutional factors is a major gap in this research stream.

This study also takes into consideration the possible relevance of the resource based view of the firm (RBV) theory (Barney, 1991; Wernerfelt, 1995) with related application value and knowledge in relationship to revenue management systems, strategies and tactics for international hotel operators. For example, internal resources such as human capital and technology are investigated with respect to their effect on the internal revenue management processes being practiced by hotel properties and the resulting firm performance as an outcome.

Background

Revenue management is an administrative science that recognizes the importance of market segmentation and that all consumers are not equal (McGill & Van Ryzin, 1999). As such, the creation of strategic pricing tiers that respond appropriately and positively to consumer behaviour and market conditions is important (Canina & Enz, 2005). Revenue management is relevant as most business enterprises give credit to an approximate 3 – 7 % incremental gain in generated revenue as a result of embracing revenue management without a significant increase in cost (Cross, 1997, Payne, 1997; Queenan, et. al., 2011, Sainaghi, 2011).

Now in its third decade of existence (Mila & Shoemaker, 2008), revenue management represents an objective analytical approach to revenue optimization in an effort to improve the hospitality enterprises' gross sales potential (Forgacs, 2002). In other words, the accommodation property attempts to sell the right room product at the right price, whereby the selling price is in agreement with the customer's willingness to pay value, to the right customer and at the right time (Choi & Mattila, 2003). Additionally, the pursuit of revenue management excellence and its core pieces have received a high level of research interest within the academic community (Lieberman, 2004).

The current popularity and significance of revenue management can be attributed to four main developments (Phillips, 2005). First revenue management has helped propel the airline industry to more efficient real-time pricing and stronger revenue performance and other sectors within the hospitality industry have taken notice. Second, technology used in today's sophisticated revenue management systems have the capability to embrace both enterprise resource planning (ERP) and customer relationship management (CRM) systems providing pertinent information that improves both pricing and revenue performance for the hospitality enterprise (eg. Noone and McGuire, 2013; Duverger, 2013). Third, revenue management systems capitalize on the significance of e-commerce, which supports dynamic pricing, and the internet savvy consumer present in today's marketplace. Fourth, the accomplishments of supply chain management systems in the 1990s has encouraged senior management to be more receptive to the quantitative models, analytical techniques, and algorithms that are incorporated into today's' approach to revenue management. (Phillips, 2005).

The empirical literature on revenue management in the hotel industry particularly is briefly reviewed now, beginning with external factors, followed by firm-specific factors.

Macroeconomic factors

Spulber (2003) advocates that firm strategy cannot be crafted by management without first performing an analysis of the current economic climate. Hotel properties therefore need to constantly monitor the macroeconomic climate and recognize both swings and shifts with key economic indicators as quickly as possible, which will lead to competitive advantage (Walters, Halliday, & Glaser, 2002).

Clusters

According to Porter (2000), a "cluster" represents the "critical mass" of similar organizations, such as hotels, when they can be found within a specific geographical location, such as the Niagara region of both New York, the United States, and Ontario, Canada or the clusters of hotels in Las Vegas, Nevada. He further notes that cluster theory is important to members of the cluster for three reasons; 1) improved productivity, 2) competitor motivations and 3) low barrier entry for new competitors. Several studies have tested these advantages within a hospitality setting (e.g. Cheng et al 2009).

The empirical research seems to support the proposition that clusters can be advantageous to the hotelier. However each lodging property must have its own image, personality and noticeable differences otherwise it will be seen and received as basically a homogeneous product within the cluster/strategic group environment by the consumer (Canina, Enz, & Harrison, 2005).

Institutional Affects

Institutional theory provides another perspective on how organizational behaviour and in due course firm strategy can be postured by the external environment. The theory advocates that business entities over time will learn to conform to what is perceived, or prescribed, to be the expectations, requirements, procedures, and norms while operating in a specific environment (Scott, 2003).

Within this context, institutional theory provides an industry observer with some rationalization as to why members of a cluster or strategic group eventually behave in a similar manner (Greenwood & Hinings, 1996). To this end, the theory advocates that each organization has a desire to gain, or be given, "legitimacy" within its own cluster and therefore over time will evolve, adapt and conform to the operating atmosphere's requisites as perpetuated by the cluster itself and the host environment. Once this transformation has taken place the organization's persona becomes more congruent with the operating characteristics of the other cluster members (Dacin, et. al. 2008). Thus the typical hotel property morphs or shapes itself over time to become an appropriate fit within its external environment and competitive set (Grandy & Wicks, 2008). As addressed by Dacin et al. (2008), institutional theory plays a significant role in the understanding of how multinational corporations behave and perform in different country settings and in response to diverse external influences and pressures.

