

**Czech University of Life Sciences Prague**

**Faculty of Economics and Management**

**Department of Management**



**Bachelor Thesis**

**Factors that affect Revenue Management in luxury  
hotels in Prague**

**Daniel Saido**

**Supervisor: Richard Selby, Ph.D.**

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# CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

## BACHELOR THESIS ASSIGNMENT

Daniel Saido

Economics and Management

Thesis title

**Factors that affect revenue management in luxury hotels in Prague**

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### Objectives of thesis

The overall aim of this thesis is to analyse the revenue management function at a sample of luxury hotels in Prague, and based on this to identify the main factors affecting revenue management and pricing decisions in this hotel sector.

### Methodology

The first part of this thesis will be based on a review of relevant literature in order to understand the context. The research/project part of the thesis will be based largely on interviews with revenue managers and other appropriate employees at a sample of luxury hotels in Prague.

**The proposed extent of the thesis**

Approx 40 pages

**Keywords**

Luxury hotels , revenue management, yield management, overbooking, pricing, Prague

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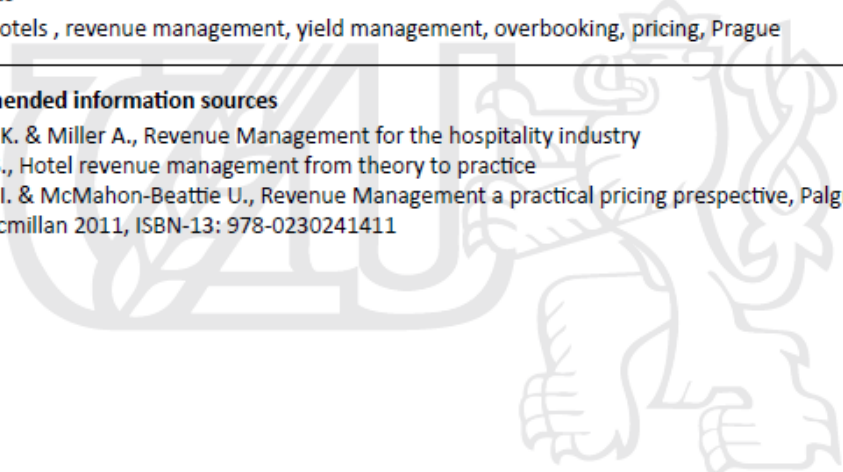
**Recommended information sources**

Hayes D.K. & Miller A., Revenue Management for the hospitality industry

Ivanov, S., Hotel revenue management from theory to practice

Yeoman I. & McMahon-Beattie U., Revenue Management a practical pricing prespective, Palgrave

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### **Declaration**

I declare that I have worked on my bachelor thesis titled "Factors that affect Revenue Management in luxury hotels in Prague" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any third person.

In Prague on March 14<sup>th</sup>, 2016

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**Daniel Saido**

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I would like to express my sincere gratitude to my supervisor, Mr. Richard Selby, for his exceptional assistance, patience, support, and help, not only throughout the process of writing my thesis, but also throughout the years that I have spent at Czech University of life sciences. Many thanks also to all four Revenue Managers from the investigated hotels for their participation in the research, and to my sister Marika for her continued motivation, love and unconditional support.

# **Faktory, které ovlivňují řízení příjmů v luxusních hotelech v Praze**

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## **Factors that affect Revenue Management in luxury hotels in Prague**

### **Summary**

The overall aim of this thesis is to analyze different points of revenue management function at a sample of luxury hotels in Prague. This research monograph clarifies the essential concepts in the field of revenue management like revenue management system, market segmentation, analysis, forecasting, process strategies, profiling, and metrics. The work is divided first into a theoretical part of revenue management, its different strategies, development, and tools of revenue optimization, and second to a practical investigation of the collected results and information. Therefore, based on this to identify the main factors affecting revenue management

**Keywords:** Luxury hotels, Revenue Management, Yield Management, Development, Profitability, Dynamic Pricing, Segmentation, Forecasting

## **Souhrn**

Hlavním cílem této práce je analyzovat různé funkční body řízení příjmů na vzorku luxusních hotelů v Praze. Tento výzkum, rozvádí základní pojmy v oblasti řízení příjmů. Například systém řízení příjmů, segmentace trhu, analýza, prognózování, strategie procesu, profilování a metriky. Práce je rozdělena na dvě části: První část je teoretická část řízení příjmů, jeho různé strategie, vývoje a nástroje optimalizace příjmů a druhou částí je praktické zkoumání shromážděných výsledků a informací. Na základě tohoto, identifikovat hlavní faktory, ovlivňující realizaci řízení příjmů v tomto hotelovém sektoru a poskytnout doporučení pro jejich zlepšení.

**Klíčová slova:** Luxusní hotely, řízení příjmů, řízení výnosů, rozvoj, ziskovost, dynamické oceňování, segmentace, předpověď

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### Abbreviations used:

**ADR** - Average Daily Rate

**GDS** - Global Distribution System

**GOPPAR** - Gross operating profit per available room

**F&B** - Food and Beverage

**OTA** - Online Travel Agency

**RevPAR** - Revenue per available room

**RM** - Revenue Management

**YM**- Yield Management

# **I. INTRODUCTION**

## **Subject of the study:**

The concept of Revenue Management (RM) also known as yield management is one of the most discussed subjects in the field of hospitality operations management. RM is an intelligent tool that increases profits and revenues of the company by using an application of disciplined techniques that focus deeply on the market research and perfectly seal the deal with the demand and the relationship of the product offered at a specific time and place for the right price with the desired customer by predicting consumer behavior at the micro market and directing the product to customers that have been divided into different segments based on their purchase intentions. The idea is to use this tool with focusing on the control of customer demand through the use of capacity management and dynamic pricing to raise profitability.

