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Final internship report

Revenue Management: An internship at NH hotels



UNIVERSITY OF ALGARVE

Faculty of Economics

2019

Coversheet

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A60173

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Revenue Management: An internship at NH hotels

Masters in Tourism Economics and Regional Development

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Faculty of Economics

2019

Authorship statement

Revenue Management an internship at NH Hotels

Work Authorship Declaration

We declare to be the author of this work, which is unique and unprecedented. Authors and works consulted are properly cited in the text and are in the listing of references included.

Jelmer van der Meijden

A handwritten signature in blue ink, reading "Jelmer van der Meijden", written over a dotted horizontal line. The signature is stylized and extends to the right with a long horizontal stroke.

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SUMMARY

This document reports my experience as an intern at the revenue management department of NH hotels. Throughout this six-month internship, two revenue managers were supported with their daily task for a total of seven hotels. The objective of the internship was to see how NH hotels is optimising its revenue stream by analysing what kind of tools its revenue management team are using, as well as what activities they are performing.

This report also offers a brief summary of the relevant literature on revenue management. Reviewing the extant literature was pivotal to ensure my internship's success. In fact, knowing about the key papers, authors and results on revenue management helped me prepare to face what was coming from a practical standpoint.

I derived two main conclusions from this internship. First, as suggested by the literature, I now strongly believe that, in order to maximise revenue, hotels must use their scarce resources effectively, which suggests moving away from mass prices and marketing and instead concentrating on tailor-made offers to their customers. NH hotels is accomplishing this using Duetto's open-pricing principles to offer the optimal price to match each segment's willingness to pay. Second, there seems to be a gap between theory and practice regarding what concerns revenue management. In particular, NH hotels generally complies with the revenue management process as described by Ivanov (2014). Theoretically speaking, however, such process is described as an order of steps that the revenue management team should continuously perform, when in practice, we see that such steps are intertwined and often done performed at the same time.

RESUMO

Este documento reporta a minha experiência enquanto estagiário na área da gestão de rendimento na cadeia de hotéis NH. Tive a oportunidade de passar seis meses nesta posição, apoiando directamente dois profissionais desta área que estão encarregues de gerir sete hotéis do grupo. Durante o estágio tive a oportunidade de acompanhar todas as tarefas diárias e assim verificar de perto a forma como uma das maiores cadeias internacionais leva a cabo a difícil tarefa de otimizar o fluxo de rendimento gerado pelo negócio hoteleiro. Cumulativamente, tive a oportunidade de aprender a manusear os diferentes sistemáticos em utilização pelos hotéis NH e, com isso, verificar a complexidade inerente a este tipo de tarefas.

Para além do reporte das acções levadas a cabo durante o estágio o presente relatório também fornece um breve enquadramento teórico da área ligada à gestão de rendimento no sector hoteleiro. Na verdade, esta foi uma peça fundamental para o bom desenvolvimento do estágio já que me permitiu adquirir um nível de conhecimento prévio bastante relevante sobre o que poderia esperar do contacto com a realidade.

A realização do estágio levou-me a duas conclusões fundamentais. Primeiro, em linha com o proposto pela literatura, é fundamental para o negócio hoteleiro utilizar uma estratégia de gestão de rendimento que se foque na especificidade dos clientes em detrimento de uma visão global e não segmentada da sua procura. Esta é precisamente a filosofia seguida pela cadeia NH e implementada com base em sofisticados sistemas informáticos. Segundo, parecer existir uma diferença considerável entre o proposto pela teoria e a prática no que toca à gestão do rendimento no sector hoteleiro. Em particular, apesar da cadeia NH seguir de forma genérica o postulado por Ivanov (2014) nesta matéria, a realização do estágio enfatizou que o processo é bem mais complexo do que a realidade muito organizada que parece ser prescrita pela generalidade dos autores académicos que se debruçam sobre o tema.

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Abbreviation

TMS	Travel management system
ERP	Enterprise resource planning
PMS	Property management system
GSO	Group sales office
OTA	Online travel agency
ADR	Average daily rate
ARI	Average rate index
MPI	Market penetration index
RGI	Revenue Generation index
REVPAR	Revenue per available room
RM	Revenue Management
STR	Smith travel research
THRM	Total hotel revenue management
OCR	Open corporate rate
SPIT	Same point in time
RMS	Revenue management system
BAR	Best available price
BAGR	Best available group rate

1 Introduction

The following report describes the activities conducted and observed during the six-month internship at NH hotels. This report aims to analyse the activities of the Revenue Management Department of the Northern-Europe business unit within NH hotels. This report is supported by a technical background described in the literature review on the topic of revenue management.

The practice of revenue management originated from the airline industry in 1978, where the practice first appeared under the name yield management (Kimes 1989). When more industries adopted the approach, the scientific term changed within the literature to revenue management. Its importance has grown over the past few years to the point that, today, effective revenue management can make the difference between profit and loss for the bottom line. Nevertheless, a number of people and hotels continue to underestimate the importance of revenue management.

Students have three options to finish Master Tourism Economics and Regional Development: They can choose to write either a dissertation, a project work or an internship report. My choice of an internship was based primarily on the fact that this would provide me the opportunity to see what kind of career one can obtain with this Master's degree. When I heard about the contents and lectures of the Revenue Management course, my interest was piqued. With a Bachelor's in Business Economics, a Master's in Tourism, and a background as a data-analyst, a revenue management internship seemed like the obvious choice.

This report features five chapters: Chapter one is this introduction. In chapter two, the theoretical background of revenue management is described, including its history, definitions, criteria to apply revenue management, the revenue management process, and how industry leaders see its future. Chapter three details the internship at NH hotels, as well as providing a short background story of the company's history and the structure of the revenue management team. The chapter continues by analysing how NH hotels is conducting revenue management, what kind of systems they work with, and which activities they perform. The fourth chapter consists of a brief self-assessment regarding the internship and the final chapter consists of the final conclusions.

2 Theoretical background: Essentials

This chapter presents the theoretical underpinnings of revenue management. The first section describes its history, links to the airline industry, the different definitions presented by well-known researchers, and the criteria necessary to apply revenue management. The second part analyses the steps of the revenue management process. The chapter ends with a review of how the industry foresees revenue management's future.

2.1 Introduction to revenue management

2.1.1 History of revenue management (yield management)

Today, revenue management represents a commonly used practice in various industries, such as the hotel industry, amusement park industry and car rental industry. However, its origin resides in the airline industry, where it became known under the name yield management. Yield management concerns providing the right type of capacity to the right kind of customer at the right price to maximise revenue or yield (Kimes 1989).

This all began when the United States Civil Aviation Board deregulated airline prices in 1978. This change caused the large established airline carriers to invest heavily in developing computerised reservation systems and global distribution systems. At the same time, low-cost carriers entered the market with prices far below the established airline carriers, thus creating a shift in the demand within the price-sensitive leisure travellers segment. In an effort to recapture this segment, major airline carriers had to compete with these low fares (Cross 1997). To this end, American Airlines determined that they were able to compete by offering their surplus seats for lower fares. To determine how many seats they could sell for a discounted price, they had to invent a new system. Thus, in 1985, the company introduced the Dynamic Inventory Allocation and Maintenance Optimiser system, also known as DINAMO. As the first large-scale revenue management system, it could automatically control the amount of discounted fares offered and immediately match offers from other airline carriers (Ryzin / Talluri, 2004).

Yield management can be applied in a business if certain conditions are met—namely, when tactical demand management is important and when the technology and the management culture allow its implementation (Ryzin / Talluri, 2004). An industry where tactical demand management is important possesses the following characteristics: The capacity is mostly fixed, the demand market can be segmented, inventory is perishable, products are sold long before they are consumed, demand is highly volatile, and firms

face low marginal sales costs, but also have to deal with high marginal capacity costs when expending their total capacity (Kimes 1989).

The first company in the hospitality business to see the usefulness of yield management was Marriott International in the mid-80s. They realised that they faced the same problems balancing their supply and demand as the airline industry did. Yield management became part of their standard operation in most hotels from the late 1980s onwards. Because both industries faced similar situations, such as the relatively fixed capacity of perishable assets that were sold in advance (Kimes 1989), the first systems the hotel industry adopted strongly resembled those employed by the airline industry (Cross / Cross / Higbie 2009). At same time, however, the hotel industry possessed two critical factors that the airline industry lacked. The first major difference is that the duration of a guest's stay at a hotel can vary, while the typical airline customer requires only a specific flight. Furthermore, hotels earn a significant amount of revenue by selling food and beverages, which was not case for the airline industry in the 90s. These differences made yield management more complex for the hotel industry. After the hotel and other industries began using yield management, the term evolved to revenue management (Cross 1997).

