



Total Hotel Revenue Management

Implementing Revenue Management in Hotel Function Spaces

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Abstract:

Hotels have optimized the revenue from hotel rooms for nearly four decades with the use of revenue management (RM). The interest for total revenue management (TRM) emerged over a decade ago with the idea that RM could be implemented to all revenue streams of a hotel. Function spaces were one of the main departments that professionals considered as a first step towards TRM. The literature on function space RM and TRM is still limited as well as the technology to support the implementation of RM for other departments. A hospitality organization in the Finnish market has the ambition to implement RM to their function spaces with the long-term goal of TRM. The aim of the research was to understand how revenue is currently optimized in function spaces and where to start when implementing revenue management in a hotels function space. Semi-structured interviews with function space management and RM professionals were conducted. The interviews discussed the current processes in the organization, RM knowledge, and the possible aspirations, opportunities, and key factors concerning RM implementation. Answers were analyzed using an abductive method, resulting in a comprehensive understanding of current challenges related to access to data and limited systems, but a high interest in optimizing function spaces with RM. Dynamic pricing based on demand, leading with; and making strategic decisions based on data were the main benefits mentioned. Recommendations based on results and reviewed literature include aligning operations within the organization in Finland and initiating the change by setting up their function space data in Benchmarking Alliance and starting to collect data to the system. Through this each property will receive deeper knowledge of their function space sales and where there is room for improvement either in capacity or price.

Keywords:

Revenue management, total hotel revenue management, meetings and events, function space, implementing

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1 Introduction

A full-service hotel which is using revenue management for their accommodation is only optimizing a limited part of their revenue streams. Having worked in the hospitality industry for over a decade, I have learned the importance of revenue management from different points of view. I spent the first half of my career in the front office and sales office serving the customers and seeing the daily results of optimizing the accommodation capacity with restrictions, pricing, and overbooking. The second half I have been learning and continue to learn the skill and strategy of revenue management. For the last decade, a main discussion point in the hotel industry has been Total Revenue Management (TRM) (Lak, 2022; Zheng & Forgacs, 2017). TRM entails optimizing revenue for all of a hotel's outlets such as function spaces, restaurant, and spa (Kimes, 2011; Zheng & Forgacs, 2017). The long-term plan in the industry is to optimize the revenue yield for an entire property and increase revenue management understanding in all departments.

1.1 Research aim

Currently revenue management is used to optimize the revenue for the accommodation side, but not for any other outlet. These outlets include, but are not limited to, function spaces (i.e., meeting rooms, banquet halls, ballrooms) restaurants, golf, or a spa that can have a significant effect on the accommodation side and the total revenue the property makes. No matter what the hotel type is (e.g., conference, resort, spa, city, boutique) and which additional services are provided, the revenue share of accommodation (i.e., hotel rooms) is limited leading to the fact that this only optimizes a property to a certain level. Not optimizing the revenue of a property including all services is the same as willingly leaving money on the table (Anderson, 2011; Roberts, 2022). Basing forecasts and strategic decisions on experience and guess work alone can result in unnecessary costs in for example staffing, and supply orders as well as lead to loss of revenue.

The aim of the research is to gain an understanding of the current processes in function spaces from a revenue management point of view. The research is aiming to understand the level of revenue management knowledge at various management levels in different teams. The desire and comprehension of the possibilities and opportunities revenue management can bring when

implemented is also investigated. Mainly, the research will aim to build a base for the case company to build on when moving forward with implementing TRM for all properties.

This research will benefit the organization as they will receive learnings from the case study to take into account when moving forward with implementing revenue management at other departments. The function space team members participating can gain insight on revenue management, its benefits and use in daily business through thought-provoking discussions. This will in the long run benefit both the operation and the organization.

1.2 Research Question

Revenue management as a process is quite straight forward and easily explained but seems to be a challenge to implement to new outlets as so few have done it (Roberts, 2022; Zheng & Forgacs, 2017). If revenue management could be copied directly to all outlets of a hotel, it would have been done when the desire for TRM emerged over a decade ago. The challenge lies in selecting the correct aspects of the RM process to implement into the selected service. Put plainly, hotel room revenue management is not directly transferrable to, e.g., function spaces because of the missing technology, tools, and the different behavior of the product (Kimes & McGuire, 2001). This leads to a need for creating a new process based on the existing accommodation revenue management process.

The research investigates *how revenue is currently optimized in function spaces and where to start when implementing revenue management in a hotels function space*. The research is done as a case study for a company with multiple hotels that provide several services in addition to accommodation. Once investigated for one department, it is expected to be easier to understand the requirements and what to expect when planning to implement revenue management for other departments. The long-term goal for the organization is to use TRM to optimize revenue from all revenue streams. This research is part of the first steps of the process towards TRM.

1.3 Limitations

TRM is a process which affects all hotel outlets (e.g., spa, bar, restaurant, function space) and departments (e.g., sales office, management, operations, front of the house) when fully implemented (Zheng & Forgacs, 2017). The research is limited to function spaces as it is seen as the easiest (Kimes, 2011) as well as most beneficial first step towards TRM for the

organization in question. Further, the research will be limited to involving only function space team members and revenue management professionals, leaving out several departments which would be affected by the use of revenue management. This is done due to the early stages of the research and process, based on the understanding that other departments would not be affected until revenue management implementation is further along and in daily use.

1.4 Theoretical Framework

Revenue Management started as yield management in the airline industry to maximize the revenue yield from flights by using two levers: price and demand. Over the years, it transformed into revenue management and revenue optimization and became widely used in the hospitality industry (Roberts, 2022). The basic Revenue Management (RM) ideology is to sell the right product to the right customer at the right time with the right price through the right channel (Fyall et al., 2013; Kimes & Mcguire, 2001; Revfine.com, n.d.-a; Roberts, 2022; Vinod, 2016). The literature review will introduce revenue management as a general hospitality business management tool to build the understanding of the wide scope of RM and its benefits.

When it comes to TRM and the use of revenue management for function spaces, it is still in its infancy and barely used (Zheng & Forgacs, 2017). TRM articles are still very limited (Chan et al., n.d.; Heo, n.d.; Revfine.com, n.d.-b; Zheng & Forgacs, 2017) and most focused on single revenue streams instead of the property as a whole. TRM is presented as a comprehensive understanding of the direction RM is moving towards.

Function space revenue management came up in many articles and books discussing the use of RM and the future possibilities of RM (Fyall et al., 2013; Kimes, 2011; Zheng & Forgacs, 2017) yet only a couple of articles could be found which presented actual implementation and use of RM in function spaces (Kimes & Mcguire, 2001; Zhejun et al., 2016). The literature presents the options for Key Performance Indicators (KPIs) for function spaces as well as the basic legalities of function space RM.

1.5 Method

Research will be executed as a case study as it serves the purpose of having a specific company's status studied. As defined by Lee and Saunders (2017, Introduction section) a case study "...entails a decision to study an instance, institution or phenomenon primarily...". In

this case the subject is defined to a specific company, a specific phenomenon in a set part of the company. The case study will be conducted as an orthodox approach. The orthodox approach entails starting from reviewing literature, defining research questions, designing the research, collecting, and analyzing the data and as the final stage writing up the research (Lee & Saunders, 2017).

The data is qualitative and will be collected through semi-structured interviews with employees of the case company. Abductive analysis is used in the analysis of the data. This is due to the fact that there is no new theory created based on the qualitative data collected nor is it directly implementing an existing theory. According to Timmermans & Tavory (2022, 1: Surprise section) abduction in abductive analysis is “...*a creative moment where you take what you know and go beyond it to try out something different.*” The practice of revenue management does not change but how the process is implemented is flexible and open for development and inspiration.

The objective of the research is to understand the status and starting point of implementing revenue management method for hotel function spaces.

1.6 Structure

The thesis begins with literature on Revenue Management and its basic legalities. The current knowledge of TRM and function space revenue management found in literature is presented. Following this, chapter three expands on the qualitative and abductive research method used in this case study. This will include the research design, interview method and subjects of the research. Thereafter the results of the data collection are presented. In conclusion the results and literature are discussed together. Recommendations on actions and suggestions for future research are presented.

2 Literature

The literature review will present the basic knowledge of revenue management in the hospitality industry beginning from its history and ideology. Each aspect of revenue management is then further explained and reviewed in more detail for a comprehensive understanding of their purpose and benefits from RM point of view. Thereafter the current

literature and knowledge of TRM and revenue management in function spaces is presented followed by literature on revenue management implementation.

2.1 Revenue Management

Revenue Management (RM) has its roots in Yield Management in the airline industry and has since developed into RM and been implemented in different sectors of the tourism and hospitality industry. The term yield management comes from the original use of the aim to yield maximal revenue from each seat on each flight. The two levers utilized were price and demand (Roberts, 2022). To this day these two levers are still used daily in RM. According to Phillips (2005) RM can especially be implemented when three conditions are met: limited and immediately perishable inventory, capacity is booked ahead of time, and prices are changed based on predefined booking classes. Yeoman (2022) states that the importance of the evolution of revenue management in the past 20 years has increased as inventory is managed in more efficient and scientific ways.

When it comes to RM in hotels it is still most often implemented to the accommodation side alone, but the common goal in the industry is to develop RM further and implement performance measurement to all revenue streams of a property (e.g., function space, golf, spa, retail, restaurant) as Kimes (2011) found in her research already in 2010. Zheng & Forgacs (2017) confirm that TRM has been a long-term goal in the hotel industry for several years and many see the importance of it but in reality, only few are actively working towards this goal. Having cyclical demand and seasonal changes combined with increasing competition, the motivation for adopting TRM principles will experience an inflation with the aim to maximize revenue (Zheng & Forgacs, 2017).

Revenue Management (RM) has become a common method in hotels to optimize revenue per available room. The basic ideology of RM is to sell the right product to the right customer through the right channel at the right price and at the right time (Roberts, 2022). RM can also be explained as the *“use of analytics to help predict the behavior of customers, to ensure the product availability and price can be optimized to generate the maximum amount of revenue”* (Revfine.com, n.d.-a). This can mean not selling a function space today at a set price when it can be sold tomorrow at a higher price. Hence RM requires knowing when to say “no” to maximize revenue. Fyall et al. (2013) suggests a four-step approach to RM and to making the

above-mentioned decisions as depicted in Figure 1 below. The four steps are: database analysis, demand forecasting, revenue optimizing, and performance monitoring. Padhi (2013) states that a successful implementation of RM should benefit all stakeholders.