The RM has been developed initially by the airline industry in the early 1970's and after government deregulation in the early 1980s the revenue management principles and techniques became a common practice among airlines. RM was created because of the need of the airline companies to sell at least a minimum number of seats without offering every seat at discount prices, in other words to sell enough seats to cover fixed operation expenses. This science has expanded and evolved strategies in a wide range of industries and it is profitably applied by many sectors such as hotels, shopping malls, restaurants, telephone operators and other companies. It is important to mention that each industry has specific characteristics that determine the practical aspects that work in it, and what is successful strategy for shopping centers for example, is not always a working solution for the hotels or airlines but the purpose of use is mutual. The goal of this research is to identify and analyze the factors that may influence the degree of implementation of the revenue management in the hotel industry and whether all establishments have the same conditions to generate income and why.

Benchmarks and objects of studying this research are going to be four different international hotels of four different chains. All hotels are placed in the city center of Prague- Czech Republic.

## **Objectives**

- Based on both existing bibliographic and electronic resources, combined with several opinions of several experts from the RM in the hotel sector, the main objective of this work is to identify and determine the factors that play an important role in RM field by applying various analysis of pricing and non-pricing tools and focusing deeply on the current issues related to the concept of marketing and operations of the hotel.
- Evaluate principles, practices and techniques that influence the degree of implementation of RM in hotels.
- Other specific objective of this study is to identify whether these factors are related to the attitude of the staff (trainings and specific education), economic status (whether the hotel can be afford to invest in specific software, the professional training of staff, etc.) or general conditions of the hotel as the size of membership chain.

My personal reason for this research is to gain more knowledge in the hotel industry and especially in the area of Revenue Management.

## **Hypothesis**

The following hypothesizes are established after studying the theory of Revenue Management and analyzing the literature on this subject:

-H1 Factors that influence the degree of implementation of revenue management in the hotel sector are: the size of the hotel chain, staff specially trained in the field of RM or missing the needs to change the prices of their services according to the type of the customer, season or the market and economic status of the hotel.

-H2 hotel that belongs to international chains are able to implement the RM in greater degree than the European hotel chains

-H3 the RM tool is used in a wider range and on a higher degree in larger hotels.

### **Structure of the work**

After introducing the reader to the subject of the study, the objectives and the reason behind choosing the field of Revenue Management in the hotel sector as a topic for this work. The second part of the literature study is the development of the topic, brief description of the history of RM globally, explanation of the tools and the basic concepts of revenue management implementation in the hotel industry.

Based on all the concepts of the previous chapter, the third part is designed to study and analyze four hotels located in Prague city – (Hotel A, Hotel B, Hotel C, and Hotel D). Names of the hotels, chains which they belong to and names of the respondents from the revenue departments were kept in anonymity due to the privacy of the provided and investigated information in this research.

The following fourth paragraph includes methodology study, and explanation of the techniques used in this work as in-depth interviews and observation participant.

Fifth section will be focused on the results of the research and the validation of their designs.

The conclusion will be the last part based on the results of the presented used methods, with recommendations mentioned about the constraints that the research process has encountered.

## **II. THEORETICAL FRAMEWORK:**

### **Definition, objectives and usefulness of RM**

Based on Kimes (1989) and Kimes & Wirtz (2003) we could define the hotel revenue management as "constellation of tools and actions dedicated toward the achievement of an optimal level of the hotels net revenues and gross operating profit by offering the right product to the right customers via the right distribution channel at the right time at the right price with the right communication". WITHIAM, G. (2015), Professor of the Research Center of the Hotel Sector at Cornell University, USA, said that "Revenue Management is a term" umbrella "for the set of strategies that facilitate the industries that use capacity in the business to optimize revenues from its operations." The basic concept of yield management is to provide a service or a product suitable to the consumer at the right time and right price. We can see that the definitions of Kimes & Wirtz and Withiam are perfectly covering the explanation of the purpose of RM as they have much in common. Finally, the objective of Revenue Management is the optimization of the price combined with the ability to maximize profit (Heel Ballesterro, Cows Guerrero Figueroa Domecq and 2008, p.1).

This long definition has incorporated several key points, and it is necessary to analyze the definitions and concepts of product, consumer, time, price, and proper distribution channel

- Right product is defined by both customers and entrepreneurs as a product that satisfy customers wants, needs and requirements by delivering quality and value with employed pricing strategy that results in charging prices customers will

willingly pay for and it is at the same time profitable for the hoteliers. It is useless if the product does not generate revenue for the company or if it does not fit the requirements of the targeted market.

- The right customer concept is a data table provided and analyzed by the marketing department and should be defined by each hotel on its own account. It is considered as one of the basic strategies of revenue management because we will see in the following paragraphs that time, distribution channel and product price play a main role in the process of making decisions. Managers within the hotel industry focus on the desired type of customer that could provide the greatest benefit to the hotel, these customers could vary according to several factors depending on the type of the hotel, the price they are willing to pay, and other special requirements. For example in resort hotels such factor could be the season of the year and managers can choose and focus in the summer on attracting either young people or families. Therefore, the marketing department of each hotel decides who is the right consumer, which will be available to pay the money that a hotel wants and capture market attention
- The next concept, "the appropriate distribution channel" is closely related to the right customer. The choice of which distribution channel the hotel will sign contract with is the main decision managers have to make due to the great variety of available distributors, hotels can sell their product directly to the consumer (without the use of intermediaries), or via tour operators and OTAs (Online Travel Agency: Booking.com, Expedia.com). The hotel will be more presented on online websites if they work with more distributors, which will increase the visibility of the hotel and there will be a greater chance that a potential customer will find it and book it. However the appropriate distribution channel is the one that provides access directly to the right customer.