2.1.2 Definition of revenue management/characteristics

The literature on revenue management has grown quickly in recent years, but there remains no consensus regarding its precise definition. One of the definitions of revenue management was developed by Cross (1997):

'Selling the right product to the right customer at the right moment at the right price'.

Since 1997, revenue management has changed considerably due to automatisation and especially the Internet, so Landman (2011) added the following to Cross's (1997) definition:

'On the right distribution channel with the best commission cost'.

A similar view was presented by Enz and Withiam (2001), who defined revenue management as follows:

'To match customers' time and service characteristics to their willingness to pay—ensuring that the customer acquires the desired service at the desired time at an acceptable price, while the organisation gains the maximum revenue possible given the customer and business characteristics'.

Despite the lack of consensus regarding revenue management's definition, the existing ones seem to share a broad framework. In fact, they all acknowledge that, to maximise revenue, companies must use their scarce resources as effectively as possible and move away from employing mass prices and marketing; instead, they must supply tailor-made offers to their costumers based on their segmentation and willingness to pay.

2.1.3 How the hotel industry meets the criteria of applying revenue management

As mentioned previously, revenue management came from the airline industry and was later successfully implemented in the hotel industry. In fact, this industry is characterised by a number of features paramount for implementing such a management tool. One such characteristic is the relatively fixed capacity of available rooms, which cannot be extended in the short or mid-term. To create more supply, the hotel has to build a new property or enlarge its existing one, both of which entail long-term decisions (Bungart 2006). Importantly, creating a marginal (one extra) room increases fixed production costs for the hotel and, to some extent, variable costs like maintenance and cleaning. A second important characteristic is that hotel room-nights fall within what is considered a perishable good. These are goods that possess an expiration date, after which their value becomes zero (Nahmias 2011). Thus, the moment the night has passed and the room-night is still not sold, this room-night will be lost forever, making the value of this room-night zero (Kimes 1989). The hotel industry can and usually does sell its products in advance. This practice helps reduce uncertainty regarding the number of guests arriving at any given day. The demand for rooms is generally volatile, contingent on the year, month and even day of the week. By applying revenue management, hotels can decrease their prices during low seasons to capture more occupancy and increase their prices during high seasons and peak days. The last criteria mentioned by Kimes (1989) that needs to be met to apply revenue management is segmentation. The guests staying at hotels possess different booking behaviour, and thus can be segmented into different groups. An in-depth discussion of this important topic is presented in sub-section 2.2.2.

2.2 Revenue management applied in the hotel industry

2.2.1 The revenue management process

The revenue management process describes the revenue managers' actions at the strategic, tactical and operational level to optimise a hotel's total revenue. Ivanov (2014) distinguished the following stages in implementing this management tool: segmentation, analysis, forecasting demand, application of various RM tools, and monitoring and evaluation of activities. These are described in detail in the following sub-sections.¹

2.2.2 Market segmentation

All definitions of revenue management stress the importance for hotels to segment guests. Market segmentation describes the process of dividing heterogeneous markets into smaller segments so that they can be reached more effectively with products and services that match their unique needs and wishes (Kotler / Bowen 2003). Each segment tends to feature a different booking behaviour, such as the length of stay, days of the week, different lead time, chance of cancellations, and no-shows (Landman 2011).

Kotler, Brown, and Adam (2001) demonstrated that segmentation is only useful if the segments are measurable, accessible, substantial, actionable and differentiable. The proper segmentation approach can vary per hotel, but in general, it begins by examining transient costumers and groups. These two categories are then split into business and leisure guests. These four segments can be split once more into guests with dynamic or fixed prices. Further splits can be made between guests booking during weekdays or the weekend.²

The final large category that is becoming more relevant is the booking channel (Meier 2017). In the words of Landman (2011), the customer essentially has to be reached through the appropriate booking channel. This is linked with the amount of commission hotels have to pay to online travel agencies (OTAs). The usual commission fee paid to popular OTAs such as Booking.com, Expedia and Hotels.com is approximately 15% (Calder 2019). However, this type of cost can increase rapidly if, for example, hotels wish

¹ Other authors present alternative visions on the topic. For instance, Vinod (2004) points to five stages (market segmentation, demand and supply forecasting, overbooking controls, revenue mix controls, performance measurement and management reporting) while Ivanov & Zhechev (2012) identify seven steps (goals, information, analysis, forecasting, decision, implementation and monitoring).

² Annexes A Segmentation Hotel Guest p.34 Annexes A Segmentation Hotel Guest Annexes A Segmentation Hotel Guest

to gain more visibility online. Accordingly, pursuing such a costly promotion strategy requires the hotel to know which segments can be tapped via such a channel so it can target them correctly.

2.2.3 Analysis

Hotels must conduct a thorough analysis of its operations, competitors, distribution and the microenvironment they operate in. These analyses are performed on a strategic, tactical and operational level. The information gathered is needed to accurately forecast market behaviour so the revenue manager can make informed, well-considered decisions.

Strategic analysis helps the revenue manager look at the bigger picture. Usually, he or she begins with a SWOT analysis of the destination, which helps grasp the current type of supply and demand. Next, a SWOT analysis is conducted for the hotel to analyse why certain guests choose the hotel. This is performed in this order because guests first choose their destination and then start thinking about which hotel they want to stay in.

Tactical analysis focusses on mid-term trends studying, among others, the market opportunities, commissions, booking patterns and booking terms. With operational analysis, the revenue manager is mostly examining competitor pricing and room supply and demand on a daily or weekly basis (Ivanov 2014).

2.2.4 Forecasting demand

In a 1990 study of the airline industry, Lee found that a 10% increase in forecast led to a 0.5–3.0% increase in revenue on high-demand dates. For the hotel industry, accurately forecasting demand is also of utmost importance to effectively lead the hotel's operations. By knowing future demand, hotels can effectively schedule staff, purchase the necessary products in the proper quantities, ensure better cash flow and investment decisions, and perform effective revenue management (Hayes / Miller 2011).

Lee (1990) described three forecasting methods to predict the demand: historical booking, advanced bookings, and the combined method. For a particular room night, the historical booking method only considers the total number of rooms sold in the past. As such, its forecast is based on the results of last year for the same day to determine the current trend and moving average. It does not take into account the number of reservations already made for the day itself. Therefore, this method can be ill-suited for days featuring once-only events.

The advance booking method, meanwhile, only includes the number of reservations built up over time for a particular night. As such, it considers the reservations already made and the expected future reservations and cancellations for that specific day. Therefore, this method is also called the pick-up method. The combined models' method employs either regression or the weighted average of both booking methods to forecast demand (Kimes / Weatherford 2003).³

When a forecasting method is chosen, the revenue management team needs to choose what kind of information they want to forecast. The first decision that must be made is whether to forecast based on arrivals or room nights. According to Kimes and Weatherford (2003), an arrival-based forecast is more accurate, because controls and rates are often applied on guests arriving on a particular night. In a second step, one must define the level of information aggregation to be employed in the forecasting exercise. In most cases, the information is segregated by rate category, length of stay and room type (Baker / Collier 1999). Furthermore, according to Kimes and Weatherford (2003), additional decisions concern the type of data one wishes to employ (i.e. constrained or unconstrained) and how to treat outliers (holidays, unusual days and special days).

It should be noted that revenue management systems are unable to take all variables into account. Examples of such variables can be one-time-only events, competitors' prices or extra supply in the market (Song / Lin 2008). This type of data is hardly predictable by the forecasting models, and therefore, the system relies on the revenue managers' skills and expertise to improve the forecast's accuracy (Radjopadhye et al. 2001). However, there remains no consensus in the literature regarding which forecast method is best for the hotel industry.

2.2.5 Application of revenue management tools

Revenue managers possess two different instruments at their disposal for optimising the hotel revenue stream—price and non-price instruments—both of which are discussed below.

³ Annexes B Forecasting Methods (Bandalouski, 2015) p. 35

Price instruments

The pricing strategy has been seen as one of the most important marketing mix tools directly correlating with the hotel revenues. It has been employed in numerous position models, such as that of Kotler and Armstrong (2002). The industry is utilising countless different prices for different kinds of reasons. The main reason, however, is strategic pricing, which Hayes and Miller (2011) described as matching the guest willingness to pay for a product to the right price. The hotel industry strives to achieve this using price discrimination and dynamic pricing. Price discrimination resides at the core of revenue management. It means that the hotel industry is offering different prices to its guests for the same product. To avoid the issue of guests perceiving the price as unfair, the industry introduced price fences, which detail the conditions under which specific rates are offered to the guest (Zhang / Bell 2010). This is crucial, since proper rate fence schemes help guests perceive the pricing they are paying as being fair (Kimes / Wirtz 2003). In effect, prices are differentiated based on physical characteristics, such as room type, as well as non-physical characteristics like time-based criteria (e.g. day of week or season), payment and cancellation terms. Beyond this, it also takes guest characteristics into consideration (Ivanov 2014).⁴

How high or low the revenue manager will set the price also depends on a set of additional variables. Demand is clearly an important factor, but managers also examine quality vs. value, location, sales volume and image (Ivanov 2014)⁵. Price is thus highly dynamic, and a popular pricing principle is the demand-based principle. With this, revenue managers set prices based on the current demand and occupancy levels to achieve the most optimised revenue per available room (RevPAR). The principle on its own is not new, but it only became possible to put into practice with high-speed connections and data processing. In other words, the industry needed information about the market and its own performance in real time before it could properly apply dynamic pricing (Lowry 2017).

