# Revenue, yield, and total revenue management – How flexible is the Viennese luxury hotel market

Master Thesis submitted in fulfillment of the Degree

MBA Master of Business Administration

Submitted to Ulrich Gunter

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# AFFIDAVIT

I hereby affirm that this Master's Thesis represents my written work and that I have used no sources and aids other than those indicated. All passages quoted from publications or para-phrased from these sources are properly cited and attributed.

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# ABSTRACT

Success is defined in many businesses as an increase in value and the generation of more profound economic impacts in their respective field of operations. Strategic, financial, and organizational choices support the achievement of these goals, including the widespread practice within the hotel industry of Revenue Management. The evolution from contemporary Revenue Management practices towards Yield Management and, more recently, Total Revenue Management practices is analyzed in this thesis.

Another aspect focused on is the hotel market's economic structure and how the theoretical background of an imperfectly competitive market influences choices made in the industry. A more recent topic within Crisis Management evolving to incorporate the consequences of a global pandemic rounds out the theoretical foundations.

Linking the theory to real-world scenarios, the thesis concludes with a case study based on Vienna's hotel industry. Leaders of reputable and high performing hotels provided insights into their strategies, pricing decisions, and approaches to this economic topic. Resilience, Crisis Management, and a future outlook influence current and future decisions. The thesis supports current and future Revenue-, Yield-, and Total Revenue-Management decision-makers by providing guidelines based on a thorough theoretical background and evidenced by best practice examples.

Keywords: Revenue Management, Total Revenue Management, Yield Management, Pricing Strategy

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# LIST OF ABBREVIATIONS

| Abbreviation | Definition |
|---|---|
| ADR | Average Daily Rate |
| AI | Artificial Intelligence |
| ARS | Airline Reservation System |
| CRM | Customer Relationship Management |
| CRO | Central Reservation Office |
| CRS | Central Reservation System |
| F&B | Food and Beverage |
| GDS | Global Distribution System |
| IDS | Internet Distribution System |
| KPI | Key Performance Indicators |
| MICE | Meetings, Incentives, Conventions, Events |
| OCC | Occupancy |
| P 1/2/3/4/5/6/7 | Hotel/property 1-7 in the research |
| PMS | Property Management System |
| PR | Public Relations |
| Rev Par | Revenue per Available Room |
| RM | Revenue Management |
| RMS | Revenue Management Systems |
| SARS | Severe Acute Respiratory Syndrom |
| TRM | Total Revenue Management |
| TrevPAr | Total Revenue per available Room |
| YM | Yield Management |

# 1  INTRODUCTION

## 1.1  Context

The hospitality and hotel industry is constantly evolving, displaying a higher level of adaptability and resilience to crises than many other industries. Prior to the ongoing pandemic, rarely has the industry observed challenges forcing a complete "stop". Revenue Management (RM) has a long history and has co-evolved alongside the hospitality industry into Yield Management (YM) and Total Revenue Management (TRM). In a study conducted by Kimes in 2010, RM professionals were surveyed about their expectations for how hotel RM would look in five years time. The expectations, more than a decade ago, were already that RM would move in a more strategic direction, whereby the prevailing use of RM as a tactic to increase room profits in 2010 was expected to shift towards a more systematic approach through the inclusion of strategy-driven decisions. Additionally, 10% of the respondents expected TRM to surface in the industry and be the main driver. Analyzing expectations regarding other revenue generating areas of hotels in which RM might come into play, all respondents agreed that all departments could benefit and would implement RM within five years. Technology, data management, and system integration are considered the driving forces and supporting infrastructure (Kimes S. , 2011)

Building on the study conducted in 2010, Kimes (2017) followed up with another industry driven research project in 2017 inquiring about revenue professionals' expectations for the field in the ensuing five years. Given the theory available at that time, when TRM had already become a frequently used term and been implemented in several industries, over a 60% majority of respondents expected a total shift to TRM in the following half decade. The main driver of this change was seen as the increasing data availability and collection pushing IT solutions into focus. (Kimes S. , 2017)

The research predicted that GOPPar and TRevpar would be the KPIs which would replace the current focus on RevPar as the key performance measure. While the respondents in 2010 estimated that RM would be applied in all other areas of the hotel equally – Function spaces, F&B, SPA – the result in 2017 indicated that Function spaces were the sole additional revenue generating department in which RM had been applied. Kimes (2017) concluded that that the estimates made in 2010 were highly inaccurate predictions of the actual state of RM/YM and TRM in 2017. The research conducted by Kimes clearly showcases that industry professionals have an affiliation towards TRM but that as yet unknown barriers have kept hotels from implementing the principal into all areas of the hotel.

Klein, Koch, Steinhardt, and Strauss (2020) conducted operational research of RM in the industry. The scholars estimate that the current state of RM is bound to change in the future, partially

caused by technological advancements such as: direct communication between Global Distribution Systems and buyers or machine learning. Furthermore, the authors support the statement by Kimes, that other industries already implemented measures to increase incremental revenue streams and TRM. The authors mention that the hotel industry faces challenges in implementing similar strategies as other industries, due to the fluid end of service period in hotels. (Klein, Koch, Steinhardt, & Strauss, 2020)

Helmold (2020), does not align with the theory that TRM will be based and mostly reliant on technological advancements. The author forecasts that the practice will be much more sophisticated and concept targeting all areas of the value chain. The success factors, as analyzed by Helmold will move away from computerized solutions managing revenue streams, to a total approach of strategy, human capital, artificial intelligence, and business intelligence supported decisions. The hotel industry yet remains at the beginning of its journey to TRM. (Helmold, 2020)

With the concurrent crisis caused by the novel SARS-COV-2 (COVID-19) virus, the current gap between research conducted in the field of RM, TRM and YM compared to actual implementations in the industry manifested even further. Yeoman (2020) wrote in his research analyzing the current state, that RM, TRM and YM can be compared to a blank piece of paper in the face of the current crisis. The time to re-invent, re-think, re-develop and re-valuate available research and practices in the industry is a necessity. The author stimulates the idea, that the evolution of RM, TRM and YM has just started and will continue post COVID-19.

Whilst Yeoman argues that the current crisis places a gap between research and the practical implication, suggesting practices shall be rewritten; Basak and Chu (2021) argue that core RM processes did not lose relevance. The authors published in the research that the factors of RM focusing on inventory management, booking sources and control will become more important as demand picks up. None the less, forecasting, demand modelling and pricing increased in significance during the current crisis. (Basak & Chi Chu, 2021)

Ivanov, Del Chiappa and Heyes (2021) support the theory of Yeoman and Kimes, that there is a gap between RM research and implementations in the hotels. The study published, even limited to Italy, clearly showcases that decision makers tend to make use of a similar toolkit to conduct successful RM, rather than exploring different methods. The study hints that the current method is mostly based on historic data to foresee a possible future and adjust strategies based on demand. The scholars, however, agree with Yeoman, the current crisis and the impact on the industry will shape the way RM, TRM and YM are exercised, especially since historic data might decrease in value. (Ivanov, Del Chiappa, & Heyes, 2021)

This thesis expands on the topic and provides insights into current RM/YM and TRM applications withing the luxury hotel market of Vienna. While estimating if a move from past and "traditional" approaches to the principals can already be observed, facing creative, adaptive, and innovative ways to write on the blank piece of paper.

## 1.2 Research aims and objectives

This research project aims to explore the current understanding and application of TRM, YM, and RM in the hotel industry based in Vienna. The crisis caused by the novel SARS-COV-2 (COVID-19) virus has shed new light on the research and promises exciting results in the agility of management regarding RM, YM, and TRM.

The objective is achieved by addressing the following research questions:

RQ1: How do hotels in the Viennese market plan, act on, and enable successful RM, TRM, and YM?

RQ2: Which KPI is perceived as the most influential in pricing strategies?

RQ3: Do external factors influence the flexibility of hotels to adjust their strategies?

The literature review conclusively confirms the importance of pricing strategies in successfully conducting RM, TRM, and YM. Academic scholars strongly agree that the hotel industry will have to adapt the concept of TRM in the years to come, and that the focus will shift from primarily considering revenues generated from rooms towards a more holistic (total) concept.

This study compares the theoretical implications with real-world usages and provides a basis to improve, adapt, or re-think strategies.

## 1.3 Structure of the thesis

Within the following chapters of the thesis, the theory surrounding RM, TRM, YM, and the economic principles underlying pricing strategies are introduced. Due to COVID-19, the thesis also delves briefly into strategy and crisis management.

The first part of the literature review focuses on RM, TRM, and YM to elucidate the history of the theories, the requisite conditions, and how they have evolved in the past. Furthermore, the chapter investigates the adaption of this principle within the hotel industry, the systems which are required, and estimations regarding the future for these practices.

The second part of the literature review analyses the economic principle of markets and showcases the imperfectly competitive market conditions of the hotel industry. This supports the

theoretical analysis of pricing strategies and market segmentation combined with channel and distribution management, which are required for successful RM, TRM, and YM implementations.

The third part of the literature review briefly introduces the concepts of strategy, focusing on crisis management and decision making, before closing the chapter with an introduction to the current market situation in Vienna and the challenges caused due to the novel COVID-19 pandemic.

The following chapters of the thesis present the methodology employed and the findings of the conducted research, before providing answers to the research questions alongside implications for various stakeholders and suggestions for future research.

### 1.3.1 Disclaimer Research Material

The research material collected by the author, specifically the audio transcripts, interview notes, and pre-questionnaire were provided to the thesis supervisor Ulrich Gunter, Ph.D., to verify the legitimacy of the material. However, as any readers with knowledge of the Viennese luxury hotel market would have possibility to link individual answers to participating hotels −thereby endangering the confidentiality of the research participants− it has been agreed that the transcripts would not be included in this paper.

# 2 LITERATURE REVIEW

## 2.1 Introduction

This thesis challenges traditional thoughts of how RM, TRM, and YM operate in theory and the implications of this theory within the real world. An overview of revenue management and its economic foundations is therefore introduced first to ensure that readers have a solid basis on which to understand the various topics discussed throughout the thesis.

## 2.2 Origin of yield and revenue management

The story of every idea or innovation starts with a spark, which sometimes develops into a life-changing product, experience, or theory; these are frequently generated as creative solutions to a pressing problem.

In the early 1970s, the United States of America faced the beginning of an economic revolution regarding pricing strategies with the deregulation of the airline industry. Emerging low-cost carriers entered the market and challenged the industry's big players with regulations and airfares designed to suit a wider variety of customers. This price dumping manifested severe problems for the traditional airlines in the market, hence revealing the need for innovation and the development of a better strategy (Cross, Higbie, & Cross, 2009).

Revenue and Yield Management observed their first incidents in challenging prices in the airline industry. In simple terms, this strategy enables companies to satisfy more customers with perishable products by placing varying monetary values on them. An equilibrium of demand and supply in the market is sought while generating the best possible outcome for the provider by targeting customers separately according to differences in their willingness to pay (Ingold, McMahon-Beattie, & Yeoman, 2000).

This approach was a breakthrough in many ways and an out of the box approach to challenge price dumping and retain profitability. After the airline industry, many other service providers realized the potential of this approach and adapted the strategy to their specific needs – mostly with limitations.

Close to two decades after the initial rise of RM and YM in the airline industry, Eric B. Orkin published the first article in the HRA Quarterly introducing this economic strategy for the hotel industry. While focusing on outlining RM's concepts in the hotel industry, this initial article described a way to calculate performance based on a comparison between actual performance and the maximum possible revenue at the highest rates and occupancy levels (Orkin E. B., 1988). With his definition, Orkin set the basis for the now typical approach of focusing on RevPAR and initiated a movement among academics and experts to develop the theory further.

## 2.3 Revenue and yield management

Since their origin in the early 1970s, the terms RM and YM have been developed, twisted and turned, and looked upon from every possible angle. By today, there exists such a vast number of definitions and theories covering the economic basis that it has become difficult to distinguish the perfect one. Below are some of the definitions evolved in the past:

*"Yield management is a process by which discount fares are allocated to scheduled flights to balance demand and increase revenues"* (Pfeifer, 1989, pp. 149-157)

*"Yield Management is the process of allocating the right type of capacity to the right kind of customer at the right price to maximize revenue or yield"* (Kimes S. E., 1989, pp. 14-19)

*"Maximizing profitability through dynamic pricing and capacity management is part of Revenue Management. However, a strong focus on customer attitudes, behaviors and successful segmentation is required in the same efficiency to ensure success."* (El Haddad, Roper, & Jones, 2008)

The literature in this area has quite predominantly focused on maximizing profitability by successfully managing the inventory at hand. The further the theory developed, the stronger the focus on customers and segmentation of the market became. This development reflects the recognition that customers and their price sensitivity, demand creation, and interest are core to any successful YM and RM strategy.

More than a decade after the initial emergence of Orkin's theory in the field of RM and YM, scholars were encouraged to predict its use by providers outside of the "traditional" RM and YM applications. The trend to think towards "non-traditional" areas such as restaurants, golf courses, casinos, spa or ski resorts, and tour operators was born.

One of the innovations in RM and YM in the restaurant industry – Revenue per available Seat hour – was developed. RM in the restaurant industry quickly proved to have an additional layer of depth beyond simply adjusting prices by considering the duration spent compared to the period served (Kimes, Chase, Choi, Lee, & Ngonzi, 1998). Other factors, such as table location, size, and the number of guests or day of the week/season, were also later factored into the theory.

In 2009, an article named the Renaissance of Revenue Management pinpointed the underlying fact that RM and YM are mandatory components of the bigger picture and only useful supporting tools for the company at hand if used correctly. Technological and management support integration to total operations is necessary. Shifting the approach from matching prices according to competition to adjusting prices by customer price sensitivity was no longer considered to be sufficient. A novel approach emerged focusing on the total revenue generation by a

customer during the life circle, based on understanding the customer's perspective (Cross, Higbie, & Cross, 2009).

Ultimately, as this theory's name suggests, the purpose is to maximize, optimize, and regulate the revenues generated by an organization through strategically planned efforts. In addition to this, the subject's complexity has grown through the realization that customer-, market-, economic-, distribution-, and managerial knowledge are required.

## 2.4  Hotel adaption to RM

The entire theory discussed so far is built upon the fact that the lodging industry adapted the airline industry's performance-enhancing strategy. In the late 1980s, Orkin started the initiative of RM and YM to find a standard approach and implement it in the hotel industry (Orkin E. B., 1988).

Orkin realized that the airline industry has one common shared goal: filling seats in a plan to the best possible prices to return the highest yields. However, the lodging industry includes various departments under one roof, which aim to achieve their respective department's internal goals using different sets of measures – hence, potentially, reducing the overall revenue and bottom-line results. Orkin suggested the idea of an integrated technique that focuses on the core business of hotels – revenue generation by space availability. His suggestion of implementing the *Yield Statistic*, which is calculated from revenue realized divided by revenue potential, laid the ground for many KPIs which were subsequently developed, such as RevPAR. The downsides of the simplicity in his calculation were also immediately recognized by the author: expenses are not taken into account and nor is the fact that higher occupancy results in higher incremental revenues from other departments (Orkin E. B., 1988).

The conceptual foundation for RM and YM in the lodging industry being set, different theories emerged in realization that certain requirements and conditions have to be met to practice RM and YM successfully. In addition to the required framework conditions, benefits and additions to traditional approaches of yielding rooms revenues could be observed.

Analyzing the present, RM and YM are naturally adapted by businesses within the lodging industry. The potential has long been recognized and used to benefit establishments ranging from smaller free-standing properties to international corporations. An entire market has emerged, including third parties providing information technology and systems computerizing the entire process. Strategies tend to revolve around yield maximation and retaining efficient resource usage whilst competing in an imperfectly competitive market.

### 2.4.1 Conditions for RM and YM

The conditions required for successful implementation of RM or YM have been adapted, changed, and improved through the work of many scholars working theoretically on the conditions required during the past century.

Considering that RM and YM heavily depend on the specific business at hand, finding a single formula fitting every need is impossible. Adjusting the theory according to what is required for practical implementation has become a criterion for successful RM and YM implementation.

While Larsen argued in 1988 that RM and YM in the airline industry only require two pillars to function – overbooking and discounts (Larsen, 1988) – the integration of the economic theory in the lodging industry has proven to be more complicated and required the factoring of other aspects into the equation.

Kimes suggested that yield management in the hotel industry requires a more distinguished set of prevailing conditions than the foundational two met in the airline industry. The following conditions are determined: (1) fixed capacity, (2) market segmentation, (3) perishable product, (4) advanced sales, (5) demand fluctuation, and (6) low sales cost versus high production cost (Kimes S. E., 1989).