- In revenue management right time is very important and considered as one of the most significant concepts. Hotels can offer the same service with different values depending on the time or season or even the time of the publication and advertisement can influence customer interests. It is important to collect data and statistics and provide analyses in order to publish the offer in the right time and make it visible to the customer. For example if the desired client usually book the stay one month in advance, it would be inappropriate to publish the offer three months or three days before, as this time does not fit with the time which the reservation is made at.
  
- Finally the Right price concept, to be able to price the products or services in an effective way is one of the main important revenue management skills because it directly affects the income of the hotel. RM team is responsible for setting prices that will match both the informed customer willingness to pay and the price the hotel wants to charge while knowing that the customer wants to pay as little as possible and the hotel would like to collect as much as possible to generate revenue as Ivanov said (Ivanov 2014 p.11). However if the consumer feels that the price is too high or that the value is not attractive, the relationship between hotel and the consumer will not be beneficial.

Same as in other fields, also in RM strategies and goals should meet several characteristics like: specific, measurable, and achievable with a deadline in which they would like to reach them. Each department within the hotel may have several objectives, depending on the product they want to sell: rooms, services of restaurant, SPA, gym or casino. However, the objectives of all these departments and the purpose of the RM is the optimization of price and ability to maximize profit. (Heel et al., 2008, p.1). On the other hand, Chicheri (2009, p.8)



states that the RM is a process of understanding, anticipating and influencing consumer behavior in order to maximize revenue.

By comparing the ideas of several authors, we can confirm that the main objective of revenue management is to maximize the benefits of the company, while interacting with the market and ensuring that consumers will be satisfied and willing to pay the offered price.

### **Brief History and introduction to RM**

Revenue Management comes from the airline industry; in fact, it was not a common practice to other fields of study. The key moment in the history of RM is Air Deregulation Act in 1987, where the Civil Aviation of the United States lost control over the prices for air services, previously prices were highly controlled, standardized and based on the objective to generate income. This Act allowed innovations and led to rapid growth of the airline industry. The airlines were willing to set their prices and schedules according to both fixed and variable costs and needs.

Also they entered the market with low-cost expenses by simplifying the services in less demanded hours of flight and attracting with that more consumers by offering competitive prices. Because of Air deregulation Act more consumers could afford those services provided by the airlines which increased the demand for them over other types of transportation.

At the same time the major airlines introduced the Global Distribution Systems (GDS). The first SABRE reservations system was introduced for the first time

by American Airlines. Therefore American Airlines extended its market operations and was able to establish the most complex pricing (Talluri, Van Ryzin 2005, p.7). As a result of deregulation, the introduction of GDS, and the possibility of offering a lower prices for air services led many customers to decide using flights instead of driving, and because of that consumers were divided into several segments, such as the type or purpose of the trip or according to their willingness to pay for the contracted service. Soon customers began to get used to the lower prices and became sensitive to the price of the service. Those who stayed were less price sensitive business travelers using standards but low-cost airlines came out of this competition battle as winners.

The key moment for revenue management was when the American businessman Robert Crandall who is the former president and chairman of American Airlines realized that most company costs were fixed costs and variable costs were minimal, therefore that will allow them to experiment setting prices for airplane seats.

Crandall used various tools to sell these seats for both entertainment consumers and business clients, he decided to make a significant discount to customers who buy tickets in significant advance and stay at the destination at least seven days. (Talluri et al., 2005, p.8). This allowed him to make sure it would hold the interest of business customers who typically bought their tickets for short terms and even sometimes came back at the same day or the next day, while attracting leisure consumers at the same time. Because of the use of this market segmentation, American Airlines could compete with low-cost airlines and allow more types of customers use their services. However, the company was still only learning, and it was not enough only to segment the market and offer two types of rates. Managers realized that not all flights were equal and that the demand for a particular flight schedules varied from another one. As we can assume, on flights with less occupation the company tried to sell the empty seats

for discounted prices, while in the case of the demanded ones it was not necessary.

After several years of development in 1985 the DINAMO was introduced (Dynamic Inventory and maintenance Optimizer). DINAMO along with a new fare program entitled Ultimate Super-Saver Fares, which matched the lowest discount fares available in every American served market. With DINAMO and GDS, airlines were now able to experiment more with the price and discounted rates, monitor capacity and simultaneously announce what is the best in the market. As a result of introducing the RM in airlines, American Airlines admits that they saved 1.4 Billion dollars over a period of just three years and from that time till today the technology of Revenue Management tools are a success not only for airlines but also for other industries such as hotels, car rental companies and many others (Wen-Chyuan, Jason Xiaojing, 2007).

Finally, in 1990 Revenue Management began to play an important role in the Hotel industry, hoteliers started to use software and GDS to set tariffs for services which allowed them not just to sell the rooms and services, but also to create a database and profiles for guests with their history. This data helped hoteliers to make better decisions in the future, based on past results and they were able not just to predict demand as various factors such as the type of customer or season of the year, but also to analyze competition and set the right price for each customer segment. After only one year in 1991 the first American hotel chain that introduced the RM tool was Marriott, and thanks to that they have experienced an increase in benefits 25 and 35 million dollars.

### **The Operations of Revenue Management**

The Revenue Management system starts when the consumer starts looking for hotel availability, seeking for its information along with prices. It could be via

email, phone or through internet sales channels (Ivanov, 2014, p.24). Ivanov also mentioned the four structural elements of the system which are: data and information, hotel revenue centers, RM software and RM tools. For better understanding of the revenue management system it is important to focus more deeply on each of these four elements.

- Data and Information

The information used in the RM is very important for the different revenue metrics for example ADRs average daily rate, RevPAR the revenue per available room, GOPPAR gross income per available room and occupancy among others (Lieberman, 2003). Hotel also uses this information for analyzing the demand in the past and future bookings, statistics of sales service from accommodation and also from other departments, tariff changes, and changes in laws that could affect the operation of the hotel or actual performance of revenue from the property.