⁴ Annexes C types of prices in the hotel industry (Ivanov, 2014) p. 35

⁵ Annexes D Factors influencing pricing decisions (Ivanov, 2014) p. 36

Non-price instruments

Revenue management also employs non-price instruments to optimise the revenue stream. These are focussed on inventory management, which mostly consists of capacity management, over-contracting, overbooking and length-of-stay restrictions (Ivanov 2014).

Pullman and Rogers (2010) identified two kinds of capacity management decisions: strategic and technical. The first includes expanding the total number of rooms, the optimal use of carrying capacity (meaning that renovations and repairs should be performed in low-demand periods) and capacity flexibility (i.e. the decision to open or close certain parts of the hotel according to demand). Tactical decisions relate to the day-to-day capacity management, such as guest arrival or departure times, cleaning schedules, and so on.

Hotels also tend to use overbooking and over-contracting to make optimal use of their installed capacity. Over-contracting is performed with distributors, such as tour operators and travel agents. Such partners have the contractual right to sell a certain number of rooms (an allotment) within the hotel, and thus, the hotel has to reserve these rooms for the partners to sell. However, in general, partners contract more rooms than they can sell, with the release time of such rooms occurring close to the expected arrival date. In response, hotels typically over-contract, which generates the risk of hotels selling more rooms than they officially have (Ivanov 2014).

With overbooking, the hotel is basically doing the same thing, booking reservations in excess of its maximum capacity. Hotels do so to reduce the risk of expected cancellations and no-shows. However, this brings the risk of increasing costs if the service has to be denied due to overbooking (Lowry 2017). Such a situation creates an overbooking cost, which features two different components. The first is the direct financial loss, which describes the cost of finding the guests an alternative accommodation. The second is damage to the brand image. Incurring this type of cost is rational, to some extent. In effect, if the hotel overbooking is non-existent or too low, and the number of no-shows and cancellations exceeds the rooms that are overbooked, then the hotel will lose revenue (Netessine / Shumsky 2002). Not surprisingly, overbooking represents an intensely researched topic in the literature due to its controversial nature from both a legal and ethical standpoint (Atherton 2002).

Length-of-stay restrictions comprise another widely used practice to help with revenue management. In fact, hotels often set a minimum number of days that guests have to stay with the hotel when accepting a booking (Ivanov 2014).⁶ This practice helps the hotel protect itself from losses during high-demand days, such as during fairs and events. For instance, if the hotel is sold out on a given day due to a special event, guests that want to book for multiple days will not be able to do so. The same practice can also aid in generating extra revenue on low-demand days occurring close to historically high-demand dates. However, there is a downside to imposing a minimum length of stay: guests wanting to book for only one day will not find results in their search engine. Moreover, in general, this restriction type only works well when the other hotels in the vicinity also apply them (Vinod 2004).

2.2.6 Monitoring and evaluation

The final step in the process involves monitoring and evaluating the achieved results. This has to be performed for all stages to check whether goals were too ambitious; evaluate whether the revenue management team's information was accurate, valid and comprehensive enough to make the right decisions; and determine whether the assumptions and models used for forecasting were realistic and useful. Importantly, the monitoring process should not only take place when the results were not achieved by the revenue management team, but also in cases where the objectives were outperformed. Something that should always be kept in mind is that the process needs to be performed in a proper and timely manner (Ivanov 2014).

2.3 Future of (total) revenue management

Revenue management is still a relatively young and changing field. Given today's fast-paced technological development, one might wonder to what extent the traditional or more old-fashioned hotel industry operators will be able to deal with these changes. As such, it seems adequate to end the present chapter with a brief overview regarding how the industry may view the future of revenue management.

⁶ It is, however, rare to see a maximum length of stay being set, a situation that is only put in practice when the hotel is closing for renovations.

Kimes (2017) surveyed 381 professionals working in or consulting for the hotel industry. One of this study's questions was, 'What will revenue management look like in five years?' A total of 66% of the respondents mentioned that revenue management would be applied to all revenue streams. This is also known as total hotel revenue management (THRM) per Noone, Enz, and Glassmire (2017) definition: *'[THRM] includes consideration of multiple revenue sources, a deep understanding of customer value, and a shift from top-line metrics to bottom-line measures to take into consideration distribution and operating costs'*.

In a similar study by Noone et al. (2017), industry leaders were interviewed to learn their thoughts on THRM. Results indicated that nine out of the 11 hotel chains included in the study already possessed initiatives for function room space RM, six were engaged in restaurant RM, and three were applying revenue management for spa or golf.⁷ Importantly, and in the same vein, the vice president of RM of FRHMI hotels reported that, *'In high-end hotels, spa, golf, and retail become increasingly important, highlighting the revenue and profit contribution that non-room revenue streams can make'*.

Both Noone et al. (2017) and Kimes (2017) concluded that implementing THRM is challenging. The main reason for this is that, even though technology is evolving quickly, there remains a lack of appropriate, accurate and integrated platforms. Thus, it is difficult to capture the customer's value, in turn restricting the ability to perform revenue management on the other revenue streams.

⁷ Annexes **Error! Main Document Only.** Non-room RM (Kimes 2017) p. 36

2.4 Conclusion

Revenue management originated in the airline industry, where it was known as yield management. The hotel industry soon adopted the same management practice since, in practice, it possesses the characteristics under which yield management could be successfully applied (Kimes 1989).

The practice, however, is not based on a clear theoretical underpinning. In fact, the literature contains no consensus regarding the definition of revenue management. Although, most authors do agree that, to maximise revenue, companies have to use their scarce resources effectively, which suggests moving away from mass prices and marketing and instead concentrating on tailor-made offers to their costumers based on segmentation and willingness to pay. Under this set-up, the modern revenue management process acts at the strategic, tactical and operational levels to optimise the hotel's total revenue. Different authors possess distinct opinions regarding how to materialise such a process, but most agree that it should be built around the following steps: segmentation, analysis, forecasting demand, applying various RM tools, and monitoring and evaluating activities.

Finally, it should be mentioned that industry leaders see the future of revenue management in applying this to other revenue streams as well, such as restaurants and function room space, which is called total hotel revenue management. However, implementing this view presents a challenge due to a lack of integrated platforms to capture the customer's value.

3 The internship

This chapter is divided into five sections and describes the internship undertaken in the revenue management area of NH hotels. It starts with a summary of the goals and main areas covered by the internship. Section two presents NH hotels, its history, portfolio, mission, vision, strategy and key figures. Section three consists of the organisational chart for the NH Revenue Department. Section five analyses how NH hotels is optimising its revenue stream. The final section contains a brief self-assessment.

3.1 Overview

The internship took place at the NH Utrecht office in the Netherlands and focussed on revenue management of the hotels of the group operating out of the West-Germany region. The internship covered a full six-month period, since this is the minimum required by companies to invest in training interns. In fact, by NH hotel policy, training interns usually takes longer, since the company keeps many of the interns when their internship period ends, while actually occurred in this case as well, since the position of revenue coordinator for the rest of the Holland region was offered.

As an intern, I was assigned to help two revenue cluster managers. One of them was Quita van Vugt, Hamburg's revenue cluster manager overseeing the following four hotels: NH Hamburg Altona, NH Hamburg Mitte, NH Hamburg Horner Rennbahn and NH Collection Hamburg City. These hotels employ a different product market strategy mix. NH Hamburg Altona features 234 rooms and is located in Hamburg's business centre. Its business mix includes corporate clients, business groups conducting meetings outside of the hotel, and business groups seeking to use meeting facilities within the hotel. NH Hamburg Mitte, meanwhile, is newly renovated, features 134 rooms, and is located next to the conference centre. It generates high demand during fairs and event days, largely serving the transient segment during non-fair days. The NH Hamburg Horner, with 176 rooms, lies next to the racehorse tracks and is a bit further off the city centre. Its demand depends on serial bookers, who provide group training in the NH meeting facilities throughout the year. The final hotel is the NH Collection Hamburg City. With 129 rooms, it positions itself as an upper-scale hotel. Its main segmentation consists of transient or corporate guests willing to pay extra for a better product.