Compared to the extensive conditions required by Kimes (1989), Vinod (2004) offered a more compressed setting of conditions required. Drawing on a vast professional experience in RM and YM, Vinod based his theory on three main pillars: (1) pricing, (2) the management process, and (3) distribution (Vinod B. , 2004).

Expanding on the pinpointed view of Vinod, the airline professional, Hayes and Miller (2011) formulated the preconditions for RM and YM in the hotel industry as the following: (1) ability to forecast, (2) goods, services, and price management, (3) channel management, and, appearing for the first time, (4) measurement of performance.

In his book, Hotel Revenue Management, Ivanov (2014) bases the conditions for RM and YM on economic foundations. In addition to the (1) perishable products, (2) limited capacity, (3) high fixed and low variable cost, (4) demand fluctuation, (5) market segmentation, and (6) advanced sales – already observed by Kimes – Ivanov added the economic principles of (7) ability to forecast, (8) price elasticities, and (9) willingness to pay to the requirements.

The theory has similarly developed over the past decades as the RM and YM theory. In more recent years, an increasing number of experts have shifted towards an approach that includes other research fields such as Customer Relationship Management, Total Revenue Management, Sales, and Marketing in the equation.

Considering that the hotel and hospitality industry is centered around the provision of services, Wang (2012) recognizes that a conflict between relationship and Revenue practices is observable and unavoidable.

In 2016, Schwartz, Altin, and Singal suggested that the trend towards total strategic revenue management implies a need to adjust the fundamentals of the theories employed in the past. They posit that the decision of which metrics should be measured has to be challenged and adapted and question whether revenue- or profit-based KPI's represent the future of the theory (Schwartz, Altin, & Singal, 2017).

The more time and effort that is spent in researching these economic phenomena, the more factors are considered essential to the equation, and the more complex the theory becomes. To establish a unified foundation for the current research, the author sought to detect similarities between various approaches by identifying key elements reoccurring in the majority of publications, which are as follows: (1) Forecasting and Overbooking, (2) Market Segmentation and Pricing Strategies, and (3) Channel and Distribution Management.

This thesis examines these three combined key factors after providing an overview of Revenue Management Systems and exploring possible outlooks for RM and YM.

## 2.4.2 Revenue management systems RMS

Besides the requisite conditions for successful RM and YM as analyzed above, an RMS is also necessary for success. With the progress of information technology and data processing, the term RMS is more often associated with computerized programs than systems such as that developed in von Bertalanffy's theory (Von Bertalanffy, 1969).

Von Bertalanffy (1969) established the notion that systems comprise elements interacting with each other and their surroundings. The continuous evolution, self-correction, and regulation of each participant is at the core, thereby establishing an organization interconnected with each other, but also allowing participants to function individually (Von Bertalanffy, 1969).

Multiple authors have considered RMS to be technology systems supporting human capital in processing revenue management (Guadix, Cortes, Onieva, & Munuzuri, 2010), (Mauri A. G., 2007), (Schwarz & Cohen, 2003). The nature of this support ranges from historical data storage to data processing and from analyzing to forecasting. Each of the above authors highlight the increasing importance of the role played by technology and consequently developed systems and tools to support RM and YM. In 2008, Vinod built on the foundation of RMS theory and predicted that the next generation of RMS would have to add another layer – customers – to the equation, to more closely align to the original system theory in which multiple elements interact (Vinod B. , 2008).

Following Vinod's suggestion, other authors built on the idea and suggested aligning CRM and RMS with each other. The nature of RM and YM is, as introduced earlier, the maximization of revenues. According to Mauri A.G. (2012), Wang X. L., (2013) and Bowie & Wang (2009), this is heavily influenced by the customers, sales departments, and companies efficiency in establishing themselves within a market while distributing efficiently.

The RMS presented in Figure 1, below, was developed in 2012 by Ivanov and Zhechev and aligns closely with the theory initially developed in 1969. The visualization of the system reveals that the RMS requires a set of macro and microelements to function, ranging from know-how, technology, and human resources to customers and bookings (Ivanov & Zhechev, 2012).
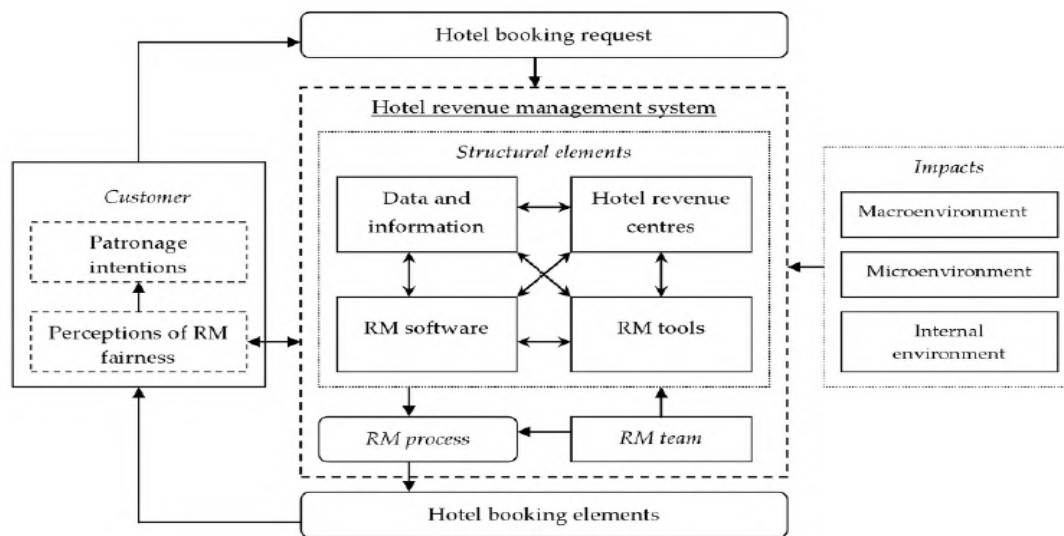


FIGURE 1 HOTEL REVENUE MANAGEMENT SYSTEM (IVANOV & ZHECHEV, 2012)

The model suggested by (Ivanov & Zhechev, 2012), supports the upcoming chapter investigating the potential future of RM and YM, which includes more revenue centers within hotels rather than focusing solely on room sales. Multiple functions and environments are interacting, learning, and developing alongside each other, combining to create a complex evolving system.

### 2.4.3   Future of hotel RM and YM

RM and YM practices have constantly evolved, leading several scholars to forecast the direction in which this economic theory will head in the future.

With the slowdown of the economy in the early 2000s, a shift to more performance-focused operations was observed. This led to a rapid change and evolution in the RM efforts of hotels as the "catch-up" of the lodging industry to the airlines moved at full speed. Mainzer (2004) estimated that the lodging industry would lead RM and YM initiatives in the future due to the nature of the business providing more touchpoints with customers than the airline industry. Customer database integration in RMS is thought to be one of the main drivers, combined with increased

online distribution channels and the incursion of inventory management. Concluding the forecast for RM, the scholar mentioned that with the increasing number of hotels opening and operating, RM's development had an immense reach and volume of possible innovators to support its growth (Mainzer, 2004).

In contrast to the customer-oriented theory, another idea for the future was focusing on the strategic aspects of forecasting, booking patterns, distribution, inventory control, segmentation, and technology support (Bobb & Veral, 2008). RMS was seen not merely as a set of technological tools but rather as support for human decision-making processes with data-driven strategies. Bobb and Veral based their assumptions mainly on the most advanced RM and YM industry – airlines – and projected that shifts in booking patterns are to be expected by guests, resulting in the need for more efficient inventory control, distribution, and planning (Bobb & Veral, 2008).

As the total contributions of all revenue-generating departments such as conferencing facilities, spas, and other departments must be managed to ensure maximization of property revenues, scholars had already estimated a full shift to total revenue management in 2009 (Cross, Higbie, & Cross, 2009). Managing the strategic, economic, and customer-centric aspects with supporting technologies became recognized as necessary to remain competitive in the future. Accordingly, bottom line profits shifted into focus, replacing revenue-focused approaches (Cross, Higbie, & Cross, 2009).

Aligning with the era of total revenue creation, an evolution of pricing strategies and revenue modeling is predicted. The author assumes that company's thought processes surrounding creating value and charging prices is shifting towards the co-creation of value with other suppliers (and customers). Future pricing strategies must consider the entire system combining all aspects rather than focusing on one particular area. A shift from owning to renting rights opens new possibilities enabling companies to be more flexible with revenue generation, distribution, inventory planning, and comprehensive resource allocation. The author agrees with other scholars that customer-centricity is increasing in importance and will provide competitive advantages. RM therefore involves more than just the pricing of a single aspect and instead involves the management of a complex and continually evolving system (Ng, 2010).

In their recap of more than two decades of research in RM and YM, Anderson and Xie (2010) summarized that the continuous evolution from simply improving ADR in the lodging industry has entirely shifted to complete bottom-line orientation and profit maximization.

Investigating the assumed future of revenue maximization, Kimes (2011) analyzed the prevailing situation with industry professionals. The resulting report exhibits the trend of managing more revenue-generating departments with the support of pricing models, social and mobile technology, and analytics, and concludes that the nature of RM and YM will shift to a more strategic

environment where planning, execution, and analysis will gain importance. The focus area expands from rooms to F&B, convention spaces, spa areas, and other revenue-generating departments – resulting in a Total Revenue Management approach (Kimes S. , 2011).

The practical implementation of RM, YM, and TRM is explored in the research conducted for this thesis. Having set the stage, the economic background of the market is next explored according to the previously mentioned requirements for RM, YM, and TRM.

## 2.5   Imperfectly competitive market

Understanding the underlying market structure and competitiveness is necessary to successfully implement RM, YM, and TRM. The tourism and hospitality industry framework link it to several markets – in the macro and microeconomic perspectives. The nature of these markets also influences the demand and supply structure and competitiveness, which ultimately affects segmentation, pricing, distribution, and factors such as market entry and exit capabilities. Due to this thesis's nature, the focus is placed on the market's competitiveness.

The theory describes real-world market environments as operating on a continuum between perfect competition on the one extreme and monopoly on the other.

(1) Perfect competition requires a set of factors to be present:
   a. There is a large number of buyers and sellers with access to the market.
   b. The goods and services offered are identical to each other (homogeneous).
   c. No informational limitations exist on the supply or demand sides of the market.
   d. No additional costs arise in trading within the market.
   e. There are no barriers to market entry or exit.
   f. As a price-taking structure, the market price cannot be influenced by individual buyers or sellers.
   g. There are no externalities.

While there are no perfectly competitive markets, those that come closest include agriculture, foreign exchange, or internet-related industries. Internet-related industries feature widespread access, accessibility of price comparison, and product variety – especially in online shopping services.

(2) Monopoly, in contrast to perfect competition, is a market situation where one single player holds the predominant power of supply, controls pricing, and ultimately establishes a scenario where it is impossible to exit or enter the market (Baye & Prince, 2016). There are three common drivers that can encourage monopolistic markets. Firstly, Governmental patents and regulations frequently create monopolistic markets around oil, drugs/medicine, or TV/radio broadcasting.

The second source encouraging monopolistic economies is economies of scale, where a single company serving an entire market is more efficient than the entrance of new suppliers due to lower long-run average costs: electricity offers an example.

As the third and final driver, control of essential knowledge can set the basis for monopolist markets (Baye & Prince, 2016).

The examples above showcase that monopolist markets are common in the real world, even though not officially recognized as monopolies.

In reality, markets frequently operate "in-between" perfect competition and monopoly, denoted (3) Monopolistic competition, or (4) Oligopoly.

(3) Monopolistic competition consists of a mix of the previously mentioned economic structures
   a. Diversified and not limited amount of buyers and sellers are present
   b. Every company offers differentiated products (heterogenous)
   c. Market entry and exit is not limited
   d. Prices are set by the companies, yet due to similarity between products, substitutes are available for customers, which limits the extent of monopoly power.
(4) Oligopoly contrast with (2) Monopoly in that there is more than one firm competing in the market. However, possibilities for further market entries are usually limited. This environment is mostly dominated by a set of "big players", who determine pricing and supply. Predominant examples are the aircraft or oil industries (Baye & Prince, 2016).

Hotels operate in markets that do not entirely match any of the four theoretical structures, which results in an imperfectly competitive influenced by the principles of a perfectly competitive market. One or more conditions are violated – resulting in the industry being a price-setting market driven by the principle of profit maximization deriving from total revenues minus total costs. This, combined with the present oversupply in many hotel markets, generates competitiveness through the customer's purchase decision power.

Andrews (1964) was one of the scholars to challenge traditional notions of perfect competition, assuming that in real competitive scenarios, companies are price setters due to the nature of profit maximization through cost control. Despite this early attempt to revolutionize the economic theories, scholars predominantly continued research assuming perfectly competitive markets.

Slowly, some authors began to grasp the fact that imperfectly competitive influences are present in the perfect competition. The quantity of theories and analysis on imperfectly competitive markets is still developing but might provide better insights in the future. This is because most theorists feel the margin of output error when assuming imperfectly competitive markets is too

high because individual factors are most of the time generalized or cannot be determined exactly. More recently, however, scholars have focused on aspects of Game Theory and its implications (Eatwell, Milgate, & Newman, 1989).

Corchón (2001) explained that imperfectly competitive markets are reliant on strategic decisions, competitiveness, and interaction between participating players. Based on Game Theory, the scholar describes the fundamental problem as being that every participant is seeking to achieve an advantage through withholding information and acting upon decisions made by others.

The theory has one factor in common through the research: economic principles are always discussed with the ceteris paribus assumption employed – everything else remains constant. In the reality of an interconnected world, actual experience has repeatedly shown this assumption not to hold. This leads onto the next chapter, which explores the theoretical possibilities for establishing RM, YM, and TRM with the previously determined requirements in imperfectly competitive markets.

### 2.5.1   Forecasting and overbooking

Forecasting is the attempt to foresee future events – including demand, supply, prices, and market conditions. The more accurate, detailed, and informative a forecast is, the more efficient will be its inclusion in revenue management and business strategizing. It must be noted that forecasts are often a cocktail of facts mixed with business professionals' intuitions about the every-changing marketplace (Tranter, Stuart-Hill, & Parker, 2014).

Similarly, other scholars have focused on the theoretical and methodological background of forecasting in the industry. Frechtling's (2001) book "Forecasting Tourism Demand: Methods and Strategies" adapted the idea by Archer (1994) that forecasting analyzes past events and current situations to predict future occurrences in the market. This enables one to contend with known challenges such as seasonality, but cannot factor in or account for novel challenges: the unknown.

One year later, Archer, remaining loyal to the ceteris paribus theory (Faulkner & Valerio, 1995) pointed out that forecasting is often distinct from core business operations due to the complex methodological background, resulting in the misalignment of theoretical predictions with reality. Hence methods have to be adapted to ensure feasibility for informing strategic choices.

Weatherford, Kimes, & Scott (2001) describe forecasting as the key to a successful business future. This method is vital to any industry, but its precedence in the hotel industry is undeniable. A robust revenue management system is required, with access to accurate data, based on the two most crucial factors identified by the authors: demand (use duration) and pricing. In con-

trast to the previously quoted literature, Weatherford et al. include the importance of measuring different environmental circumstances into the equation, resulting in different forms of forecasting, rather than assuming everything will remain equal.

Despite this, a wide variety of scholars still focus on the metrics for forecasting demand and pricing, while the number of experts seeking to include external factors such as the competition in the market has been limited. Yüksel (2007) aimed to include external environmental factors into his forecasting models and described the importance of having subjective knowledge of the market included in forecasting. In his research, he pointed to the fact that market experts will always include their "gut feelings". On the segmentation side of forecasting, the scholar noted that market segmentation is crucial for the lodging industry. Predicting individuals' travel behaviors is significantly more difficult than group behavior, hence the difference between aggregation and disaggregation forecasting are highlighted. Yüksel (2007) expresses a strong persuasion towards downward forecasting in stationary demand periods and towards upward forecasting in nonstationary demand periods. Flexibility and acting according to the market therefore remain crucial for ensuring that revenues can be maximized.

Strategic, Tactical, and Operational forecasting are the three categories of forecasting, according to Ivanov (2014). Splitting the topic into smaller segments depending on the current need supports flexibility and improves outcomes. Demand, room supply, destination attractiveness, and the hotel revenue metrics are forecast as part of the Strategy, which focuses on long-term effectiveness. The scholar pinpointed the importance of including the long-term plan of the destination and market operated in. The example of entering a declining market and forecasting high demand for the property was given to outline the importance of forecasts using the complete information available. On the other hand, Operational forecasting uses short-term data, ranging from day-to-day forecasts up to a month in the future, and focuses on the Hotel KPI's such as ADR, occupancy, or RevPar. Ivanov & Zhechev (2012) conclude that Tactical forecasting is nestled in between the long-term vision and the short-term needs. Tactical forecasting is used to generate a mid-range estimation, including competitors, pricing, distribution channels, and segments. In theory, this method delivers all-around forecasting, which includes every factor of the equation.