- Hotel revenue centers

Revenue centers are all centers that are generating revenue to the hotel, all several departments of the hotel that sell their products or services to the consumer. These centers can be rooms, SPA, restaurant, casino, events department and conference rooms and halls, etc. It is assumed, that the more revenue centers hotel has, the better, because the hotel offers a greater variety of customer services, but it is important to focus on them and previously analyze the possibility of future income for the department to make them work properly. Hotel managers should focus on Revenue of the hotel itself, not only on accommodation revenues. In most cases, the same customer who stays at the hotel will use other services from other departments, but also there will be

customers using other services only for example restaurant, bar, and SPA of the hotel. Therefore it is important to ensure that all departments have sufficient attention for RM. For example in some sports themed hotels or resorts are often offered significant discounts on the room rate, which attracts tourist who probably has more expenses in other revenue centers.

- RM tools

Revenue Management tools are those by which hotels can influence the revenues. These tools can be divided into pricing, non pricing and combined tools.

Pricing tools do not influence the setting of tariffs. They play an important role in setting rates, discounts, penetration rates according to the season or certain events, discrimination fare pricing and other methods that directly affect the hotel prices. Control duration of stay, the hotel capacity control, overbooking- the strategy of selling on the ability to ensure full occupancy on the other hand are tools that do not directly affect rates and are called the non pricing tools. Combined revenue management tools include management and control of distribution channels and the optimal allocation of rooms according to the price paid by the consumer (Guadix, Cortes, Onieva, Muñuzuri 2010, p.521).

- RM software

RM software is required to process all the information and databases. Hotels that have implemented it are gaining a strategic advantage over those who rely only on intuitive decisions. The most typical software packages for hotels are EzRMS, Opera, PROS, JDA. The software is handling the main information as the number of reservations, the number of rooms, length of the stay, prices

according to the distribution channel and market segment, the history of reservations, statistics and curves on last reservations, the story of cancellations, walk-ins (client who appears without reservation), and no-shows (client which has booked a reservation but did not checked in). The software is able to generate current demand curves and also foresee (forecasting). The software can also recommend the rates for a time or specific segment however, the final decision lies in the hands of the revenue manager (Ivanov 2014, p.28). Revenue Management software or its lack is one of the key factors discussed later in this research.

As we can see at the conclusion of the software part of RM, the final decisions on the operations of RM are taken by trained personnel, in fact none of the four concepts of RM system could function properly without qualified staff and that is the key to the success of revenue (Lieberman 2003). The following parts of the work shows that some hotels have the need to have their team of RM, in fact they have a main responsible person for that (Manager of the Revenue Management department), while other establishments do not need that and operations of revenue are carried on by other directors, such as director of marketing and sales. In many cases there are also responsible personnel for RM for specific regions or areas working for several hotels in the same chain.

### **Metric concepts and definitions within Revenue Management**

There are several metrics that demonstrate the efficacy of the revenue generated by the hotel. They can be divided into segments according to hotel revenue centers such as lodging, restaurant, SPA, etc. We have already mentioned that it is important to focus on revenue generating tactics in all centers of the hotel to create a set.

In the Accommodation center there are several metrics and statistics used to calculate the most important concepts of Revenue Management. Based on information and most importantly on the number of nights as it is the base for calculating the volume of "consumption" of the room. It is also used as a base unit in the other RM metrics. Another important concept is the occupancy ratio that measures the current hotel occupancy over capacity. The occupancy rate is always expressed as a percentage and is obtained by the two following formulas using either number of nights as a basis or instead of number of nights we can use the number of occupied rooms:

$$Occupancy_{roomnights} = \frac{\text{Number of roomnights}}{\text{Number of rooms available for sale}} \cdot 100$$

$$Occupancy_{overnights} = \frac{\text{Number of overnights}}{\text{Number of beds available for sale}} \cdot 100$$

If some rooms are out of service, blocked or not available for sale because of repairs, accommodation of employees or other reasons, the ratio is calculated only from the rooms which are designed for sale at the particular time. The percentage of occupation gives us the option to generate revenues in a wide range by increasing the number of sold rooms/nights/guests and it may vary according to season, day of the week, special events in the hotel or in the same city or competitive behavior.

Another key concept in the field is the average daily rate for one overnight charged by the hotel (ADR). It shows the ability of the hotel to generate more revenues by selling the rooms for higher prices. ADR can be calculated

for the whole hotel or for each separate type of rooms (Suites, superior, deluxe, etc.) and is calculated as follows:

$$ADR_{overnights} = \frac{\text{Room revenues}}{\text{Number of overnights}}$$
$$ADR_{roomnights} = \frac{\text{Room revenues}}{\text{Number of roomnights}}$$

It is the same as with the average daily rate, the occupancy rate may depend on the day, the season, the type of client (corporate, leisure, groups), special events in the area, the category of the room booked, the distribution channel or contract terms. The main weakness of this metric is that it shows only the income of the rooms and does not consider other revenue centers of the Hotel. Therefore, the method of calculating the total revenue per occupied room is by using the total expenditure of the customer account instead of room revenue only and then the metric is more complete and useful.

$$Total RevPOR = \frac{\text{Total revenues}}{\text{Number of roomnights}}$$

The most commonly used metric in Revenue Management and simultaneously the most useful one is named revenue per available room (RevPAR). The average daily rate and the occupancy rate does not necessarily prove the effectiveness of the hotel, because they can generate high revenues with having a very high rate but very few rooms occupied or being sold out but for a very low price (Ivanov 2014, p.46) . RevPAR measures the income generated by a room available for sale, and that is the power of the hotel to generate income for



a room available by calculating all the expenses that the client can generate during their stay. There are two ways to calculate the RevPAR:

$$RevPAR = \frac{Room\ revenues}{Number\ of\ rooms\ available\ for\ sale}$$

1.

$$RevPAR = ADR_{roomnights} \cdot Occupancy_{roomnights}$$

2.