The second revenue cluster manager was Lisanne Doensden, who is responsible for the NH Maastricht, the NH De Ville and the NH Groningen, which, although located in the Netherlands, comprise part of the NH West-Germany region's portfolio. The NH Maastricht features 275 rooms and lies next to the MECC conference centre, which enjoys more fairs and event days than the Hamburg Mitte hotel mentioned above. The NH De Ville is a small hotel (66 rooms) located in Groningen and focusses exclusively on transient guests. Finally, the NH Groningen possesses a total of 127 rooms and a business mix comprising transient and corporate guests.

Interns support their revenue managers in their day-to-day operations, namely by helping set the correct pricing strategy and closing-out or restricting unwanted segments. Other tasks entail setting up promos, checking new connections to extranets, and developing weekly or monthly reports. NH hotel policy dictates that interns should be empowered whenever possible, which results in them possessing a great deal of responsibility. In fact, during the six-month internship period, all potential tasks falling within the responsibility of a revenue manager were either learned or at least observed. Among these included analysing weekly and monthly results, examining and answering group requests, and forecasting results for the following months.

3.2 Presentation of NH hotels

3.2.1 Historical development

The story of NH hotels is one of growth, beginning in 1978 when Antonio Catalán opened its first hotel, called the Ciudad de Pomplona hotel. This hotel is situated within the Spanish region of Navarra—hence the name 'NH', which stands for 'Navarra Hoteles'. At the time, Spain was emerging after decades spent under the dictatorship of Francisco Franco, with the country entering into a period of economic liberalisation and welcoming foreign investments. Antonio Catalán saw opportunities within this new business travellers' market. His focus therefore shifted to hotels within the proximity of business centres. The first establishment fitting this new strategy was purchased only four years later when he took hotel Calderón de Barcelona into its portfolio. This represented the first establishment outside the Navarra region. Following this, more hotels were rapidly added to the group within the Madrid and Zaragoza region. A decade after opening its first hotel, NH became the leading Spanish hotel chain operating in the business travellers' market (NH Hotels 2019a).

To continue growing, NH hotels began searching for external capital, resulting in Italian company Corporación Financiera Reunida, S.A (COFIR), becoming the main shareholder in 1988. COFIR helped expand the group within the Spanish territory, which by 1993 featured 55 three- and four-star hotels. Unfortunately, in the early 90s, COFIR experienced some difficulties. This period witnessed market overcapacity, low demand due to a recession, and the start of the gulf war. As a result, COFIR suffered losses and was forced to sell off some of its properties. After a change of management, matters began to improve, and COFIR decided to stop all non-hotel investments, focussing completely on NH. At that time, the corporate name was officially changed to NH Hotels S.A. (NH Hotels 2002).

In 1999, NH directed its focus to the international market and acquired a 20% stake in Italy's Jolly hotels group. At the same time, they began buying properties in South America, primarily in Argentina, Chile and Uruguay. In 2000, the NH portfolio grew significantly with the acquisition of the Dutch Krasnapolsky hotel group. This deal expanded NH's portfolio to a total of 168 hotels, making it the third largest hotel chain in Europe. Since then, NH has continued expanding its foothold in Latin America, Africa, and especially Europe (NH Hotels 2019a).

On the 8th of November, 2018, news was released stating that the Thai-based hospitality group Minor hotels acquired 94% of the NH hotel group's equity. The Minor hotel group already featured brands such as Anatara, Avani, Tivoli, Oaks and Elewana, most of which were firmly grounded in Asia. As such, Minor hotels were able to strongly diversify their portfolio when acquiring NH hotels and now possess a vehicle that can help the different brands grow within each other's market (Businessstraveller 2018). Today, the group consists of 550 hotels spread over 77 countries.

3.2.2 Hotel portfolio

NH hotels is present in four continents and 31 countries. It operates 384 hotels or 59,602 rooms (see Figure 3.1). Its entire portfolio is structured around three business units: Northern-Europe, Southern-Europe and America (NH Hotels 2018b).

Figure 3-1 Hotel portfolio (NH Hotels 2018a)



The group possesses three different brands: NH hotels, NH Collection and NHOW. NH hotels (78%) consists of three- and four-star units and represents the group’s lower-budget option. NH Collection (21%) positions itself among the premium segment. These hotels are located within authentic and differential landmark buildings. The NHOW hotels (1%) are the group’s most exclusive hotels, located only in the major cities.

3.2.3 Mission, vision and strategy

Although the NH Group has been purchased by the Minor group, its mission and vision did not change. NH describes its vision as follows:

‘One day, whenever anyone contemplates a trip to a city for an overnight stay or meeting, for business or pleasure, they will always ask themselves, “Is there an NH hotel at my destination?”’

NH strives to offer its guests a remarkable experience that is far beyond what they expect so that, the next time they need a place to stay, they will immediately consider NH. The group aims to achieve this vision by growing globally, with highly motivated teams who have effective management tools at their disposal and are able to devise unique solutions (NH Hotels 2018a).

Figure 3.2 illustrates the strategic plan for 2017–2019 that NH hotels presented in 2016. It contains six major initiatives aiming to create value for the company.

Figure 3-2 Strategic plan NH hotel group 17-19 (NH Hotels 2018a)

Reinforce premium brands	Successful repositioning of NH Collection Greater weight in upper-upscale segment
Customer experience and loyalty	Exploit and monetize the intrinsic value of the brands Pursue maximum efficiency in media investment Improve the customer experience
Advanced pricing with focus on ADR	Optimization of channel and demand curve Open and dynamic prices Corporate, meeting and event rates
Asset management	Contract optimization Asset-light organic growth Repositioning opportunities Asset management
Efficiency in DNA	Digital transformation New operating model
Efficient cash management to reward shareholders	Growth in profit Reduction of debt

NH is one of the leaders in the field of revenue management. For this department, the strategic plan features the following priority actions: developing a state-of-art NH Revenue Academy, changing to open pricing for the corporate rates, and developing a meetings and events Quotation tool.

3.2.4 Key figures

Figure 3.3 presents the most important key indicators and financial information for the NH Group between 2014 and 2017. As demonstrated, the NH Group has been pursuing a strategy to increase the average daily rate (ADR) in order to maximise the revenue per available room (RevPar). To this end, between 2014 and 2017, the group was able to increase its ADR by 21% and its RevPar by 26% while its occupancy rate increased by only 2.1%. Notably, in the same period, the company's overall revenue grew by 24%.

Figure 3-3KPI and Financial Information NH (NH Hotels 2019b)

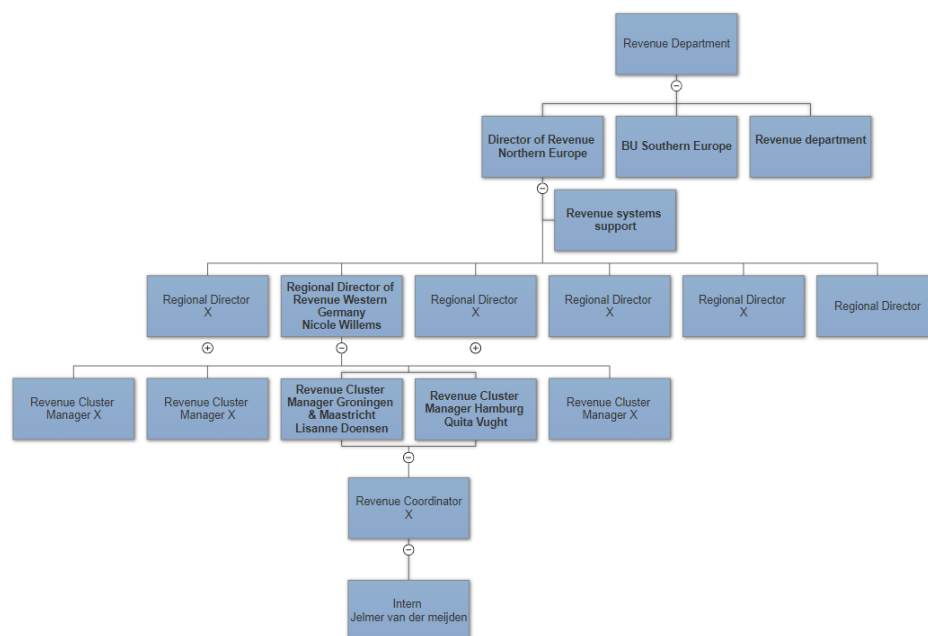
NH Hoteles S.A. - Key Indicators	2017	2016	2015	2014
€ million (except stated otherwise)				
KPI(1)				
Average Rooms	44,589	44,718	42,617	43,460
Occupancy	70.8%	68.4%	68.1%	67.7%
ADR (€)	95.2	90.6	87.1	78.9
RevPar (€)	67.4	62.0	59.3	53.4
Profit & Loss Account (2) (Recurring Activity till EBITDA)				
Revenue	1,571.1	1,474.6	1,395.5	1,265.1
GOP	548.8	482.5	428.6	397.2
Recurring EBITDA Before Onerous	233.1	180.9	149.5	110.1
EBIT	140.2	100.8	67.9	32.9
EBT	72.7	42.1	10.3	12.2
Net Income (before min.)	39.2	34.1	3.3	(10.4)
Net Income (after min.)	35.5	30.8	0.9	(9.6)

Figure 3.3 also illustrates that the group's economic performance improved dramatically between 2014 and 2017. In particular, 2014 featured a net loss of 9.6 million, followed by a sharp increase in the bottom line afterwards. In 2017, net income peaked at 35.5 million euros.