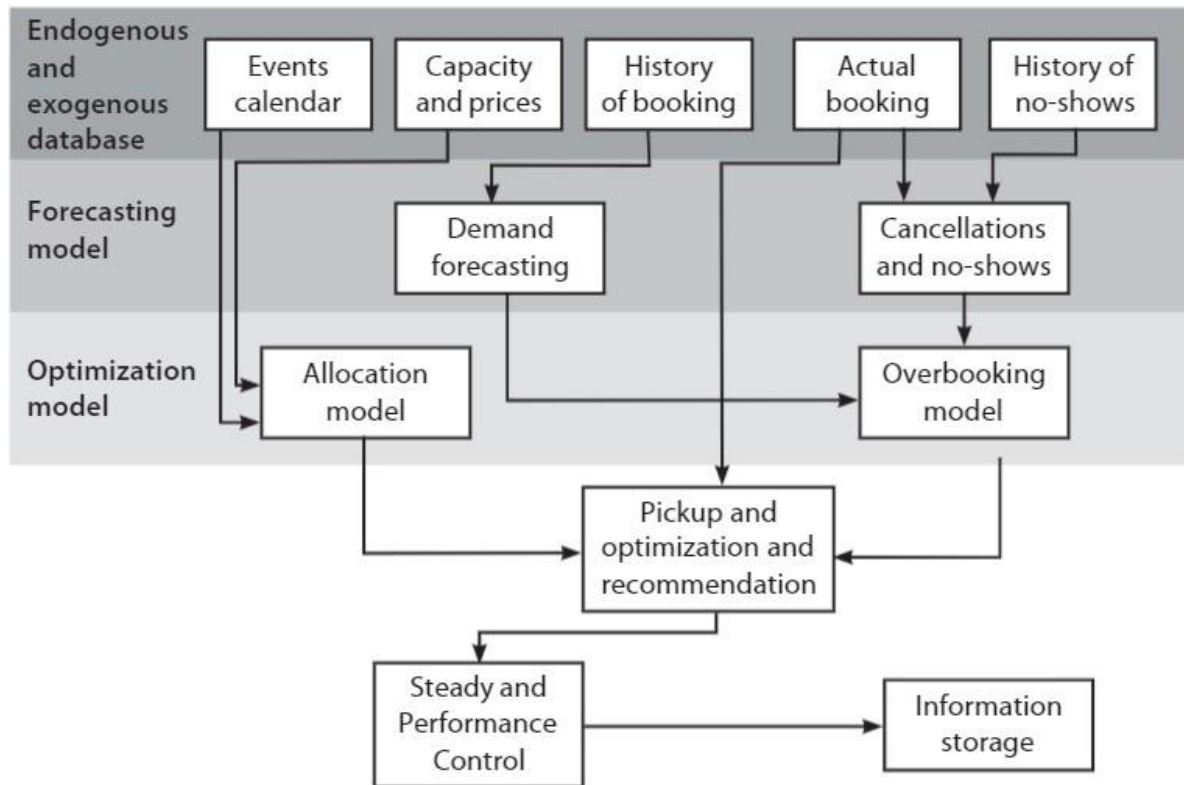


Figure 1. Four step approach to Revenue Management (Fyall et al., 2013)

The main levers in RM are price, demand, distribution, customers, and time. With manipulating these the revenue per available room is optimized after which the performance is analyzed to understand the consequences of the actions taken. Analysis of the performance is done based on selected Key Performance Indicators (KPIs). For hotels they are e.g., Average Daily Rate (ADR), Occupancy, and Revenue per Available Room (RevPar). Analyzing the KPIs alone will give only a certain level of understanding of the performance. Their benefits increase when comparing to a selected competitive set and/or the market. Comparison to the competition and market gives an insight to others development and whether own development is in line, lagging or ahead of the market (Haynes, 2016). Based on this analysis revenue managers together with the marketing, sales and operations team can plan further actions and make strategic plans.

Revenue Managers have transformed from being the technicians and rate and inventory experts to being part of the management team, giving recommendations of actions to optimize revenue

generated from each customer and occupancy rates and participating in budgeting (Fyall et al., 2013). Depending on the company a revenue managers position, and role can vary greatly, yet the main task is always to ensure perishable services are sold every day while maintaining a certain level of profitability (Fyall et al., 2013). Vinod (2016) states that investing in revenue management is no longer a luxury but a necessity if a property wants to survive and compete effectively in the competitive environment.

2.1.1 Forecasting

Considering the use of revenue management from the operational perspective, the key outcome is the forecast produced. Creating and distributing a forecast and forecast scenarios to stakeholders is a main role of a revenue manager now and in the future (Fyall et al., 2013; Roberts, 2022). Forecasting essentially aims to anticipate demand, cancellations, and no shows. Forecasts function as guides to efficiently plan schedules, staffing, ordering supplies as well as estimating the profitability of the property. A well based and accurate forecast also accommodates making informed decisions on investments and expenditures.

Forecasts also work as guides to see which low demand seasons require activities to generate higher revenue. The value of forecasts for revenue managers is to get a better understanding of the business at hand and which aspects to focus on for different periods such as rate adjustments or yielding. However, the primary reason for forecasting is pricing. Higher demand, requires higher rates and recognizing higher demand dates, requires active forecasting. Service providers which sell out too early on high demand dates are leaving money on the table unnecessarily (Johansson, 2022).

Put simply, to be able to make an accurate forecast a person needs to understand the reasons customers buy their service and how the demand is affected (Johansson, 2022). Forecasts have three aspects: occupancy, demand, and revenue. Data used for forecasting can be split in three: historical, current, and future. It is vital to understand that all data is fundamentally historical and there is no such thing as future data. What is on the books for future dates can change at any moment making the data used for forecasting the future dates, historical. It is difficult to exactly specify which factors will affect the future demand most for any single property, but as shown in Figure 1 (Fyall et al., 2013) the most common factors are:

- Events
- History of booking
- Actual booking, Business on books
- History of no-shows and cancellations, overbooking
- Capacity and pricing by property and competitors

Understanding each of these factors will aid a revenue manager to make an informed forecast. Roberts (2022) states a high demand forecast will produce a pressure on pricing since with high demand there will still be customers willing to pay the higher price even though a larger percentage of customers say no to that price. Inventory decisions such as overbooking on the other hand are motivated by supply and demand forecasts.

The quality of forecasting is measured with forecasting accuracy comparing the actualized values with the forecasted values. A common forecast accuracy is $\pm 5\%$, but this can be set on many levels e.g., on a daily, segment, capacity, revenue, or average rate level. Looking at the monthly forecasting accuracy does not explain what was forecasted well and where there is room for improvement. For example, a +1% forecasting accuracy on total revenue for the month is excellent, but it leaves out the detail that a specific day was forecasted much higher than it actualized and another day much lower. The discrepancy in the forecast for both days affects all aspects which were forecasted and planned based on it such as costs of goods sold (Roberts, 2022).

Forecasting is becoming more and more challenging with the constantly emerging new risk landscape affecting demand. Black Swan events are complex events, which emerge due to the increased complexity of the political, economic, and social environment (Varini & Kamensky, 2013). Recent example of a Black Swan is COVID-19 which paralyzed the tourism industry, but no-one knew for how long and with what severity at the start of it. In times like these RM can make the difference between a profit and loss (Orkin, 2003).

Varini and Kamensky (2013) describe forecasting as a risk as it can lead to missed opportunities in the cases of being too low or too high. This highlights the need for constant monitoring of a forecast and evaluate the variance to expectations. Roberts (2022) states there is no *optimal* business mix or channel mix since depending on the demand any day can have different levels to receive the maximum revenue. This is highlighted in the current post-pandemic state where

hotels which previously had a significant share of business group will need to rethink their business mix in order to stay profitable. Setting strict optimal percentages only limits the revenue managers possibilities.

2.1.2 Pricing

“The fastest and most effective way for a company to realize its maximum profit is to get its pricing right” (Marn & Rosiello, 1992). When comparing different profit levers, pricing brings the highest gain. As seen in Figure 2., 1% improvement in price translates as a 11,1% improvement in the operating profit. This is 42% higher than the next highest, variable costs. This will also have the same effect when reversed. When pricing is off by 1%, the operating profit will be destroyed by 11,1%. This underlines the importance of correct pricing.

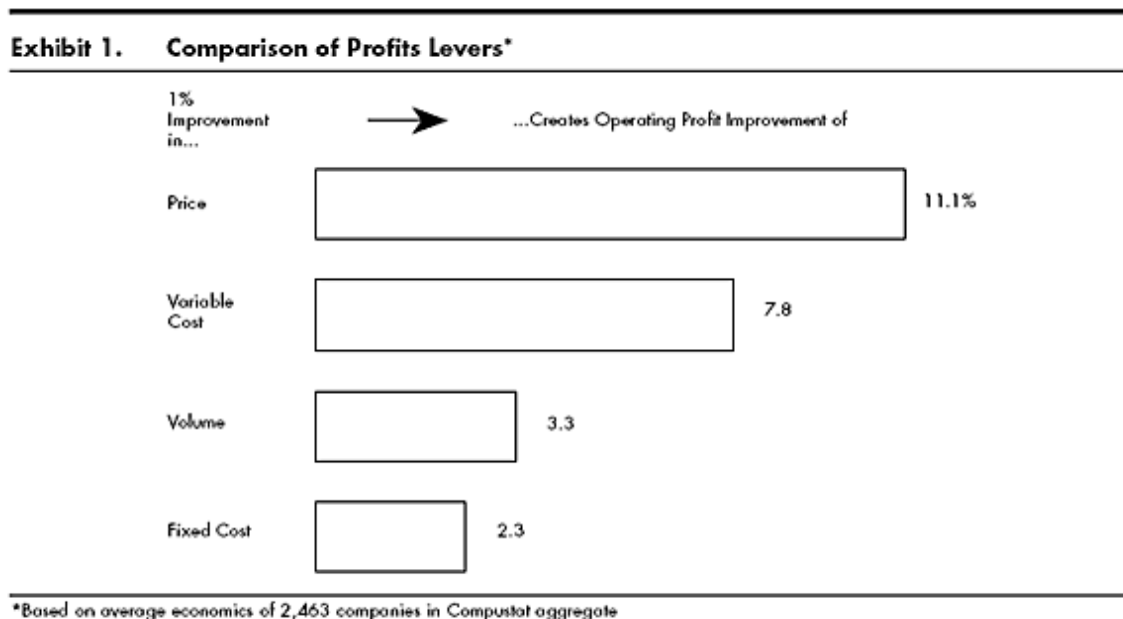


Figure 2. Comparison of Profit Levers. Based on average economics of 2 463 companies in Compustat aggregate. (Marn & Rosiello, 1992)

Pricing is a multifaceted process as it requires taking into account a properties customer segments, market segments, where the prices are distributed, and what the cancellation, change, and guarantee policies are. Pricing can also be directly affected by the competitors or markets price level (Roberts, 2022).

Revenue management uses differential pricing, meaning the prices differ depending on the customers market segment and booking behavior. Differential pricing should always consider price sensitivity, keeping segments sealed and avoiding customers trying to escape their segment, flexibility in case of unforeseen events, and maintaining degressive pricing (Fyall et al., 2013). Degressive pricing refers to bookable prices not being too far from each other, above or below. This is to guide customers to book a slightly higher price in the situation where their price is closed. All rules need to be maintained to avoid customers from paying less than they are willing to pay (Fyall et al., 2013).

It is important to understand the booking behavior of each customer segment and what affects the willingness to pay to be able to price accordingly (Fyall et al., 2013; Lieberman, 2016; Phillips, 2005). The starting point is to understand the value a customer perceives the product to be worth and to align pricing with that. Customers have become more aware of prices and tend to shop around to find the best price for them. These kinds of shoppers include those who are (1) not price sensitive and pay what is available, (2) customers looking for the right value for money, (3) customers with negotiated rates and (4) highly sensitive customers which aim to pay the lowest possible rate (Alrawabdeh, 2022).

Understanding the customer segments entails determining market segments. This means dividing them based on the reason for booking and the use of the service (Lieberman, 2016). Traditionally the basic segments are business, leisure, group, and individual. Each segment behaves differently when it comes to booking patterns, seasonality, and price sensitivity. Based on customer booking behavior it is recommended to build a pricing strategy for each segment to optimize the revenue generated from each of them.