It is important to conclude that the two components average daily rate and occupancy are interrelated and form an inverse relationship. The higher the average rate will be, the occupancy will tend to fall, while the lower the prices are there will be more interest and the hotel will get filled faster and reach higher occupancy. And from that we can see that it is possible to have equal results of RevPAR with having different situations of ADR and occupancy. To include the total revenue per available room, again, it is important to attach the revenue from other departments, not just the housing. Total RevPAR (TRevPAR) depends on the variety of services offered by the hotel and also the ability and skills of the staff to sell other products or services. So, we can reach one of the most complete formula of RM which is calculated as follow:

$$Total\ RevPAR = \frac{Total\ revenues}{Number\ of\ rooms\ available\ for\ sale}$$

Based on the two formulas for calculating the RevPAR we can also calculate the total RevPAR by using the following formula:

$$Total\ RevPAR = Total\ RevPOR \cdot Occupancy_{roomnights}$$

Finally, it is important to introduce the main useful metric available not only for revenue managers but also to the CEO because it represents hotel revenues and also takes costs in consideration simultaneously. GOPPAR- Gross operating profit per available room- which shows the benefit after applying series of calculations of costs. To get to that data it is necessary to calculate various formulas for the parts of the formula for GOPPAR. After applying those calculations the final formula for GOPPAR is the difference between total revenue minus total costs of housing accommodation.

The costs include fixed costs and variable costs. Thus, the gross profit is calculated by removing all fixed and variable costs:

$$GOP = (TR - VC) - FC$$

Where TR is total revenue, VC is variable costs and FC is fixed costs. So now we can get to the GOPPAR formula which is:

$$GOPPAR = \frac{\text{Roomnights.ADR.gpm}}{\text{Number of rooms available for sale}} - \frac{FC}{\text{Number of rooms available for sale}}$$

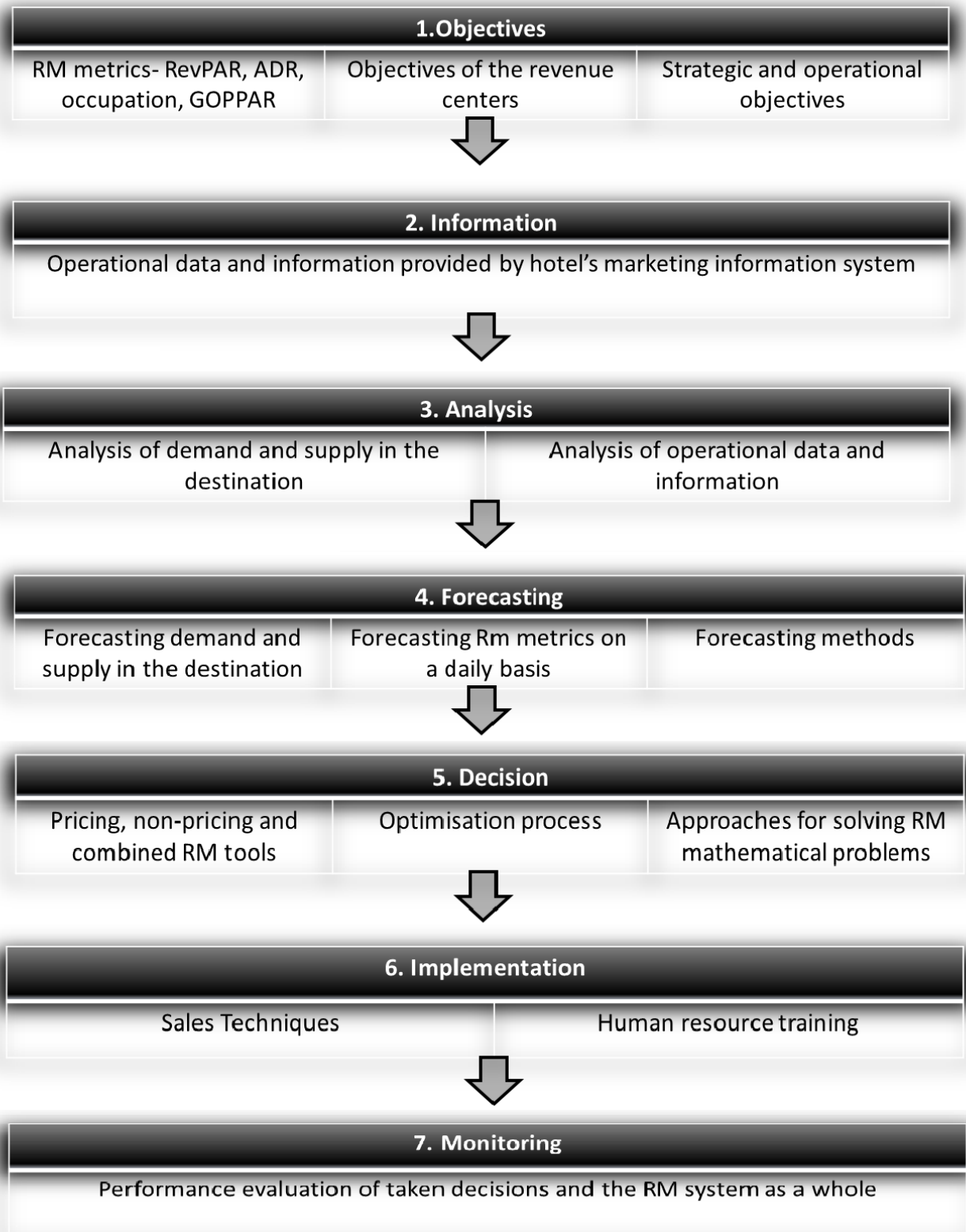
There are other quite important metrics in RM, as revenue per available customer RevPAC and total revenue per customer available TRevPAC, GOPPAC- gross operating profit per available customer, RevPASH- revenue per available seat-hour which is applied in the restaurants, bars or SPA, RevPAM- which is conference and banqueting revenue per available square meter. Or for example we can calculate the average score in a casino by calculating each table separately by the amount of the average bet player, the number of hands each plays per hour and the time spent playing (Ivanov p.54). To summarize it all we

can say that each facility should find and develop an own metrics that will be the most useful and effective in addition of degree of implementation of RM.