Internal Resources

Hotel companies that will enjoy the financial rewards of successful revenue management strategies and systems are the ones who will first recognize and embrace the importance of human capital and technology (Erdly & Kesterson-Townes, 2003). Hotels that have made a significant investment in both technology and human capital for their revenue management programs and systems also need to ensure that this investment is both protected and is providing a satisfactory return (Kimes and Wagner, 2001; Noone and Hultberg, 2011; Beck et. al., 2012).

As identified by Hoang (2007) and Duverger (2013) among others, a very high level of sophisticated technology is available with current revenue management systems. It has been proposed that advances in revenue management technology and the importance of revenue management will become so prevalent to business in the years ahead that by 2020 "off the shelf" product will be available to meet the specific needs of each type of business (Yeoman & Morello, 2007).

One observation is worth making at this point: looking at the literature from the perspective of international business, there is very little international business literature that speaks directly to revenue management application and strategy for the hotel industry. Kimes and Wirtz (2003) have conducted some research work on restaurant revenue management in an international setting and recent work by Law, Chan, and Goh (2007) as well as Dabas and Manaktola (2007) have focused on internet peripheral related issues to hotel revenue management. Nevertheless and in particular, the IB literature with on-point articulation of revenue management application and strategy for a hotel environment is scarce.

Conceptual Framework

Based on the literature reviewed above, the framework in Figure 1 is used to inform the current study. While fairly self-explanatory given the literature reviewed above, it proposes a set of external factors that exert influence on managers involved in the decision making process for revenue management strategies, tactics, and action. It is suggests that internal resources such as human capital and technology may affect revenue management outcomes and ultimately firm performance. Finally, the framework suggests that a concurrent force, an influx combination, of external factors and internal resources will establish the revenue management performance outcome for the hotel property.

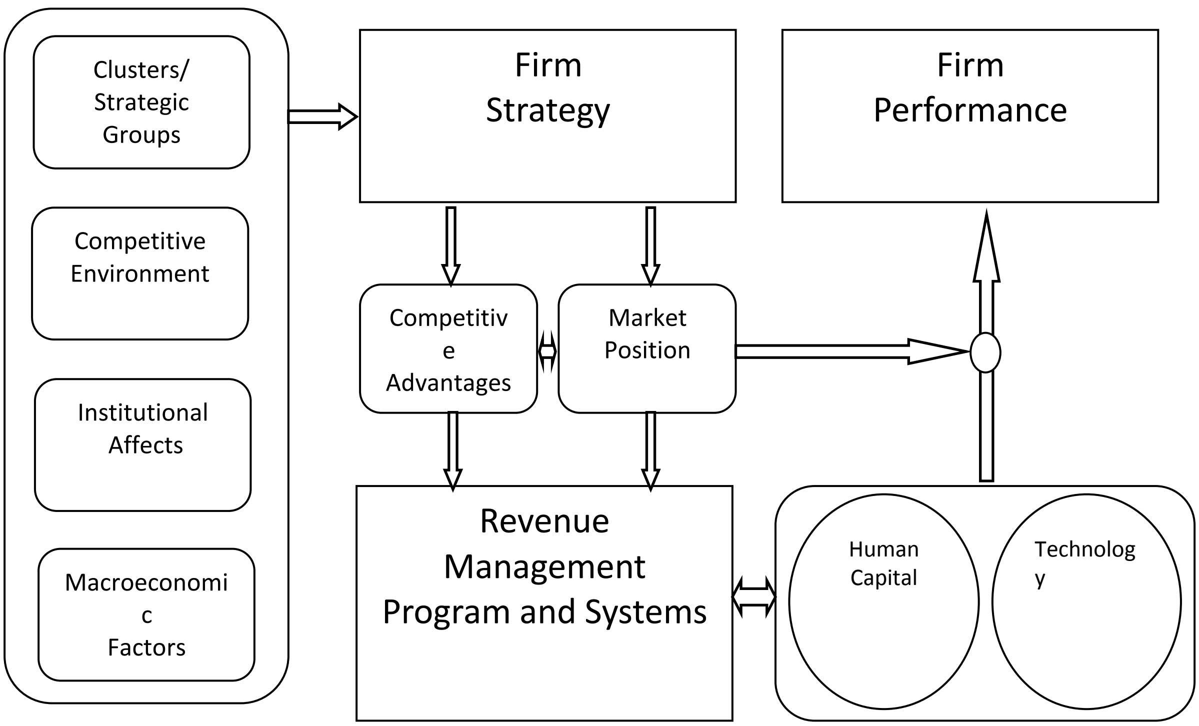

Figure 1: Conceptual Framework

The following hypotheses that stem directly from the framework are then tested.

H1: There is a positive relationship between the property level revenue management score and the property's revenue management performance.