3.3 The Revenue Department

Figure 3.5 summarises the organisational chart of the NH Revenue Department. As can be seen, NH employs three separate business units, each with its own director of revenue. Every business unit entails multiple regions, each of which possessing a regional director. It should be noted that the revenue department is not a standalone department. In fact, it constantly relates to the General Services Office, Marketing Department, Sales Department, Revenue Systems Support, Distribution Department, front offices and the hotel directors.

Figure 3-4 Organisational Chart Revenue Department NH



This internship was performed in the Northern-Europe business unit, which is divided into the following regions: Amsterdam, the rest of Holland, Central Europe, Western Germany, Berlin, Frankfurt, and Belgium. Every region is divided into hotel clusters, which are managed by junior or senior revenue cluster managers. Typically, a junior revenue manager manages two hotels, while senior revenue managers direct around three or four hotels. The cluster managers are assigned a revenue coordinator, who is in charge of helping with the day-to-day operations. In most cases, each coordinator has one or two interns assisting him or her. For this internship, the managers did not have a revenue coordinator; as such, I undertook more responsibilities and tasks than the typical intern usually does.

3.4 How does NH hotels maximise its revenue stream?

This section, divided into two sub-sections, seeks answer how NH hotels attempts to maximise its revenue stream. The first sub-section analyses which tools and systems the revenue management team has at their disposal. The second analyses the revenue management team's tasks and how they perform them.

3.4.1 Which tools and systems does the revenue management team have at their disposals?

As concluded in the initial segment of this report, effective revenue management can be the difference between profit and loss. The revenue managers at NH hotels employ different systems to aid them in this task, all of which are discussed next.

3.4.1.1. Travel Management Suite

Alu Rodriguez, CIO of the NH hotel group, said in 2014 that *'The time had come for us to make a leap forward and look for an integrated IT platform (back-office and front-office)'*. This new integrated IT platform became the Travel Management Suite (TMS) and is built on SAP, the world's leading ERP platform. June of 2014 witnessed a brand-wide rollout of this new ERP system, making NH the first hotel chain to use TMS (Hotel-Online 2014). Today, NH remains the largest hotel chain using TMS, placing it in a privileged position to comment on the next updates and features to be created within such a tool.

TMS profiles itself as the all-in-one solution for the hotel industry. It consists of five products connected to each other in one central, cloud-based system. The five products include TMSforHotels (TMS4H), TMSforweb, TMSforAnalytics, TMSforConnectivity (TMS4C) and TMSforRestaurants.⁸ TMS4H and TMS4C are used by the Revenue Department at NH hotels.⁹ The first is the master database of the centralised system. It contains all the information from purchases, upcoming events and the property management system. Within this system, the Revenue Department is able to close-out days, make overbookings, restrict segments, look-up contracts, check reservations and options, open up promotions, adjust prices and rate codes. The newest feature added to the system is the quotation tools, which is used by the Group Sales Office (GSO) to place

⁸ Annexes F TMS (Indra, 2016) p. 37

⁹ TMSforAnalytics is especially designed to perform Revenue Management since it helps extracting and analysing data. However, such product is not used since NH employs Duetto with the same purpose.

group requests, enabling the Revenue Department to learn, evaluate and reply promptly to this type of demand.¹⁰

TMS4C forms the interface between TMS4H, Duetto and all other channels. Every 15 minutes, rates and availability are sent from TMS4H to TMS4C, which then divides this data into three or more months. The rates and availability within the next three months is once again sent to the channels every 15 minutes, and everything later than that is sent every 45 minutes. Among the channels are direct interfaces, such as their own NH web, which relies on TMSforWeb, but also other channel managers, such as Siteminder, Rate Tiger Connect and Synxis. These channel managers are further connected to other channels (see Figure 3.2).

Figure 3-5 TMS4C (NH Hotels 2018c)



The reason the data is split is so that TMS4C does not overload the other channels with information. If that happens, then new rates and availability will *not* be communicated to the appropriate channels, which may generate a loss of revenue due to rate-parity issues (i.e. rates are too high or too low) or an overbooking situation. However, there is another way hotels may lose money due to rate-parity issues. Large OTAs such as Booking.com are so powerful today that they can demand the lowest available rates from hotels. Furthermore, OTAs use algorithms to monitor whether or not they are indeed receiving the lowest rate. When this is not the case, the hotel may end up in the lower-end extreme of the results in the OTA's search engine, harming its total demand.

3.4.1.2. Duetto

In 2013, NH set in motion its five-year plan to transform the company to offer better products and services and obtain a better pricing strategy. As a result, the revenue

¹⁰ Annexes G TMSforhotels (Indra, 2016) p. 37

management team grew from 150 to 300 people in only 18 months. At the time, NH had already chosen TMS as their new ERP system, but they continued looking for an innovative revenue management system. With Duetto's pitch, NH immediately became excited about what their system had to offer due to Duetto developing and integrating the new concept of open pricing within their revenue management system (Duetto 2017).

Duetto (2017) defines their concept of pricing as follows:

'The ability to price all distribution channels, segments, room types and offers independently of each other to maximise revenue without ever having to close any of those avenues off'.

This concept differs from the dynamic pricing concept used by most revenue management systems, as explained in the theoretical segment:

'The process of actively applying revenue management by selling the same products at different prices to different customers'.

The open pricing principle is more flexible and ensures that hotels do not lose business by declining clients who are willing to pay for the room. This is because, with open pricing, the discounts are not completely tied to the best available rate (BAR) and can be adjusted by the revenue manager according to the demand. With this, the revenue manager is able to keep all its channels open even on high-demand dates, where he can now offer a 1–2% discount instead having to close it due having higher fixed discounts (Duetto 2017).

Duetto applies this principle not only on its prepaid rates, but also on its OCRs (i.e. corporate rate). Thus, instead of having to guarantee a fixed percentage to corporate accounts, Duetto is able to offer them discounts up to a certain percentage, but in a flexible manner. This makes it possible to provide higher discounts on low-demand days and lower discounts on high-demand days compared to a fixed discount percentage. The concept of open pricing is also applied to room types. Instead of having fixed modifiers

to differentiate the prices for the different room types, Duetto now allows differentiation based on demand.

Duetto's open-pricing philosophy enables the revenue managers at NH to make optimal use of different segments' willingness to pay. Moreover, the system actually helps the revenue managers establish the price strategy by offering recommendations for the different rates. It does so by combining the historical and advanced booking methods. This feature was expanded in the first quarter of 2019, with Duetto now offering recommendations for different room types.

In short, with Duetto, revenue managers can accomplish far more than simply adjusting the properties' pricing strategy. The system provides them with access to large amounts of information, helping them to set the correct pricing strategy.

One of Duetto's offered features is insight into web shop regrets and denials, or in other words, lost business. Web shop regrets mean that a guest searched for the hotel in the direct booking engine, NH's own website, and the rate was given, but no booking was made. Web shop denials is the same, except with the rate not being given, and thus not being bookable for the guest. This can occur if the hotel is sold out or when a minimum length of stay is applied on the date. With this information, the revenue manager can see if its prices might be too high in the event of numerous web regrets, or if dates might be too restricted in the event of numerous denials.¹¹

3.4.1.3. OTA Insight

A guest searching for a hotel has many options to choose from. As such, it is crucial for a hotel to keep track of how its competitors are priced. To monitor this, NH employs OTA Insight. This tool offers an overview per date for how a hotel is priced compared to the main competitors (competitive set) selected by the revenue manager.¹²

The tool provides this overview for the best flexible prices and the lowest prices, which include the refundable and non-refundable prices. Furthermore, the system is able to compare hotels' prices based on the different room types, meal options, number of guests and number of nights. With OTA Insight, the revenue manager can also see if competing

¹¹ Annexes J Web shop regrets and denials p. 38

¹² Annexes I OTA Insight overview p. 38

hotels are applying a minimum length of stay on certain high-demand dates, such as during fairs and events. It also features an option to obtain an overview of the rate difference compared to an earlier point in time of the competitive set. OTA Insight directly synchronises its data from all the OTA channels. Therefore, it can be used to analyse rate parity between the channels. It also offers an overview of events that are about to happen, which can influence the hotel's demand.