### **Implementation of Revenue Management in the hotel sector**

Revenue Management consists of a detailed process of several steps and sequences. The staff which is responsible for revenue management has to take decisions at strategic, tactical level and operational level to manage and track hotels revenue. There are several studies and models on the steps taken during the RM implementation. Tranter, Stuart-Hill and Parker (2008) propose steps based on marketing strategies in general. Their steps are as follows: consumer awareness, market selection and segmentation, internal assessment, competitive analysis, demand forecasting, distribution channel analysis and selection, pricing based on dynamic value, channel management and inventory management. Other authors propose a specific model to implant in the hotel sector, the five steps are: preparation, analysis of supply and demand, implementation of revenue management strategies, the evaluation of the activities of revenue management and observation and correction of revenue management strategies at the hotel (Emeksiz Gursoy and Icoz, 2006, quoted by Ivanov, 2014, p.34). The advantage of these steps is that it allows the hotel to monitor and correct the previously chosen strategies. Other authors also include concepts such as controlling overbooking, forecasts of supply and demand analysis of statistics from previous years or periods, measures of success. In his book (2014, p.35) Ivanov proposes a model of seven major steps: objectives, information, analysis, forecasting, decision, implementation, and monitoring. (See Figure 1)

**Figure 1:** The process of hotels Revenue Management



Hotel Revenue Management From Theory to Practice (Stanislav Ivanov, 2014)

By analyzing the model, we can say that it is very detailed, because each part of each area has a subsection which explains the details of the concepts of each section.

We can see that several authors are using different concepts, many of them comes from the field of marketing or business administration and that's why it is important to focus on each of the sections of the model.

- **Objectives**

The objectives are based on the implementation of the RM. The Revenue director, general manager, owner of the hotel, or any other person who is responsible for the hotel revenue has to set the goals of the hotel . The objectives can be strategic (Long-term years), tactical (medium-term weeks or months) and finally operational objectives (short-term days) (Ivanov and Zhechev 2011, p.304). Same as objectives of any other fields of study, companies, or other organizations there has to be conditions taken in consideration to ensure its effectiveness, therefore objectives of RM in the hotel should be:

- ✓ Specific, clearly indicating goals which can be measured, for example giving a number or a specific outcome.
- ✓ Measurable, the aim should be a numeric expression to monitor progress.
- ✓ Achievable, the objectives should be possible to achieve (for example it is not effective to set a revenue goals for small company at a level of a large one)
- ✓ Real, after analyzing the potential budget, realistic goals should be stated and not overly optimistic ones.
- ✓ Time limited, the goals should have a deadline (for example reaching RevPAR of 90 euros in 2017)

These goals could be established for the hotel in general or may vary depending on the center of revenue (for example the objective could be to achieve the highest RevPAR in the center of accommodation in 2017, while in the center of SPA the goal is to sell more massages or beauty treatments until the end of the year).

- **Information**

Information and data are the second phase of the Ivanov's model, this data can include information on operational data (number of reservations at a specific time, duration of stay, hotel choice criteria, and features of price elasticity), competition (sales volume, category, location, prices and conditions of the reservations, and distribution channels), distributors (sales, commissions level, geographic position of consumer market distribution, and offers) or internal and external factors affecting the business (environmental factors, socio-cultural, legal, economic, political, technological, and trends).

- **Analysis**

Analysis includes analyzing operational data by the responsible staff of revenue management and hand over information on reservations and trends in the following days / months. At this stage demand and supply are also analyzed, not only at internal but also at the level of chain as whole and destination in general. The analysis is introduced at a strategic, tactical and operational level, same as the objectives of section 1 of the model.

The strategic analysis is used in a global perspective and it is done less frequently. It may include SWOT analysis (weaknesses, threats, strengths and opportunities) with macro and micro environment analysis by using hotels revenue management metrics,

supply analysis or analysis of demand of tourism. The tactical analysis has a period of less than one year. It refers to changes in the supply of accommodation, tourist demand, changing competitive rates, commissions or reservation in the medium term. It serves to identify short-term trends, market opportunities or evaluating the effectiveness of distribution channels (Ivanov 2014, p.73). Finally, the operational analysis has the shortest period of all of the mentioned analysis; it is done very often or even daily in some cases.

- **Forecasting**

Forecasting is a key tool in the field of Revenue Management. It includes decisions taken by the director of revenue or any other responsible person, based on forecasts of supply, demand, the development of RM metrics, and the revenue management results. Therefore good forecasts influence good decisions. Same as in the analysis, forecast analysis is categorized into strategic, tactical and operational analysis. It also includes various methods, both quantitative and qualitative. Quantitative methods are divided into historical methods, methods of bookings in advanced and combined methods (Weatherford and Kimes 2003, p.410). Qualitative methods are based on the opinions of experts rather than quantitative data; which are based more on objective data with subjective perceptions. The success of the director is to combine these revenue methods wisely and take their advantage.