Dynamic pricing is one of the corner stones of effective revenue management. Dynamic pricing helps adjust the product to the fluctuations of demand and the changing market conditions (Fyall et al., 2013). Changing market conditions include competitor's actions, high demand events or seasonal demand changes (Fyall et al., 2013). Companies that use dynamic flexible pricing and utilize the knowledge of different customer segments have been able to increase profits on an average of 25%. The effect of dynamic pricing is presented in Figure 3. With several price points the revenue yielded from one product can be maximized. The demand and price points can vary based on e.g., booking time, terms and conditions of the price, or length of booking. Roberts (2022) specifies that pricing should be based on demand but taking into

account the elasticity of it. Setting pricing solely based on the demand level is not dynamic pricing. Demand, its flexibility and the supply should be considered when pricing based on demand.

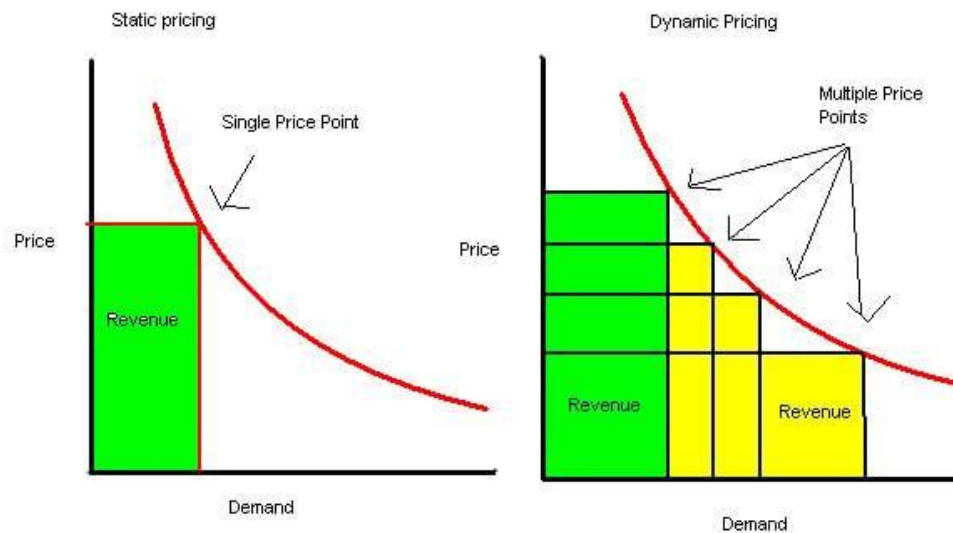


Figure 3. Static pricing versus Dynamic pricing (Campbell, 2022).

Pricing strategies in hotels include cost-based, competition-driven also known as price matching, and customer-driven which is demand-based (Zheng & Forgacs, 2017). Kotler et al., (2009) presents six common pricing methods: markup, target return, perceived value, value, going rate, and auction type. These are fenced in by Kotlers' three C's; Costs, Customer, Competition presented in Figure 4 (Kotler et al., 2009). Kimes' (2011) research predicted that pricing would become more analytical and detailed requiring an analytical pricing tool. The strategies stated in Kimes' (2011) research include pricing based on third party distribution, competition, segment-based, price sensitivity, frequent rate changes, individual customer based, Customer Relationship Management, and analytical models (Kimes, 2011).

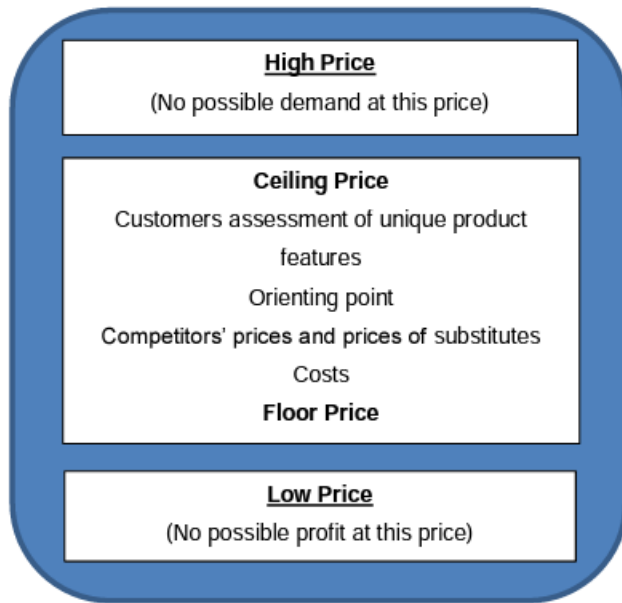


Figure 4. The Three C's Model for price setting (Kotler et al. 2009)

Pricing includes discounts and campaigns which are usually used for creating base business for low demand seasons. With discount pricing it is vital to limit the rate availability so that customers willing to pay higher price are not able to book it. For example, a customer willing to pay 150 €, should pay that and nothing less, but how to prevent them from booking with a lower rate? Each customer paying less than they are willing to pay represents dilution (Roberts, 2022). Discounted rates should be targeted to more price sensitive customers with fencing such as loyalty membership, strict cancellation policies, channel limitation, seasonality, etc.

According to Lehtimäki et al. (2019) when setting a discount, it should be noted that the same fixed discount is more attractive to a consumer from low-priced than from high-priced products while percentage discounts are seen equal in all categories. This should also be considered when deciding the presentation of the discount, fixed or percentage. As consumers have become more price aware, it is important to acknowledge that consumers compare the attractiveness of the discount to a typical discount level in the industry (Lehtimäki et al., 2019).

2.1.3 Inventory management

Inventory management is vital when trying to maximize the space usage when the inventory is of perishable nature and cannot be stored for later. If for example a meeting space is not used during the day, the possibility to sell that product for that time is lost forever and so is the

revenue (Phillips, 2005). Inventory is managed in different distribution channels, with various restrictions such as minimum booking lengths and with overbooking spaces. Each of these bring different benefits to maximizing revenue and inventory use.

Managing inventory goes hand in hand with pricing and segmentation. As each segment is priced based on their booking behavior, there are also limitations to how many units the segment can book at one time (Fyall et al., 2013). For example, a hotel should not sell discounted promotional rooms without limitations for times which could be sold with higher rates to business travelers. This dilutes the revenue of the high demand dates. Setting quota restrictions ensures optimizing both volume and revenue but requires flexibility in case of changes in the market. Past data, events and seasonality needs to be taken into account when making the analysis for setting quotas (Fyall et al., 2013).

The challenge of inventory management is that all the demand cannot be seen at the same time, yet decisions such as restrictions or turning away demand need to be made actively (Roberts, 2022). It is important to follow the reservations coming in to be able to maximize the revenue from each space. Inventory management requires taking into account the entire bookable period rather than just one day. As a simple example it is more valuable to get a two-day event booked for a function space with maybe a slightly lower rate per attendee than booking a function space for one day.

It is also necessary to take into account the peak days of a space when setting restrictions and prices. Selling out a Wednesday in a business hotel early on will block the availability for the business travelers looking to book from Monday to Thursday once again diluting the revenue the hotel could yield for the entire week. In this case a simple length of stay restriction requiring staying for another night in addition to Wednesday would maximize the revenue for the whole week. An example is presented in Figure 5 where two hotels of 50 rooms have two very different results for the same week. Hotel 1 has taken in all reservations rather than restricting bookings for a high demand date. While Hotel 2 has set a length of stay restriction for the high demand day, Wednesday, and optimized the entire week rather than just one day.

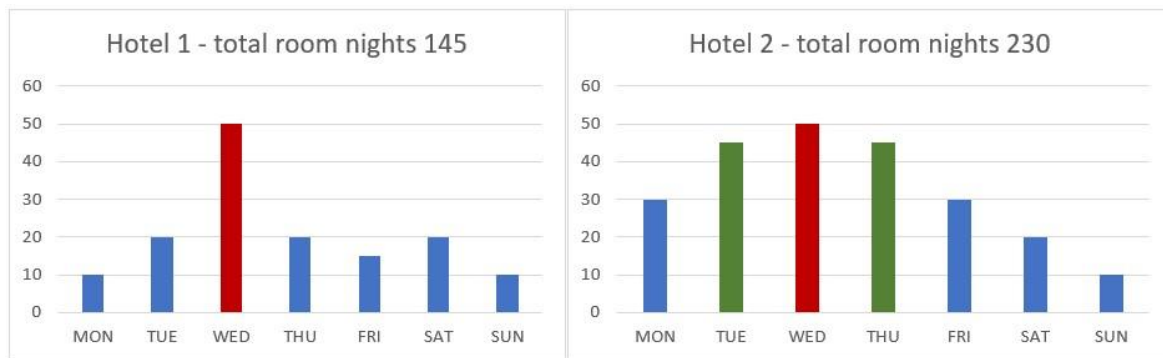


Figure 5. Hotel 1 has no restrictions and takes one-night bookings for Wednesday. Length of stay restriction in Hotel 2 restricting guests from only booking one (1) night stays on Wednesday maximizing the room nights for the whole week.

Hotels and airlines often book more customers than their capacity actually allows, practicing overbooking. For hotels in Figure 5 this would mean booking more than the physical inventory, 50 rooms, for e.g., Wednesday. The reason to overbook spaces is to confirm the capacity will be used 100% despite late cancellations or no shows. Late cancellations and no shows often end up with the service provider not receiving revenue for the service which was booked but not used despite guarantee and cancellation policies requiring it. As an answer to this, service providers anticipate the number of late cancellations and no shows and overbook their services the same amount (Fyall et al., 2013).

Overbooking has become a norm in many sectors of the hospitality industry but is often under ethical scrutiny. The ethical challenge arises when overbooking has been estimated, all customers arrive and the service provider does not have products to give to all of them, leading to outbooking situations where the customer gets relocated (Fyall et al., 2013). Customers do not understand why overbooking is done when they are negatively affected by it in outbooking situations. Frontline employees can be put in challenging situations as they in the customers point of view are the host /service provider and can in worst situations experience increased stress due to overbooking (Haynes & Egan, 2020).

Customer satisfaction and return rates suffer in cases where outbookings are not managed with the quality level the customer expects from the hotel. Thus, Haynes & Egan (2020) underline the importance of having clear preset processes for overbooking and outbooking, compensation policies and assuring that employees have flexibility to compensate within reasonable limits as this also alleviates the frontline employees stress and is more likely to ensure a satisfied customer.

2.1.4 Group Management

Group management is accepting or refusing groups based on individual demand forecast, and the value of the group (Fyall et al., 2013). The value of the group is evaluated, often with the help of a revenue management system (RMS). The evaluation determines whether the group will bring more revenue than potential individual transient customers which might be displaced by the group. An accepted group booking impacts transient forecast implying that a transient re-optimization should be run after a group booking has been made (Orkin, 2003).

Groups are more sensitive to external environmental factors making group management its own challenge within revenue management. Compared to individual transient bookings, groups are much more complex. Factors to note are size, arrival, peak nights, length of stay and amount of function space needed (Orkin, 2003). Groups have a substantial impact on demand levels of a property making them valuable for low demand seasons as they enable filling up available hotel rooms. On the other hand, during high demand seasons groups have a high risk of displacing individual demand which could be booked at a higher rate (Fyall et al., 2013).

John Riddel with PROS Revenue Management stated in his interview (Milla & Shoemaker, 2008) that group RM should be at the same level as transient RM due to its high impact. Decisions to accept groups should be based on the displacement of other groups in addition to transient bookings. The total value of the group needs to be taken into consideration (Milla & Shoemaker, 2008) as they might have additional services booked such as function spaces, or food and beverage services.