H2: There is a positive relationship between cluster/strategic group factors and the property's revenue management performance.

H3: There is a positive relationship between monitoring the competitive environment and the property's revenue management performance.

H4: There is a positive relationship between acting upon institutional affects and the property's revenue management performance.

H5: There is a positive relationship between monitoring macroeconomic affect factors and the property's revenue management performance.

H6: There is a positive relationship between the use of technology and the property's revenue management performance.

H7: There is a positive relationship between highly skilled revenue management human resources and the property's revenue management performance.

H8: There is a positive relationship between revenue management being identified as an integral piece of competitive advantage as well as the firm's strategic plan and property level revenue management performance.

Data and Methodology

The context of this study is the hotel industry in two countries, US and Canada, particularly the Niagara region, thereby eliminating any regional differences that might affect the findings. The study is also part of a larger research project, only a part of which empirical results are presented in this paper.

Qualitative research (not included in this paper) was initially employed to develop a survey which was then administered to a larger sample of respondents. The survey was based on a scale that was developed from the qualitative research (full details of development and testing of scale is not included in this paper, but the main results are provided in Appendix 1). This scale is essentially a weighted scale of revenue management systems and resources, labelled the Weighted Elements of Revenue Management Systems and Resources or WERMSAR.

Approximately 150 hotel properties that are found within the Niagara region on both Canadian and US soil were asked to participate in the research study. Of the potential study population a participation rate of approximately 72% was achieved, yielding a total of 104 completed responses. 49% of the respondents are located in Canada and 51% in the United States.

Since studying the impact of revenue management on performance is one of the key contributions of this study, industry averages for key performance metrics such as ADR, OCC, and RevPAR (obtained from Smith Travel Research) have been used to calculate performance variances amongst the participating hotel properties.

Results and Discussion

As mentioned earlier, this paper is part of a larger study, and only preliminary, exploratory results from the survey are presented here. Simple ANOVA was used to test the hypotheses individually. The main results are summarized in Table 1 for convenience and brevity and the results discussed subsequently.

Table 1: Summary of Hypothesis Testing

Hypothesis	Independent Variable	Supported?	F value (significance) (where relevant)
H1	RM score	**Yes**	Qualitative; when WERSMAR score is greater than 74%, performance is above average.
H2	Cluster/strategic group factors	No	2.685 (0.105)
H3	Monitoring competitive environment	No	0.934 (0.336)
H4	Institutional Factors	**Yes**	---
	Combined Properties	**Yes**	**4.034 (0.048)**
	Canada only	**Yes**	**4.186 (0.047)**
	USA only	No	0.280 (0.600)
H5	Monitoring external, macroeconomic factors	**Yes**	**3.341 (0.071)**
H6	Use of technology	**Partial Yes**	---
	Combined Properties	**Yes**	**4.436 (0.038)**
	Canada only	**Yes**	**5.312 (0.026)**
	USA only	No	0.154 (0.697)
H7	Human resource factors (internal)	**Partial Yes**	---
	Combined Properties	**Yes**	**8.064 (0.006)**
	Canada only	**Yes**	**6.503 (0.014)**
	USA only	No	1.359 (0.250)
H8	Strategic plan/competitive adv.	**Partial Yes**	---
	Combined Properties	**Yes**	**4.837 (0.030)**
	Canada only	**Yes**	**4.493 (0.039)**
	USA only	No	0.349 (0.557)

Independent variable in all the hypotheses is REVPar, i.e. performance

To provide further support to the results above, a comparison was conducted of REVPar Performance with REVPar values obtained from Smith Travel Research Data (STR) STR) for the Niagara Falls, Ontario, Canada and the Niagara Falls, New York, United States markets. The averages (not shown here) provide support for the hypothesis testing provided above; it is apparent that the Canadian hotel properties have achieved higher REVPar values than their US counterparts. Accordingly, from the results obtained from this research study and supported by the independent data obtained from Smith Travel Research, it is suggested that the Canadian hotel properties are embracing a more beneficial and effective approach towards comprehensive revenue management strategies and are consequently being rewarded with stronger REVPar performance values than their US hotel colleagues.

Discussion and Conclusions

The results of our study, both the qualitative part not reported here, as well as the exploratory survey results described above suggest that the more importance that hotel properties place on external and internal factors of consideration the more financially successful their revenue management decision making process and subsequently their REVPar performance will become.

This perspective is supported from the revenue management experts that were interviewed for the purposes of this study. Additionally, from the research that was conducted it is evident that the Canadian hotel properties that had deployed more elements of revenue management systematically outperformed the industry average in terms of performance. For the American hotel properties, this was even more marked as the threshold for employing revenue management was considerably lower, and therefore perhaps achievement is obtained with less of an operational challenge.