In the late 90's, Orkin (1998) pioneered the consideration of both unconstrained and constrained demand when forecasting the possible use of your product. The business challenge is the uncertainty surrounding total demand for any period or specific date. However, it is crucial to forecast the total demand assisting management decisions and planning to maximize revenues and profits. The scholar described unconstrained demand as the estimated total, including demand which never manifested due to various reasons such as sell-outs, overpricing, change of mind, or guests who are already in the destination and decided to prolong their stay. When Orkin described this challenge, information technology was not as sophisticated as nowadays. Combined

with the limited information flows and exchange available, the measurement of unconstrained demand remained wishful thinking and guessing (Orkin E. , 1998).

On the other hand, Constrained demand can be estimated more precisely. Constrained demand is defined by restrictions and will only occur in set periods. This might be room nights booked through loyalty programs or restricting bookings during peak periods with blackout dates in the hotel industry. To a certain extent, this also includes overbooking once full capacity is reached. The theory points out that it is crucial to decide what indicators shall be forecasted to adapt the method and demand theory to ensure the best possible outcomes (Tranter, Stuart-Hill, & Parker, 2014).

Figure 2, below, displays a set of questions that have to be included in the hypotheses to ensure the correct forecasting method is chosen and placed in the mathematical equations of uncon-strained demand (Weatherford, Kimes, & Scott, 2001). This list aligns with the theory in demon-strating that forecasting is a fundamentally complex activity that requires the inclusion of all elements of the hotel's environment, combined with historical performance measures.

1. **What to forecast**
   A. Arrivals
   B. Room-nights

2. **Level of aggregation**
   A. Fully aggregated
   B. Aggregated by rate category with length-of-stay probability distributions
   C. Aggregated by length of stay with rate-category probability distributions
   D. Fully disaggregated (by rate category with length of stay)

3. **Unconstraining method**
   A. None
   B. Denials data
   C. Mathematical models
      1. Pickup
      2. Booking curve
      3. Projection

4. **Number of periods to include in forecast**
   A. All
   B. Selected number

5. **Which data to use**
   A. Only complete stay-nights
   B. All data (complete and incomplete stay-nights)

6. **Outliers**
   A. Included
   B. Not included

7. **Level of forecast accuracy (i.e., aggregation and error reporting)**
   A. Aggregated forecasts, errors reported as average across all reading days
   B. Aggregated forecasts, errors reported for each individual reading day
   C. Disaggregated forecasts, errors reported as average across all reading days
   D. Disaggregated forecasts, errors reported for each individual reading day

FIGURE 2 REVENUE-MANAGEMENT FORECASTING CHOICES (WEATHER-FORD, KIMES, & SCOTT, 2001)

The airline industry has made the strategic choice to oversell their capacities for an extended period already – to the extent that there are governmental regulations that force compensa-tion in case a customer is declined service due to overbooking. The hotel industry has slowly adapted to the thought that the supply of rooms most times outweighs the demand, yet that in specific periods it is possible to sell more rooms than physically available: overbooking. This

strategic choice is based on the unconstrained demand and the assumption that a particular set of customers will be a no-show, cancel their bookings last minute, or that the overbooking occurred due to human error. A factor that had been neglected in this forecasting methodology, until recently, is the negative reputational consequences arising due to overbooking and subsequently walking guests or having no availability: a consequence that decision makers in the property have to balance (Hayes & Miller, 2011).

Fiori and Foroni (2020) suggest that airlines and hotels research on forecasting has been pinpointing on prediction of customer bookings, and interval forecasting which is specifically important for Revenue management systems. The scholars suggest an approach similar to the pickup approach, first implemented in the early 90s in the airline industry. Their stochastic framework pick-up approach allows short to medium term forecasting on reservations expected to be made in a lead time between forecast date and check in date – the pickup. The authors find this method specifically interesting for small to medium sized properties effected by seasonality or fluctuating demand, offering a link between the point and future predictions including most recent reservation data in the forecast. (Fiori & Foroni, 2020)

In recent years travel behaviors and booking windows have moved to be more flexible which present challenges to traditional forecasting methods. The stochastic pick-up approach suggested by Fiori and Foroni manifests first steps to challenge those challenges. Webb, et a.l, (2020) build on this approach and suggest a multi-layer perceptron model, specifically a neural network. Neural networks have the advantage of being self-adaptive, non-parametric and require fewer prior assumptions to be precise– which aligns with the changing travel behaviors and booking windows. The authors conclude that a combination of methods is crucial to provide the most accurate forecasting, and the "perfect" method has yet to be found; and is dependent on the internal and external environment at the focused time frame. (Webb, Schwartz, Xiang, & Signal, 2020)

Schwartz, et al. (2021), observe an increasing necessity of forecasting accuracy based on the assumption that a shift from traditional room-based forecasting to a total revenue generating forecast is observed. The authors expand that is crucial for successful forecasting to combine several methods to compare, analyze and make use of; aligning with the conclusion of Webb, et al. The combination of methods additionally supports the RMS machine learning to enhance accuracy of long-term forecasting. (Schwartz, Webb, I van der Reset, & Koupriouchina, 2021)

The focus of literature and research is on forecasting bookings recorded by hotels, the aspect of cancelations and forecasting the loss of business is rarely touched upon. Sánchez-Medina and Sánchez (2020), build on a forecasting perspective based on neural network and machine learning to forecast cancelation rates and identify which customer base is most likely to cancel. The authors built this approach with easily accessible data points collected by hotels: booking status, number of adults, source of booking, nationality, advanced payment, number of nights,

month of booking, day of check-in, mean price, sales channel, and weekend. The results show significant importance and accuracy, therefore build another piece of a solid forecasting model enabling hoteliers to proactively adjust strategies for pricing, inventory management and over-booking. (Sánchez-Medina & Sánchez, 2020)

Forecasting, Inventory Management strategies, and overbooking directly relate to and influence the pricing strategy and market segmentation chosen.

### 2.5.2 Market segmentation

RM, YM, and TRM are complex systems requiring all components to align with each other to ensure success. The ability to segment the market in which the hotel competes is as crucial as the pricing strategy set; as a matter of fact, the pricing strategy frequently relies on structured segmentations. Therefore, as Kimes (1989) describes, the most significant factors – pricing and inventory management – connect with each other. The scholar describes market segmentation as the ability to define smaller portions within the entirety of the hotel's market. These proportions have a pre-defined set of requirements and limitations. The most prominent market segmentation example is the split of leisure and business-driven custom. A business traveler seeks flexible rates for short-term stays that are booked spontaneously, while a leisure-driven customer is price sensitive, seeking value for money for extended stays. RM, YM, and TRM are the quest to have the most rooms sold at the highest price (Kimes S. E., 1989).

Contrasting the theory above, which states the necessity to segment markets to ensure success, Schwartz (1998) argued that segmentation is not a foundation of RM, YM, and TRM. Schwartz nevertheless emphasized the need to segment if a price discriminating room rate strategy is pursued. It should be noted, however, that when this argument was raised the supporting systems and technologies did not have the capabilities they possess in current times.

Developing the thought of market segmentation, Tranter, Stuart-Hill, & Parker (2014) agreed with Kimes and went one step further to argue that the larger the organization, the more segments are required to ensure success. For a smaller hotel or hospitality organization, a simple segmentation of two large groups will suffice, while for international corporations this will not be sufficient. The authors furthermore suggest that travel behaviors are constantly changing and will continue to do so, which affects segmentation. The following segmentation categories are given as examples: (a) Business or Corporate, (b) Leisure Transient, (c) Military/Government, (d) Contracts, (e) Associations, (f) Tour and Travel, (g) Groups, (h) Loyalty Programs, and (i) Whole-sale.

The fact is that no matter how many segments an organization decides to implement, the total optimal business mix is crucial and has to align with the strategy (Tranter, Stuart-Hill, & Parker, 2014). Customer Relationship Management, total customer worth and environmental scanning must be performed frequently to provide support and knowledge for successful segmentation.

A strong strategy with a well-defined business mix – Inventory Management – is one ingredient for success. Operating in an imperfectly competitive market, the second half of the picture regards pricing strategies.

### 2.5.3  Pricing strategies

Markets and pricing have evolved rapidly and observed changes from restrictive markets to free markets. Modern economics, as described in a previous chapter, arose to tackle the questions (a) what are prices, (b) what is a fair price, (c)when should governments intervene, and (d) who is allowed into the market? The theory describes prices as fluid and adapting to the market with supply and demand regulating its values. This should result in the most desirable monetarization of specific products or services, as selling below production cost results in negative business outcomes, while setting prices too high steers customers away. The theoretical conclusion is that prices determine and regulate themselves passively through markets, considering competition, demand and supply, quality, and seasonality.

The real world reveals itself to be more challenging than the theory suggests, with the emergence of technology and information availability leading to theories challenging traditional economic principles. RM, YM, and TRM are tools to optimize pricing above generic supply and demand theories and include willingness to pay and real-time environments – as proven by the Airline industry (Phillips, 2005).

Moving from the perspective of sellers as the sole price detainments, Hayes and Miller (2011) suggest that the buyers are influential in the same manner – especially in the hospitality and lodging industry. The authors argue that more than simply a physical room is priced in this field and that the entire experience from considering the vacation or stay to arriving at the destination, experiencing it, and departing is relevant to the price. The authors furthermore suggest that it is crucial to understand consumer rationality. Aligning with the economic theory discussed previously, consumers do not necessarily display rational or reasonable behavior; as such, one set price will not satisfy the available demand (Hayes & Miller, 2011).

Tranter, Stuart-Hill, & Parker (2014) agree with Hayes and Miller and support the notion that traditional pricing theories lack the single most important determining factor: value. Marketing supports this approach through the 4Ps of the marketing foundation: product, price, promotion, and place. A price is more than a monetary value paid to exchange goods and services, resulting in revenue generation. Satisfying the needs, desires, and aspirations of consumers are at the core of the business model, thereby shifting the assumption that prices are mere monetary exchanges to recognizing that prices quantify the value a consumer places on a good.

In contrast to approaches placing customer values and customer rationality at the core of pricing, business-related approaches pursue another strategy, wherein the primary determinant for

the price set is the total cost per unit, as calculated from the fixed and variable resource requirements. However, in addition to the immediate sales revenues, prices also impact other core business factors such as (a) customer loyalty and retention, (b) sales volumes, (c) market share, and (d) profit. The impacts to these KPIs are difficult to measure accurately, due to their complexity (Smith & Woodside, 2009).

Hayes and Miller (2011) agree with the break-even pricing strategy suggested for "generic" product offering businesses. For the hospitality and lodging industry, however, they propose a different set of pricing strategies: (a) strategic pricing, (b) value-based pricing, and (c) differential pricing.
Strategic pricing describes the break-even strategy combined with traditional supply and demand economics. Hotels calculate the total cost for their product and add a markup or profit margin percentage to determine the price. This is the most straightforward pricing approach, in that supply in the lodging industry is easy to measure, whereas demand forecasting poses greater difficulty.

A value-based pricing strategy considers four different aspects of purchase behavior linked to consumer willingness and ability to pay:

 (1) The buyers purchase a good or service with their money to fulfill their desires and wishes in order to maximize personal value.

(2) The buyer purchases a good or service with their own money for someone else. The value of the buyer's purchase depends on the perception of the receiver and feelings such as pride or quality.

(3) The buyer purchases goods and services for personal use with externally provided funds. Hayes and Miller (2011) describe these value purchases as the most beneficial for the lodging industry since upgrades, incremental services, or even an overpriced minibar become viable additional purchases because the buyer can pursue the highest possible value gains without investing personal funds.

(4) Buyers purchase goods and services with external funds for others, typical for MICE business clients.

The lodging industry and service providers are almost guaranteed to face constrained capacity, thereby limiting the market's supply. Once all rooms are occupied, there is no option to provide an extra room to increase supply for excess demand. To adapt pricing to the supply and demand nature of the lodging industry, Philipps (2005) suggests a pricing strategy revolving around a runout price and optimal prices without constraint. The basis behind his calculation is that if the capacity is increasingly constrained, sellers are pressured to increase the prices, and vice versa.

Figure 3 visualizes the relationship between the constrained and unconstrained pricing and demand, allowing the optimal price to be equal or greater to the runout price (Phillips, 2005).

Differential pricing, opposing the formerly described value-based pricing, does not include value. The pricing strategy relies on yielding the inventory in the most efficient and revenue-maximizing way. For example, a standard room category sells to various hotel guests for different prices, despite the fact that the room is identical or only slightly different (Hayes & Miller, 2011).



FIGURE 3 PRICING WITH A CAPACITY CONSTRAINT (PHILIPPS, 2005)

Hanks (1992) considered differential and dynamic pricing as the future in RM, YM, and profit maximization of the hotel industry. In addition to state-of-the-art revenue management systems, the scholar suggests that customers have the power to "work the system" by negotiating or complaining to receive more desirable prices. Hanks (1992) suggests adapting to price differentiation to prevent this from happening at random and at the hotel employees' will. This pricing strategy enables the hotel to charge different prices to different segments, or even within the same segment, to maximize revenues and profitability.

FIGURE 4: DIFFERENTIAL PRICING (HANKS, 1992)

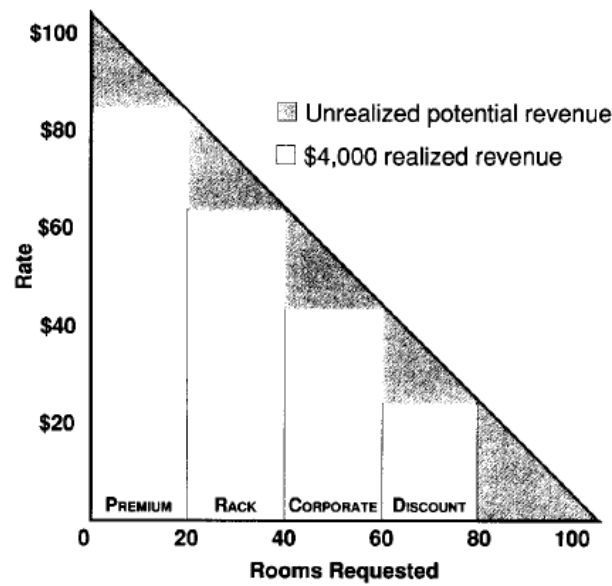In the case presented in Figure 4, above, the same room is sold at four different rates to a total of 80 customers, resulting in $4,000 realized revenues. This price differentiation allows the hotel to not only capture higher rates from customers who are willing to pay premium rates, but also to the sale of beds to more price-sensitive clients with discounted or corporate rates. Hanks, Cross, & Noland (1992) point out that segmentations must follow the overall hotel strategy and be meaningful; the better the segmentation and differentiation, the more successful the pricing strategy will be.

All the industry experts quoted above agree that the pricing strategy has to align with the entire strategy and idea of how RM, YM, and TRM are included in the business. The final step in managing RM, YM, and TRM is looking at Channel and Distribution Management.

### 2.5.4   Channel and distribution management

The term distribution and channel management originated from a more technical environment than the hotel industry: namely, manufacturing. Distributors are generally third parties purchasing goods from the manufacturer in large quantities and allocating the goods to the markets. Crucial to this is that the distributor does not manufacture the products but acts as a buyer and seller of finished goods (Ross, 2015).

The era of the internet significantly influenced the capabilities of distribution and channel management. The technology supported complexity and enabled communication possibilities between customers, third parties, and manufacturers. In tourism, a shift to a complex globally interconnected network is underway, wherein constant competition, distribution, and supply occurs (Wang Y. , 2010).