2.1.5 Distribution Channel management

Internet enabled service providers to have a much wider reach of customers much faster and easier. This affects inventory management as distribution channels have multiplied. Hotel rooms, airline tickets, even restaurants can be booked directly, online, or through a third party. More distribution channels translate into a wider reach of customers, but also higher distribution costs through commissions and fees. A property should have a clear channel strategy to follow with measurable metrics. Distribution channel decisions are affected by and affect pricing and inventory management decisions (Roberts, 2022).

Directing the customer to book directly has become a mantra for many properties. This can be done in multiple manners. Most often direct channels have better pricing, benefits, service attributes, or policies to entice the consumer to book directly. This is enabled by the lower booking costs for direct bookings.

On the other hand, third-party channels do have their benefits. Third-party channels work well for acquiring new customers as they have a wide reach. The emphasis is on acquisition. The goal is to gain new customers through third-party channels and have the customer book directly the next time (Roberts, 2022). This utilizes each channels' benefits to the full. Higher pricing is used for third-party channels to compensate for commissions and to make direct booking more enticing for the consumer. Differential pricing for third-party channels should be done carefully as to not repel customers from booking the property completely in attempts of driving the customer to book directly.

Roberts (2022) raises an important point when it comes to distribution management and strategies in the modern distribution environment. *Booking value* no longer shows the actual costs of bookings coming in from various channels. The metric followed should be *acquisition value*. This is due to the digital marketing opportunities in e.g., search engines and social media. Paying a search engine to drive customers to book directly can end up being just as costly as the commission paid to third-party channels. It is essential to comprehend the costs accumulated when driving direct bookings and of each channel used to be able to make a well-informed channel strategy.

2.1.6 Revenue Management Tools

These days hotel revenue managers have advanced tools to support their optimization of hotel room revenue. The level of tools depends on the size of the company and strategic decisions made by the executive. According to Roberts (2022) over 80 percent of hotels in the world do not have an RMS which recommends pricing. No matter what tools are used to support the revenue manager, it is crucial that all systems are integrated, all data flow is smooth, and no gaps exist. Gaps in data create a ripple effect of wrong decisions. Most common RM tools include revenue management system (RMS) and competitor data collection program.

Revenue Management System

A well-functioning revenue management system (RMS) saves the revenue manager the time of having to find changes and go over them in detail manually. The purpose of an RMS is to assist the revenue manager in the analysis of customer behavior, changes in the market and validate the price recommendations of the system and in which situations to override the recommendations (Fyall et al., 2013; Roberts, 2022). As pricing has become much more granular compared to the early days of revenue management, the tools needed to support pricing have also become more advanced. The advanced versions of RMS, evaluate daily the demand for each segment and based on this set the minimum price for each segment to optimize the room inventory generated (Phillips, 2005).

An RMS is built with each property's specific needs and details in mind such as market segments and pricing levels. Utilizing the set up and the data it receives daily the RMS forecasts demand for each segment and calculates the lowest rate required to optimize the inventory (Roberts, 2022). Due to this the data going in should always be valid and good. Bad data creates bad decisions. A revenue manager needs to understand how their system works, what affects the decisions of the system and on what basis the decisions are made. The system decisions can always be overridden, but if a revenue manager does not understand their system, they will not understand what their override will do to the system (Milla & Shoemaker, 2008). Full implementation and integration of an RMS usually takes from 6 months to 1 year (Roberts, 2022).

Competitor Data Collection

As competition in the hotel market has increased, so has the need to track external factors. In the beginning of RM, the interest in competitor data was not with strategic plans in mind but rather trivial (Haynes, 2016). This changed in the early 1990s when the supply increased, and competition became tougher. Third-party companies such as Smith Travel Research (STR) started collecting and providing data and reports on the markets. STR also created, with a push from Westin, the use of property specific competitor sets. The challenge lies in having a realistic competitor set from which individual hotels cannot be identified.

STR is still widely used, but new companies providing benchmarking tools are emerging such as Benchmarking Alliance (BA) in the Nordics. For a revenue manager a benchmarking tool supplies the data for analysis of the property's performance in the market and against their competitor set. Hotels measure their performance against their competitors and based on this

might make decisions for future actions. According to Haynes (2016) using competitor data alone is risky and a revenue manager must combine competitor data with other data sets when making decisions.

Depending on the level of RMS, it can be used for all revenue management tasks such as group pricing, analysis and reporting, and forecasting. Yet, as mentioned above one set of data is not enough when it comes to informed decision making. It is useful to have a business intelligence tool which pulls together all data for easy and visual use rather than using the RMS alone or solely relying on benchmarking data.

2.1.7 Analysis

In revenue management it is fundamental to understand the why. In the core of modern-day revenue management is analysis, conveying the results of the analysis to the management team and making strategic and tactical decisions together based on the results presented.

Analysis of performance and actions taken are in a key role of making strategic and tactical decisions when it comes to forecasting, pricing, and inventory management. As a basis for analysis are various reports, but as Roberts (2022) states the reports are useless unless a revenue manager can analyze them. Merely looking at a total change in segment or channel-level volume will not give the whole story of the property's status. The key is to understand the reasons behind the change and whether the change is good or bad for that specific property. Roberts (2022) recommends using a *Happy/Sad* litmus test on all reports. Put simply, from a performance report presented by a revenue manager it should be easy to know whether the reader should be *Happy* or *Sad*. If it is not, the reporting needs to be clarified.

Actions should be analyzed to understand what is working and what is not (Roberts, 2022). For example, a property decides to focus on growing corporate group segment and takes action. Actions taken and their effects should be analyzed as well as the fact whether there are changes in the segment and was the decision to increase it suitable for the property. Should this strategic decision still be enforced or is another segment more suitable for the property in question?

2.2 Total Revenue Management

A hotel will never make the most out of its facilities and services if only a part of them is optimized and by only focusing on RevPar. TRM aims to optimize every revenue stream a hotel has. This approach integrates all revenue streams of a hotel property including but not limited to food and beverage, function space, spa, and golf (Chan et al., n.d.; Kimes & Mcguire, 2001; Revfine.com, n.d.-b; Richard, 2017; Roberts, 2022; Varini & Kamensky, 2013; Zheng & Forgacs, 2017). Even ancillary service spends such as mini bar, internet access, parking, movie rental, or room service in a hotel should be included to revenue optimization (Zheng & Forgacs, 2017). Thus, a hotel should focus on TRevPar, total revenue per available room (*R_RevPAR-The Good, The Bad and The Ugly*, n.d.).

$$\text{Total Revenue Per Available Room} = \frac{\text{Total Hotel Revenue}}{\text{Total Number of Available Rooms}}$$

The challenge in TRM is the definition of its application. The literature on TRM is limited and what is available focuses on implementing RM to one revenue source rather than optimizing the entire property as one. Origin World Lah (2014) states that TRM is “when the interconnected relationships across revenue streams are considered simultaneously in order to create a bundle of prices that optimizes the hotel’s total bottom line” (Wang et al., 2015).

Chan et al. (n.d.) separate TRM to holistic and siloed approach accepting both but clarify the holistic approach to be more beneficial. Benefits of the holistic approach are focusing on maximizing revenue per guest, integrated data and decision making through the use of same system and process, advocates cross-selling between different revenue streams, improved pricing and guest-centric approach improving guest experience. A siloed approach focuses on individual revenue streams which could lead to missed opportunities. Eventually TRM should help understand when and which trade-offs to make for example food and beverage revenue versus function space rental (Chan et al., n.d., IDEaS 2014b, as cited in Wang et al., 2015).

TRM should be understood from the different perspectives of each stakeholder before creating a TRM strategy. Five main stakeholders are hotel owners and investors, hotel management, revenue managers, sales and marketing teams and guests and customers (Chan et al., n.d.). The

benefit from TRM for all stakeholders is “*improved competitiveness, increased transparency and control, and increased guest satisfaction*” (Chan et al., n.d. p. 8).

As with traditional RM for the accommodation side TRM improves the utilization of resources, profitability, financial performance, and use of data for decision-making. But TRM benefits further as the collaboration between departments expands, the alignment between pricing and availability improves for rooms, meeting spaces and food and beverage. Each factor leading to an improved guest experience and satisfaction which further leads to increased loyalty and repeat business. (Chan et al., n.d.)

The main reason to start the implementation road towards TRM is the increased risks in the tourism and hospitality industry. COVID-19 amplified the risk of only focusing on optimizing one single revenue stream of many (Varini & Kamensky, 2013). Even without a global pandemic the seasonality of demand is the main motivator to find new revenue opportunities and reach the objective of maximizing all revenue (Zheng & Forgacs, 2017).

2.2.1 Challenges

If TRM is so beneficial, why has it not been implemented in every hotel from small boutique to full-service hotels? As mentioned earlier, majority of hotels are not even implementing basic RM processes for hotel rooms. Since no best practice yet exists for every type of property, each will need to find their own processes best suited for their set of hotels (Zheng & Forgacs, 2017). Challenges for TRM include lack of talented staff, technology for seamless management of multiple revenue streams, organizational culture, employee education, profitability management and change management (Kimes, 2011; Kimes & Mcguire, 2001; Zheng & Forgacs, 2017). Roberts (2022) adds to this the lack of qualified data and competing priorities of each department.

Finding qualified revenue managers for the accommodation side alone is challenging as many experienced revenue managers become consultants or move to work for RM technology companies. RM has become technology driven, hence the fact that no ready system exists for TRM makes the implementation more costly and challenging to navigate around. Each department has its own systems and sub-systems, making smooth data flow between each department a challenge. Each department also has their own priorities which to focus on, often

leaving TRM at the bottom of the list. Yet the biggest issue lies in the organizational culture and employee education.

Departments affected are revenue management, operations, finance, information technology (IT), sales, marketing, and event management among others (Roberts, 2022). Training departments new to RM should be the top priority to ensure the reason and benefits for shifting towards TRM is clear for each employee and what their role in it is. The organization and each employee need to adopt cross-departmental thinking for success in TRM and this needs to be part of the organizational culture (Zheng & Forgacs, 2017).

Richard (2017) states in his article on hotel chains survival strategies that the future will require hotel chains to focus on maximizing guest spend. As John Riddel stated in his interview with Milla and Shoemaker (2008) companies will need to focus on the total customer value rather than one single revenue stream as they are currently doing. To reach this goal hotels need to set commonly understood metrics and clear communication of the performance (Roberts, 2022).

TRM is not about looking at each department individually, but at the hotel as one. To successfully utilize TRM, the management needs to break down silos, be creative and make confident strategic actions (Revfine.com, n.d.-b). Considering hotel rooms, RM has increased competition between hotels and thus market efficiency which is a good thing (Whitelaw, 2013). Now is the time to do it for all hotel revenue streams.

2.3 Function Space Revenue Management

Kimes (2011) found in her research in 2010 that function space revenue management was the next frontier in revenue management. Similarly in 2017 Zheng and Forgacs (2017) came to the same conclusions. Yet 12 years after Kimes' research function space revenue management is still in its infancy and requires much work to become widely used. Some reasons for this can be found in the challenges mentioned in the previous chapter on implementation of TRM. It is also due to the difference of function spaces to transient hotel rooms as function space demand influences and is influenced by food and beverage demand and room sales (Kimes & Mcguire, 2001). Expanding hotel revenue optimization systems to include function spaces is challenging

and for it to reach the level of automation currently available for hotel rooms will take time (Orkin, 2003).