This study also suggests that the Canadian hotel properties have placed greater emphasis on revenue management strategies, tactics and practice. Additionally strong relationships have been presented for the Canadian hotel properties between performance and 1) institutional affects, 2) technology, 3) human resources, and 4) revenue management being an integral piece of the strategic plan and for competitive advantage. These particular robust relationships were not evident with the American properties. This further supports the justification for this study stated at the outset- that institutional factors, which have been under-researched in this field, play a significant role in performance.

Furthermore, while regression results are not provided here as they add little statistical value, additional support is however offered that the Canadian hotel properties perhaps performed better with respect to the discipline of revenue management. For the regression model used on the Canadian hotel properties there is both a positive y intercept (constant) and affirmative slope which suggests that as the amount of revenue management activity, placing importance on various external and internal factors of consideration, increases so does performance.

Now more so than ever before hotel properties need to recognize, embrace, invest and support the development of revenue management programs, systems, strategies and tactics. Concurrently, revenue management has become a core strategic element for most of the international hotel brands. Additionally, many complimentary initiatives within the sphere of revenue management evolution and overall progress to-date are helping to shape the revenue management systems and strategies of the future.

Courseware, specific educational programs and research in and of revenue management at post-secondary institutes, as well as the investment MNC hotel brands are making into the discipline of revenue management will positively help drive and promote the future levels of sophistication and success achieved for hotel revenue management.

As identified by the revenue management experts that were interviewed for the purposes of this study, revenue management must be a planned resource for competitive advantage and included as a fundamental piece of the firm's strategic plan.

The most positive findings from this study include the importance of 1) institutional affects, 2) technology factors, 3) human resources, 4) including the discipline of revenue management as an integral component of the strategic plan and 5) the importance of leveraging the practice of revenue management as a competitive advantage.

These findings were true for the Canadian properties but not so much for the American properties. It is suggested that one of the reasons these outcomes occurred is due to the fact that the population base for the Canadian Niagara Region is quite small, at less than 450,000 yet it represents the 4th largest hotel market in Canada. To this end, and with respect to institutional and organizational affects theory the possibility exists that the Canadian hotels are being serviced by a stronger, well skilled labour pool. The hotel properties in the Canadian Niagara region are being serviced by Niagara College, Niagara on-the Lake campus, which has approximately 1,000 in session full time students engaged in hotel, restaurant, culinary, viniculture, and tourism studies each year at the diploma, undergraduate and post graduate levels. The University of Brock, located in St. Catharines, Ontario also has a 4 year undergraduate degree program in "Tourism and Environment" which carries approximately 200 students each academic year.

The most significant industry feeder school for the Niagara Region on the American side of the border is Niagara University located in Niagara Falls, New York. Niagara University with their College of Hospitality and Tourism Management offers a 4 year undergraduate degree in the following academic streams; hotel and restaurant management, sport management, and Tourism and Recreation. Therefore, looking at the Niagara Falls market from a macro perspective it is noteworthy that there is almost the same hotel population on both sides of the border yet perhaps the American side is currently being underserviced by colleges and universities with respect to grooming the labour pool to have an adequate and appropriate revenue management skill set supply for the local market. Along this tangent, the survey results from the institutional affects variables suggest that the Canadian properties place greater value on these elements in relationship to revenue management practice. At this time, both Niagara College and Niagara University are providing courseware in revenue management.

Another point of consideration with respect to the differences that occurred between the American and Canadian hotel properties is the economic climate. Economic indicators such as the unemployment rate and consumer confidence levels suggest that the Canadian economy was not hit as hard as the American economy during the period of study, May 1, 2009 - September 1, 2009.

As a possible result, and using this reasoning as a foundational construct, perhaps Canadians in general had a greater amount of discretionary income available and consequently the Canadian properties did not have to reduce their room rates as dramatically as their American counterparts did in response to the significant decline in demand and the observed self-perpetuating negative competitive behaviour in response to deteriorating market conditions. The general tenants of this proposition are supported by the research data obtained from this study as well as the STR data.

To this end, it is recognized that room rate reduction took place quickly in the United States as a reaction to external environmental factors and this ultimately had a negative impact on ADR and of course performance scores.

Theoretical and managerial implications

In the past various studies have looked at how external factors may have an impact on hotel performance. Yet no studies have been conducted to-date that analyze how a combination of external and internal factors influence revenue management activities and contribute to overall operational performance as measured by performance scores.

Further, some other research studies have been undertaken that examine the affect different internal resources, such as human capital and technology have on the performance of a revenue management program and/or system. However and as previously identified, at this time no other research work has examined revenue management in an international context, or within a border cities environment, or as in a cluster and strategic group setting. Accordingly, the findings of this study help to broaden the study of revenue management by including an examination of external and internal factors of consideration within an international cluster context.