3.4.1.4. STR

With OTA Insight, a revenue manager can see how its pricing strategy compares to the competitive set. Unfortunately, it does not illustrate how well the strategy works. Therefore, NH hotels employ STR, a global data benchmarking tool. While OTA Insight collects its data publicly, and is thus able to offer insight into all the hotels, this is not the case with STR. The hotel operators that want to use STR have to provide their own confidential data, such as occupancy and ADR. In return, STR provides a report with the property's average rate index (ARI), market penetration index (MPI) and revenue generating index (RGI). These indexes return a number that, if above 100 points, indicates that the property is obtaining more than its fair share; values below the mean indicate that the competitive set is eating off the properties' pie (Duetto 2017). The report presents indexes per date and sums them up on the day of the week. With this information, the revenue manager can adjust the pricing strategy to capture a better share of the market. STR can also help him or her find the perfect mix between maximum occupancy and ADR, since the ideal situation is to achieve a fair share of occupancy and perform better on ADR relative to the competitive set.

3.4.2 Which activities does the Revenue Department perform?

This sub-section analyses the kind of activities performed by the revenue management team to optimise the hotel's revenue stream.

3.4.2.1 Evaluating the short-term strategy

As stated in the initial segment of this report, the revenue managers' job is to maximise the stream of room and non-room revenue. To set the proper short-term strategy, NH revenue managers utilise Duetto, TMS, and an excel file called RMS. This captures

information from both systems in one overview so that the manager can easily see what the short-term strategy looks like. In general, the RMS is updated every morning or at least three times a week by the interns and/or the revenue coordinator. The RMS provides an overview of the pick-up per segment that occurred between the latest and newest update. It also illustrates on a per-day basis what kind of flexible and non-flexible prices the hotel can be booked for on the open channels. Furthermore, it can demonstrate the day-by-day prices for which groups are able to book the hotel. Restrictions are also loaded per segment. The number of rooms on the books, blocked rooms, the number of options and tentative group requests are further visible in the RMS.

Importantly, the RMS allows the revenue manager to play around with the strategy he or she wants to implement. In particular, the overview section allows the manager to see the current prices loaded in Duetto. Next to this information, the RMS illustrates the prices that Duetto recommends changing. Moreover, the manager can see the pick-up that occurred and competitors' prices in OTA Insight. RMS also allows the manager to see how well he or she is performing compared to the same point in time (SPIT) in the past. Given this wealth of information, the revenue manager can revise the initial pricing strategy in order to maximise revenue for the hotel.

The same principle applies for non-price instruments, such as restrictions. The manager can use the RMS to reevaluate its segments' strategy by examining what is already on the books per segment, what was the pick-up, and thus decide whether to open, close or restrict certain segments. Certain promos and manual channels are also displayed on RMS, which can then be managed appropriately as needed.

An overview of the booked room types and their supplements are also available in the RMS. With this information, the revenue manager can decide if he or she wants to overbook a certain room type. The first reason for doing so would be that, if the cheapest room is sold out, then the hotel will present only their more premium rooms on OTAs, and thus appear more expensive than its competitors. The second reason would be if guests are looking to stay for a longer period of time, and the hotel is only able to offer different room types during the searched period, leaving the guest unable to book.

Furthermore, the manager might want to change the supplements for the room types for certain days to attract more business by lowering it or, if there is considerable demand for that room type, increase its price.

3.4.2.2 Group request

One of the revenue manager's major tasks is to accept or deny group requests. In the beginning of 2018, all the group requests were sent by email to the revenue manager. This changed in September 2018 with the introduction of the Quotation tool, the main goal of which was to reduce the email traffic sent from the General Service Office (GSO) to the Revenue Department. Additionally, Quotation was also instrumental in empowering the GSO, which helped the Revenue Department focus on other tasks. This requires loading a strategy onto the system, for which revenue managers decide the price range for the business groups with and without meeting facilities. Such a price can be BAGR (i.e. it is set by the manager on a day-by-day basis) or a percentage discount on the BAR depending on how large the group is. The GSO can immediately fulfil the group's request if it meets all the criteria loaded into Quotation. If the request does not fit the pre-set strategy (e.g. there are not enough rooms left or if a minimum length of stay or minimum spent restriction is not met), then the GSO can send it to the Revenue Department to check whether they still want to accept or deny the request.

When a group request comes in, the manager examines a couple of details to decide whether to accept or reject the group. For instance, the manager will study how many rooms are already on the books and how many are occupied by groups. He or she can then check what kind of ADR is on the books and what the ADR, occupancy and segmentation was last year for the same day. If the manager determines that the hotel was fully booked last year with mostly the transient segment, and expectations for this year are the same, then the group is replacing business. In this situation, the price the manager should offer the group is at least equal to that the transient guests would have paid. Furthermore, the manager should check whether options are already pending in order to determine whether there is enough room to accept the group. These options are not taken into account with the groups already on the books. When the manager has examined all the available information, he or she can decide whether the group is profitable enough and then accept or deny the request accordingly. Sometimes, managers accept groups even when they replace business. This can happen because the group is filling shoulder or low-demand days. Another reason can be that the group is a loyal client that books on days that business is much needed.

3.4.2.3 Evaluating and monitoring the mid- and long-term strategy

Reports per hotel are developed every week. This report provides a per-month overview of how the hotel is performing and will perform per segment over the next six months. It demonstrates the current number of bookings and how high the ADR is versus last week. It further makes a comparison with SPIT so that the manager can see what was on the books last year for these same months. The weekly report also demonstrates how much the hotel still needs to pick up for every month and how much the hotel picked up versus last week and SPIT. Furthermore, the budget and forecast are loaded into this overview. The manager can use this overview to evaluate the short- and mid-term strategy. This makes it easy to determine which segments the hotel is ahead or behind in compared to last year, as well as whether the hotel will reach its forecast or budget with the current pick-up pace. This also allows determining whether the prices might be too low should the hotel possess a higher occupancy vs SPIT/budget, but with a lower ADR, or vice versa. The revenue manager can also use the report to make his or her forecast, since it presents the current pick-up pace as well as that of last year. With that information, the manager gains a better idea of what to expect from his or her yearly performance.

At the end of each month, revenue managers create a month-end analysis. In this report, the performance of the past month is analysed to determine how the properties performed. The report consists of an overview of the committed occupancy, ADR and RevPar per segment, as well as compared to last year, the manager's forecast and the budget. If deviation is significant between the achieved results and those of last year or the budget, then the manager has to explain why.

The report further provides two other pieces of information that can contribute to this explanation. First of all, it offers an overview of its top five corporate and business group accounts. This depends on the hotel, but in general, an incremental loss of a gain of large corporate or business accounts strongly influences the results. These top accounts are again presented against last year's top accounts. If the manager sees that an account is producing far less business this year, but without knowing the reason why, he or she can inform sales to contact the client.

The report also provides an overview of the hotel's performance compared to its competitors subtracted from STR. This overview is day-by-day, enabling the manager to

identify which days and which days of the week the hotel was able to achieve its fair share on MPI, ARI and RGI. With this information, the manager can review the strategy; for instance, if the prices were too low on Sunday, this could result in high MPI, but low ARI.

The end results of the month are sent to the regional and general managers. The same report is also immediately used to revise the strategy for the same month of next year.

3.4.2.4 **Forecasting**

The forecast is performed once a month and takes up a considerable amount of time. Every second week of the month, managers have one week to forecast their hotels' results for the next six months. This is performed in Duetto, where they have to forecast the occupancy and ADR of each segment. Duetto itself presents its own forecast of how it expects the hotel will perform based on past results and booking patterns. However, the program struggles with forecasts extending three months into the future, and it cannot anticipate the group's segments accurately. As such, it is crucial for revenue managers to do this on their own, and for them to have time to do so.

Not all is negative, though. In fact, Duetto accurately estimates short-term demand arising from the transient segment. Nevertheless, it is always wise to check this piece of information. For instance, the manager can examine last year's results and what was booked then, or review the trend for this segment for previous months. This was helpful in my internship, since Hamburg witnessed a shift from transient flexible to transient discounted, which Duetto only moderately acknowledged. Other details the manager can examine include the pick-up pace of the month, which can be compared to similar months to determine what kind of results they achieved. This is something Duetto does not accomplish by itself. Another trend in the market was that the lead-time between the booking being made and the arrival date became shorter. As such, solely comparing last year's SPIT to current results would provide the wrong comparison.

Revenue managers need to forecast not only room revenue, but also non-room revenue. This means banqueting, F&B, meeting space facilities, spas, parking and so on. This is much harder to accomplish, since this data is significantly more limited compared to room revenue. The manager thus allows the coordinator or interns to conduct the other revenue report. This contains all the achieved other-revenues per post per month, allowing the

manager to see what is on the books and to examine similar months to gain an idea of what the other revenue will be for the hotel.