Revenue in function spaces comes from various products with different profit margins (e.g., food and beverage, space rental, audio visual technology rental). Due to this rather than optimizing revenue the factor to optimize is *revenue contribution* of each function space for each time period a space is available (Kimes & McGuire, 2001).

2.3.1 Metrics

To understand how actions and strategies are affecting the performance of function spaces, measurable metrics are required. Metrics for function space revenue management are quite different from hotel room metrics. The following metrics have been selected from the literature found on function space RM (Kimes & McGuire, 2001; Zheng & Forgacs, 2017) combined with the information from companies endorsing function space RM such as IDEaS (RMS, a SaaS company), Benchmarking Alliance (BA) (market data collector and distributor), and Revfine.com (RM consulting company). Most metrics should be used for spaces separately and for all spaces in total to get the whole picture as well as comprehend which spaces are not used to their maximum potential. The terms attendee and delegate are used interchangeably.

As mentioned earlier Kimes and McGuire (2001) recommend the use of revenue contribution due to the varying profit margins in function spaces. Their recommended metric is Contribution Per Available space for a given time (ConPAST). The aim of function space RM is to maximize the revenue contribution of each space for each available time period (Kimes & McGuire, 2001). Time periods need to be established which is property specific based on the fact how many times function spaces can be sold for each day. This is often two or three times. A division can be made for example into two: AM (before 5PM) and PM (after 5PM). These are called day parts. If the data is available, the time period used can also be per hour, but many have challenges getting this level data from systems. Measuring day parts is valuable data as e.g., AM and PM behave very differently on different weekdays. This affects the strategic efforts such as focused marketing (Kimes & McGuire, 2001).

$$\text{Contribution Per Available space for a given time} = \frac{\text{Contribution per day part}}{\text{Amount of space square meters}}$$

Revenue can be split into revenue types (food and beverage revenue (F&B), room revenue) or bundled together (total revenue). Similar to ConPAST, IDEas (Madril, 2022) and Revfine.com (n.d.-b) both recommend the use of Revenue Per Square Meter (RevPAM) while BA provides both Total Conference Revenue Per Available Square Meter (TCRevPS) and Conference room revenue per available square meter (CRevPS) the difference being which revenue is included in the calculation. Kimes and Mcguire (2001) also recommend the use of Revenue Per Rented Square Metre-Hour (RevPSMH) and Revenue Per Available Square Meter-Hour (RevPASMH). All above mentioned are calculated in similar fashion: revenue divided by the square meters of the space.

$$\text{Revenue Per Square Meter} = \frac{\text{Revenue}}{\text{Available Square Meters of the Space}}$$

Attendee or Delegate Density (Madril, 2022) is to understand whether each function space is used to its maximum capacity. For this the maximum possible number of attendees needs to be measured for each space and for all spaces in total in non-theater style seating such as classroom or banquet. According to Madril (2022) this is because these seating styles have additional revenue tied to them achieving maximum revenue per attendee. BA specifies Delegate Density as Delegates per available Square Meter (DelPAS). This differs in the way that the different seatings are not noted, but only the square meters of the spaces. Instead of dividing attendees with maximum possible number of attendees it would be divided by square meters.

$$\text{Attendee density} = \frac{\text{Attendees}}{\text{Maximum possible amount of attendees}}$$

While IDEaS recommends the use of Revenue Per Attendee (RevPA), BA once again provides metrics for two different revenues: Total conference revenue per delegate (TCRevPD) and Conference F&B revenue per delegate (FBRevPD). The value of knowing the revenue per attendee is in understanding the relation between how busy a space is and how much revenue it generates. For example, a space which is very busy might not be generating the optimal revenue requiring management to look at their minimum charge for that space. This leads to knowing when to be flexible with the minimum charge of a space and creating seasonality in

the pricing rather than having a fixed minimum charge (Madril, 2022). Revenue per attendee is calculated by dividing revenue generated with the number of attendees.

$$\text{Revenue Per Attendee} = \frac{\text{Revenue}}{\text{Amount of Attendees}}$$

When it comes to strategic decisions, the most useful metric is Conversion Performance. With conversion performance the revenue booked is divided with the potential revenue of all inquiries. Just as Kimes and Mcguire (2001) raise the need to understand for strategic reasons how early inquiries come for each segment, it is critical to know what percentage of the inquiries actualize and what are the reasons behind lost or turned-down inquiries. The metric can be measured by date range, market segment, team member, event type and number of inquiries (Madril, 2022). Conversion performance is calculated by dividing the revenue booked by the potential revenue of all inquiries.

$$\text{Conversion Performance} = \frac{\text{Revenue booked}}{\text{Potential revenue for all inquiries}}$$

Lastly, the occupancy of meeting spaces is recommended to be tracked just as hotel rooms (Kimes & Mcguire, 2001; Zheng & Forgacs, 2017). Occupancy is tracked to understand the peak periods of a space and to assist in setting pricing. This is recommended to be done per day per time period per space. As mentioned earlier, the best time unit would be one hour, but can also be predetermined day parts. The challenge here lies in divisible and combinable function spaces. For example, a large ballroom can be divided into five (5) individual spaces which can further on be made into nine (9) spaces. If one of the five spaces of the ballroom is booked, the ballroom can no longer be sold as a whole. This affects the sales opportunities but also the occupancy of the space. Occupancy is calculated by dividing the used day parts by the available day parts. For example, if there are two day parts, AM and PM, and a space is booked for only AM the occupancy for that day is $1 / 2 = 50 \%$.

$$\text{Occupancy} = \frac{\text{Number of Day Parts Used}}{\text{Number of Day Parts Available}}$$

2.4 Revenue Management Implementation

According to Kimes and Mcguire (2001), the steps for function space RM implementation are (1) establish baseline performance, (2) understanding what drives demand, (3) develop revenue strategy, (4) implement said strategy, and (5) monitor strategy outcome. On the other hand, Revfine.com (n.d.-b) lists the following more general steps to start TRM which also work as guides in implementing RM in any department:

(1) adopt a total revenue management mentality in each decision-making, planning, meetings, and performance reviews, (2) train and educate all stakeholders in the hotel on the importance of total revenue management, its expectations and the successes that can be achieved, (3) apply revenue management strategies and practices, to all applicable departments, (4) establish a system and techniques to guide decisions that generate maximum revenue and profitability for the entire hotel, and (5) invest and/or implement RMS systems, tools, and metrics for tracking, reporting, and forecasting revenue at the department and property levels.

Baseline performance includes performance characteristics (metrics) of each space and demand behavior of each market segment. Performance characteristics are occupancy and revenue-contribution factor which should be applied to every day and time period of each space. Demand on the other hand refers to booking patterns of each segment such as how far in advance bookings come in. Understanding the demand and booking patterns will help with forecasting and making sales decisions (Fyall et al., 2013; Kimes & Mcguire, 2001; Phillips, 2005; Roberts, 2022).

Understanding the drivers of performance can be divided into two categories: internal and external factors (Kimes & Mcguire, 2001). Internal factors are physical constraints, labor availability, sales incentives, incomplete data, guest room availability, and prior bookings. Physical constraints refer to function spaces physical aspect, for example a space might not be large enough. Labor availability is a very current issue with qualified staff being limited in the entire hospitality industry in Finland (Huttunen, 2023). Sales incentives can hinder from making good sales from RM perspective. A factor tied with technology is incomplete data. Guest room availability factor comes in play when customers looking to book a function space and hotel rooms need to be turned away when there is no hotel room availability left. Prior bookings refer to spaces already being booked by other business. External references are city-wide events and market conditions. City-wide events can hinder from having space available for other customers while market conditions such as deteriorated economic condition can decrease business from some segments.

Based on the first two steps recommended by Kimes and Mcguire (2001) it is important to answer the following questions (Hayes & Miller, 2010) honestly and comprehensively:

- Who are our key buyers of meetings?
- What is their lead time for reserving space?
- What is the role of price in converting a prospect to a customer?
- What is the best utilization of each meeting room?
- What is the most profitable configuration (set-up) of those rooms?
- What meeting business has recently been lost and why?
- What meetings or conference business has been denied and why?

Taking into account internal and external factors and with knowledge on demand behavior, Orkin (2003) provides examples of rules which could be applied to avoid unwise and costly bookings for function spaces:

- Groups under X room nights may not be booked more than one year prior to arrival
- Function space may only be committed in a prescribed ratio of Y square meter per guest room sold
- No booking of local banquets for weeknights with more than Z months lead-time

The third step, developing a revenue management strategy entails scoping out the demand levels and setting prices to them (Kimes & Mcguire, 2001). Demand levels can be determined by which ever metric best suited for the property, for example occupancy or ConPAST. Just as with hotel room revenue management the demand levels should be divided into low, mid, and high demand for each space per day part, weekday, and season. These divides are once again done with property specific details in mind.

When implementing the strategy in the fourth step it is imperative to ensure that all stakeholders comprehend the benefits, purpose, and process of RM. As mentioned earlier with TRM challenges, training and organizational culture are biggest obstacles of successful implementation. Revenue Management is a process which impacts several operational areas (Orkin, 2003) underlining the need for comprehensive training in the organization.

- Sales and distribution

- Customer engagement
- The product, pricing, and inventory management
- Knowledge management, information systems, planning and forecasting
- Staffing

In an attempt to fight the lack of talented revenue managers Zheng and Forgacs (2017) suggest appointing revenue specialists from each department to assist the revenue manager in addition to their daily job. This will help cultivate potential talent for the future from within the organization.

Finally, the outcome of the strategy is monitored and analyzed (Chan et al., n.d.; Kimes & McGuire, 2001). This can be done through the metrics provided before as well as compared to a carefully selected competitive set if the data is available and realistic. When more data is collected, and strategic outcome analyzed, forecasting for function spaces will become easier and more accurate. It is still necessary to remember that banquets and meetings are more complex and sensitive to external environmental changes compared to transient hotel rooms making forecasting more challenging (Orkin, 2003).

3 Method

The research was conducted as a case study for a company in the hotel industry. It was designed as a qualitative study. The reasoning behind the qualitative approach was the subject of the research requiring deeper discussions on the current state and understanding of revenue management.

One-on-one interviews were conducted with 6 industry professionals from the same organization in Finland: Revenue Manager with experience in M&E RM, Director of RM, Director of Food and Beverage (F&B), two Meeting and events (M&E) managers and Operations Manager. Each interviewee is an expert in their field and have long work experience in the hospitality industry from more than one company. Participants were from two different types of properties: properties with no RM tools implemented for M&E (type 1) and properties with some tools implemented for M&E (type 2).

Interview themes and questions were formed based on the literature on revenue management and function space revenue management. These include Campbell, (2022); Fyall et al., (2013); Hayes & Miller, (2010); Haynes & Egan, (2020); Kimes & Mcguire, (2001); Orkin, (2003); Roberts, (2022); Zheng & Forgacs, (2017). Based on previous knowledge of the RM tools and systems used in the company some key points were discussed concerning the future of function space RM. The interviews covered the following revenue management themes: inventory management, pricing, customer segments, key performance indicators, analysis, and forecasting. The full interview topics are in Appendix 1.

F&B and function space interviews focused on the current processes and knowledge on RM themes as well as aspirations on improving the current processes. The interviews of revenue management professionals focused on the knowledge of function space revenue management and aspects of its implementation. The duration of the interviews varied between 40 minutes and 1.5 hours. Interviews were conducted between January and March 2023 virtually through Teams. They were recorded and transcribed with Teams in Finnish.