Specifically this research study supports the institutional theory work of Scott, 2003, Greenwood & Hinings, 1996 and Dacin, 1997 in which it is observed that the Canadian hotel properties have evolved and adapted within a highly competitive environment while concurrently demonstrating a need to promote and hold adequate room rates as well as achieving sustainable occupancy values which will and did ultimately result in acceptable performance.

Hence, with respect to the utility of institutional effects on revenue management performance, hotel properties should be actively engaged in government relations, professional associations, monitor customer preferences and technology trends. Additionally, senior management and those involved in the revenue management decision making process should attend industry related conferences and subscribe to relevant trade publications.

Furthermore this research study also supports the need for technology to be treated as a priority element in order to attain successful revenue management as presented earlier by Baker & Collier, 2003, Boyd & Belegan, 2003, Rust & Chong, 2006, and Squires, 2008. The technology component of hotel revenue management is an imperative with respect to driving REVPar performance and responding to changing market conditions with both speed and precision. Therefore, hotel companies must recognize the value proposition that technology offers and in particular emphasis by the hotel operator must be placed on the revenue management system with solid forecasting, inventory allocation, pricing, market distribution, and customer relationship marketing models/modules in place.

Likewise the human resources element in revenue management cannot be discounted. As identified by the work of Erdly & Kesterson-Townes, 2003, Kimes & Wagner, 2001, and Crystal, 2007 the contribution made by the technology to revenue management should be augmented and enhanced by the human element to achieve optimal revenue management performance. To this end, it would be pragmatic for hotel operators to ensure every effort has been made to hire staff members who have some working knowledge of revenue management. Ideally every single member of the hotel team has an understanding of his/her role with respect to revenue management and what types of activities they should be engaged in on a daily operational basis to help steer the hotel property towards revenue generation success.

Conclusively and as supported in the literature by many (Crook, Ketchen, and Snow, 2003; McGahan and Porter, 1997) hotels must embrace revenue management and weave the discipline into the very fabric of the firm's strategic game plan in order to enhance the possibility of gaining a competitive advantage in a very competitive environment.

Along this tangent and as identified earlier, hotels that are competing within a cluster setting such as Niagara Falls do so on the basis of price (Rohlfs and Kimes, 2007), market segment (Karadag and Kim, 2006), and location (Sharma and Sneed, 2008).

Accordingly the hotels that are members of the competitive set found within the Niagara Falls market on both sides of the border require additional resources. The practice of revenue management strategies and tactics, to create separation from their rivals and to, at the end of the day, gain competitive advantage should be treated as an imperative and not just a desirable action plan.

Limitations

This study was somewhat limited with respect to the respondents on the quantitative research piece. First, it would have been ideal if all respondents were of the same job capacity, (for example, General Managers only) instead of having a mixed array of personnel participating in the completion of the on-line survey instrument. Second, given a small potential study population to begin with, it would have been beneficial to have a higher participation rate than the 72% that was achieved.

Third, this study looked at hotel operational performance for a very specific time frame of one year where macroeconomic conditions following the 2008 crisis may have had significant impact on operating environment and other factors. Given the current period of challenges faced by the global economy, the results might not necessarily translate to a more normal, growing economy.

Finally, this study did not look at the hotel properties with respect to market class or service category. That is this study did not look at the specific service levels of the hotel properties (for example, economy versus limited service versus luxury brand, etc) which is of great interest from an ADR, occupancy and performance perspective.

Directions for Future Research

Opportunities for future research from this study are abundant but there are five recommendations that resonate strongly at this time. They are as follows and are not presented in order of priority.

First and as identified above, looking at specific hotel categories/class and how their respective performance would be beneficial to see, especially within a difficult economic climate context, which hotel categories or brands performed best.

Second, given the negative slope that existed with the American properties it would be advantageous to survey the American properties once again during a robust economic period to see if the negative slope is replaced with a positive one and if so to what degree?

Third, it would be of value to gain a deeper understanding of what barriers exist with hotel properties that intend on embracing revenue management in an exploratory capacity or to its full potential but are challenged in their pursuit.

Fourth, moving away from an operational management or rooms' division only perspective on revenue management and moving towards a pure marketing lens on revenue management within a hotel context would be of high utility to the existing knowledge base of the discipline of hotel revenue management.

Finally, bridging this study with hotel guest evaluations or perceptions on the room rates that they were charged during their specific occupancy period would also make a strong contribution to the working knowledge base of hotel revenue management from the pricing

References

Alvarez, J., Raeside, R., & Jones, W. (2006). The importance of analysis and planning in customer relationship marketing: Verification of the need for customer intelligence and modelling. *Database Marketing and Customer Strategy Management, 13* (3), 222-230.