3.5 Self-assessment

The Master's Program of Tourism Economics and Regional Development helped me prepare for my internship at NH hotels. The economics course helped me understand the basic models of supply and demand. Specifically, the theoretical background of demand's price elasticity was particularly useful, as we were able to see how this theory worked in practice. The final months of the internship consisted of a low season in the hotel industry. During those months, we could see that, by lowering the price just a bit more than the competitors, the hotels were able to capture a fair share of the demand. The econometrics course, meanwhile, granted us insight into how demand can be predicted and just how many underlying variables have to be considered when predicting demand.

Nevertheless, because the revenue management course was not offered in the master's program, I had to quickly learn about both the hotel industry and the technical knowhow of revenue management. To do so, I had three weeks to catch up, as one of the managers was leaving on holiday, and I had to take over. At the same time, I also had to learn to work independently, because my managers often worked from a different location. I did well in catching up on the lack of knowledge and in generally working alone. However, there was one month where I did not see my managers, which affected my learning curve, and thus my motivation. From that experience, I learned that it is okay to sometimes be more egoistic and demand certain things from people. In this case, I should have demanded more time from my managers to help me develop and learn new things.

3.6 Summary

At NH hotels, the managers have different tools and systems at their disposal to help them perform their tasks. One of them is TMS, of which the Revenue Department utilises the products TMSforConnectivity and TMSforHotels. TMS4H is used to apply the price and non-price instruments. As a revenue management system, NH hotels employ Duetto. With its innovated open-pricing principles, NH is able to capture the optimal use of the different segments' willingness to pay. The system is used to predict demand, analyse, apply segmentation, apply price instruments and evaluate. NH utilises OTA Insight to analyse the market to view their hotels' price strategy compared to that of competitors. With STR, the revenue managers can also evaluate how well the hotel performed compared to these competitors.

To evaluate the short-term strategy, the revenue management team employs an excel file called RMS. This RMS provides an overview of the current price and non-price strategy as well as the pick-up per segment that occurred between the latest and newest update. Once a week, the managers monitor their mid-term strategy by analysing the weekly reports. They also monitor their achieved results on a monthly bases and check what they should do differently next year during that month.

One of the revenue managers' most important tasks is to accept or deny group requests. To do so effectively, the manager needs a sufficient understanding of how high the demand will be for the requested period so that they can make optimal use of the willingness to pay. By forecasting room and total revenue every month, the managers strive to gain this insight they need in order to optimise their strategy and maximise the total revenue for the hotels they manage. To this end, they utilise Duetto, which uses the combined models of historical booking and advanced bookings methods. However, Duetto is not able to make accurate long-term predictions or anticipate group segments' demand. Therefore, the revenue manager's knowledge and expertise is crucial to reliably forecast room revenues. The revenue managers also predict other revenues based on ratios due to a lack of accurate systems and information to do so for them.

4 Conclusion

Most authors agree that, to maximise revenue, companies must employ their scarce resources effectively, which suggests moving away from mass prices and marketing to instead concentrate on tailor-made offers to their customers. NH hotels is accomplishing this by using Duetto's open-pricing principles to offer the optimal price to match each segment's willingness to pay.

Most of the activities described within the scientific literature reflect activities performed at NH hotels. One such example would be the revenue management process described by Ivanov (2014), the same steps of which are performed by the revenue management team of NH hotels. In theory, the process is described as an order of steps that the revenue management team should continuously perform. In practice, however, we see that these steps are often intertwined and performed simultaneously. For example, while the revenue managers monitor the weekly reports, which provide the on-the-book results and pick-up for the coming months, they will also analyse the data, forecast what kind of demand they can expect, evaluate their strategy, and possibly adjust their strategy using price and non-price instruments. This can explain why the scientific literature still contains no consensus regarding which steps are part of the process.

Hotel industry leaders indicated that the future of revenue management lies within total revenue management. They admitted that implementing this is challenging due to a lack of integrated platforms to capture the customer's value. At NH hotels, we see the same problem arise. They acknowledge the importance of the other revenue streams within their hotels, but they lack the data and systems needed to help them accurately predict the demand of these other revenues. As such, they employ ratios from comparable months to estimate the non-room revenue streams. This will also represent one of the challenges in the coming years for NH hotels to better understand the value of its total revenue.

During the internship, I had to quickly gain knowledge about the hotel industry and revenue management, because in my fourth week, I had to take over four hotels in Hamburg. I also learned to work independently, because my two managers often worked from different offices. A downside of this was that there was one month where I did not see my managers at all, which hindered my learning curve and motivation. From this experience, I learned that, sometimes, it is good to be more egoistic.

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Annexes

Annexes A Segmentation Hotel Guest (Landman, 2011)

CITY HOTEL	DESCRIPTION	RESORT HOTEL
Transient (Individual Travellers)		
BAR	Includes non-restricted rates that are available to all customers	BAR
DISCOUNT	Includes restricted rates (advance purchase, length of stay, cancellation, guarantee or age restrictions e.g.) that come with a discount from the BAR level you were selling	DISCOUNT
CORPORATE/NEGOTIATED	This is referred to as "qualified" business, as those rates are agreed between the hotel and the company or the partner for a certain <u>period of time</u> and can only be booked by guests who qualify for that rate	
FIT	Includes agreed and contracted Wholesaler and Tour Operator rates	FIT
Groups		
BUSINESS GROUPS	Usually includes bookings for more than 10 room nights and normally have a longer lead time as well as stricter cancellation policies than most other rates in the hotel, pricing-wise it's either a fixed rate or a discount of BAR	
	For groups of 10 or more rooms, booked by Tour Operator or Wholesaler at a negotiated rate or ad-hoc quoted rate	LEISURE GROUPS

Annexes B Forecasting Methods (Bandalouski, 2015)

Historical bookings	Exponential smoothing
	Moving average
	AR, ARMA, ARIMA
Advanced bookings	Additive
	Multiplicative
Combined	Regressive
	Weighted average

Annexes C types of prices in the hotel industry (Ivanov, 2014)

Price differentiation criteria	Type of prices
<i>Type of services</i>	Prices in the various revenue centres of the hotel – rooms, restaurant, bar, minibar, sport facilities, parking, etc.
<i>Board</i>	Room only, Bed and breakfast, Half board, Full board, All inclusive
<i>Room type</i>	Single, double/twin, triple, family room, studio, suite, apartment
<i>Room standard</i>	Standard, superior, deluxe, executive rooms
<i>Room view</i>	Sea/Garden/Park/Mountain view
<i>Time-based criteria</i>	<ul style="list-style-type: none"> • Weekday/weekend prices • Seasonal prices – main, shoulder, off-season prices • Booking lead period – discounts for early bookings • Length-of-stay – lower prices for longer stays
<i>Payment terms</i>	Lower rates for bookings with immediate payment
<i>Cancellation terms</i>	Lower rates for bookings without free cancellation
<i>Distribution channel</i>	Rack rates, prices for the various categories of distributors
<i>Demographic characteristics of guests</i>	Age (prices for children, adults and senior guests) Nationality
<i>Specific characteristics of guests</i>	Special rates for government/municipal/army personnel, business travellers, honeymooners, participants in incentive trips, travel agency employees, etc.
<i>Group size</i>	Rate for individual guests and groups
<i>Guest loyalty</i>	Special rates (lower or free overnights) for guests participating in loyalty programmes

Annexes D Factors influencing pricing decisions (Ivanov, 2014)

Factor	Impact on pricing
<i>Category</i>	Higher prices for higher category properties
<i>Quality / value</i>	Higher prices for hotels delivering higher value to their customers
<i>Image</i>	Positive image leads to higher prices than competing hotels
<i>Product lifecycle stage</i>	Lower prices during introduction and decline stages, higher during maturity
<i>Additional services included in the price</i>	More included services lead to price escalation
<i>Location</i>	Hotels closer to tourist resources boast higher prices
<i>Competition</i>	Serves as a benchmark
<i>Sales volume</i>	Lower prices (discounts) for guests (distributors) booking more rooms
<i>Demand</i>	Higher prices during periods of high demand (e.g. special events)
<i>Demand elasticity</i>	Lower prices for price sensitive customers, higher prices for less price sensitive customers
<i>Affiliation to a hotel chain</i>	Payment of franchise/management fees increases costs and, thus, prices
<i>Bargaining power of distributors</i>	High distributor bargaining power leads to lower prices
<i>Company's marketing strategy and goals</i>	Focused differentiation strategy is related to high prices, while market penetration to low prices
<i>Organisational structure</i>	Determines who has the responsibility for pricing within the company
<i>Taxation</i>	Positive relationship with prices
<i>Government regulations</i>	Setting price ceilings (maximum prices) or price floors (minimum prices)
<i>Costs</i>	From an accounting perspective costs are a pricing factor. From a marketing perspective customers are interested in their costs (price, time, social costs, etc.) and the value they receive, not the costs of the company.