Ross (2005) illustrated the supply chain and distribution management as split into six distinctive groups forming a production process serving the end customer. Figure 5 displays a linear process, however the scholar describes it as an interconnected circle of supply, demand, and distribution. Customers provide the market with demand and payment flows, resulting in the suppliers manufacturing and distributing to third parties for sales (Ross, 2015).
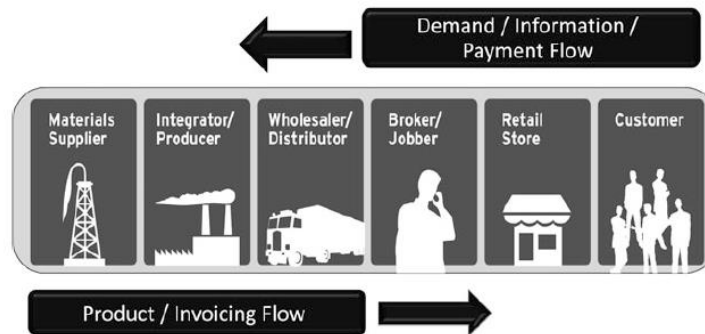


FIGURE 5: SUPPLY CHAIN (ROSS,2015)

In the service, tourism, and hotel industries, distributors' materials do not necessarily relate to newly produced goods but to existing rooms, services, or tourism experiences. The distribution channel refers to a collection of third parties and intermediaries providing sales facilities to the end customer and possibly providing competitors the edge in the market when using these channels effectively. Distribution channels have observed increased importance – even more considering the rise of technology – providing tourism and hospitality institutions a tool to enhance their marketing and sales strategies, link supply and demand closer to each other, and enhance yields (Buhalis & Laws, 2001).

Next to providing the organizations improved sales and means to distribute the goods and services, distribution channels support customers' decision-making processes. Wholesalers or third parties enable information flows and platforms for consumers to reserve, confirm, and purchase the room, experience, or ticket. A successful distribution channel strategy interconnects with pricing, RM, and YM. In order to maintain profitability, the goal is to sell the inventory to intermediaries at the highest possible price while having low channel costs and ultimately pushing occupancy and booking levels. In addition to increased sales, the possibility of converting one-time customers to loyal brand ambassadors conducting subsequent purchases from the supplier is an added value (Pizam, 2008).

Traditionally, before the emergence and integration of modern technology in everyday life, the traditional distribution channels in tourism have been wholesalers, tour operators, call centers, and travel agents. In a similar fashion to RMS, the early adopters were the airline industry with their ARS (airline reservation system). This computer system enabled travel agents and other booking channels to place reservations in the ARS directly. The logical consequence of the increase in air travel was the increased demand for hotel room bookings, resulting in the creation

of CROs (central reservation offices), enabling hotels to coordinate and track reservations more efficiently and supported by technology. CROs become CRS (central reservation systems) shortly after by combining all tourism required solutions under one roof (Tranter, Stuart-Hill, & Parker, 2014).

The continuous evolution of distribution channels is dominated by two electronic distribution versions: GDS and IDS. The GDS is the link between the travel agent selling goods and services to the customer and the service provider (hotel, airline, gaming provider, etc.) It is a unique opportunity for a one-stop-shop, frequently enabling the travel agent to have direct access to the provider's inventory. Technology has enabled travel agents to evolve to purely online solutions. Booking.com, Orbitz, and Expedia, amongst others, are referred to as third-party websites distributing inventory to customers (Tranter, Stuart-Hill, & Parker, 2014).

Hayes & Miller (2011) suggest that the net ADR generated by those intermediaries is the best solution to measure success. The addition of distribution and channel management into a hotel's RM strategy targets an increase in room sales and revenue generation.

The benefits of distribution through third-party channels are apparent. Cost related to these services are determined to fall into three categories by Hayes and Miller (2011): (1) Intermediary Commissions, (2) Electronic Distribution Fees, and (3) CRS Franchise Fees. Efficient cost control and forecasting have become significantly more challenging in recent years with the growth in booking numbers via GDS and IDS. Most providers employ different commissions, which can be room revenue, ADR, or sales volume-based. In addition to the commissions, service providers have to consider the IDS and GDS fees (Hayes & Miller, 2011).

The most desired outcome for the hotel is an increase in ADR with efficient sales of inventory. The scholars suggest the net ADR equation shown in Figure 6. This is the most simplistic form of analyzing the impact of the distribution channel. The theory suggests that more measures and forms of analyzing the success and strategic choice of channels have to be taken to ensure positive impacts of the distribution channel mix and conclude that the GOPPAR – gross operating profit per available room – is one of the critical metrics (Hayes & Miller, 2011).

$$Net\ ADR\ yield\ = \frac{\text{Net room rate}}{\text{Standard ADR}}$$

$$In\ this\ formula: Standard\ ADR - Distribution\ channel\ costs = Net\ room\ rate$$

FIGURE 6: NET ADR YIELD (HAYES & MILLER, 2011)

Tranter, Stuart-Hill, & Parker (2014) suggest a slightly different approach and offer a solution to measure total customer worth. The scholars argue that the most crucial factor in the entire decision circle should be the most critical factor in the equation: the customer. The channel and distribution mix can only be successful if it is directly associated with the target customer.

$$Total\ Customer\ Worth$$
$$= (Primary\ Revenue + Ancillary\ Revenue - Acquisition\ Cost)\ x\ Propensity\ Y$$

FIGURE 7: TOTAL CUSTOMER WORTH (TRANTER, STUART-HILL, & PARKER, 2014)

This equation suggests considering more revenue streams that the customer generates in the endeavor than just the positive or negative impact on the GOPPAR. Total Customer worth considers the primary revenue source – the hotel room – alongside ancillary revenue streams that might arise – SPA, F&B, parking – with the costs that arise with those services – marketing, labor, cleaning, back-office – as well as an assumption of whether the customer will return in the future – "propensity Y". The Total Customer Worth calculation requires resources and time, yet represents a tool which considers more factors than just initial revenue and customer retention (Tranter, Stuart-Hill, & Parker, 2014).

Overall, all theories agree on one common fact: the channel and distribution mix is part of a complex system and has to fit in the bigger strategic picture to ensure success is possible. Together with the other five pillars, it builds the foundation for revenue management and success.

## 2.6  COVID-19

The outbreak of a global pandemic has challenged the Tourism and Hospitality Industry and the fundamental theories analyzed in this study. Research in the field has quickly risen to become a hot topic in the industry, and experts are providing suggestions on adapting to a possible new world of tourism and travel.

On 30th January 2020, the World health organization updated its public health emergency assessment to reflect a global pandemic – the SARS-COVID-19. Within a few months, the shift from the initial spread in China swiftly moved on to other parts of the world. COVID-19 forced a complete halt to travel and tourism in several parts of the world and is still significantly impacting the industry (WHO, 2020).

In their COVID-19 Europe Webinar, STR (2021) summarized the impacts as occupancy losses on the continent of up to 90% during the first lockdown. Figure 8 visualizes the wish to travel and reincarnate tourism, as the summer surge displays that occupancies quickly recovered.
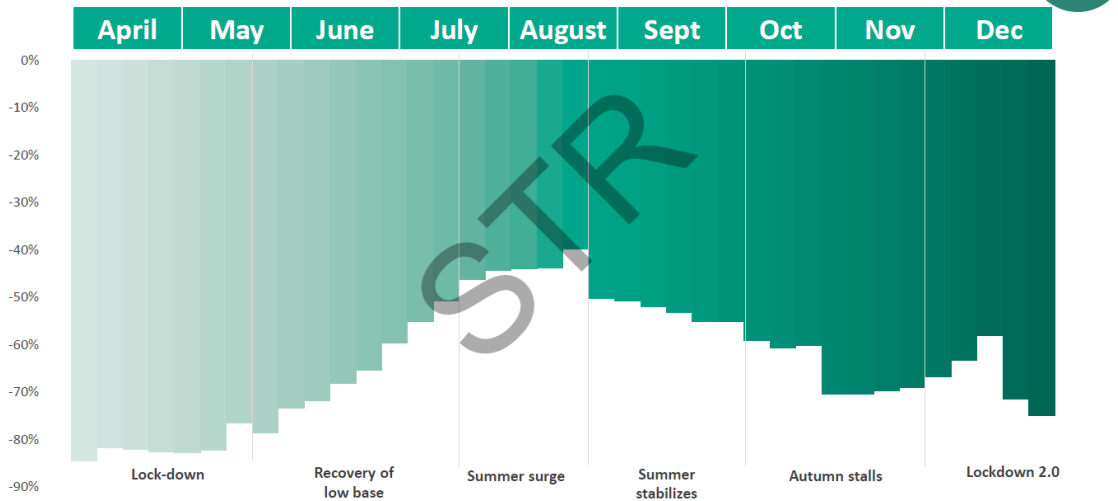


FIGURE 8: OCCUPANCY % VS. 2020 (STR, 2021)

HotStats (2021) suggested that the profitability of the European hotel market had declined by 101% resulting in a negative GOPPAR of EUR -0.71 for the year 2020. Compared to other regions worldwide which did not restrict travel as severely as Europe did, this continent was the only one that did not manage to break-even or operate profitably during this period (HotStats, 2021).

Estimating the current situation in the world with the increase in vaccinations and the return to normality in some countries, the hope for tourism and travel to return to normal is slowly being realized.

Crisis Management has become a global matter in the tourism and hospitality industry, and even though it could not provide a unified solution, the theory has supported impact reduction. The current state of research is limited to materials published in the past; the implications being that there will be considerably high interest focused on COVID-19, Crisis Management, and the tourism industry in the upcoming decade.

## 2.7 Crisis management

Literature suggests that there is no universally accepted definition of what constitutes a crisis. Depending on the scholar and topic researched, the elements noted may vary. Mostly overlapping are three factors that must be present: (a) triggering event, (b) perceived inability to cope with the event, and (c) threat to the existence of the foundation of the organization (Henderson C. J., 2007).

Hermann (1974)suggested that every crisis is unique, unexpected, and time-bound regarding decision-making and preparation. The scholar argues that preparation and mechanisms to detect possible crises are crucial to lowering negative impact.

Henderson (2007) argues that a tourism crisis can always be traced back to one of 6 pillars causing them: (1) commercial, (2) economic, (3) political, (4) socio-cultural, (5) environmental, or (6) technological. However, impacts of these crises affect organizations differently due to the nature and size of the crisis and characteristics of the destination itself.

Previous research in Crisis Management has focused on single-point events which did not last for extended periods, and were typically conducted in the post-crisis stage. There is limited research in the literature that analyzes the impact of crisis management in the "during" phase of a crisis. Many scholars agree that the pre-phase is the most crucial foundation for ensuring that readiness and pre-planning prevail, rather than a reactive mindset (Lai & Wong, 2020).

The difference between a disaster and a crisis is based on the nature of the event; while crises are often self-inflicted, disasters, on the other hand, are external nature-induced phenomena. The stages of responding to either a crisis or a disaster are nevertheless very similar in terms of behaviors. Disaster response is set in six phases: (1) pre-event, (2) prodromal, (3) emergency, (4) intermediate, (5) long-term "recovery", and (6) resolution. In those stages, the entire process is covered from attempts to plan disaster prevention and immediate occurrence (stages 1 and 2), to contend with the disaster happening and its short term effect (stages 3 and 4), and ending with a future outlook and long term recovery (stages 5 and 6), including a return to stage (1) to enhance future prevention (Faulkner B. , 2001).

Examining the SARS pandemic and the effects on tourism and hospitality in Singapore, Henderson & Ng (2004) adapted Faulkner's (2001) disaster response stages and suggested that the same stages shall be applied when dealing with crises in the hotel industry – especially infectious diseases.

Lai & Wong (2020), in their recent research of the measures currently employed by hoteliers in the COVID-19 pandemic, find a resistance among hotels to adapt to longer-lasting crises. The research has shown that managers implement short-term solutions and aim to minimize the direct impact. One of the crucial factors in the crisis management process was the governmental support and response, which is perceived as insufficient in some cases. The research provided insight that hotels' priorities regarding performance measures shifted between the start of COVID and the later stages of the pandemic. In the beginning, marketing initiatives such as lowering rates to create demand were in focus. The longer the crisis lasted, however, the more the focus shifted towards cost-saving measures. The authors noted that the location of the hotels in the research was primarily China and that the response strategies may be location biased (Lai & Wong, 2020).

The theory agrees that crisis management is a crucial aspect of a business and a must-have for a successful strategy to ensure Key Performance Indicators can be met (or losses limited) – even in challenging times.

### 2.7.1 Strategy and strategic management

Strategy and strategic management have been developed over the years and have been found to be a widely used concepts to tackle crises or challenges in business. Strategy is the comprehensive guide to where the journey is heading in the future, while tactics often describe how to achieve the strategy. Strategic management is coordinating a company, business or venture through challenges, environment, opportunities, or threats. The field of strategy and its management offers a variety of theories (Dimitrios, Christos, Ioannis, & Vasiliadis, 2020).

A set of definitions has aimed to pinpoint the main characteristics of strategy. Historically, the term derives from the Greek, in which it is mainly associated with planning military movements. The more modern identification of strategy agrees that it involves measuring the present, past, and possible futures and acting with tools and activities to generate advantage or minimize the disadvantage in the prevailing environment (Dimitrios, Christos, Ioannis, & Vasiliadis, 2020).

Olsen, West, & Tse (2008) argue that businesses in the hotel industry require strategy and the tools presented by strategic management to outperform or compete with other players in the market. The authors continue to analyze the situation and conclude that there is a limited number of strategic tools in the set available to hoteliers. Most tools are innovated for traditional industries operating in manufacturing, agriculture, or much less service-oriented industries (Olsen, West, & Tse, 2008).

The authors further argue that defining strategies in the hotel industry is particularly demanding and crucial due to the industry's natural links to global, environmental, political, social, human, and economic forces that directly impact the industry (Olsen, West, & Tse, 2008).

Demian (2009) summarizes in his doctorate thesis the lack of original tools designed for the hospitality and tourism industry for strategic management. The scholar found that the theory mostly agrees upon the use of those tools summarized in Table 1 as being significant in the industry. In contrast to traditional expectations, the author found that in the hospitality industry the tools are oftentimes used by mid-level managers rather than executives, and suggests that strategy in hospitality has to be a fluid process of continually developing and adapting (Demian, 2009).

Table 1: Strategic hospitality management textbooks and tools (Demian, 2009)

| Reference | PEST | SWOT | Porter's Five Forces | BCG Growth Share Matrix | Porter's Generic Strategies |
|---|---|---|---|---|---|
| (Olsen, West, & Tse, 2008) | ✓ | ✗ | ✗ | ✗ | ✓ |
| (Harrison & Enz, 2005) | ✓ | ✓ | ✓ | ✓ | ✓ |
| (Moutinho & Phillips, 2018) | ✓ | ✓ | ✓ | ✓ | ✓ |
| (Olsen M, West, & Tse, 1998) | ✓ | ✗ | ✗ | ✗ | ✓ |
| (Tribe, 1997) | ✗ | ✗ | ✓ | ✓ | ✓ |
| (Knowles, 1996) | ✓ | ✓ | ✓ | ✓ | ✓ |
| (Teare & Boer, 1990) | ✓ | ✗ | ✗ | ✓ | ✓ |

Dimitrios et. al (2020) suggest that the scholars will focus on the strategy of hotel and tourism, especially in determining how to return to "normal" post-crisis situations. In addition to financial strategies, the authors suggest that strategies extend to incorporate technology, human aspects, and safety. They conclude that the relationship regarding owners, operators, and managers might shift towards having leaner operations with financial securities playing a more critical role than in the past (Dimitrios, Christos, Ioannis, & Vasiliadis, 2020).

The research conducted in this thesis explores choices, actions, and strategic decisions conducted by General Managers navigating their properties in Vienna through the current time of crisis and how they intend to come out well-placed on the other side.

# 3 METHODOLOGY

## 3.1 Introduction

Subsequent to building the sound understanding of RM, TRM, and YM discussed in Chapter 2, research was conducted into literature on qualitative methods to identify viable methods supporting the goals of the thesis. This chapter provides an overview of the methodology used and which tools support the research employed. This part of the thesis includes a summary of the thought processes behind the resulting semi-structured interview and pre-questionnaire sent to the participants and how the data was analyzed.

## 3.2 Selection of methodology

The theory analyzed in Chapter 2 shows that RM, TRM and YM, the respective tools and strategies, and the surrounding environment are extraordinarily versatile. The topic's complexity suggests implementing a research methodology accommodating this variability and allowing for a deeper understanding of individuals' subjective perceptions. Qualitative research supports the processes of digging into the thought processes of individuals to answer the most pressing questions of "how" and "what" (Ritchie & Lewis, 2014).

Bluhm, Lee, Cook, & Michell (2011) suggest that while quantitative research methods seek to find a basic understanding and generalize results, qualitative research – especially in management – uncovers the individual's experience and processes behind decisions. The scholars suggest combining a diversity of qualitative and quantitative approaches to obtain the most robust results, yet they point out that using the methods individually still yields acceptable results.