The interviews were processed, coded, and analyzed with an abductive analysis method. RM tactics and practices already exist and are used in the organization for hotel rooms setting a framework, but as function spaces in many aspects differ from hotel rooms the chance for new practices based on the same ideology is high. Abductive analysis leaves room for new discoveries and revelations. Inductive reasoning works bottom-up and starts with a theory and looks for additional facts to reinforce the empirical research. Deductive reasoning works from top-down setting expectations for the findings from current theories. Abductive reasoning on the other hand, starts from a theory or observation, but does not look to enforce it rather than finding a likely explanation and further observations which can be surprising. (Timmermans & Tavory, 2022) This room for surprises and new even unlikely observations is why an abductive approach was chosen over deductive and inductive.

The starting point for the themes in the analysis were selected based on the aim of the research to comprehend the current revenue optimization of function spaces and the implementation of RM in function spaces. Primary themes are listed below:

- current state of processes
- aspects of RM implementation

- blockers and challenges
- view of RM in M&E in the future

Current state of processes is purely to study the status of the organization now. While *aspects of RM implementation* and *view of RM in M&E in the future* were selected to comprehend the possible knowledge already existing in the properties of improved optimization. Since it was already known that there are two types of properties the *blockers and challenges* was selected to evaluate what has enabled some properties to move forward with implementing some RM tools to function spaces and some not.

The responses of the interviewees were incorporated in the molding of the themes in the analysis based on the recurrence and relevance of topics. The primary themes stayed the same throughout the coding, but the subcategories expanded deeper into the various aspects of revenue management. As RM affects various aspects of operations, sales, and management it was critical to comprehend the extent of each tool used, their occurrence and weight within the subject. As the interviews were semi-structured the discussion of RM tools often overlapped with current and future processes making it necessary to identify some of these codes separately as *new*. Implementation was divided into three focus areas which were clearly stated in each interview. Finally, blockers and challenges were separated as blockers hinder from moving forward, but challenges are something that can be worked around. Table 1. presents the final themes and codes used.

Current process	RM in M&E in the future	Implementation	Blockers and Challenges
<ul style="list-style-type: none"> •Data •Pricing •Inventory management •Tools •Forecasting •Segments •Management •KPI •Sales •Training •Overbooking •Analysis •Restrictions •Group RM •Cost management 	<ul style="list-style-type: none"> •Need for RM •New way of Pricing •Mindset •Understanding of M&E RM •Ownership •New KPIs •Profit Management 	<ul style="list-style-type: none"> •Education •First Steps •Key factors 	<ul style="list-style-type: none"> •Challenge •Blocker

Table 1. Themes and codes used for interview analysis.

Coding of the interviews was done with QDA Miner Lite (QDAML) program. After coding all interviews the results were pulled into excel from QDAML and put into Table 2. This presents at what scale each topic and subtopic was discussed at, at what percentage they were mentioned, and where the focus of the interviews in reality was. This is to better understand each topics scale and their affect better. Results are further discussed in chapter 4.

4 Results

The interviews focused on comprehending the current status of meetings and events management, optimization, and sales which is reflected in the results. Current processes cover 53% (Table 2.) of the content and from these data and pricing were the most discussed. Data and mainly the lack of it came up together with other subcategories such as inventory management, customer segments, forecasting and pricing to name a few. This led to data having the largest share from the subcategories highlighting its importance in RM. RM in Meetings and Events in the future was the second most discussed topic focusing mainly on the need for it as well as the mindset required and possible new ways of pricing. Least discussed theme was the blockers and challenges, but this is not due to lack of them but more due to the clear understanding of what they are and what the status of them is. Topics under implementations were evenly distributed between education, first steps and key factors of M&E revenue management. Detailed code appearance and shares can be seen in Table 2.

Category	Code	Data	
		Code count	Percentage
Current process	Data	40	9,5 %
	Pricing	30	7,1 %
	Inventory management	24	5,7 %
	Tools	19	4,5 %
	Forecasting	17	4,0 %
	Segments	15	3,6 %
	Management	14	3,3 %
	KPI	12	2,9 %
	Training	11	2,6 %
	Sales	11	2,6 %
	Overbooking	9	2,1 %
	Analysis	8	1,9 %
	Restrictions	5	1,2 %
	Cost management	4	1,0 %

	Group RM	4	1,0 %
Current process Total		223	53,0 %
Implementation	Education	24	5,7 %
	First steps	21	5,0 %
	Key factors	19	4,5 %
Implementation Total		64	15,2 %
RM in M&E in the future	Need for RM	34	8,1 %
	New way of Pricing	20	4,8 %
	Mindset	18	4,3 %
	Understanding of M&E RM	16	3,8 %
	Ownership	14	3,3 %
	New KPIs	8	1,9 %
	Profit Management	3	0,7 %
RM in M&E in the future Total		113	26,9 %
Blockers and Challenges	Challenge	19	4,5 %
	Blocker	2	0,5 %
Blockers and Challenges Total		21	5,0 %
Total		421	100 %

Table 2. Appearance of each code and share.

4.1 Current status

All discussion of data underlined the fact that at the current status it is difficult or impossible to get the sort of data wanted or needed. Lack of data was also strongly connected to inefficient systems and having several systems which are not integrated with each other. Each M&E professional mentioned data capturing requiring a lot of manual work searching the data or building various excels or pivot tables. Second matter which came up was the challenge of data validity. As an example, at type 1 properties the final revenue of an event does not connect to and cannot not be put into the CRM where quotes and inquiries are handled. With the lack of data many answers for current processes and for decision making included gut feeling and experience.

Insufficient data affects at least on knowledge and understanding of business, customer segments, conversion rate of inquiries, lead times and analysis. All of these topics were answered based on gut feeling, experience or that the data could possibly be looked up, but it would require a lot of manual work and is very tailormade. For the type 2 properties there were discrepancies with answers on data available and used, but this can also be due to the different positions. It could be that all departments do not have access and/or understanding of the utilization of those tools. It was clear that the tools are not in use as they should. As for analysis

of results for M&E it is quite high level and mainly validating actualization versus forecast. One stated that analysis is actually missing from the processes.

Pricing has a big role alongside data in revenue management as presented in chapter 2.1.2. Type 2 properties have several price points for different levels of demand while type 1 properties have fixed prices which are listed on the website for everyone to see. Fixed pricing is mainly based on costs and wanted profit margin. Competitors prices are possibly reviewed annually, but these are not easily accessible making pricing based on these challenging. Yet it is said that prices are in line with the market. Both types of pricing provide flexibility within the pricing for sales representatives, but fixed pricing is still too static in everyone's opinion.

When it comes to the new way of pricing, it is expected to be dynamic demand based. Some see it possible to have pricing variance within a day for morning and evening or possibly based on segments while others would keep it at a daily level. Flexibility based on the customer's needs was suggested. For example, if the customer has a lunchtime meeting and their primary need is the lunch, and the meeting space is secondary why not be flexible on the secondary need since the customer is likely willing to pay more for the lunch. Above all, the common opinion was that pricing needs to be easily manageable for both operations and sales office.

Currently type 1 properties have no specific inventory management method. Bookings come in through the centralized sales office where it is based on the sales executive's discretion whether an inquiry is accepted, and an offer sent to the customer. Here bookings are accepted on a first come first serve basis. While type 2 properties with dynamic pricing do inventory management through minimum pricing and have set a restriction for the largest venue based on lead time to maximize its potential.

When it comes to overbooking, there are very different views on it. For some it is a given that to optimize occupancy and revenue you need to at times overbook spaces. While for others it is not suitable for M&E as the stakes are too high unlike in the accommodation side. The discussion also went into defining what overbooking could be in M&E. It does not necessarily need to be overbooking or double booking a space but could be estimating the number of guests lower than booked to assigning a group a smaller space to sell a bigger space to another group.

M&E booking channels include three third party sites. Type 2 property hotels have direct online booking possibility. Type 1 properties which are not online bookable consider it as a loss of business and an update requirement to stay competitive in the market in the future. The view is that bookers are impatient and do not have time to wait possibly over three days for an offer if they can book at a competitor online within minutes and without phone calls or email conversations. No channel strategy has been implemented.

Tracked KPIs are same for both types of properties in M&E. The main KPI tracked in M&E and F&B is the work hour efficiency. In addition to this the only other KPI for M&E mentioned was profit. From TRM perspective type 2 properties track TRevPor, total revenue per occupied room, which is similar to ADR, but it takes into account all revenue streams of a property for example accommodation, M&E, F&B, and Spa. Discussion of the possible future KPIs with the implementation of RM for M&E was a little uncertain since it was not clear what would be the most beneficial. Conversion performance came up the most as well as the average price per attendee. Occupancy of the spaces was mentioned, but the added value of the KPI was not quite clear.

In the organization forecasting is done 15 months rolling. From this it is easy to spot when a month is not developing as it should and short-term tactical actions can be taken. Currently forecasting in M&E includes sales, turnover, work hours, and work efficiency hours. One type 1 property M&E manager explained the forecasting process starting from going through each reservation on the books one by one to validate the status of the booking and confirmed value. This is a very manual and time-consuming process. After this forecasting is based much on knowledge of the seasonality, experience, and gut feeling. Type 2 properties use a pipeline report as a supportive tool when forecasting. This shows on the books data without having to open bookings one by one. One of the challenges in forecasting currently is the lack of comparable data from previous years due to Covid-19 and type 1 properties do not have access to data from before Covid-19. Tools for forecasting in both types of properties are “okay”, but the issue here also lies in the accessibility of data and data flow between systems. When discussing the future of forecasting it is hoped to improve towards a more consistent and ongoing process rather than a once in a month time-consuming process. The ability to easily track how the property is performing versus the forecast is missing and this is due to systems.

4.2 Implementation of Revenue Management

The current understanding of M&E RM amongst the interviewees varied greatly. All understand there are benefits to it and have at the least internalized dynamic pricing as a concept and its need.

Discussions on implementation of RM were quite identical with all interviewees; education and teaching the new mindset are required. The mindset for TRM or even just implementing RM in M&E should come from the owners and top management which everyone needs to commit to. Everyone should be on the same page of the potential benefits gained. Even the frontline worker should understand the purpose of revenue management and what difference it can make. Some did consider it unnecessary to train frontline employees on RM, while others consider it beneficial with additional sales and customer service in mind. It was mentioned that some operational employees are wanting more information on how the department is performing versus the forecast and budget.

Change in mindset does not mean only internalizing the optimization of revenue or profit but there can also be potential in improving customer experience through RM according to an F&B manager. A revenue manager stated that things can move quite quickly after the mindset has been changed if wanted, but it needs to happen on all levels at the organization. From department heads it requires interest in understanding what the business consists of based on actual data and being prepared for learning by doing as there is no ready set template. As with everything with people, training needs to be repeated at regular intervals.

Education and training are more than teaching the basic legalities of RM. Data and comparability need consistent data input. This requires going through in what format everything should be done as there are variations in how the numbers of M&E can be tracked. An example that came up was the number of attendees and whether this should be tracked by the actual number of attendees or by billed number of attendees. Methods and processes need to be aligned in the first stage of implementation. Currently three properties are submitting data into BA from the organization, but it was unclear whether all properties are aligned with the format.

When it comes to the key factors of RM in M&E the following were the most mentioned:

- Company Culture
- Data
- Tools and systems
- Education
- Consistency
- Commitment

On a more practical level the key factors for M&E RM were average price, following pick-up, business on the books and understanding the segmentation of the business. All of the answers reflect the pain points of the current processes mainly at type 1 properties. This can also be seen when discussing challenges of implementing RM for M&E. Most mentioned challenges were data, possible hesitance of employees committing long-term, and consistency. Revenue managers also brought up the lack of market data, but did not consider it critical in the beginning of the implementation of RM.

