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Industry Insight.....

REVENUE & INVENTORY OPTIMIZATION – THE NECESSARY EVOLUTION OF REVENUE MANAGEMENT

Amy Gregory

For nearly three decades revenue management theory and practices have been adopted by the lodging industry resulting in drastic improvements in inventory optimization and revenue generation. The introduction of revenue management into mainstream business occurred with the deregulation of the United States airline industry with the passing of the Deregulation Act of 1978. This deregulation allowed the airline industry to implement variable pricing strategies to improve the overall yield, an established airline industry statistic representing revenue per passenger mile, for individual flights. The success of the improvements was in part due to the extensive reservation databases and historical data contained therein. Analyzing historical booking patterns and applying dynamic pricing strategies that included implementation of rate restrictions and variable pricing at the market segment level, catapulted the industry into uncharted territory that proved financially rewarding. American Airlines reports that their initial adoption of revenue management techniques and data analysis generated more than approximately \$500 million in revenues annually.

With this deregulation and to further improve their reach, airlines shared their reservations systems with third parties who could extend access to consumers beyond the direct access previously experienced. Soon after, these airline-based global distribution systems were adopted by lodging companies, most notably Marriott International, as an indispensable means to put forward and control variable priced, perishable inventory to identified market segments, i.e., business and leisure travelers, in order to increase revenues. It has been reported in company

financial documents, the news media and academic publications that Marriott's adoption of the original airline technology resulted in an increase in revenues to the tune of nearly \$200 million.

Traditionally speaking, the success of revenue management lies in the practice of examining historical data related to inventory availability within the individual company, as well as the greater market place, prices paid, booking windows, reservation restrictions, and more recently the bundling of additional products and services along with the core product purchased. Advanced algorithms applied to historical data could then provide insight for strategic recommendations regarding inventory allocation and pricing strategies to optimize revenues in the future. Therein lies the problem and the opportunity – revenue management practices depend on history. And while it could be argued whether history repeats itself, there are certainly limitations in relying on historical data.

Ceteris paribus – all things being equal – An ideal state for economic study, but not all too often repeated in the day to day we experience. A variety of factors can impact a destination, a market, a hotel, a restaurant, or a local attraction. There are changes in inventory levels. Inventory is taken out of service for repair, refurbishment, or repurpose. A new competitor enters the market either through development of a new location or acquisition of an existing location. Destinations also evolve or decline dependent upon other development within the market or among competing markets.

Strategy shifts – As revenue managers attempt to optimize inventory and the revenues associated, year over year shifts in strategy to attract or capitalize on a particular customer set or market segment can lead to strategy shifts. In addition, these strategy shifts may not be completely voluntary. Recent business practices leading to abuse of power within formerly credible organizations, such as Enron, created a crackdown on corporate spending that surpassed

individual organizations and led to a reduction in corporate business travel forcing organizations that were formerly dependent upon business travel to adopt a leisure oriented strategy as business meetings waned. On the heels of this, economic uncertainty further fanned the flames of corporate and government cutback resulting in a further decline of this segment. Often times these strategy shifts or reactions are not fully documented and a review of historical data out of context could lead to erroneous assumptions and recommendations.

Unforeseen Circumstances or Events – Events such as September 11, 2001 cannot be predicted and rarely repeat themselves. Unlike natural disasters which often come with some form of advanced warning for impact and duration, the attack of September 11th came without warning and the impacts devastated the lodging industry as Americans were leery of flying, if not traveling away from home altogether.

Data Mining – In the desire to capture as much data as possible, it becomes difficult to know what data to consider or what data is relevant. Revenue management and inventory optimization relies on in depth analysis of historical trends and emerging opportunities. From this information, revenue management teams can forecast optimal inventory use. However, trends take time to develop and mis-focused analysis or getting lost in irrelevant data can be costly. Similarly, focusing primarily on tactics that were successful in the past may unknowingly overlook emerging trends or opportunities for strategic development.

Measuring Demand – With ongoing improvement of technology to assist consumers in self-education, measuring demand becomes more difficult. Historically arrivals to a market, market share of the competitive set, market wide occupancies, and reservation system turn downs have allowed revenue managers to determine demand within some level of certainty.

Dynamic pricing initiatives are well understood and sought out by consumers resulting in cancellations and rebooking often times with the same service provider.

The Science of Pricing – It is debatable whether revenue management is a science or an art, and revenue managers likely agree that it is a little bit of both. In the end, the revenue targets must be achieved, so a base of business is built at a price that is reasonable based on historical data. Once a comfortable level of revenue “on the books” is established and booking trends appear to support historical trends, the art emerges. Revenue managers constantly adjust rates to see what the market might bear. Rates are enhanced with bundled services or amenities in order to increase the average rate by capitalizing on consumers’ perceived value. Rate increases or restrictions, such as length of stay, are also tested on new or existing market segments to determine if a new base rate can be established. Finally, total customer worth is explored to determine if a certain customer segment should be targeted based on the ancillary revenues that are generated beyond those related to the core product consumed.

Historical data and analytical models utilizing that data certainly have a role in revenue management. However, in order for revenue management in the hospitality industry to move forward, the practice must move beyond the tactical reactions to historical data and focus on a strategy that optimizes inventory and revenue rather than merely managing it. Optimizing inventory considers all the aspects of the inventory, understands where value lies, and prices accordingly. At the core of this optimization is the knowledge and understanding of consumer-perceived value and a strategy that recognizes all inventory or aspects of the inventory that can or should be monetized. If revenue managers can understand where consumers place value and how much consumers are willing to pay for certain product features, as well as they have

understood historical trends, the practice of revenue management will evolve to the science of revenue optimization.

Amy Gregory is Vice President – Revenue & Inventory Management, Marriott Vacation Club International. She is responsible for optimizing the overall value for resort projects as measured by the business (NPV, IRR, EPS, cash flow, etc.).