Estimating the right method of research presented a challenge to the author. The versatility of the topic leaned towards a qualitative research method, especially considering that a smaller-size sample presented in this research allows a more in-depth analysis. The necessity for comparable data, typically collected through quantitative research, however exhibited a challenged towards fully qualitative research.

Thus, the author of the thesis is taking advantage of qualitative research methodologies, incorporating a minimal portion of quantitative research supporting data analysis.

This combined method presents a suitable research design laid out in the following chapters, providing answers to the research questions, and satisfying the thesis motivation.

## 3.3 Research design

A structured pre-questionnaire (appendix 1) has been chosen to set the foundation for the research. The structured questions sent to participants of the subsequently conducted semi-structured face-to-face interviews provided a solid body of quantitative data enabling the researcher to set up the interview questions. As suggested by Creswell (2021), this qualitative phase can form the beginning of a sequential mixed methods approach by setting a basis for subsequent quantitative methods which support generalization beyond the research population.

The flexibility offered by semi-structured interviews allows the researcher to guide the conversation while remaining open to unanticipated directions by allowing the experience and beliefs of the interviewee to arise. Another factor determining the choice of a semi-structured interview was the possibility to use probing during the conversations. Probing allows the interviewer to extract further in-depth knowledge of the interviewee through follow-up questions based on their previous answers. This furthermore supports the understanding between the interviewee and interviewer of the intended direction of the conversation. Semi-structured interviews rely on a good relationship between both participants and often yield better results if it is a strong one (King & Horrocks, 2010).

### 3.3.1 Interview design

For this thesis, seven top-level managers currently employed in the Viennese luxury hotel market were interviewed. The invited managers were not chosen according to heritage, experience, or which company the hotel is managed under; the crucial criterion was that the hotels classify as 5 star or luxury properties.

The interview design was based on a pre-questionnaire (appendix 1). The structured questionnaire consists of eight closed questions, providing a general overview of the property in terms of size, structure, customer base, strategic information, and concluding with YM, RM and TRM information. The questions were sent equally to all participants without adaption or changes.

The interview focused on three areas: (1) the value and understanding of YM, RM, and TRM tools, (2) tools implemented in the property, and (3) strategy and willingness to change.

(1) The value and understanding of YM, RM, and TRM tools

This section exclusively deals with the experience of the interviewees by probing what their understandings of the tools are, and how much value each of the theories has for them and their properties. This exploration reveals which concept enjoys the most attention and thought.

(2) Tools implemented in the property

The second focus of the research is to estimate the extent to which the top-level managers make use of the tools existing for RM, TRM, and YM, especially considering the activities of information gathering, usage of technology, benchmarking, and adapting to the environment.

    (3)  Strategy and willingness to change

The questionnaire was designed to find more information on the strategies implemented to adapt to change and the extent to which RM, TRM and YM is included in the overall strategy of the business. COVID-19 was in its initial phases during the research and therefore also came into focus during the interviews, with the goal of finding the degree to which managers are willing to change and adapt their initially set routes.

Interviewees were approached via e-mail, supported by the General Managers' Council of Vienna, and asked for participation. Participation was voluntary and fulfilled for the purpose of the Master of Business Administration degree at MODUL University. The entire process followed the rules and regulations set by the University, including the informed consent of the interviewees. The interviews were intended to be conducted face-to-face, however, due to the global COVID-19 pandemic, the interviews were conducted online via MS Teams, Zoom or telephone. The interviews were scheduled between Q4, 2020, and Q2, 2021, and held in English.

## 3.4   Data analysis

King & Horrocks (2010) suggested a three-stage thematic analysis for research with audio recordings. This analysis is based on identifying recurring and unique themes within the answers and linking them to results. Due to the General Managers' backgrounds of having worked internationally and being currently employed by different owners and hotel management companies, the results were cross-compared to identify possible commonalities.

The interviews were recorded, where possible, and notes were taken during the process. Additionally, the pre-questionnaire provided another layer of information. The collected data was analyzed by comparing and contrasting the data contained in the notes, questionnaires, and audio content to yield profound knowledge of the practices used in hotels. This knowledge was then ultimately used to assess the similarity between the theoretical ideas of RM, YM and TRM derived from the literature and the implementations in practice.

The global COVID-19 pandemic placed a specific limitation on the research and data found, as answers to the research questions may have been impacted by the non-existence of current hotel operations and the consequent inability to implement RM, YM, and TRM at the time. The pre-questionnaire and semi-structured interview questions had been set and internally verified by the thesis supervisor before knowledge of how extensively the pandemic would impact the industry was available. This limitation of the research and data analysis must be considered.

## 3.5 Conclusion to methodology

The research conducted with the general managers provided a profound understanding of the environment with which the professionals interact on a daily basis, including the challenges of the global pandemic, the role of strategy, and how much their decisions are influenced. The following chapter presents the research results and provides insights into the RM, TRM, and YM strategies implemented in the real world compared to the theory.

# 4 RESULTS AND DISCUSSION

## 4.1 Introduction

This chapter presents and discusses the results from the research conducted for the thesis. The data collected during the pre-questionnaire and semi-structured interviews are the basis for the analysis. Due to the confidentiality of the data, both research results have been anonymized by replacing the names of interviewees and properties with letter codes – P1 to P7.

This chapter provides a short overview of Vienna and the hotel market, the impact of the current crisis, and the respondents' insights on how to maneuver RM, YM, and TRM in a dynamic market.

## 4.2 Vienna

Vienna is the capital city of Austria and the economic center of the country, generating nearly a quarter of the national GDP. Austria's economy is mainly driven by the tertiary sector: market and non-market services. The capital is less than 70km from the Hungarian, Czech, and Slovakian borders and is often described as a critical link between Eastern and Western European markets.

The COVID-19 pandemic has negatively impacted the country's and city's GDP, however these are forecast to recover at the end of 2021 with a couple of years above-trend GDP growth. The tertiary sector will remain key to the city and will drive the economy, combined with the high European city index ranking.

Tourism in Austria and Vienna contributes to the country's wealth and is based on the image of security, hygiene, infrastructure, and cultural richness. 2019 recorded a growth of 3.8% tourism arrivals compared to the previous year, with a record-breaking 46.2 million arrivals (Statik Austria, 2021). Vienna having registered 7.9 million of those arrivals achieved a growth of 5%. The city and country had forecast continuous growth until the start of the global pandemic, which has halted tourism and travel to a near-zero level. With the routine vaccination and lifting of travel restrictions, tourism is estimated to return to pre-COVID levels in the coming years (Statik Austria, 2021).

The main markets of foreign arrivals in Vienna are: DACH, USA, UK, Italy, and China. Vienna experiences medium seasonality, peaking between June and August, and during Christmas periods. Shoulder seasons occur in September to November and March to May. The lowest occupancy and demand levels are recorded in January and February. In 2019, the 381 hotels in Vienna had 35,479 rooms in total with a strong overall supply in the upper mid-scale bracket and relatively low brand penetration (MA 23 - Dezernat Statistik Wien, 2021).

The city recorded steady increases in ADR (EUR 109.3), Rev Par (EUR 85.9), and OCC (78.6%) in 2019. Due to the global pandemic, the numbers used for comparison are from 2019, as 2020 has revealed to be an exceptional case.

Hotel market development in Vienna was stalled in 2020 with only 5 new properties opening their doors, whilst 17 projects are expected to open in 2021 with a cluster in the 4-star category.

The luxury hotel market in Vienna consists of twenty-two (22) five-star hotels with 8,543 beds (12.5% of total beds). The average occupancy recorded in this highest hotel segment in 2019 was 54.3%, generating 25.2% of the total room revenue of the city (MA 23 - Dezernat Statistik Wien, 2021).

The city's vital tourism is heavily supported by government initiatives such as Vienna Tourism and their strategies. The current strategy is called the "Vienna Visitor Economic Strategy 2025", which focuses on creating synergies to improve the quality of life for everyone visiting, living, and interacting with the city.

## 4.3   Participants

Participation in the research was voluntary. The General Managers' Council of Vienna supported the author of this thesis in approaching the leaders of hotels in Vienna. The response rate is around 35%, with the inclusion of seven hotels out of the twenty approached. The author of this thesis faced the challenged of a limited population due to the requirement of a five star or luxury Hotel classification. The response rate is limited due to the sensitivity of data and the willingness to share it , which impacted the response rate.

Beneficial for participation was the downtime due to COVID, which made it easy to find suitable time-slots fitting the schedules and day-to-day operations of the managers.

## 4.4   Setting the stage for the interviews

The participants were sent a pre-questionnaire requesting basic information about the property and structure. The template is displayed in Appendix 1 – Interview Preparation. All figures, tables, and numeric values presented in the following sections are results from the research conducted.

The number of room keys in the properties that participated varied from 51-200 keys, with a majority of 43% in the 151-200 key range. The distribution across other segments was: 51-100 keys (29%), 101-150 keys (14%), and more than 200 keys (14%).
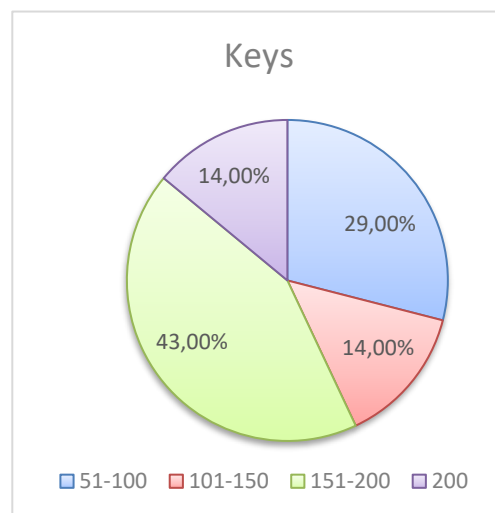


FIGURE 9 - ROOM KEY DISTRIBUTION

SOURCE: OWN RESEARCH AND RESULTS FROM PRE-QUESTIONNAIRE

The pre-questionnaire had the intention to provide insight into the properties and the strategies already in place for RM, TRM, and YM. Questions 5 to 8 provide a reasonable basis:

Q5: In your overall strategy, is there a part specifically designated for Revenue Management?

Q6: Does this part include Total Revenue Management?

Q7: Did you adapt or change your pricing strategy due to the global COVID-19 pandemic?

Q8: Did you have a crisis management plan in place before COVID-19?
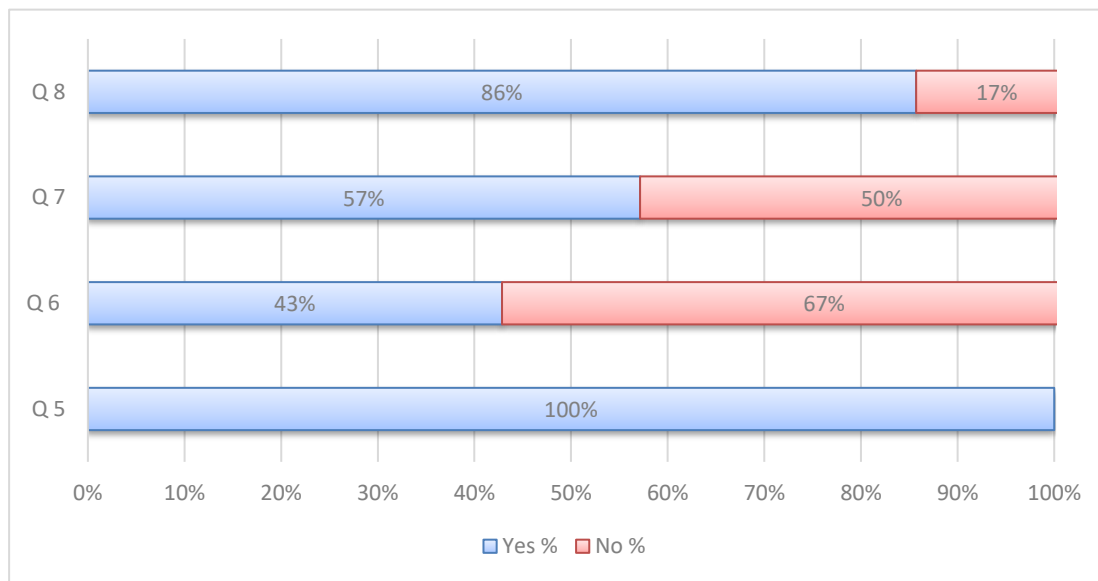


FIGURE 10: SUMMARY Q5-Q8 PRE-QUESTIONNAIRE

SOURCE: OWN RESEARCH AND RESULTS FROM PRE-QUESTIONNAIRE

While every respondent informed the interviewer that the overall strategy of the property has specific visions for RM, 43% limit this strategy to RM and YM and do not include TRM. This reflects findings from the literature that hotels tend to focus on yielding room revenues rather than total revenue generation.

Investigating the pre-questionnaire further, the observation can be made that RM is essential to General Managers and hotel companies and is consequently included in the strategy. However, the flexibility to adapt to crisis and change the strategy, especially considering the entire property rather than merely the pricing of rooms, is limited.

One limitation for the pre-questionnaire which has to be pointed out, is that participants were not given the opportunity to elaborate their answers as the questions featured a close-ended format.

## 4.5 Interview results

Following the pre-questionnaire, the interviews investigated the applications of RM, TRM, and YM within the hotels, which strategies are pursued, challenges faced, and KPIs favored. This section also includes an outlook to future research, a personal note, and suggestions from the author.

### 4.5.1 Concepts and importance of RM, YM and TRM

To set the stage for the interviews, a standard consensus about the meaning of the terms in the headline is necessary. The theory contains a set of definitions evolved over the past decades, all revolving around maximizing profitability by managing the inventory at hand. Traditionally, this focused on sales and inventory of hotel rooms, with a more recent expansion to non-traditional or other revenue-generating departments.

Comparing the theory with the participants' answers to the first question: "*Please describe in your own words what is your understanding of the concepts: RM / YM and TRM",* similarities between theory and practice are evident.

When explaining RM and YM, all participants agreed that the purpose is to maximize rates and occupancy through efficient inventory control, pricing strategies, and market analysis. P2 was the only participant who extended the explanation further than room inventory and included overall yielding of inventory by including restaurant seats. Contradicting this statement, P5 specifically excluded any additional revenues, such as banqueting and F&B, as they were considered "too minor" to be managed.

Looking at the explanations of TRM, the professional opinions of the participants displayed much more of a variety:

*P4: "Total Revenue Management relates to capturing mostly untapped revenue and profit potential…."*

*P1: "Total Revenue Management gives chances to see opportunities, identify potential problems, and increase diversity."*
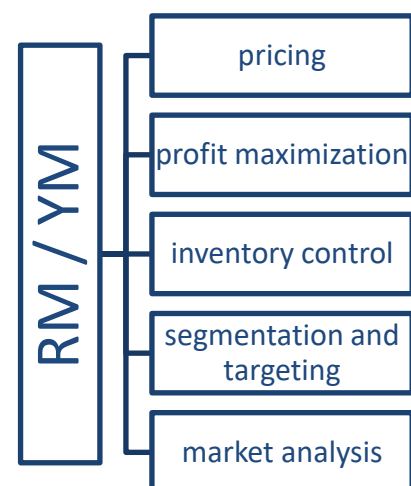


FIGURE 11 RM/YM KEYWORDS
SOURCE: OWN EVALUATION OF SEMI-STRUCTURED INTERVIEWS

P6 displayed a more complex approach, confirming Trattner's Total Customer Worth calculation (see page 22). The respondent explained that TRM is about managing the total worth of the business, considering all aspects of the business.

The importance placed on RM/YM by the property managers is high across the board, with the low outlier being P4; this hotel, however, ranked TRM with the highest importance. Compared to the other participating hotels, P4 confirmed that they already have TRM strategies and tactics in place and consider GOP and overall profit growth as more critical than only yielding room revenues.