Bain, J. (2008). Future of revenue management - from the plane to the shelf. *Journal of Revenue and Pricing Management, 7* (3), 302-306.

Barney, J. (1991). Is the resource-based "view" a useful perspective for strategic management research? Yes. *Academy of Management Review, 26* (1), 41-56.

Beck, J.A. , Cha, J. , Kim, S. and Knutson, B.J. (2012), “The relationship between communication apprehension and satisfaction with information among lodging revenue managers”, *Journal of Quality Assurance in Hospitality and Tourism* , Vol. 13 No. 4, pp. 271-285

Belobaba, P. (1989). Application of a probabilistic decision model to airline seat inventory control. *Operations Research, 37* (2), 183-197.

Burgess, C., & Bryant, K. (2001). Revenue management - the contribution of the finance function to profitability. *International Journal of Contemporary Hospitality Management, 13* (3), 144-150.

Canina, L., Enz, C., & Harrison, J. (2005). Agglomeration effects and strategic orientations: Evidence from the U.S. lodging industry. *Academy of Management Journal , 48* (4), 565-581.

Cheng, J.-F., Chen, C.-Y., Liu, C.-C., & Jung, C. (2009). A study of management efficiency for international resort hotelsin Taiwan. *The Journal of American Academy of Business, 15* (1), 139-146.

Choi, S., & Mattila, A. (2003). Hotel revenue management and its impact on customers' perceptions of fairness. *Journal of Revenue and Pricing Management, 2* (4), 303-314.

Cleophas, C. , Yeoman, I. , McMahon-Beattie, U. and Veral, E. (2011), “The application of revenue management and pricing”, in Yeoman, I. and McMahon-Beattie, U. (Eds), *Revenue Management. A Practical Pricing Perspective* , Palgrave MacMillan, Basingstoke, pp. 9-16.

Crook, R., Ketchen, D., & Snow, C. (2003). Competitive edge: a strategic management model. *Cornell Hotel and Restaurant Administration Quarterly, 44* (3), 44-53.

Cross, R. (1997). Launching the revenue rocket. *Cornell Hotel and Restaurant Administration Quarterly, 38* (2), 32-43.

Crystal, C. (2007). *Revenue Management Performance Drivers: An Empirical Analysis in the Hotel Industry.* Georgia Institute of Technology, College of Management. Ann Arbor, Michigan: ProQuest Information and Learning Company.

Curry, R. (1990). Optimum seat allocation with fare classes nested by orgins and destinations. *Transportation Science, 24* (3), 193-204.

Dabas, S., & Manaktola. (2007). Managing reservations through online distribution channels; An insight into mid-segment hotels in India. *International Journal of Hospitality Management, 19* (5), 388-396.

Dacin, T. (1997). Isomorphism in context: the power and prescription of institutinal norms. *Academy of Management Journal, 40* (1), 46-81.

Dacin, T., Kostova, T., & Roth, K. (2008). Institutional theory in the study of multinational corporations: a critique and new directions. *Academy of Management. The Academy of Management Review, 33* (4), 994-1006.

Davern, M., & Kauffman, R. (2000). Discovering potential and realizing value from information technology investments. *Journal of Management Information Systems, 16* (4), 121-143.

Duverger, P. (2013), "Curvilinear effects of user-generated content on hotels' market share: a dynamic panel-data analysis", *Journal of Travel Research* , Vol. 52 No. 4, pp. 465-478

Erdly, M., & Kesterson-Townes, L. (2003). "Experience rules": a scenerio for the hospitality and leisure industry circa 2010 envisions transformation. *Strategy & Leadership, 31* (3), 12-18.

Forgacs, G. (2002, July 3). *Revenue management in challenging times*. Retrieved December 22, 2006, from Hotel Online: http://www.hotel-line.com/News/pr2002_3rd/Jul02_GForgacs.html

Grandy, G., & Wicks, D. (2008). Competitive advanatage as a legitmacy-creating process. *Qualitative Research in Organization and Management: An International Journal, 3* (1), 21-41.

Greenwood, R., & Hinings, C. (1996). Understanding radical organizational change: bringing together the old and the new institutioinalism. *Academy of Managment, 28* (2), 1022-1054.

Basak Denizci Guillet , Ibrahim Mohammed , (2015) "Revenue management research in hospitality and tourism: A critical review of current literature and suggestions for future research", International Journal of Contemporary Hospitality Management, Vol. 27 Iss: 4, pp.526 - 560

Haley, M., & Inge, J. (2004). Revenue management it should really be called profit management. *Hospitality Upgrade* (Fall), 6-16.

Karadag, I., & Kim, W. G. (2006). Comparing market-segment-profitability analysis with department profitablility analysis as hotel marketing decision tools. *Cornell Hotel and Restaurant Administration Quarterly, 47* (2), 155-173.