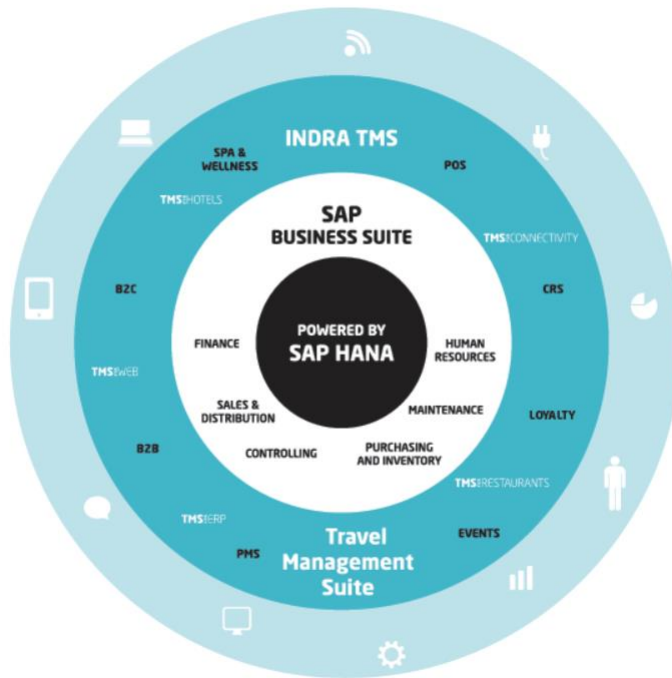
Annexes E Non-room RM (Kimes, 2017)

Current non-rooms RM vs. 2010 Prediction

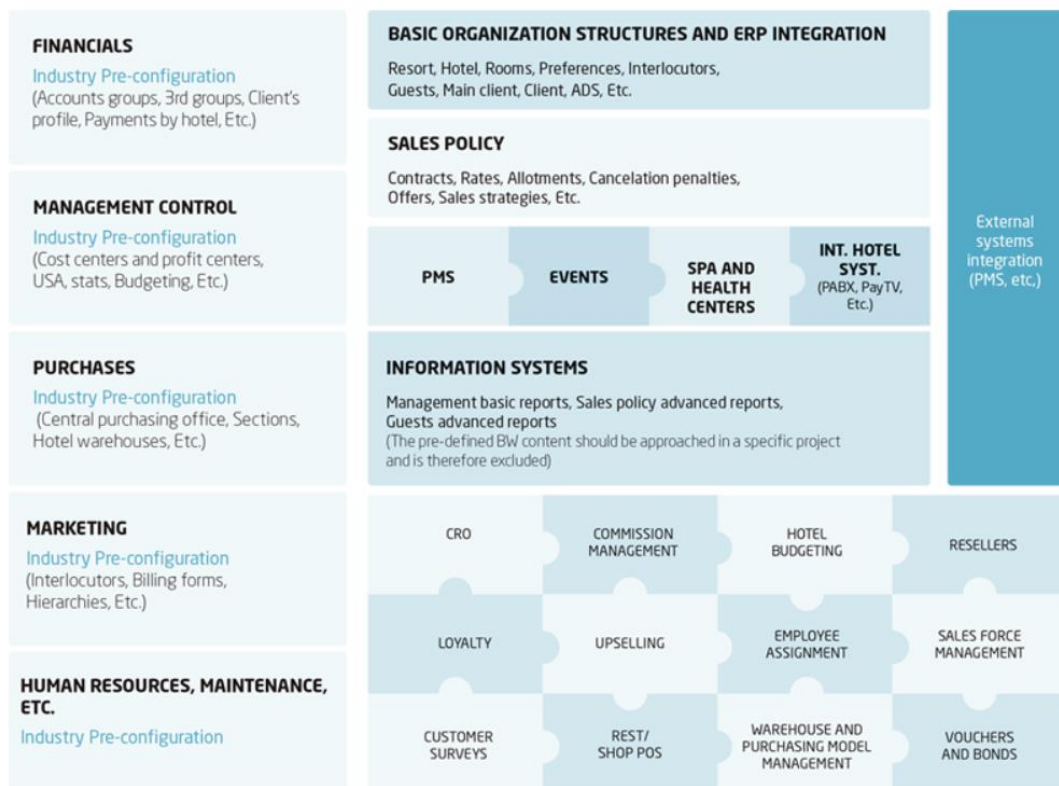
Department	Current Level	2010
Function space**	3.02	4.38
Restaurants**	2.59	3.86
Spa**	2.12	3.81
Retail**	1.57	3.63
Parking**	1.57	3.24
Golf**	1.48	3.18

Note: 5-point scale. ** Indicates that it was significantly different at the 0.05 level.

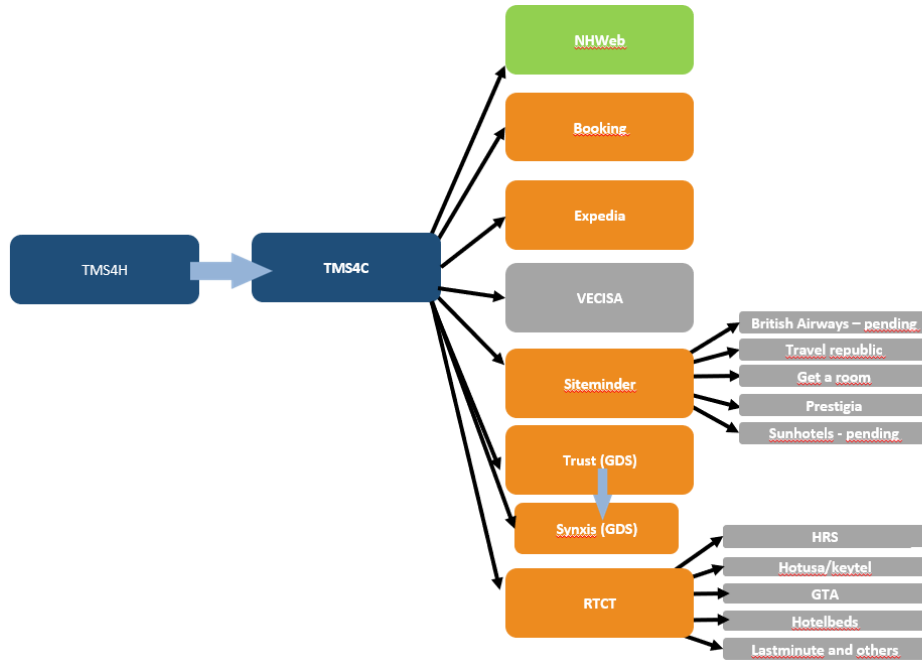
Annexes F TMS (Indra, 2016)



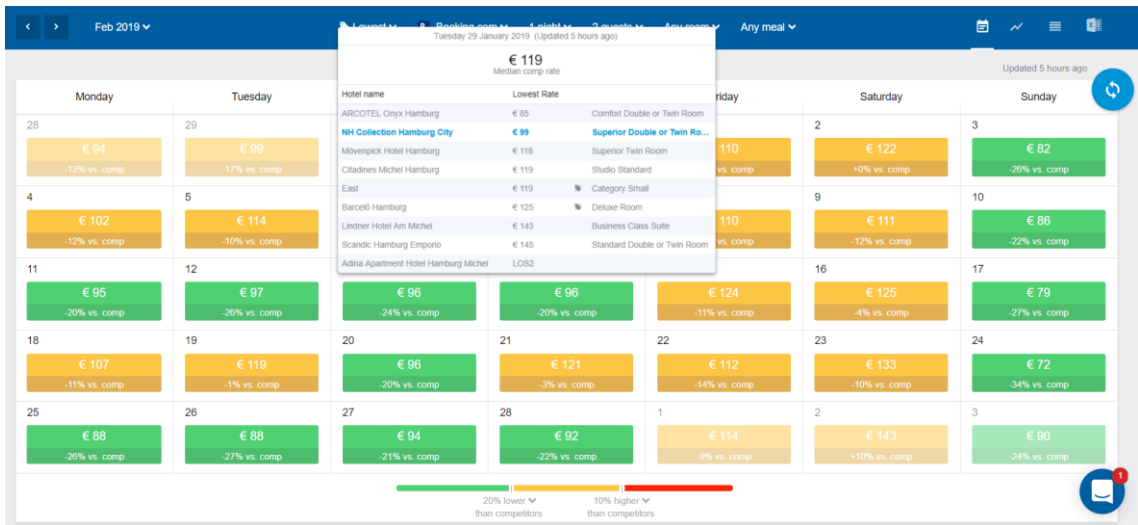
Annexes G TMSforhotels (Indra, 2016)



Annexes HTMS4C channels (NH hotels, 2018c)



Annexes I OTA Insight overview



Annexes J Web shop regrets and denials