Even though all the hotels ranked TRM to have roughly equal importance to their success as RM/YM, only one of the participants specifically claimed to have a TRM strategy and tactics. The fact that the understanding and explanation of TRM displayed an immense variety aligns with the theory analyzed in the literature review. TRM is a new concept for the hotel industry, which is perceived as crucial to success but as yet has not been adopted by many.



| | P1 | P2 | P3 | P4 | P5 | P6 | P7 |
|---|---|---|---|---|---|---|---|
| RM | 5 | 5 | 5 | 3,5 | 4 | 5 | 5 |
| TRM | 4,5 | 5 | 5 | 5 | 4 | 4 | 5 |
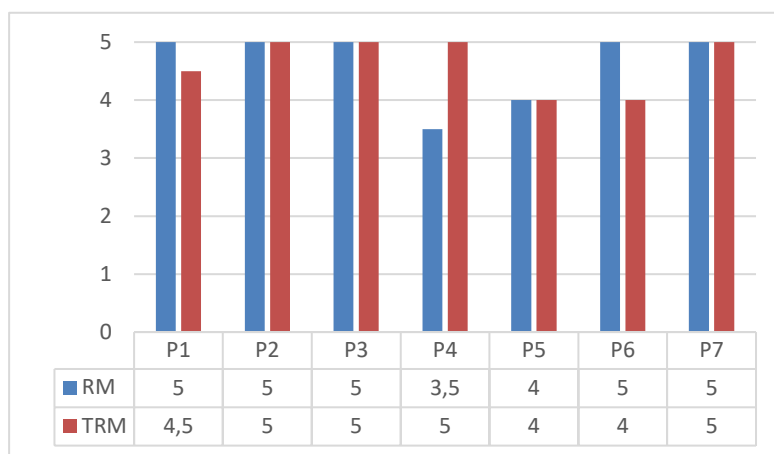
FIGURE 12 RM/YM AND TRM IMPORTANCE RANKING
SOURCE: OWN EVALUATION OF SEMI-STRUCTURED INTERVIEWS

### 4.5.2 RM / YM and TRM strategy

Olsen, West, & Tse (2008) suggest in their book that strategy is the tool to outperform competitors in the market and that the tools of the hotel industry are limited compared to other fields. They relate this lack of tools to the service orientation of the industry, compared to more manufacturing-based companies.

All of the participating hotels confirmed having a strategy set by the corporations under which the hotels operate, except for one participating hotel, where the managers set an individual strategy for their property aligning with the corporate one. The strategies are separated into a long-term vision and mission as well as a budget for the upcoming business year.

The common ground for all answers was that the strategy was defined so as to include all the hotel department heads, supporting a TRM approach. Another similarity across the board is the agility with which the budget is tackled. The budget serves as the goal for the properties and is not adapted during the year, however daily and weekly meetings determine the current market and competitor situation, and adjustments to forecasts are made accordingly.

The question inquired if there is an RM/YM or TRM strategy in place and who is responsible for setting the strategy. P1, P2, P5, P6, and P7 focus on room pricing and yielding during their meetings, as well as banqueting/events revenues due to the nature of the events often being linked to booked rooms.

P3 and P4, on the other hand, use the meetings to discuss overall revenues around the property and focus on a TRM approach considering the total worth generation during a period. Additionally, P3 was the only property that specifically mentioned that the customer is the key to success and strategy.

Considering the explanation of Olsen, West & Tse (2008), the practical implementations of strategy in the hotel industry point in the direction of manufacturing-based companies with the focus on revenues and profits rather than the customer, which could be related to the lack of hotel-specific strategy tools.

Information technology and RMS are used by all hotels to support data and market analysis. Combining the information extracted from internal sources with the competitive analysis from third-party data providers is focused on closely. This fact promotes agility in adapting pricing strategies, which all participants agreed must be adapted and changed fluidly throughout the week.

The prices which are discussed and changed focus on rooms, groups, and banqueting. None of the participants change pricing in F&B, spas, or other revenue-generating departments. The focus in these areas is to adapt the offered products and services to match demand or seasonality. In these departments, the prices are set according to the service offered and are not adapted according to demand, in contradiction to the strategies for room yielding where the prices are frequently overhauled.

*P4: "Adapting short-term strategy (rates, packages, promotions, channels, restrictions) on a daily basis, long-term strategy (vision/mission, business plan) usually twice a year."*

*P5: "We adapt the pricing strategy to the business situation then to the budget. Focus is profit maximization compared to budget stick."*

Even though P3 and P4 specifically mentioned that they are focusing on TRM, they are resistant to adapting the pricing strategy for the entire property, which can be explained by the overall feeling from the managers that customers are resistant to changes in prices for services other than rooms.

*P1: "…. should think of that. I could imagine with banqueting rates. A personal touch is very important and hard – hospitality is forcing stiff prices. You don't have a choice."*

### 4.5.3 COVID and crisis

The hotels and managers share common ground in setting up and pursuing strategy and RM/YM, communicating it regularly, and observing the performance of the market with the support of IT solutions and third-party tools.

The question was raised whether the interviewee assumes that the other participants of the study have also set strategies; all agreed that this is the most crucial stone in the foundation of success and that everyone must formulate a strategy.

The arguably worst crisis of the 21$^{st}$ Century, the novel COVID-19 pandemic, had placed all participants in a situation that was not previously experienced and which challenged the general managers. All of the participants stated that the crisis had significantly impacted hotel revenues and that all departments had suffered immense losses, even though lean approaches to operations and cost savings had been applied.

Considering the importance of strategy to the leaders, it is not surprising that all participants had formulated Crisis Strategy and Management plans for their hotels. In some cases these were driven by the international corporations behind the hotels. The crisis management plans involved various scenarios which could happen and had happened around the globe. However, none of the corporations expected a complete halt to the entire industry and was not considered within the hotels' strategies. The plans include all operating departments of the hotels, generally e-commerce, marketing and PR, and sales. 28% of the participants stated that the Crisis plan specifically provided guidance on RM/YM.

*P3: "We have several crisis management strategies in place from terror to poisoning. Also, commercial. However, they never assumed that entire markets fall out of the business. The adjustments were made. We had some strategy which guided us."*

The following area of exploration focused on which KPIs the General Managers consider essential and if competition influences decision-making processes and strategies pursued.

### 4.5.4 Competition and KPIs

Success is measured in various ways in the hotel industry and professional opinion vary on the most critical KPIs. The theory offers various KPIs to consider, ranging from ADR and RevPAR to total revenue per square meter or Total Customer Worth calculations.

The professionals interviewed did not offer particularly diverse answers, with 85% agreeing that RevPar is the most effective KPI to measure performance, as it included both Occupancy and ADR. This fact fully aligns with the strategy analysis discussed previously, where the managers

displayed a clear trend towards RM/YM, while TRM is also considered necessary yet has received lesser attention to date.

TABLE 2 HOTEL KPI PRIORITY

| P1 | P2 | *P3* | P4 | P5 | P6 | P7 |
|---|---|---|---|---|---|---|
| RevPar | RevPar | *TRevPar* | RevPar | RevPar | RevPar | RevPar |

SOURCE: OWN EVALUATION OF SEMI-STRUCTURED INTERVIEWS

Next to RevPar, the following KPIs were mentioned: Cost per occupied room, Revenue per Seat, Revenue per Square meter, HR cost per room, ADR, and Guest satisfaction KPIs.

P7 pointed out that TRevPar might be considered the future and the most crucial KPI to come, but not yet. P3, the outlier that specifically stated a primary focus on Total Revenue Management, noted in the interview that this KPI is "trickier" than RevPAR. The third-party tracking and provision of data for this KPI has only limited input due to the lack of submission by participating hotels.

The general focus on RevPar laid the foundation to challenge the participants with the question: *"If you had the choice to pursue one scenario, would you rather choose to have a high average occupancy or a higher average rate over a full year?"*

None of the participants except one were willing to pinpoint whether occupancy or ADR has higher importance. All other answers revolved around finding the perfect mix to match the individual property, ensuring yielding is conducted in the most efficient way supporting revenue gains, ultimately resulting in the highest achievable RevPar Index. The author's notes frequently recorded that neither ADR nor OCC individually provides a suitable measure for comparison and success.

The exception was P3, who clearly stated that a higher rate is preferable if forced to choose. The comment was based on the fact that the highest rate in the city can be used for marketing, provides a certain prestige, and enables the hotel to focus more on customer service, which are added values.

P7, who displayed an affiliation towards TRM, used this opportunity to further foster the idea of considering total revenue generation and mentioned that OCC or ADR should never be considered individually but rather as supporters to provide revenues across the property.

ADR and OCC are influenced by many factors. The interviews touched the tip of the iceberg by inquiring about the preferred guest mix to achieve KPIs in the context of the competitor analysis.

Respondents, considering that the global pandemic will come to an end and the market will return to normal, revealed that preferences regarding which business to attract to achieve the best RevPar results vary depending on the property's size and location. All of the respondents favor transient travelers booking directly due to the possibility to yield most efficiently while saving costs. In addition to this, 100% of the participants heavily rely on bookings through OTAs. While all the managers responded that the strategy is to set a base of occupied rooms through business travelers or groups, only 70% mentioned a strong focus on this segment. 30% of the respondents placed their primary attention on the luxury leisure traveler market, restricting MICE and business guests.

COVID has significantly changed the RM strategies of the hotels interviewed and all replies revolved around being agile and catching any business on the market. This forces decision-makers to be even more considerate of the competition and market due to the need to attract the same – currently limited – business.

Competition analysis data is vital in the hospitality market to allow for easy comparison. The challenge which was pointed out several times is that the data primarily provides insights into past events. The tools used to analyze the competition are rather similar in all hotels, the most frequently mentioned being STR, HotStats, Demand and Rate 360, and OTA insights. Besides the third-party tools, rate shopping calls are conducted by the hotels. Only 28 % of the participants mentioned word of mouth and personal connections between hotels as critical determinants of competitive analysis.

The Competitive set defined in the management agreements of the properties remained primarily untouched. 14% of the participants mentioned that the competitive set would be adjusted due to the pandemic forcing hotels out of the market or new entrants expected in the luxury segment in Vienna.

The last part of the interview was focused on flexibility and agility in adapting strategy, pricing, and measures to enhance performance.

### 4.5.5   Flexibility

The interviews provided a solid understanding of the managers' approaches to strategy, focus, competitive analysis, and important KPIs. The question yet to be answered is how flexible the managers are in dealing with this information. Is the pre-set budget and strategy written in stone, or are they able to move forward with agility?

The answers provided may have been influenced somewhat by the prevailing pandemic and market situation. Therefore, the interviewer inquired about flexibility in "normal" market situations and later on about the COVID strategy.

Table 3 showcases the answers provided by the managers in terms of which areas are adapted, during typical market situations without a crisis, yet with competitive movement.

TABLE 3 FLEXIBILITY IN NORMAL MARKET CONDITIONS

|  | P1 | P2 | P3 | P4 | P5 | P6 | P7 |
|---|---|---|---|---|---|---|---|
| Normal Market Condition | Room, Group, Packages, MICE | Room, Group, Packages, MICE | Room, Group, Packages, MICE | Room, Group, Packages, MICE | Room, Group, Packages, MICE | Room, Group, Packages, MICE | Room, Group, Packages, MICE |

SOURCE: OWN EVALUATION OF SEMI-STRUCTURED INTERVIEWS

The consensus amongst the managers is obviously revolves around adjusting the pricing of rooms and MICE. P1 mentioned that the property is willing to adjust every necessary measure to be successful and pointed towards flexible pricing strategies.

P7, despite clear affiliation towards TRM, did not show flexibility in adjusting pricing in the F&B, spa, or other revenue-generating areas. Together with three other participants, the property noted that the F&B and SPA concepts are adjusted seasonally and prices set accordingly.

The next question inquired if the strategies had been adjusted since the start of COVID and if the focus had changed due to the global pandemic – investigating if TRM received increased interest.

TABLE 4 ADJUSTMENTS DURING COVID-19

|  | P1 | P2 | P3 | P4 | P5 | P6 | P7 |
|---|---|---|---|---|---|---|---|
| COVID Market Condition | Room, Group, Packages, MICE | No Changes Only promotions | Room, Group, Packages, MICE | Room, Group, Packages, MICE | No answer | No changes | Room, Group, Packages, MICE |

SOURCE: OWN EVALUATION OF SEMI-STRUCTURED INTERVIEWS

Table 4 shows that approaches differ in terms of the most efficient measures to tackle the crisis and which prices to adjust.

While P2 and P6 were the only properties that did not adjust any pricing and remained with the initially set budget, four participants differed from the initially set path, while P5 did not wish to respond due to the sensitivity of the information. The difference between P6 and P2 is that neither property made changes to their RACK rates, however P2 implemented a tactic of using promotions with attractive pricing.

Even though the pandemic has led to a lockdown, restrictions in local business, and limited hours – also severely affecting all other revenue-generating departments besides rooms – none of the participants had adjusted the pricing in those areas.

Given the changing market environment due to the prevailing circumstances, the researcher asked participants to describe whether the pre-determined crisis strategies had been followed and if they supported the reduction of negative impacts – to which 100% of the participants stated they had followed their initial plans.

P2: *"Followed through with initial strategy, did not adapt with pricing. RACK rates, promotions are implemented. Dropping the rates is hard and recovery even harder."*

P3: *"We changed the strategy, we thought we could maintain the prices. But due to service adjustments, etc. we had to adjust it down."*

The interview concluded with inquiries about the expected future of RM/YM and TRM in the industry and about the lessons learned from 2020.

### 4.5.6 The Future and Take Away Learnings

To conclude the research and align the empirical data with the current theories in the field, the researcher sought to gain insight into what possible futures professionals in the industry foresee for RM/YM and TRM. The question explored if the lodging industry will adapt current approaches post-pandemic, and if there has to be a shift in the mindset of managers.

Considering the answers to previous questions, 80% of the participants currently follow very traditional RM/YM strategies with a strong focus on yielding rooms considered the most efficient approach, in line with the theory examined in this thesis. In light of this, the expectations of the professionals, over 85% of whom stated that there will be a need to rethink traditional approaches, are somewhat surprising as it raises questions about why the hotels generally continue to follow "standard" strategies. Figure 13, displays the four keywords and areas of expected change:
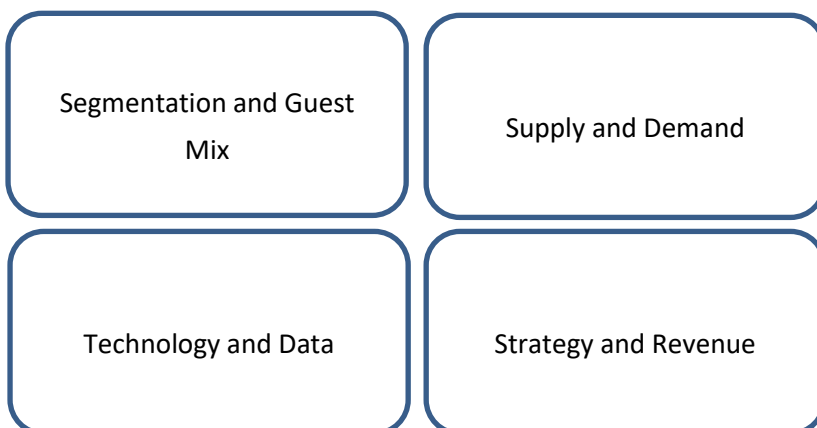


FIGURE 13 KEY-AREAS OF CHANGE

SOURCE: OWN EVALUATION OF SEMI-STRUCTURED INTERVIEWS

The outlier in the group assumed that the status quo of an RM/YM focus would remain based on the opinion that corporations and hotels already value RM/YM highly and therefore no re-thinking is required. This is at odds with the other replies expecting changes would be forced due to the changes in the market environment caused by the pandemic.

(1) Segmentation and Guest Mix

The respondents expect that segmentation and guest mixing will not be conducted in the same manner as in the past. Due to new regulations as well as companies reducing group and business travel, the hotels expect that segments such as Business and MICE will significantly reduce in size and volume. The hotel managers estimate that several players in the market will aim to reposition their properties to attract new segments. The overall feeling of the respondents was that there would be a need to attract more segments and that simply relying, for example, on luxury leisure guests might not cut it anymore.

(2) Supply and Demand

The expectation is that significantly smaller and family-owned hotels will not recover from the pandemic and will not have the possibility to resume business in the same manner as before, thereby reducing the supply. On the other hand, projects delayed over the last two years will continue and cause a noticeable increase in hotel room supply during the coming year, rather than being spread across an extended period.

In addition to the swing in supply, the hotel professionals mentioned that demand will change due to travel restrictions and the pandemic influencing countries in different ways at different times. Furthermore, demand from business travelers is expected to be reduced.

(3) Technology and Data

The current crisis has forced companies to rethink approaches, leading to hybrid and online events, increases in digital and IT usage, and AI applications. Businesses have explored measures to keep operating successfully without the need to travel and conduct events. Therefore, the respondents mentioned the increased need for hotels to step up to the latest technologies and utilities in the hotels and meeting rooms. Data provided by third parties mainly contains information and results of past events. This data is expected to observe a decline in significance since the past close to two years do not provide accurate market information for future projects. The professionals expect that there will be a shift in processes towards using data from before COVID combined with current market data. This directly challenges traditional RM/YM approaches, which deal with historical data to forecast possible outcomes.