The only blocker currently was systems. Getting better interconnected systems could solve many of the other challenges. There is an ongoing large-scale system update in the organization including a new sales and catering system for M&E, but the possibilities of the new systems were still unclear and whether it can be integrated with other systems smoothly.

Finally, on the actions for implementing RM the first step mentioned by several interviewees was the culture change and not just internally but also in the market. Next is to understand the business: why business is accepted, lost, and turned down, average revenue per attendee, seasonal patterns, lead time, customer segments etc. After collecting the data for a while, the next step is pricing.

Pricing requires data and knowledge to base the decision on. In the interviews the revenue management professionals did state that some conclusions based on the data can be done quite soon after data collection e.g., weeks or few months. For a proper comprehension of the business the longer the data collection the better and it was stated by one revenue professional that one year is a minimum needed to base strategic decisions on the data. Pricing is a longer process where some recommend testing around and RM working together with sales and operations to gain customer insight. Final step is to continue with the process long-term.

Ownership of RM in M&E is not quite as straightforward as with accommodation. All participants agreed that it is a team effort between revenue manager, operations, and sales manager and active communication between all parties is necessary especially in the beginning. Later on, the ownership of updating pricing and forecasting is seen to be at the operations as they are expected to have more insight. In the case where there would be more resources available an option of a designated person for M&E in RM team was suggested depending on the number of properties and types of processes. Forecasting is seen to belong to operations as that increases commitment to the forecasts.

5 Discussion and Recommendations

Revenue management has been strongly implemented in type 1 properties in the organization since 2015 with the application of IDEas RMS for the accommodation side. As stated earlier these properties have not implemented RM for M&E. Type 2 properties in the organization are implementing RM for accommodation without an RMS as well as some aspects of RM for M&E since 2019. So, the question arises why more properties are not using RM for M&E even at the most basic level as some are already doing it with limited tools.

5.1 Discussion

When it comes to the research question *how revenue is currently optimized in function spaces* there is a difference between the types of properties, but neither are optimizing to their full potential. The results of the interviews clearly reflect three of the four challenges listed by Zheng & Forgacs (2017): lack of talented personnel to manage different revenue streams, technology, and organizational culture and employee education. Lack of qualified data mentioned by Roberts (2022) is one of the main issues in both types of properties and rises mainly from technological challenges with current systems. The fourth challenge by Zheng & Forgacs (2017), between different departments, does not come up in the interviews as each interviewee has the same goal of optimizing M&E with the help of RM and as the process has not been implemented yet to type 1 properties the possible conflicts have not been experienced nor recognized. The competing priorities of each department discussed by Roberts (2022) could be argued against with the same premises as above. Each department interviewed currently has at least one same priority; improving data accessibility and quality.

Challenge of technology is expected to be corrected soon since the organization is going through a system update. The property management system (PMS) for all hotels is being changed and the transition also includes updating the sales and catering system, which is used for meetings and events. This is an unclear update still as its functionalities as well as the timeline were not clear at the time of the interviews. There was no knowledge of the reporting and data opportunities of the new sales and catering system, and it was still referred to as a pilot. This ties together with the organizations mindset as it is unclear what are the reasons for selecting the new systems. Will data flow, system integrations, and data quality improve along with the updates?

With the update in systems there should come a clarification in the mindset and corporate culture from the owners and top management (Fyall et al., 2013; Kimes, 2011; Kimes & Mcguire, 2001; Zheng & Forgacs, 2017). It was stated that the culture of the organization still focuses very strongly on RGI and RevPar when it is wanted to and should shift the focus towards TRevPar, total revenue per available room, and TRGI, total revenue generation index. TRevPar has been added in some reporting, but the follow up of the KPI sounds incomplete. The willingness towards wider implementation of RM is clearly in the operations and RM leaders, but the culture and the discussion on a higher level seem to be only halfway there.

The current status of decision making in M&E is greatly done based on gut feeling and experience. As the easily available data is limited it can drive managers to make decision based on their personal knowledge of market, operations, segments, and sales rather than take the time to compile the data from various sources. On the other hand, even compiling the data from various sources can lead to skewed conclusions as the systems are not fully integrated with each other. This is a double-edged sword as manually compiling data takes time away from strategic work, but if the technology is not there to support easy data collection the strategic work is done based on insufficient understanding of the circumstances. As mentioned in the interviews, analysis is currently either missing or it is superficial. The first step of implementing RM to M&E is to establish baseline performance (Kimes & Mcguire, 2001) and in this case it seems to require ensuring all possible data is collected, clarifying which are the correct data sources to use and which data to focus on.

The surprising fact which came up in the interviews was that even type 2 properties which were already using BA still focused only on work efficiency hours in the operations. The opportunities and benefits provided by BA are lost if the management in the operations have not fully internalized the use of the tool. This underlines the need for thorough education of benefits of RM (Kimes, 2011; Kimes & Mcguire, 2001; Zheng & Forgacs, 2017) and ensuring department heads are committed long-term to submitting and utilizing data as a part of strategic work. The shift from using gut feeling and experience to drive decision making to letting data and insights to drive decision making should start as soon as possible.

Forecasting is done in both type 1 and 2 properties 15-months rolling, but when reflecting on the legalities of forecasting from RM point of view it can be stated that there are limitations especially for type 1 properties. Once again, the quality and amount of data available for M&E managers hinders them from making more accurate forecasts. Yet these are supposed to be the basis of other estimates such as costs (Johansson, 2022; Roberts, 2022). As discussed in chapter 2.1.1, for a well-reasoned forecast it is needed to know and understand the effects of several factors on demand (Fyall et al., 2013; Johansson, 2022; Roberts, 2022). If each reservation is required to open one-by-one to get a clear understanding of business on the books, it can be assumed that a 15-month forecast takes too long to make.

Another good example of valuable data which is currently missing is reliable absolute conversion performance numbers. Making forecasts and strategic decisions based on them without having an understanding of the business lost, turned down, accepted, and lead times (Kimes & Mcguire, 2001; Madril, 2022) at a segment level or even at a general level can lead to lost revenue. This can further lead to businesses continuing on the wrong path. Limited knowledge on lead times has an effect on forecasting as well as inventory management and setting restrictions.

Pricing is often seen as a key tool of RM. This can be concluded also from the interviews as improved pricing was perceived in the operations as one of the main aims to reach. Pricing having a major role in optimizing profit (Marn & Rosiello, 1992), it should be done carefully with data to back it up. Currently type 2 properties with dynamic pricing have eight pricing levels while type 1 properties with statics pricing have fixed rates for the whole year. The former has used the average rate as their starting point and created low and high range rates

from there. The latter are priced mainly based on costs and profit margin. Both seem to be based on limited data.

Pricing should be reviewed and streamlined for all properties with a clear strategy into three levels, low, mid, and high, as recommended by Kimes & McGuire, (2001). The possibilities of pricing at a more granular level such as per day part rather than per day needs further investigation. Current fixed pricing and day level pricing limits the opportunities to optimize profit. Pricing strategy opportunities are limited by the systems and tools in use as the maintenance and quoting of the prices need to be effortless for all departments involved.

The lack of properties in the market submitting M&E data into BA will become a challenge down the road. Both revenue managers interviewed agree that at the moment the priority is to create processes internally and educate on the importance of data in decision making. Limited market data will negatively affect the analysis of the properties performance when compared against the market just as an invalid competitor set would (Haynes, 2016). Data submission to BA benefits all properties on the market which is why it is valuable to work together with competitors to improve the coverage.

Group management is an aspect of RM which would require further development of systems such as RMS and integrations between PMS and S&C systems. There is a clear need for improved group management alongside of M&E RM if TRM is the end goal since group bookings can displace both transient and other group business. Groups have a high impact on demand levels and are more sensitive to external environmental influence as stated by Orkin (2003). This is a key component to take into account when developing M&E RM due to the fact that on the side of M&E bookings accommodation is often requested to some extent.

5.2 Recommendations

Second research question is concerning the implementation of RM to M&E, *where to start when implementing revenue management in a hotels function space*. Recommendations depend on the property type, but as one organization these should be coordinated.

Type 1 properties need further information and knowledge of the possibilities for optimizing their M&E revenue stream. Type 2 properties on the other hand need to evaluate the scope of

knowledge of what the business is made up of and the need for further training on RM. The former can be done through the questions from Hayes & Miller, (2010) presented in chapter 2.4. Need for RM training can be done together with other properties to ensure consistency. This sets the organization in the middle of merging two methods of working, implementing M&E RM and the path towards TRM.

The process should start from sharing knowledge, tools, and setting a joint goal. Currently there is limited shared knowledge of what type 2 properties are doing when it comes to M&E RM and which tools and processes have been created. It is recommended due to the various stages of different properties to align processes and coordinating the road map for M&E RM. Depending on the resources it would be ideal to coordinate or have a meeting with the general managers and/or department heads concerning the changes to be made, commitment needed, and the benefits of implementing RM. Adopting the RM mentality from there onwards is part of the process (Revfine.com, n.d.-b). In an organization with several properties there needs to be a department, team, or person to lead the change.

A significant step forward would be for all properties to set up their M&E information and start submitting data into BA. This would enable receiving comparable data and building a baseline performance from which it is possible to further analyze the demand drivers as per Kimes & McGuire (2001). As there are several properties where activities are done independently even though guidance is given centrally, it is vital to validate the property set up in BA is done in similar fashion. Later on, the data submitted to BA also needs to be checked it is in the same format for all. Data format is a challenge in M&E which can create challenges within the market as it is impossible to validate what format competitors are submitting their data. The example being whether attendees are submitted based on invoice number of guests or attended number of guests.

When data submission has been established the next step is to agree on KPIs to track and based on which the performance of the M&E at the property is to be evaluated. BA provides TCRevPS, CRevPS, DelPAS, TCRevPD and FBRevPD (see chapter 2.3.1.), but it is important to comprehend what is the benefit and use of tracking each KPI chosen. It should be considered what a change in KPI means, what type of actions should it initiate and how the KPI changes correlate with each other. If the reasons for fluctuations of a KPI and the effects of it are not understood, the KPI is useless and strategic decisions should not be based on it. KPIs need to

be followed up on regular intervals to validate the suitability of the KPI for properties in question. Following the steps established by Kimes & Mcguire (2001) this step would be understanding the demand drivers through the KPIs.

Developing a revenue strategy (Kimes & Mcguire, 2001; Revfine.com, n.d.-b) requires a good amount of data to base it on. As the system updates for all properties are still ongoing it would not be wise to change pricing before these have been completed. Depending how soon the process towards M&R RM is initiated pricing could be changed for the year 2024. As a part of the RM strategy, inventory management and possible restrictions should be evaluated along with a channel strategy. Possibilities of implementing direct online bookings for type 1 property M&E spaces needs to be looked into together with the possible changes the system updates have on type 2 properties online booking.

Pricing should be modified to be dynamic demand based for all properties and with three levels, low, mid, high. A pricing strategy needs to be decided on with several properties sharing the same market. As the technology and tools are limited it is sufficient enough to set prices at a day level to start with. It is recommended to look into setting up pricing at day part level, AM, PM (Kimes & Mcguire, 2001). Hourly pricing at the stage where pricing is updated manually does not seem realistic even if the demand data was available. When rate management is provided by a system, it is recommended to implement more detailed pricing if possible. Strategic decisions should be made as a team effort with revenue management, M&E operations, and sales managers participating in the process.

