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HOTEL REVENUE MANAGEMENT: THEN, NOW AND TOMORROW

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ABSTRACT

Contrary to the practical application of revenue management (RM), its theoretical definition has remained virtually unchanged. Today's data-driven approach to RM forms an integral part of management and clearly contributes to the financial performance of hotels. Its growing importance and the shifting balance between art and science in RM decision-making is only partially supported by changes to its underlying process. Additional tasks place new demands on the required competences and fight for priority with the core responsibility of optimising (overall) revenue potential. This paper provides a brief historic overview of hotel RM and outlines and discusses its current state as well as future challenges.

KEYWORDS: revenue management; people and decision-making; processes and procedures; system integration and technology

INTRODUCTION

Inspired by the success of yield management in the airline industry (Forgacs, 2010), the hotel industry started to apply revenue management (hereafter RM) in the late 1980s, because its products shared many similar characteristics such as perishability, fixed capacity, and the need for segmentation based on customers' levels of price-sensitivity (Weatherford and Bodily, 1992). Since hotel RM is typically performed from a purely operational and tactical level (Westermann and Lancaster, 2011), its definition has remained virtually unchanged and still pivots around the 'art and science' of allocating capacity and prices to customers to optimise revenues (Cross, 1997; Jones, 1999; Kimes, 2004; Talón-Ballestero and González-Serrano, 2013). We argue, however, that for hotel RM to work at its full potential, it must be anchored in the firm's strategy, because its decision-making process affects wider parts of the entire organisation (Kimes, 2008). Subsequently, management should assign more responsibility and authority to revenue managers and rethink the importance of their roles within the organisation (De Vries and Pak, 2011). In the past, revenue managers often climbed through the ranks from a reservations background, typically reporting to the sales and marketing manager, however, today's demands require a more strategy savvy profile at equal levels with sales and marketing directors (Ferguson and Smith, 2014). This paper provides a brief historic overview of hotel RM and outlines and discusses its current state as well as future challenges.

A (VERY) BRIEF HISTORY OF HOTEL REVENUE MANAGEMENT

Before RM became established in the hotel industry, the setting of rates for hotel rooms lacked a systematic approach and the common practice of discounting resembled negotiation tactics found in a "flea market or used-car lot" (Hanks *et al*, 1992). Whilst it was (and often still is) quite common to reduce rates in order to stimulate business during periods of low demand and to restrict the availability of discounted rates in periods of high demand, it is really the way and regularity in which rates are changed that defines hotel RM (Relihan, 1989). In addition, the practice of price discrimination has been a standard topic in textbooks and micro-economics for many years. Championed most dominantly by Marriott Hotels, hotel RM was initially aimed at selling a restricted number of rooms at discounted rates while saving sufficient rooms for higher-paying guests. Yet, due to increased competition and the steady growth of the number of hotel rooms, supported by technological developments, RM became more systematically focused on the optimisation of balancing fluctuating demand with fixed supply, a practice that became known as capacity management (Klassen and Rohleder, 2002).

The first generation RM systems relied heavily on historic data to forecast (unconstrained) demand, in order to optimise the availability of products. Hotels started to cluster their customers according to the same criteria used by airlines and to segment them based on price sensitivity (Smith *et al*, 1992). Input came also from hospitality researchers, who became increasingly (yet often exclusively) interested in the technical aspects of RM such as forecasting, optimisation, and pricing (Lieberman, 2003). To illustrate, based on observance of booking behaviour, predictions were made about the level of price sensitivity of different markets segments and their respective lead-time. These findings informed new market segmentation techniques, which enabled hotels to offer products that could better meet the needs of more narrowly defined market segments, whilst at the same time, help maximise the return of each of those market segments (Donaghy and McMahon, 1995).

Moreover, during times of high or excess demand, the primary objective of managing capacity was to achieve the optimum business mix to fulfil the hotel’s revenue potential and reduce the probability of having empty rooms. This was realized by the introduction of booking restrictions, or fences, such as a Saturday overnight stay requirement, early booking, and a minimum length of stay that helped controlling inventory and avoiding cannibalisation of rates; i.e. customers would not be able to book at a price below their willingness to pay (Berman, 2005). In addition, hotels used overbooking as a tool to compensate for missed revenues due to late cancellations, no-shows or early departures (Toh and Dekay, 2002). Gradually, the traditional cost-based approach for setting room rates was abandoned in favour of tactics that were based on the principle that if revenue exceeds the variable costs of selling a room, revenue would be used towards covering the higher fixed costs (Kimes and Wirtz, 2015). Since this offered hotels greater flexibility and a wider range for charging different rates for the same product to different customers, the practice of pricing rooms became more competitive and dynamic and greater emphasis was placed on taking into account the peculiarities of each customer segment.

Nonetheless, it was clearly the Internet that has dramatically changed the way in which hotels now communicate their prices and product availabilities. New players entered the market, providing customers with an increased transparency for comparing products (O'Connor, 2001; Carroll and Siguaw, 2003; Yeoman, 2011). Both products and prices were traditionally published by brick and mortar travel agents and updated on a yearly basis, but the Internet enabled hotels to update the availability of products and prices in real time via global distribution systems (GDS) and online travel agents (OTA) (Emmer *et al*, 1993). Though, these technological advancements and alternative types of booking channels meant more costs for hotels and a more complex optimisation process, because the power for setting rates is at the moment with the online travel agents such as Booking.com and Expedia, forcing hotels to monitor and control a myriad of booking channels in a rapidly changing environment. Today, hotel companies continue to fight these online intermediaries and seek to direct customers to their own brand channels (Gilbert *et al*, 2005), but many still fear the market power of these online intermediaries.