(4) Strategy and Revenue

The words "adapt, improvise, rethink and overcome" describe the expectations of the participants. Setting overall strategies which nevertheless provide the hotels and teams with the agility to adapt pricing and revenue strategies on a regular basis is estimated

to become the new normal. The expectation is that RevPar will remain an important KPI, yet that TRM will shift ever more into focus. Several participants reported F&B as the main revenue driver at the time, compared to the typical year where room sales are the main driver. Yielding and challenging the pricing strategies in F&B and other operating departments has observed increased interest.

The closing question for the interviews intended to summarize the most important lessons learned for RM/YM and TRM in 2020. Summarizing the responses, the key take-aways are:

- Trust, patience, and having a solid strategy provide the necessary basis for crisis and success
- Never stop moving, be agile, and expect the unexpected.
- The way from the top to bottom is a fast one; climbing up is the challenge
- Re-thinking and modernizing of RM/YM is required – TRM might provide the solution
- Everything can change in a matter of days – worldwide. A diverse RM/YM strategy is a must.

## 4.6   Assessment of research questions

The research and thesis aimed to elaborate answers to the research questions stated in Chapter 1.2:

*RQ1: How do hotels on the Viennese market plan, act on, and enable successful RM, TRM, and YM?*
*RQ2: Which KPI is perceived as the most influential in pricing strategies?*
*RQ3: Do external factors influence the flexibility of hotels to adjust their strategies?*

The interviews revealed that there is a shared understanding and common practices when considering RM/YM in the hotel industry and that overall similarities between operating hotels are found. The success measures and KPIs followed are rather homogenous. TRM is a well-known concept, but is yet to be implemented in most properties. The global pandemic has significantly impacted all properties and their business, forcing strategic adaption and re-thinking of processes. Nonetheless, all participants had robust and well-prepared Crisis Management plans and strategies in place to minimize impacts to the best of their capabilities.

*RQ1: How do hotels on the Viennese market plan, act on, and enable successful RM, TRM, and YM?*

Looking at the participant's answers, RM/YM are already successfully enabled in their businesses. The basis is built on a strategy defined by the leadership in the hotels and supported by corporate hotel offices. This strategy serves as a comprehensive guide for the year and future, yet is adjusted regularly – mostly weekly – and forecasted short term to reflect the current mar-

ket situation. The participants heavily rely on data collection and analysis to support their decision making and success. Another successfully implemented RM/YM pillar is competitive analysis, which the participants feel is based on pinpointing the "perfect" competitive set. While competition performance is closely followed, the participants show some resistance to adjusting the initially set course by too much.

TRM is overall a concept that all participants are well aware of, yet which does not observe the same dedication in the businesses. Currently, with the exception of minimal outliers, the attention is focussed on RM/YM of Room, Group, Packages, and MICE, while F&B and other revenue streams are mainly left untouched. Despite current practices, the participants all ranked TRM as being important to their hotels. Therefore, the estimation can be made that the focus on TRM will increase in the future. The results from the study corroborate the theory that TRM is an up-and-coming trend, with a steep road ahead to be implemented by the industry.

All the participants expect significant changes to RM/YM in the future, as discussed in Chapter 4.5.6.

*RQ2: Which KPI is perceived as the most influential in pricing strategies?*

Chapter 4.5.4 revealed that the managers rely on information collected from third parties about their competition and current market insights. This information, combined with consideration of the RevPar is perceived as the most efficient way to estimate the effectiveness of the hotel's own pricing strategy.

All hotels show resilience in significantly adapting their initially set strategies. It seems they are not afraid to move with the market, as long as the deviation from the initially set course is within reasonable limits. These pricing strategies are for the most part, limited to rooms, MICE, and groups. Pricing strategies in other revenue-generating departments remain largely unexplored. The flexibility in this area is limited to adjusting seasonal offers and the pricing linked to those.

Only one hotel in the sample specifically pointed in the direction of TRevpar as the future KPI to look out for as well as the idea of re-thinking revenue centers and pricing strategies related to the entire property.

*RQ3: Do external factors influence the flexibility of hotels to adjust their strategies?*

The overall impression provided is a willingness for flexibility and adjustments, especially in the areas mentioned above – Group, Room and MICE pricing. The hotels are regularly adapting their strategies in these areas and show significantly flexibility. All participants stated that there is regular – weekly, bi-weekly – meetings with decision-makers in their properties to ensure strategies are enhanced.

The budget provides the foundation and is set as an overall strategy to be followed during the year. The current market environment resulting from the global pandemic could have provided the hotels enough external influence to demonstrate greater flexibility and move towards TRM, yet the observed focus remains on RM/YM.

The next chapter provides a summary of the findings, combined with the study limitations and suggestions for further research.

# 5 CONCLUSION

## 5.1 Summary

Interpreting and documenting the results of the pre-questionnaire as well as the semi-structured interviews, some findings point towards a distinctive result, while others strongly suggest the need for further research in the area.

The core focus of the managers and their hotels revolves around RM/YM, based on theoretical knowledge of the underlying principles. The core components of these theories and their importance are agreed upon by all managers and do not display significant deviations from the theory presented in Chapters 2.3 and 2.4.

Almost all interview participants believe that RevPar is the most suitable performance measure to evaluate a strategy's effectiveness compared to competition and market analysis. Furthermore, the entirety of the sample displays relatively strong affiliations towards flexible pricing strategies and adapting pricing according to external influences, especially regarding rooms, Groups, and MICE.

The majority of participants agree that ADR and OCC are key components that cannot be separated from each other, and only finding the right balance between those two factors – with an efficient guest mix – can lead to success. A stable competitive set is another highly valued pillar by the participants. Adding to these measures, all interview partners agree that a budget/strategy and crisis management plan are crucial.

Even though all participants claim familiarity with the term TRM and its theory, the understandings of the concept displayed significant variability. Only a minority of the participants actively include TRM in the strategy meetings and perceive TRevpar as the most valuable KPI. Apparently contradicting this finding, all participants ranked the importance of TRM in their properties as very high.

These empirical findings concur largely with the theoretical literature. The theory recognizes an apparent favoritism among the industry for the concepts of RM and YM, while TRM is considered a well-explored and valuable field yet with limited implementations in operating hotels. Other industries have adopted the concepts surrounding revenue maximization more successfully. Kimes suggested already in (2011) that the shift towards TRM was unavoidable and would manifests the future of successful revenue management in the hospitality industry.

The current market situation heavily influenced by the pandemic provides hotels the opportunity to challenge the status quo and move towards a more agile approach in all revenue-generating areas. The majority of participants agree that traditional RM/YM will not remain as it has

been and that evolution is unavoidable, suggesting that the theory offered by Kimes – see Chapter 2.4.3 – might observe an increased interest and implementation.

The main elements of the expected future focus on the need for increased diversity in guest mix and segmentation are requirements for agility and flexibility in the business strategy. Both market supply and demand are shifting, with delays before stabilization. Technology and data usage are expected to observe an increase in importance, focusing on real-time market data. The pivot of strategy is predicted to move from RM/YM to TRM, as a bottom-line focus gains increasing importance.

Combining all findings, it is apparent that the luxury hotel industry in Vienna is focused on RM/YM in the traditional sense and exhibits some resistance to change. Even though the external factors of the past year provided the opportunity and impetus to re-focus and re-set, the hotels examined only partially shifted their attention towards TRM. The flexibility to act on the market is significantly high, yet limited to the rooms, MICE, and Group revenue centers, with the general perception that moderate budget deviations are acceptable as long as profits increase.

A clearly positive and interested attitude towards flexibility and TRM is observed, indicating that the future may witness a change in management approaches.

## 5.2 Contribution to knowledge

This thesis has contributed to the existing knowledge on RM/YM and TRM, focusing on the history and evolution, internal requirements and market conditions, as well as current challenges surrounding the global pandemic and measures to ensure crises are handled effectively.

The following points provide a summary of the contribution:

- The thesis empirically corroborates the necessity for the alignment of RM/YM with a unified property-wide strategy. This strategy must extend to include crisis management plans providing support to managers in challenging times.
  The current research gap regarding the lack of specific strategy tools for hospitality reflects these findings and point to an apparent need to establish best practices in this field.
- Furthermore, the thesis confirmed that pricing strategies must be flexible. This is a challenge faced by hoteliers competing in an imperfectly competitive market influenced by several external forces. Third party data providers, IT solutions, competition and market analyses are becoming increasingly important to support managerial decisions. The study detected interest in shifting KPIs from the current focus on RevPar generation towards measures including total revenues and/or revenues per area.
- While the participating managers expressed the importance of flexibility in general and pricing decisions in particular, they appear to desire this flexibility within their currently

employed approach – generally traditional RM/YM – and display a surprising resistance to innovate towards what they recognize as being more viable approaches for the future.

- Finally, the findings confirm the conclusions of Kimes (2017), that TRM is a concept which is well established in theory and accepted as important by hotels, yet that implementation in day to day operations has not occurred as of yet. Possible limitations and future research directions aimed at clarifying the barriers are discussed later in the conclusion.

## 5.3 Limitations

By conducting qualitative research methods, the researcher has been confronted with the limitations of this approach. The sample size of interviews conducted was limited to seven and cannot be considered representative of the entire population. The restriction to top end luxury hotels and the geographical restriction to the City of Vienna mean that the findings cannot be extrapolated to hotels in general, nor even all hotels in Vienna, and should be considered only in relation to the specific hotel class investigated. Quantitative research, informed by the findings in this thesis, might provide a more representative result.

The pandemic has caused a significant external limitation on the planned interview process, which resulted in the interviews being conducted online during a non-optimal market situation. The interviewees were clearly affected by ongoing negative business results, which showed in the limited amount of information regarding which KPIs and departments were most affected during the pandemic.

Another limitation was that the research did not explore the guests as an influential factor for pricing, RM/YM, and TRM. The participants pointed towards the price sensitivity of guests and that this is a barrier to adjusting prices in other revenue-generating departments. Customer satisfaction as a driver was also not included in the research.

A hotel traditionally includes restaurants, SPA, and other revenue centers. The research excludes consideration of competitive markets outside of the hotel industry, such as free-standing restaurants, SPAs, and so on. These, however, must have an impact on the market and the strategies used by the hotels.

The final limitation necessary to outline is that the thesis and research did not include the ownership structures of the hotels. The ownership structure has significant influence on strategy, pricing, and operations of the properties – including decisions taken by General Managers.

The findings, theory analysis, and limitations provide the basis for the recommendations for future research outlined in the next section.

## 5.4 Implications for relevant stakeholders

### 5.4.1 General managers

The analysis in this study provides general managers an overview of the current status of revenue management practitioners within the luxury hotel market in Vienna. The results show that there is a distinct chance to move ahead with the implementation of TRM, which is yet to be focused on by the majority of the properties on the market. Adopting a bottom-line orientation is an opportunity to challenge market shares. Communication, flexibility, and willingness to move early might be the decisive factors.

### 5.4.2 Revenue managers and professionals

This study confirms current trends towards flexible pricing strategies, as indicated in the literature, with base pricing adapted according to fluctuating demand in the city. The results suggest the possibility of directing revenue managers towards a deeper understanding of the revenue streams connected to room pricing and encouraging more flexible approaches. Competition has the power to influence decisions around the guidelines set by the initial budget and overall strategy.

### 5.4.3 Decision makers in the hotel

The thesis finds that strategy and crisis management plans are a solid foundation for successfully maneuvering the hotels through challenging market conditions and environments. Communication and setting the basis for RM/YM and TRM combined with data analysis are pillars to ensure success. As external influences shake the market and force a reconsideration of the status quo, the findings suggest that moving the strategy towards a TRM approach could be beneficial.

## 5.5 Recommendations for future research

Section 5.2 has outlined the limitations identified in the study, which can be aligned directly with suggestions for further research. Below are examples of issues to be addressed with further in-depth research, including quantitative methods and case studies – which are suggested to yield the most significant results

- Guests as influencers in RM/YM and TRM

Guests as a factor in decision making and strategy in the hotel industry have been left out in the research of the thesis. The outcome, however, suggests that a significant number of decisions made by GMs and their teams are based on possible effects on guests. While this might seem obvious, the influence of guests on the pricing strategy might be less significant than expected. The current research has shown that industry professionals expect a shift towards more flexible

pricing combined with a more fluid target market strategy. Considering the five-star luxury hospitality, price sensitivity might be moderately low compared to other segments, especially considering the prestige associated with residing in such establishments.

- Ownership Structures as strategy drivers

Another factor that has not been investigated in the research is the ownership structure behind the hotel. Different forms of ownership – owned, managed, operated, leased, or franchised – require divergent approaches and strategies. The focus of a hotel owner when defining a pricing strategy could potentially differ significantly from that of a General Manager deciding on measures for an operated property. A study estimating the influence of ownership structures on how flexible properties can be might provide further insights into why the hotels in the present study tend to RM/YM rather than TRM.

- Externalities and Competition

The study has included hotels in the five-star segment of the city in Vienna, which are in direct competition with each other – to some extent. Despite that, the city and market offer restaurants, SPAs, event facilities, and other hotels outside of the hotels. Therefore, an indirect competition can be assumed with providers offering similar services. Future research might consider whether pricing strategies should be closer aligned to free-standing establishments outside of the hotel industry. Additionally, the perceptions of guests could be included to find if there are hesitations, expectations, and misconceptions towards hotel facilities (too expensive, exclusiveness, availability, and so on).

- Revenue Manager Focus/Responsibility and other Managers

Participating hotels have all employed Revenue Managers in their properties or regions responsible for their properties. Supported by technology and third-party data collection, the focus of these positions is outlined to be room revenues, optimized through yielding and pricing of the inventory. While the General Managers all stated that TRM is crucial to their business and there is a bottom-line orientation, there is no position defined in the hotel analyzing and working on TRM. Continuing the research in this thesis, future studies with managers could investigate if TRM is already incorporated in the day-to-day behaviors of the managers and does not require a specifically assigned person, or if there is a need to re-think and adapt current hotel management structures.

The research has provided insights of professional minds working with RM/YM and TRM in the industry in the context of an ongoing crisis and investigated the coherence between theory and reality. The results of the study outline that managers understand the concepts to the fullest and incorporate this knowledge in their strategies. Nonetheless, the willingness to apply TRM strategies and pioneer pricing strategies outside of rooms, MICE, and events is limited.

The intention of the thesis was to explore the level of flexibility in the luxury hotel market. The scope of the research was limited and therefore caused barriers to estimating the degree of flexibility of the hotels, especially considering the factors mentioned in sections 5.2 Limitations and 5.4 Recommendations.

The results show that all general managers apply flexible methods, act with agility, and follow the principles outlined in the theoretical analysis. A surprising result, however, is that even though the market was shaken by external influences, providing opportunities to shift towards a TRM approach, the majority of the participants had refrained from exercising flexibility in this respect.

The most pressing question remaining for the author is whether the general managers will adapt their strategies post COVID-19 once the currently affected market has returned to pre-pandemic levels.

# 6 BIBLIOGRAPHY

Anderson, C., & Xie, X. (2010). Improving Hospitality Industry Sales - Twenty Fice Years of Revenue MAnagement. *Cornell Hospitality Quaterly*, 51-53.

Andrews, P. (1964). *On Competition in Economic Theory.* London: Macmillan.

Archer , B. (1994). *Demand forecasting and estimation. In Travel, Tourism and Hospitality Research: A Handbook for Managers and Researchers.* New York: John Wiley & Sons Inc.

Basak, D. G., & Chi Chu, A. M. (2021). Managing hotel revenue amid the COVID-19 crisis. *nternational Journal of Contemporary Hospitality Management Vol33 No 2*, 604-627.

Baye, M., & Prince, J. (2016). *Managerial Economics & Business Strategy.* New York: MCGRAW-HILL Higher Education.

Bluhm, D., Lee, T., Cook, W. S., & Michell, T. (2011). Qualitative Research in Management: A Decade of Progress. *Journal of Management Studies - December*, 1866-1891.

Bobb, L. M., & Veral, E. (2008). Open issues and future directions in revenue management. *Journal of Reveneue and Pricing Management 7 (3)*, 291-301.

Bowie, D., & Wang, X. L. (2009). Revenue management: the impact on business to business relationships. *Journal of Service Marketing 23 (1)*, 31-41.

Buhalis, D., & Laws, E. (2001). *Tourism Distribution Channels.* Cengage Learning EMEA.

Corchón, L. C. (2001). *Theories of Imperfeclty Competitive Markets.* Berlin Heidelberg: Springer-Verlag .

Creswell, J. W. (2021). *Research Design Qualitative, Quantitative, and Mixed Methods Approaches 3rd eidtion.* New York: Sage Publications Inc.