Need for education and training was strongly agreed on by interviewees and a key element lifted in the literature. Latest when the RM strategy is ready to be implemented each department affected needs an introduction to RM and how it affects their daily job. It should be noted that the training cannot be the same for everyone as different component of RM influence different departments. RM impacts operations, finance, information technology (IT), sales, marketing, and event management (Roberts, 2022). Sales office and operations are in a key role with the change in pricing, quotation, and inventory management.

When it comes to the ownership of M&E RM, literature reviewed does not touch on it more than Zheng and Forgacs (2017) suggestion on appointing a revenue specialist from each department to assist the revenue manager. This would be in addition to their daily jobs which

can raise the issue of conflicts in priorities (Roberts, 2022; Zheng & Forgacs, 2017) of different departments. Interviewees consider the ownership being shared and a joint responsibility between operations and RM. This is the very opposite of accommodation RM where RM has full ownership. Cooperative processes need to be developed and clear responsibilities when it comes to daily, monthly, and annual tasks.

6 Conclusion

In conclusion, the current status of M&E optimization in the entire organization is inadequate based on the results from the interviews in comparison with the literature on the subject. Type 2 properties should re-evaluate the extent M&E RM and tools provided are utilized while type 1 properties are clearly having to rely on insufficient data. Operations management from both types of properties mentioned experience and gut feeling too many times as the guide and basis for their decisions. Not to mention the data collection challenges.

All interviewees are experienced professionals and experience is always required for reliable decision-making. With experience and some data, a department or a company can improve their revenue to a certain point. The challenge is not the capability or skills of the people. The challenge is the limited tools, opportunity, and information professionals have to drive revenue and profit. The desire for improvement exists but is it enough for consistent long-term changes is to be seen. Now after most of COVID-19 has passed it seems there is more willingness to introduce RM into new revenue streams.

For a successful implementation of RM to any new department and of TRM, change management will be needed based on the vast scope of actions and recommendations discussed in chapter 5.2.

6.1 Future studies

This research focused on the current status and next steps of one organization when it comes to implementing RM in M&E with TRM as the end goal. TRM is a vast subject which for the purpose of this research needed to be limited to only one aspect of it, M&E. TRM needs further research from different types of properties. Studies on holistic implementation on TRM are

more necessary, but also further studies on implementing RM to other revenue streams such as ancillary sales, or spa are needed.

Data and systems being a main pain point, future studies should look into the challenge of the large landscape of systems and lack of integrations across departments in the hospitality industry. The effects on optimizing profitability these shortcomings can have would be valuable to understand.

References

- Alrawabdeh, W. (2022). Seasonal balancing of revenue and demand in hotel industry: the case of Dubai City. *Journal of Revenue and Pricing Management*, 21(1), 36–49. <https://doi.org/10.1057/s41272-021-00290-6>
- Anderson, C. K. (2011). *Demand Management. Handbook of Applied Hospitality Strategy*. <https://chriskanderson.github.io/index/>
- Campbell, P. (2022, April 28). *How Does Dynamic Pricing Work? Examples, Strategies and Models*. ProfitWell. <https://www.priceintelligently.com/blog/bid/198355/how-to-implement-a-dynamic-pricing-strategy-without-the-pr-backlash>
- Chan, B., Dr. Remy, D., & Johansson, A. (n.d.). *THE BENEFITS OF TOTAL REVENUE MANAGEMENT*.
- Fyall, A., Legohérel, P., & Poutier, E. (2013). Revenue Management Concepts and Techniques. In *Revenue Management for Hospitality and Tourism* (pp. 2–86). Goodfellow Publishers Ltd. <https://www.perlego.com/book/868830/revenue-management-for-hospitality-and-tourism-pdf>
- Hayes, D. K., & Miller, A. A. (2010). *Revenue Management for the Hospitality Industry*. John Wiley & Sons Inc.
- Haynes, N. (2016). The evolution of competitor data collection in the hotel industry and its application to revenue management and pricing. *Journal of Revenue and Pricing Management*, 15(3–4), 258–263. <https://doi.org/10.1057/rpm.2016.7>
- Haynes, N., & Egan, D. (2020). The perceptions of frontline employees towards hotel overbooking practices: exploring ethical challenges. *Journal of Revenue and Pricing Management*, 19(2), 119–128. <https://doi.org/10.1057/s41272-019-00226-1>
- Heo, C. (n.d.). *Total Revenue Management: Non-traditional RM Application*.
- Huttunen, K. (2023, February 2). Matkailu- ja ravintola-alan työvoimapula ei ole ratkennut, mutta yrittäjät uskovat tilanteen paranevan. *Yle*. <https://yle.fi/a/74-20015655>
- Johansson, A. (2022, November 24). *How to think about forecasting*. Demandcalendar.Com. <https://www.demandcalendar.com/blog/how-to-think-about-forecasting>
- Kimes, S. E. (2011). The future of hotel revenue management. *Journal of Revenue and Pricing Management*, 10(1), 62–72. <https://doi.org/10.1057/rpm.2010.47>
- Kimes, S. E., & Mcguire, K. A. (2001). *The Scholarly Commons Function-space Revenue Management: A Case Study from Singapore Part of the Hospitality Administration and Management Commons*. <http://scholarship.sha.cornell.edu/articleshttp://scholarship.sha.cornell.edu/articles/467/>
- Kotler, P., Keller, K., Ang, S., Leong, A., & Tan, C. (2009). *Marketing Management*. Pearson Education.
- Lak, H. (2022). 4th Live Nordic Revenue Forum, Shifting Gears [PowerPoint presentation]. In . Seidat <https://app.seidat.com/presentation/shared/YGYK8tGxxWckcW6si/0/0>
- Lee, B., & Saunders, M. (2017). *Conducting Case Study Research for Business and Management Students* (1st ed.). SAGE Publications. <https://www.perlego.com/book/1431360/conducting-case-study-research-for-business-and-management-students-pdf>
- Lehtimäki, A.-V., Monroe, K. B., & Somervuori, O. (2019). The influence of regular price level (low, medium, or high) and framing of discount (monetary or percentage) on perceived attractiveness of discount amount. *Journal of Revenue and Pricing Management*, 18(1), 76–85. <https://doi.org/10.1057/s41272-018-0152-2>
- Lieberman, W. (2016). The evolution of market segmentation in revenue management and dynamic pricing. *Journal of Revenue and Pricing Management*, 15(3–4), 283–292. <https://doi.org/10.1057/rpm.2016.11>

- Madril, B. (2022). *A Quick Guide to Important Meeting & Event KPIs*. IDEas.
<https://ideas.com/a-quick-guide-to-important-meetings-events-kpis/>
- Marn, M., & Rosiello, R. (1992). Managing Price, Gaining Profit. *Harvard Business Review*, September–October 1992, 84–93. <https://hbr.org/1992/09/managing-price-gaining-profit>
- Milla, S., & Shoemaker, S. (2008). Three decades of revenue management: What’s next? *Journal of Revenue and Pricing Management*, 7(1), 110–114.
<https://doi.org/10.1057/palgrave.rpm.5160127>
- Orkin, E. (2003). The emerging role of function space optimisation in hotel revenue management. *Journal of Revenue and Pricing Management*, 2(2), 172–174.
<https://doi.org/10.1057/palgrave.rpm.5170063>
- Padhi, S. (2013). Revenue Management for Fixing Quotas and Prices of Perishable Commodities under Uncertainty. In *Revenue Management for Hospitality and Tourism* (pp. 88–100). Goodfellow Publishers Ltd.
<https://www.perlego.com/book/868830/revenue-management-for-hospitality-and-tourism-pdf>
- Phillips, R. (2005). *Pricing and Revenue Optimization* (1st ed.). Stanford Business Books.
<https://ereader.perlego.com/1/book/745607/7>
- Revfine.com. (n.d.-a). *Revenue Management; clearly explained!* Retrieved December 3, 2022, from <https://www.revfine.com/revenue-management/>
- Revfine.com. (n.d.-b). *Total Revenue Management: How Hotels Can Maximize Their Revenue*. Retrieved December 3, 2022, from <https://www.revfine.com/total-revenue-management/>
- Richard, B. (2017). Hotel chains: survival strategies for a dynamic future. In *Journal of Tourism Futures* (Vol. 3, Issue 1, pp. 56–65). Emerald Group Publishing Ltd.
<https://doi.org/10.1108/JTF-06-2016-0018>
- Roberts, D. (2022). *Hotel Revenue Management, The Post-Pandemic Evolution to Revenue Strategy*. Business Expert Press. <https://ereader.perlego.com/1/book/3051387/14>
- R_RevPAR-The Good, The Bad and The Ugly*. (n.d.).
- Timmermans, S., & Tavory, I. (2022). *Data Analysis in Qualitative Research*. The University of Chicago Press. [//www.perlego.com/book/3496052/data-analysis-in-qualitative-research-theorizing-with-abductive-analysis-pdf](https://www.perlego.com/book/3496052/data-analysis-in-qualitative-research-theorizing-with-abductive-analysis-pdf) (Accessed: 20 December 2022).
- Varini, K., & Kamensky, S. (2013). Risk Management as a Tool to Optimise Revenue during Black Swan Events. In *Revenue Management for Hospitality and Tourism* (pp. 223–239). Goodfellow Publishers Ltd. <https://www.perlego.com/book/868830/revenue-management-for-hospitality-and-tourism-pdf>
- Vinod, B. (2016). Evolution of yield management in travel. *Journal of Revenue and Pricing Management*, 15(3–4), 203–211. <https://doi.org/https://doi.org/10.1057/rpm.2016.15>
- Wang, X. L., Heo, C. Y., Schwartz, Z., Legohérel, P., & Specklin, F. (2015). Revenue management: Progress, challenges, and research prospects. *Journal of Travel and Tourism Marketing*, 32(7), 797–811. <https://doi.org/10.1080/10548408.2015.1063798>
- Whitelaw, P. (2013). Revenue Management in Hotels and Airlines: A Critique. In *Revenue Management for Hospitality and Tourism* (pp. 169–179). Goodfellow Publishers Ltd. <https://www.perlego.com/book/868830/revenue-management-for-hospitality-and-tourism-pdf>
- Yeoman, I. (2022). The continuing evolution of revenue management science. In *Journal of Revenue and Pricing Management* (Vol. 21, Issue 1). Palgrave Macmillan.
<https://doi.org/10.1057/s41272-022-00370-1>
- Zhejun, D., Sanmartin, G., & Brunet, J. (2016). *Hotel Function-Space Revenue Management-Case Study of Hilton Barcelona*.

Zheng, C., & Forgacs, G. (2017). The emerging trend of hotel total revenue management. In *Journal of Revenue and Pricing Management* (Vol. 16, Issue 3, pp. 238–245). Palgrave Macmillan Ltd. <https://doi.org/10.1057/s41272-016-0057-x>

Appendices

Interview topics:

- Inventory management
 - Restrictions
- Pricing
 - Structure
 - Seasonality
 - Flexibility
- Key Performance Indicators
 - Tracking
- Customers
 - Segments
 - Lead time
- Data access
- Booking channels
- Forecasting
 - Forecasting cycle
 - Forecasted KPI's
- Analysis
- Revenue management in Function spaces
 - Obstacles and challenges
 - Implementation
 - Key factors