- **Decision**

Decisions are based on the provisions of the previous section. These forecasts give a data to the Revenue Management system which produce recommendations for an optimal level of rates, prices and reservations and helps the responsible person to take the right decisions. As I mentioned in previous chapters, RM software is very useful

after analyzing the statistical data of the past, and anticipate demand or pricing, but the final and most important decision is in the hands of the director of revenue, and only that person will decide on the dates of opening and closing sales for a specific segment, changes in overbooking limits, rate changes, setting a minimum stay and other decisions that will help to increase benefits.

- **Implementation**

Decisions have to be implemented in reality. All responsible personnel for sales has to be informed about the decisions taken previously to know how to implement them properly. In the implementation process there are two important concepts: up selling and cross-selling. Up selling refers to the method of selling additional products to the customer who had already acquired the services of the hotel, for example, selling a superior room for higher price if the reservation has been made for example for the standard deluxe room or by offering additional services such as breakfast, if it was not included in the reservation. The cross-selling tactics is the ability of the hotel staff to sell additional products to support other revenue centers, such as restaurant products, SPA facilities or other activities that generate revenue for the hotel as whole.

- **Monitoring**

Finally, the observation and control of implemented methods have a very important role to measure and evaluate the success of the hotel and to seek opportunities to enhance the role of each one of the previous steps. Thus, referring to each step of the model, we could reach conclusions for example as “the targets were too optimistic, the system of marketing information has not provided sufficient information, the analysis has not been complete, the forecast has been incorrect, decisions should have been different or that the staff has not been sufficient to achieve forced objectives”. The monitoring is



important in both cases when the hotel fails to reach the goals but especially when has passed and achieved the objectives, to establish other stronger ones in the future.

### **Factors that affect the degree of implementation of RM in hotels**

Chavez-Miranda and Ruiz-Jimenez tried to find and analyze the factors that have great influence on the implementation of the RM at the hotel industry. In their hypothesis they mentioned factors such as RM software, membership chain, hotel dimension, chain dimension, the hotel category, the area of operation of the chain, and trained staff in the field of RM (Chavez Miranda and Ruiz-Jimenez 2014, p.29). Jones and Hamilton (1992) in their research came to the conclusions that those factors are mainly focused on the details without having complete knowledge or clear concept and that too much attention is paid to information technology and software while the “people” element is not given the deserved importance. Another author, Okumus (2004, p.78) suggests that the problem is the lack of knowledge of the RM. Another interesting study conducted by the European Commission in the year 1997 reached similar conclusions, that the problem is the lack of staff training on Revenue Management (Chavez-Miranda 2014, p.29). These authors in their publications discusses only the factors that face difficulties in their process of implementing revenue management in the hotel industry, while in this research the importance is given also to those factors that positively affect the degree of implementation of RM.

### **III. CASE STUDY**

#### **Hotel chains**

Four city hotels from several different hotel chains both European and American are used in this study. Two hotels are of American chains (Hotel A and Hotel B) and the other two of European chains (Hotel C and Hotel D). To refer to the theoretical framework we have to mention that the American hotels introduced the Revenue Management in the eighties while the European chains in the nineties. All four hotels are top quality hotels in the capital of Czech Republic and receive a lot of business, cultural, and leisure tourists throughout the year purchasing not only their accommodation services but also using their event spaces. All hotels compete with each other as they are located in the historic center of Prague city and are ranked in high positions in the range of Tripadvisor.

We can consider Hotel A with its 293 rooms and Hotel B with its 152 rooms as rivals and main competitors in Prague market as they are in the range of the top luxury hotels in the city offering quite similar rooms and located only couple of hundred of meters from each other. At the same time with its 440 rooms hotel C is racing hotel D who has only 62 rooms but both are European chains from the same country and compete in receiving the local customers. These factors justify the reason behind choosing these hotels over many others in the city.

This research attempts to compare and also find differences and common features at these hotels while implementing the Revenue Management.

#### Hotel A:

This hotel from our sample is the oldest one in Prague and also belongs to the largest hotel chain from all four compared chains. The Revenue Management department has been opened in the hotel more than 9 years ago and that is one of the reasons that they have a bigger revenue team than the other three hotels composed of revenue manager, his assistant and two revenue agents. The RM department is responsible for four other hotels in Czech Republic besides the Hotel A.

#### Hotel B:

The Revenue Management department has been running at the hotel for three years. Before that time the sales, marketing and restaurant departments of the company were responsible for setting the rates of the several services. In 2013 the hotel introduced the position of revenue manager and since that day the hotel is gaining more profits thanks to the trained personnel in the field and also because of the improved quality of all services which increased customer satisfaction.

#### Hotel C:

As we mentioned the hotel has 440 rooms in three different categories, the property is composed of two buildings, and it belongs to the analyzed chain since 2012. The tourist profile is most of the time cultural and leisure mainly from Asia (Taiwan, Hong Kong, Japan, China), and form more than 70% of all hotel guests, while the remaining 30% are corporate tourists, mainly from Germany, Spain, United kingdom and the United States. More information about the hotels department of Revenue Management will be presented later in the research.

#### Hotel D:

Is a historical hotel in the city center. For the cultural tourists it offers the best location of all four analyzed hotels in my research, since it is placed only few steps from the Old Town Square, the heart of Prague. As we have mentioned it is competing directly with the hotel C on attracting the local customers and the hotel is standing out thanks to its attractive location. The revenue manager of the hotel D is also directing for four more hotels in the Central Europe region, one in Germany and another three in the Czech Republic. More detailed information about the department will be discussed in the following parts where the interview is made directly with the manager.

After analyzing the main features of the four hotels, we can summarize it as follows:

- All establishments are luxury hotels located at the historical city center of Prague.
- All belong to some hotel chains, either European or American.
- All receive both cultural and business customers.
- All have their own restaurant inside the hotel, while the international hotels are also providing to their customers SPA services.
- All four hotels have a qualified responsible person for the revenue management, in hotels B and C that person is directing only one hotel while in hotels A and D the revenue manager is directing more hotels in the region.