Kimes, S.E. (1989a), "The basics of yield management", *The Cornell Hotel and Restaurant Administration Quarterly*, Vol. 30 No. 3, pp. 14-19

Kimes, S. (2002). Perceived fairness of yield management. *Cornell Hotel and Restaurant Quarterly, 43* (1), 21-30.

Kimes, S., & Wagner, P. (2001). Preserving your revenue management system as a trade secret. *Cornell Hotel and Restaurant Administration Quarterly, 42* (5), 8-15.

Kimes, S., & Wirtz, J. (2003). Has revenue management become acceptable? Findings from an international study on the perceived fairness of rate fences. *Journal of Service Research, 6* (2), 125-135.

Law, R., Chan, I., & Goh, C. (2007). Where to find the lowest hotel room rates on the internet? The case of Hong Kong. *International Journal of Contemporary Hospitality Management, 19* (6), 495-506.

Lee, H.A., Denizci Guillet, B. and Law, R. (2013), "An examination of the relationship between online travel agents and hotels: a case study of choice hotels international and Expedia.com ", *Cornell Hospitality Quarterly* , Vol. 54 No. 1, pp. 95-107

Lieberman, W. (2004, April). Revenue management trends and opportunitites. *Journal of Revenue and Pricing Management, 3* (1), pp. 91-99.

Martin, A., Mactaggart, D., & Bowden, J. (2006). The barriers to the recruitment and retention of supervisors/managers in the Scottish tourism industry. *International Journal of Contemporary Hospitality Management, 18* (5), 380-397.
Mathies, C., & Gudergan, S. (2007). Revenue management and customer centric marketing - how do they influence travellers choices? *Journal of Revenue and Pricing Managment, 6* (4), 331-346.
McGahan, A., & Porter, M. (1997). How much does industry matter, really? *Strategic Management Journal, 18* (Special Issue), 15-30.
McGill, J., & Van Ryzin, G. (1999, May). Revenue management: Research overview and prospects. *Transportation Science,* pp. 233-256.
Mila, S., & Shoemaker, S. (2008). Three decades of revenue management: What's next? *Journal of Revenue and Pricing Management, 7* (1), 110-115.
Murphy, K. , Semrad, K. and Yost, E. (2013), "The impact of discounting room rates on in-house restaurant sales", *International Journal of Hospitality and Tourism Administration* , Vol. 14 No. 1, pp. 50-65
Noone, B.M. and McGuire, K.A. (2013a), "Effects of price and user-generated content on consumers' prepurchase evaluations of variably priced services", *Journal of Hospitality & Tourism Research*
Ng, I., Maull, R., & Godsiff, P. (2008). An integrated approach towards revenue management. *Journal of Revenue and Pricing Management, 7* (2), 185-195.
Ng, I. and Yip, N.K. (2011), "Mechanism design in an integrated approach towards revenue management: the case of Empress Cruise Lines", *The Service Industries Journal* , Vol. 31 No. 3, pp.469-482
Noone, B., Kimes, S., & Renaghan, L. (2003). Integrating customer relationship management and revenue management: A hotel perspective. *Journal of Revenue and Pricing Management, 2* (1), 7-21.
Noone, B.M. and Hultberg, T. (2011), "Profiting through teamwork: the role of the revenue management and sales functions in group revenue management", *Cornell Hospitality Quarterly,* Vol. 52 No. 4, pp.407-420.
Orkin, E. (1998). How the software estimates demand. *Cornell Hotel and Restaurant Administration Quarterly, 39* (4), 18.
Payne, K. (1997, October). *Revenue Management isn't new but it is important*. Retrieved January 13, 2007, from Hlotel Online: http://www.hotel-online.com/trends/payne/Articles/RevenueManagement.html
Phillips, R. L. (2005). *Pricing and revenue optimization (1st ed.).* Stanford: Stanford University Press.
Porter, M. (2000). Location, competition, and economic development: local clusters in a global economy. *Economic Development Quarterly, 14* (1), 15-35.
Queenan, C.C. , Ferguson, M.E. and Stratman, J.K. (2011), "Revenue management performance drivers: an exploratory analysis within the hotel industry", *Journal of Revenue and Pricing Management,* Vol. 10 No. 2, pp. 172-188.
Rigby, D., Reichfeild, F., & Schefter, P. (2002). Avoid the four perils of CRM. *Harvard Business Review, 80* (2), 10-109.
Rohlfs, K., & Kimes, S. (2007). Customer's perceptions of best available hotel rates. *Cornell Hotel and Restaurant Administration Quarterly, 48* (2), 151-162.