Cross, R. G., Higbie, J. A., & Cross, D. Q. (2009). Revenue Managements Renaissance: A Rebirth of the Art and Science of Profitable Revenue Generation. *Cornell Hospitality Quarterly 50 (1)*, 56-81.

Cross, R., Higbie, J., & Cross, D. (2009). Revenue management's renaissance: A rebirth of the art and science of profitable revenue generation. *Cornell Hospitality Quaterly*, 56-81.

Demian, H. (2009). *Strategy Tools-in-Practice: Contextual Factors and Pracitcal Use.* Surrey: School of Management University of Surrey.

Dimitrios, B., Christos, P., Ioannis, R., & Vasiliadis, L. (2020). Strategic Management in the Hotel Industry: Proposed Strategic Practices to Recover from COVID-19 Global Crisis. *Acadmeic Journal of Interdisciplinary Studies Vol 6 No 9*, 130-138.

Eatwell, J., Milgate, M., & Newman, P. (1989). *Allocation, Information and Markets.* Palgrave Macmillan UK.

El Haddad, R., Roper, A., & Jones, P. (2008). The Impact of Revenue Managemnt Decisions on Customers Attitudes and Behaviors. *Research Gate*.

Faulkner , B., & Valerio, P. (1995). An integrative approach to tourism demand forecasting. *Tourism Management 16 (1)*, 29-37.

Faulkner, B. (2001). Towards a framework for tourism distater managment. *Tourism Management 22*, 135-147.

Fiori, A. M., & Foroni, I. (2020). Prediction accuracy for reservation-based forecasting methods applied in Revenue Management. *International Journal of Hospitality Management 84*.

Frechtling, D. (2001). *Forecasting Tourism Demand. Methods and Strategies.* Oxford: Butterworth-Heinemann.

Guadix, J., Cortes, P., Onieva, L., & Munuzuri, J. (2010). Technology revenue management system for customer groups in hotels. *Journal of Business REsearch 63(5)*, 519-527.

Hanks, R. D., Cross, R. G., & Noland, P. R. (1992). Discounting in the Hotel Industry: A New Approach. *The Cornell H.R.A Quaterly*, 16-23.

Harrison, J. S., & Enz, C. A. (2005). *Hospitality Strategic Management: Concepts and Cases.* Joboken: John Wiley and Sons, Inc.

Hayes, D. K., & Miller, A. A. (2011). *Revenue Management for the Hospitality Industry.* New Jersey: John Wiley & Sons Inc.

Hayes, D. K., & Miller, A. A. (2011). *Revenue Managment for the Hospitality Industry.* New Jersey: John Wiley & Sons Inc.

Helmold, M. (2020). *Total Revenue Management (TRM).* Cham: Springer.

Henderson , J. C., & Ng, A. (2004). Respionding to Crisis: Severe Acute Respiratory Syndrome (SARS) and Hotels in Singapore. *International Journal of Toruism Reserach 6*, 411-419.

Henderson, C. J. (2007). *Managing Tourism Crises.* Oxford: Elsevier Inc.

Hermann, F. C. (1974). International Crises: Insights from Behavioral Research. *American Political Science Review vol. 68, issue 4*, 1861-1863.

HotStats. (2021, 04 24). *HotStats*. Retrieved from HotStats: https://www.hotstats.com/hotel-industry-trends/after-unanticipated-2020-hotel-industry-knows-what-its-up-against

Ingold, A., McMahon-Beattie, U., & Yeoman, I. (2000). *Yield MAnagement.* London: Thomson Learning.

Ivanov, S. (2014). *Hotel Revenue Management From Theory to Practice.* Varna: Zangador.

Ivanov, S., & Zhechev, V. (2012). Hotel revenue management - a critical literature review. *Tourism, 60(2)*, 175-197.

Ivanov, S., Del Chiappa, G., & Heyes, A. (2021). The research-practice gap in hotel revenue management: Insights from Italy. *International Journal of Hospitality Management 95*.

Kimes, S. (2011). *The Future of Hotel Revenue Management.* New York: School of Hotel Administration.

Kimes, S. (2017). The Future of Hotel Revenue Management. *Cornell Hospitality Report Vol. 17, No. 1*, 1-10.

Kimes, S. E. (1989). The Basics of Yield Management. *Cornell Hotel and Restaurant Administration Quaterly 30*, 14-19.

Kimes, S., Chase, R., Choi, S., Lee, P., & Ngonzi, E. (1998). Restaurant REvenue Management: Applying Yield Management to the Restaurant Industry. *Cornell Hotel and Restaurant Administration Quaterly*, 32-39.

King, N., & Horrocks, C. (2010). *Interviews in Qualitative Research.* London: Sage Publications Ltd.

Klein, R., Koch, S., Steinhardt, C., & Strauss, A. (2020). A review of revenue management: Recent generalizations and advances in industry applications. *European Journal of Operational Research Vol. 284, Issue 2*, 397-417.

Knowles, T. (1996). *Corporate Strategy for Hospitality.* Essex: Longman.

Lai , K. I., & Wong, W. J. (2020). Comparing crisis management practises in the hotel industry between initial and pandemic stages of COVID-19. *International Journal of Contemporary Hospitality Management Vol. 32 No. 10*, 3135-3156.

Larsen, T. D. (1988). Yield MAnagement and your passengers. *Asta Agency Management*, 46-48.

MA 23 - Dezernat Statistik Wien. (2021, 05 30). *Hotel Capacity & Occupancy*. Retrieved from B2B Service for the tourism Industry: https://b2b.wien.info/en/statistics/data/bed-capacity-and-occupancy-340492

Mainzer, B. W. (2004). Future of Revenue Management - Fast forward for hospitality revenue management. *Journal of Revenue and PRicing Management 3 - (3)*, 285-289.

Mauri, A. G. (2007). Yield management and perceptions of fairness in the hotel business. *International Review of Economics 54(2)*, 284-293.

Mauri, A. G. (2012). *Hotel revenue management Principles and practices.* Milan Torino: Pearson Italia.

Moutinho, L., & Phillips, P. (2018). *Contemporary Issues in Strategic Managment.* Oxon: Routledge.

Ng, I. C. (2010). The future of pricing and revenue models. *Journal of Revenue and Pricing Management 9*, 276-281.

Olsen M, West, J., & Tse, E. C. (1998). *Strategic Management in the Hospitality Industry.* New York: John Wiley & Sons, Inc.

Olsen, M. D., West, J. J., & Tse, E. C. (2008). *Strategic Managment in the Hospitality Industry 3rd Edition.* Upper Saddle River: Pearson.

Orkin, E. (1998). Wishful Thinking and Rocket Science: The Essential Matter of Calculating Unconstraned Demand. *Cornell Hotel and Restaurant Administration Quaterly Vol. 39 No. 4*, 15-19.

Orkin, E. B. (1988). Boosting your bottom Line with Yield Management. *The Cornell H.R.A Quaterly*, 52.

Pfeifer, P. E. (1989). The airline Discount Fare Allocation Problem. *Decision Sciences*, 149-157.

Phillips, R. L. (2005). *Pricing and Revenue Optimization.* California: Standford Business Books.

Pizam, A. (2008). *Handbook of Hospitality Marketing Management.* Haemoon Oh.

Ritchie, J., & Lewis, J. (2014). *Qualitative research practice: A Guide for social science students and researchers (2nd edition).* New York: SAGE Publications Ltd.

Ross, D. F. (2015). *Distribution Planning and Control.* New York: Springer.

Sánchez-Medina , A., & Sánchez, E. (2020). Using machine learning and big data for efficient forecasting of hotel booking cancellations. *International Journal of Hospitality Management 89*.

Schwartz, Z. (1998). The confusing side of yield management: Myths, errors and misconceptions. *Journal of Hospitality and Tourism Research 22 (4)*, 413-430.

Schwartz, Z., Altin, M., & Singal, M. (2017). Performance measures for strategic revenue management: RevPar versus GOPPAR. *Journal of Revenue and Pricing Managmenet 16(4)*, 367-375.

Schwartz, Z., Webb, T., I van der Reset, J.-P., & Koupriouchina, L. (2021). Enhancing the accuracy of revenue managment system forecasts: The impact of machine and human learning on the effiectiveness of hotel occupancz forecast combinations across multiple forecasting horizons. *Tourism Economics Vol 27.*, 273-291.

Schwarz, Z., & Cohen, E. (2003). Hotel revenue management with group discount room rates. *Journal of Hospitality & Tourism Research 27(1)*, 24-47.

Smith, E. G., & Woodside, A. G. (2009). Practice in Managing Business to Business Brands. *Advances in Business Marketing and Purchasing Vol. 15* , 429-486.

Statik Austria. (2021). *Österreich Zahlen. Daten 20/21 - 16 Auflage.* Wien: Statistik Austria.

STR. (2021). *COVID-19 Webinar Europe.* STR.com Costar Reality Information Inc.

Teare, R., & Boer, A. (1990). *Strategic Hospitality Management: Theory and Practice for the 1990s.* London: Cassell.

Tranter, Stuart-Hill, & Parker. (2014). *An Introduction to Revenue Management for the Hospitality Industry: Principles and Practices for the Real World.* Essex: Pearson Education Limited.

Tribe, J. (1997). *Corporate strategy for tourism.* London: International Thomson Business Press.

Vinod, B. (2004). Unlocking the value of Revenue Management in the hotel industry. *Journal of Revenue and Pricing Management 3(2)*, 178-190.

Vinod, B. (2008). The continuing evolution: Customer centric Revenue Management. *Journal of Revenue and Pricing Management 7*, 27-39.

Von Bertalanffy, L. (1969). *General system theory: Foundations development applications.* New York: George Braziller.

Wang, X. L. (2012). Relationship or revenue: Potential management conflicts between customer relationship management and hotel revenue maangement 31(3). *International Journal of Hospitality Management*, 864-874.

Wang, X. L. (2013). Revenue Management and customer relationship management. *Revenue management for hospitality and Tourism*, 194-212.

Wang, Y. (2010). Examining the tourism distribution channel: Evolution and transformation. *International Journal of Contemporary Hospitality Management*.

Weatherford, L., Kimes, S., & Scott, D. (2001). Forestasting for Hotel Revenue Management: Testing Aggregation Against Disaggregation. *The Cornell Hotel and Restaurant Administration Quaterly 42 (4)*, 53-64.

Webb, T., Schwartz, Z., Xiang, Z., & Signal, M. (2020). Revenue management forecasting: The resiliency of advanced booking methods given dynamic booking windwos. *International Journal of Hospitality Management 89*.

WHO. (2020, 04 24). *World Health Organisation*. Retrieved from World Health Organisation: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen

Yeoman, I. (2020). A blank piece of paper. *Journal of Revenue and Pricing Management Vol. 19*, 145-145.

Yüksel, S. (2007). An integrated forecasting approach to hotel demand. *Mathematical and Computer Modelling 46* , 1063-1070.

# APPENDICES

## Appendix 1: Interview preparation

- Please indicate the size of your property
  - ☐1-50 keys
  - ☐51-100 keys
  - ☐101-150 keys
  - ☐151-200 keys
  - ☐more than 200 keys
  -

- What is your main customer target segment?
  - ☐Business
  - ☐Leisure
  - ☐MICE
  - ☐Other please specify
  - Click or tap here to enter text.
  -

- Do you have the function of Yield/Revenue Manager in your property?
  - ☐yes
  - ☐no
- Do you employ a 3rd party for Yield/Revenue Management support?
  - ☐yes
  - ☐no
- In your overall Strategy, is there a part specifically designated for Revenue Management?
  - ☐yes
  - ☐no
- Does this part include Total Revenue Management?
  - ☐yes
  - ☐no
- Did you adapt or change your pricing strategy due to the global COVID-19 pandemic?
  - ☐yes
  - ☐no
- Did you have a crisis management plan in place before COVID-19?
  - ☐yes
  - ☐no

## Appendix 2: Interview

Dear "enter Name",

Thank you very much for taking the time to conduct this interview with me. This will support my research in regard to Revenue, Yield and Total revenue Management in the Viennese Market and how flexible leaders in the industry act and react.

Allow me to inform you that this interview will be recorded and I do take notes. The transcript and notes are handled according to EU Data protection regulations and not shared with anyone. Anonymity is guaranteed, and the video recording will be disposed after the research will be completed. The results of all interviews will be evaluated and form the integral research part of a Master Thesis in fulfillment of my MBA degree at MODUL University Vienna.

I am more than happy to provide you with a copy of the research, thesis and interview conducted if interest arises.

We will have a set of 16 questions, which are a combination of open and closed ended ones – which will take approximately 40 minutes to conduct.

Please confirm shortly that you are conducting this willingly and agree with the recording.

1. Please describe in your own words what is your understanding of the concepts: Revenue/Yield and Total Revenue Management.

2. Please indicate from 1-5, where 5 represents the highest value, how important you consider Revenue/Yield Management within your Hotel.

3. If you had the choice to pursue one scenario, would you rather choose to have a high average occupancy or a higher average rate over a full year. Please give a short explanation why you chose one of the options.

Following now, there will be an overall question followed by four subsequent questions related to the same topic – your Strategy.

4. I have inquired with other GM participating in the research if there is a RM/YM and overall Strategy in place.
Please shortly indicate if you have such a strategy formulated in your property, and who was responsible for setting it up?
   a. Do you have regular meetings to communicate your Strategy and the process to achieve it? Which roles are invited?
   b. Does your Hotel rely on information technology support to conduct RM and YM?
   c. Do you adapt your overall pricing strategy during the year, or stick with the strategy/budget set?

        i.   If you adopt the Strategy, how frequently are the prices adapted?

    d.   Do you aim to achieve a certain guest mix, if yes, please roughly indicate which segments and percentages?

5.   How many out of the XXX questioned GMs do you think have a strategy formulated, and why do you think that this high/low number of managers do /do not have a strategy.

6.   Competition has the power to influence decisions and strategies. Which measures do you have in place to observe current and future competition in the market?

7.   Benchmarking performance is a common tool to observe the competitive set in the market. Since your opening, how often have you adjusted this comp-set in your Strategy?

    a.   What effect did you intend to achieve with the adaptation of the comp-set?

    b.   If there are no changes, please shortly explain why do you feel the current comp-set supports benchmarking the most?

8.   How flexibly are you adjusting your Strategy according to the competition in the market? Which areas are you most likely to adjust thinking of packages, pricing, or other measures)?

9.   Please indicate from 1-5 how often you adjust and update prices in your property.
5 – 1-3 months
4 – 4-6 months

3 – 7-11 months

2 - yearly

1 – never

10. In question 8, you mentioned that you adapt your prices on a basis of ……  Next to room rate adjustments, is there other departments of the property in which you perform adaptations (SPA, F&B, etc.)?

11. lease indicate from 1-5, where 5 represents the highest value, how important you consider Total Revenue Management within your Hotel.

12. In your opinion, what are the most important key performance indicators to benchmark hotels with each other? Please give a short explanation why you have chosen a certain KPI.

Thank you for bearing with me until now and for sharing your insights. The last few questions will focus on the current pandemic, challenging experts in the lodging industry all over the globe.

13. Please indicate from 1-5, where 5 represents the most severe number, how negative has COVID-19 impacted your property.

    a.   In question 14, you have mentioned that the impact was ….. Please indicate what department observed the highest decline in performance in your property:

        i.   Rooms

       ii.   F&B

     iii.   MICE

   b.   You have mentioned that XXX was affected the most. Could you elaborate why you feel the performance was hit the hardest. Which KPI(s) are you looking at?

14. Since the rise of COVID, have you adapted your-pricing to the current situation, or followed through with your initial budget/strategy?
   a. Please indicate what and why you have chosen these changes.
   b. If you have not changed your budget/strategy until now, what are your intended RM/YM measures to counter the shortcomings this/next year?

15. We spoke about Strategy and pricing Looking back to the beginning of 2020, no one expected a crisis. Did your property have a crisis management strategy in place, and to which extent did it include RM/YM?
   a. Did you follow through with your plan and do you feel it supported minimizing the negative impact?
   b. If you did not yet formulate a crisis management plan, have you since then set up an emergency plan? Please indicate key areas included.

16. Do you think that the global COVID-19 pandemic will force the lodging industry to change the approach of YM/TM and Total Revenue Management? Please shortly elaborate why you feel it changes/remains the same.

17. What is your most important lesson learned in regards to RM/YM, total Revenue Management looking back at 2020?

This concludes the interview. Thank you once more for your support, insights, opinion and time – I really appreciate it. If you would like to have some closing words please do let me know.

As mentioned, if you are interested in receiving the Master Thesis with the conclusion of the research, please do let me know and I will ensure an electronic copy is sent.