CURRENT STATE AND FUTURE CHALLENGES OF HOTEL REVENUE MANAGEMENT

In an earlier contribution, we have analysed the academic and popular literature on RM (Josephi *et al*, 2014) and asserted that the dominant focus of interest has been on quantitative techniques that can be used to improve the technical aspects of hotel RM (Jones and Hamilton, 1992; Jauncey *et al*, 1995; Hansen and Eringa, 1998; Jones, 1999; Emeksiz *et al*, 2006; Noone *et al*, 2011), including data analysis, forecasting, pricing, and optimisation (Collins and Frydenlund, 2014). In contrast, social drivers like organisational culture, strategy and resources that are important for the long-term success of RM, have been largely ignored (Lieberman, 1993; Jones, 1999; Queenan *et al*, 2011). Whilst the daily operational practice of RM shows a rather non-linear and complex process, the one-sided interest in the quantitative aspects of RM led to the belief that RM follows a linear process, depicting forecasting, capacity management, price optimization, distribution and evaluation as successive steps.

Moreover, because of technological advancements and the increasing availability of customer and competitive data, revenue managers now have access to large volumes of internal and external data to inform their decision-making. These new data sources, such as customer reviews, competitor prices, and benchmarking figures, enable hotels to make more accurate estimations on price elasticity and have caused a shift in focus from capacity management to price optimization, which means that instead of allocating a number of rooms that can be sold to specific market segments, the focus is now first and foremost on determining the right price level for each room (Noone *et al*, 2011).

The future of RM is clearly moving towards more integrated total revenue management (TRM) systems, considering all revenue streams in a hotel. To illustrate, the decision to accept or reject business should be based on its total contribution, for which data about all of the hotel's revenue streams should be analysed. Whilst the industry empathically describes TRM as one of the most important developments in the last five years, current industry practice, however, shows that hotels still manage their revenue streams in an isolated manner. One of the reasons for this isolated treatment of revenue streams may well be the fact that hotels lack computerised tools that could support integrated RM decision-making (Wang *et al*, 2015). Moving to a fully integrated TRM system, however, requires that revenue managers have access to such computerised tools in order to be able to handle the increasingly complex decision-making process that now also includes performance indicators like total revenue per available room (TRevPAR) or gross operating profit per available room (GOPPAR) (Kimes, 2011). In addition, the need for a further integration of hotel systems is also apparent in the multitude of data sources revenue managers need to consider to inform RM decision-making. Technological advancements will help to merge this ever-growing volume and variety of internal and external data into one interface, enabling revenue managers to swiftly interpret and synthesise this data and be able to react to instant changes in the marketplace. Finally, revenue managers must also be given more authority and autonomy to oversee all revenue streams in a hotel or hotel chain, which should be reflected by a more senior position in the organisational structure, reporting directly to the general manager.

Hotel managers often point to the uniqueness of their product for explaining (some of) the issues faced during the implementation of RM. Nonetheless, experience has shown that the road towards successful implementation of RM in different organisations follows the same process that is often paved with similar challenges. We have witnessed that company size is often linked to the number of (financial) resources a hotel can or is willing to allocate to its RM and, as such, hotel operators will most likely make different choices depending on their respective organisational DNA and the market conditions in which they operate. Therefore, successful real-life hotel RM is dependent on the deployment and combination of people, technology, and the organisation itself (Hendler and Hendler, 2004) and if we want to develop theories and methods that have relevance and applicability, we have to consider RM as it is experienced by revenue managers in their life-world.

CONCLUDING REMARKS

Modern revenue managers are expected to be analytical and technology savvy problem-solvers, result-oriented leaders with a strategic mind-set, and be able to communicate effectively with different stakeholders (Kimes, 2011). The traditional 'hotel background' is no longer a prerequisite, because the process of setting the right rates at the right time is very much comparable to other (non-hospitality) products and demands, proficiency in mathematics and econometrics rather than proof of 'having survived' a tough hospitality apprenticeship under the auspices of a demanding manager. Even though the balance between the art and science of RM is gradually shifting towards more science and technology, due to data that increases in volume, variety, and velocity by the minute (Davenport, 2013), the revenue manager will remain - perhaps more than ever before - the indispensable final decision-taker in an increasingly complex decision-making process (Ferguson and Smith, 2014). Both industry and technology suppliers started to recognise this shift and realize the need for better technology that can enable revenue managers to optimise several revenue streams in an integrated manner, considering live online data and multiple distribution channels.

Based on our experience in the industry and in educating hotel executives, it seems that hotel RM slowly but surely overcomes the traditional silo structure still prevalent in many hotel organisations and starts to blur the borders between the functional units of sales, marketing and RM. We believe that by merging these three functional units into a demand management department with clear processes, procedures and an intelligent performance evaluation system that distinguishes between price, volume, science, and art (see Bititci *et al*, 2012), we can develop new exciting job profiles that may (re-)attract experts to our industry that, for too long now, has applied a fatal cost and competitor focus rather than a customer and value-adding focus (see Stierand and Sandt, 2007). As such, future avenues for research should explore the role of automation and human judgement in RM decision-making in line with the shifting balance between the art and science of RM. Furthermore, the organisational implications of the introduction of a dedicated demand management department should be further investigated. For this, we need to know much more about the specific requirements and boundaries for the implementation of such a department, in order to create a better understanding of the consequences this harmonisation has for the role, responsibility, and expertise of the traditional functional units of sales, marketing, and RM.

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