

Revenue Management in the Hotel Industry

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INTRODUCTION

Yield management, the precursor to revenue management (RM), has its origins in the North American airline industry and can be defined as an intelligent approach to the dynamic reservation control and pricing of a perishable asset across customer types (Baker & Collier, 2007). The basic idea was to adjust airfares in order to bring demand in line with the capacity for a given flight. Following the deregulation of the industry in the late seventies, airlines experimented with offering a portion of their inventory at lower prices in order to ensure that planes were full, thus maximizing the revenue from each flight. As the idea of yield management was applied to other service industries, since “yield” was an airline term, the practice began to be called Revenue Management. RM is the application of disciplined analytics that predict consumer behavior at the micro-market level and optimize product availability and price to maximize revenue growth. The primary aim of RM is selling the right product to the right customer at the right time for the right price. The essence of this discipline lies in understanding customers’ perceptions of product value and accurately aligning product prices, placement and availability with each customer segment (Cross, 1997).

In addition to the airline industry, other service sectors, such as the car rental industry, the hotel industry and the hospital industry have reported revenue gains by applying RM to their businesses. The practice proved successful and RM rapidly grew to include widespread applications in a variety of other industries that sell perishable

goods. In the last decade, applications of RM have migrated from service industries to manufacturing and retail industries. In the literature, several papers reported applications of RM in various industries, including airlines (Smith et al., 1992), hotels (Bitarn & Mondschein, 1995), car rental (Geraghty & Johnson, 1997), retail (Federgruen & Heching, 1999), and air-cargo (Amaruchkul, 2007). RM began to be adopted by the hospitality industry in the mid eighties and became a standard practice in many hotels by the end of that decade.

This article examines the current literature on RM theory and practice in the hotel industry. In particular, it reviews the origins, evolution and current applications of RM. Factors that are unique to RM within the hotel industry, such as length of stay, arrival day of the week, reservation date and overbooking, are identified and a discussion on different approaches to hotel RM is included. Key factors that determine the effectiveness of the application of revenue management systems (RMSs), which include performance management, business policies and processes, integration with other departments, familiarity with RMS capabilities, management’s commitment and integration with property management systems or central reservation systems, are also identified. Finally, the paper points out future trends and possible research directions.

BACKGROUND

The beginnings of yield management dated back to 1972 when Littlewood from the British Overseas

Airways Corporation first proposed the idea that airlines aim to maximize the revenue rather than the number of passengers on each flight (Vinod, 2009). Following the deregulation of the US domestic airline industry in the 1970s, competition from new charter airlines, PEOPLExpress in particular, threatened the survival of established carriers (Vinod, 2009). American Airlines (AA), led by CEO Robert Crandall at the time, responded to the threat posed by new carriers offering exceptionally low prices by implementing a yield management system (Haley & Inge, 2004). Yield management systems allocated a certain number of seats on each flight, which would have otherwise flown empty, to be sold at deeply discounted prices (Cross et al., 2009). This allowed American Airlines to effectively compete against the new charter carriers and put PEOPLExpress out of business.

There are two important aspects that made yield management so effective. Firstly, only a small number of tickets were offered at deeply discounted prices while the rest were sold at regular higher prices (Cross et al., 2009). Secondly, yield management segmented the market by putting restrictions on the lower priced tickets (such as 21 day advance booking requirements) to ensure that these tickets, typically bought by the price conscious leisure traveller segment, were not purchased by the time-sensitive business traveller segment, who still paid full price (Haley & Inge, 2004). In addition to using advance booking requirements, other mechanisms can also be applied to segment the market, both in the airline as well as in other industries. These mechanisms include: customer characteristics (seniors vs. others), sales channel (“clicks” vs. “bricks”), and product differentiation (Dickson & Ginter, 1987). When a market segmentation mechanism is identified and is in place, various conditions and restrictions can be implemented to maintain the separation of the price categories. Devices, such as limited information, prolonged purchase processes and early purchase and refund penalties, will “fence” customers into different market segments and make it difficult or time consuming

for them to migrate from one market segment to another. A “fence” is a device that is designed to preserve market segmentation and limit spillover between segments (Zhang et al., 2010).

During the early years of airline deregulation, AA and other airlines developed more sophisticated yield management systems supported by improved technology (Cross et al., 2009). In the newly deregulated market airlines increasingly shifted their primary focus from selling occupancy (the maximum number of inventory units or seats) to maximizing overall revenue by monitoring yield (revenue per available seat on the aircraft) (Wang & Bowie, 2009). Robert Crandall had called yield management the “single most important technical development in transportation management since we entered the era of airline deregulation” (Cross et al., 2009). Its advantages were also recognized by the competition because RM can be an immensely powerful tool. It is therefore unsurprising that it generated a great deal of interest and soon began to be adopted in a wide range of industries including hotels, restaurants, car rental companies and, more recently, spas and manufacturing firms (McGuire & Pinchuk, 2009; Cheraghi et al., 2010). As the practice evolved and began to be applied beyond the airline industry it came to be known as RM.

Marriott International was one of the first hotel chains to adopt RM practices in the hotel industry. Marriott’s interest was spurred a chance discussion between CEO J. W. “Bill” Marriott and Crandall from AA in the mid 1980s (Cross et al., 2009). Along with Marriott other early adopters included Holiday Inns Worldwide (now InterContinental Hotels Group), Hilton Hotels Corporation and ITT Sheraton (Haley & Inge, 2004). RM has been as successful in the hotel industry as in the airline industry (Wang & Bowie, 2009). Revenue gains in hotels implementing RM practices are typically in the range of 2 to 7 percent (Chase, 1999; Hanks et al., 1992; Jain & Bowman, 2005) without significant capital expenditures, which in some cases results in a 50-100 percent increase in profits (Avinal, 2004). In the case of Marriott International

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