Sainaghi, R. (2011), “RevPAR determinants of individual hotels: evidences from Milan”, *International Journal of Contemporary Hospitality Management,* Vol. 23 No. 3, pp. 297-311

Salerno, N. (2008, February 22). *What the heck is hotel revenue management, anyway?* Retrieved March 12, 2009, from www.4hoteliers.com: http://www.4hoteliers.com/4hots_fshw.php?mwi=2805

Scott, R. (2003). Institutional carriers: reviewing modes of transporting ideas over time and space and considering their consequences. *Industrial and Corporate Change, 12* (4), 879-894.

Sharma, A., & Sneed, J. (2008, February). Performance analysis of small hotels in tanzania. *Journal of Services Research*, 83-101.

Skugge, G. (2007). Future of revenue management: Capture your current potential. *Journal of Revenue and Pricing Management, 6* (3), 241-243.

Spulber, D. (2003). The intermediation of theory of the firm: Integrating economic and management approaches to strategy. *Managerial and Decision Economics, 24* (4), 253-266.

Squires, M. (2008, June 1). Technology changes lodging workforce. *Lodging Hospitality* . Statewatch: Nevada; Wheel of fortune. (2009, February 7). *The Economist, 390* (8617), p. 29.

Sun, S., & Lu, W.-M. (2005, December). Evaluating the performance of the Taiwanese hotel industry using a weight slacks-based measure. *Pacific Journal of Operational Research, 22* (4), pp. 487-512.

Thompson, G.M. (2011), “Inaccuracy of the ‘naïve table mix’ calculations”, *Cornell Hospitality Quarterly,* Vol. 52 No. 3, pp. 241-252.

Walters, D., Halliday, M., & Glaser, S. (2002). Creating value in the "new economy". *Management Decision, 40* (7/8), 775-781.

Weatherford, L. (2004). EMSR versus EMSU: Revenue or utility? *Journal of Revenue and Pricing Management, 3* (3), 277-284.

Wernerfelt, B. (1995). The resource-based view of the firm: Ten years after. *Strategic Management Journal, 16*, 171-174.

Yeoman, I., & Morello, G. (2007). The futurology of revenue management and pricing. *Journal of Revenue and Pricing Management , 6* (4), pp. 251-252.

Appendix 1: Constructing the WERSMER scale

Each of the expert interviewees was asked to identify the relevance of the following revenue management elements of consideration, and rank the elements in terms of their importance.

1. Clusters and Strategic Groups
2. Competitive Environment
3. Institutional Affects
4. Macroeconomic Environment
5. Technology
6. Human Resources
7. Strategic Plan
8. Competitive Advantage

A scoring matrix was then developed to arrive at a weighted value which would represent a revenue management score that would be employed as a benchmark value for evaluation purposes. This scoring matrix has been labeled the "Weighted Elements of Revenue Management Systems and Resources" or the WERMSER to provide a gold bar standard, if you will, this WERMSER score would then serve as the benchmark value.

Subsequently, this benchmark WERMSER value, the new REVPar performance metric, was used to evaluate the revenue management performance for each of the property's that participated in the quantitative study.

Accordingly, the interviewees gave their assessment with respect to the importance of each revenue management element of consideration and this input was then captured, tabulated and incorporated into a weighted average value calculation to arrive at the benchmark score value. The benchmark score value that has been calculated and determined from the interviews is 3.90, or 78%, and the matrix that has been employed is provided below.

WERMSAR BENCHMARK VALUE MATRIX

Weighted Elements of Revenue Management Systems and Resources

RM Expert Survey Results	America			Canada			RM Element Score	RM Element Potential	RM Element Mean	RM Element Weight	RM Element Rank	RM Element Value
Persons Interviewed	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**						
Clusters	4	4	3	3	4	3	21	30	3.50	11.35%	5	0.3973
Competitive Environment	4	5	5	3	5	3	25	30	4.17	13.51%	3	0.5631
Institutional Affects	4	4	3	3	4	3	21	30	3.50	11.35%	5	0.3973
Macroeconomic Environment	3	3	3	3	4	4	20	30	3.33	10.81%	6	0.3604
Technology	5	5	4	5	3	5	27	30	4.50	14.59%	1	0.6568
Human Resources	4	3	4	2	5	3	21	30	3.50	11.35%	5	0.3973
Strategic Plan	3	5	4	4	4	4	24	30	4.00	12.97%	4	0.5189
Competitive Advantage	3	5	4	4	5	5	26	30	4.33	14.05%	2	0.6090
TOTAL SCORE	30	34	30	27	34	30	185			100%		**3.9000**
Total Potential Score	40	40	40	40	40	40						
Percentage Score	75%	85%	75%	68%	85%	75%						**78%**
American RM Expert Average	78%											
Canadian RM Expert Average	76%											