## **IV. METHODOLOGY**

### **What is research?**

Research is a systematic process of collecting and analyzing information to describe, explain, predict and control an observed phenomenon to improve understanding and get practical solutions in a form of answers to advanced asked questions (Hanzehoge school Groningen, University of Applied Sciences, Netherlands).

Research can be defined as the creation of new knowledge or / and use of existing information in a new way to create and generate new concepts, methodologies and understand manner. It could include using previous research to reach new and creative results. (Griffith University, Australia, 2011).

Research includes inductive and deductive methods; first step is analyzing and observing the general structures, processes and principles of the phenomenon; the second step is verifying the explanations developed by those observations (Babbie, 1998). There are different reasons behind conducting a research, inductive methods were invented to develop explanations and deductive methods for testing the validation of these explanations.

Fernandez Gonzalez and Rodriguez (2014, p.27) Pointed out the importance of identifying the reason for the investigation process, and classified four types of research based on different reasons:

- Basic research, basically to understand and explain the observed phenomena
- Applied research, to track potential solutions for human and social problems
- Assessment research, (Summative and formative) to improve human intervention and judge the effectiveness

- Action research, to solve specific problems within a program, community or organization

Also research must take into consideration that the most important factor is not the provided statistics but the way the researcher thinks, search for resources and information, and argue ideas and concepts

### **Phases of the research**

The Following sections define the process of this research and describe in detail each step of it.

Phase 1: Establishing the research and searching information:

In this phase after the consultation with the tutor of this work, the subject of the research was established, "Factors that influence the degree of implementation of Revenue Management in the hotel sector". Also the theoretical framework and objectives were chosen and combined with strategies to collect information through various literature sources.

Phase 2: Review of the literature and the development of information after reading the literature

A study has been provided on previous sources which were done by other authors, academic articles, books, hotel magazines, and notes from various subjects to develop the existing literature information on the subject of the study

Phase 3: Methodology design of the research

The next step was to think and choose the best method for collecting necessary data and participate observations and interviews to obtain the most objective and relevant information that can be obtained by conducting a survey. The in-depth interview was the most relevant and accessible method to get opinions from professional interviewed personnel of Revenue Management and become part of the environment by getting closer to them. The justification for choosing this method is described later in the paragraph of the applied techniques in this research.

#### Phase 4: Field Work

Four in-depth interviews were conducted with several responsible people of Revenue management in four different international and European hotel chains all located in Prague. The interviews took place during the days 11, 17, 22 of February and the third of March, and took an average duration of 30 minutes. The interview script includes twelve open questions and the same one was presented to each of the respondents of the interview with the same questions. All respondents have been previously contacted by telephone and the script was sent to them by email before the interview.

#### Phase 5: Analysis of the results and collected information

After the interviews have been done, the obtained information was transcribed into tables in the following parts of the work.

#### Phase 6- Making conclusions and proposed recommendations

In the last phase of the research reflections were conducted on the investigation, and conclusion with recommendations were established and developed for the future of Revenue Management.

## **Techniques applied in this research**

- Participant observation

According to the website of Pearson Education, the “participant observation” refers more to the methodology sociological research, where the researcher is in a social situation under observation and study. The main goal is to explore the social reality and get better understanding for it.

However participant observation is used increasingly as a method for qualitative data collection. Barbara B. Kawulich (2005) gives us some important definitions in her study “participant observation as a method of data collection” as it is also a primary method used by anthropologists in their field and studies DeMunck Sobo (1998). This couple also includes in the field study “active search, improved memory, informal interview, taking detailed notes on the study” and also patience.

Another very important fact, related to the case study is that the participant observation can provide information needed to design the interview guide. (DeWalt (2002) cited by Kawulich (2005).

- The in-depth interview

The in-depth interview is the main and most important method of this research, since the information needed for this study are the answers and opinions of those interviewed. The in-depth interview is a qualitative research method that includes individual and intensive interview with a small group of respondents to find out their view and thoughts about specific problem, situation or object (C. Boyce, P. Neale, 2006, p3). These authors tell us that the in-depth interview is a proper



method when we want to gather detailed information about the views, opinions and ideas based on comparisons on the same answered questions by all respondents.

In her publication, Dr. Rita S. Y. Berry (1999) institute of Education Hong Kong said that the in-depth interview is known also as a structured interview, pointing out that the importance is also in understating the interviewee and in asking open-ended questions where the person feels free to share his point of view. Berry (1999) also refers to Patton (1987: 113) who provides three basic characteristics of good quality in-depth interviews: The interview as an informal conversation, the general approach to guide the interview and the standardized open interview.

- Participant observation design

In all four hotels the interview has been performed in-person with the responsible managers of RM. The interview has always been held in a public area of the hotel as a restaurant, bar or event space.

- In- depth interview design

The four in-depth interviews have been conducted to get better knowledge of procedures for implementing Revenue Management in each hotel. Same questions were presented to all respondents which allowed the comparison of responses and to highlight common characteristics. The average interview length was 30 minutes. The structure and model has been designed in English language. Each interview was divided into four blocks:

Block 1: Overview of the Revenue Management at the hotel

Block 2: Factors influencing the Revenue Management

Block 3: The bases of Revenue Management: market segmentation, the seasons, revenue centers

#### Block 4: Personal opinion and recommendations for the future

The main objective of the detailed structure and design of the interview was to collect information from RM procedures in the hotel, highlight the factors that influence it and to get personal opinions about the current RM at the hotel and about the possible improvements for the future.

## V. ANALYSIS OF THE RESULTS

The tables below show the results of the in-depth interview responses. All four managers are responsible for Revenue Management in their establishment. In many cases the ideas and responses were similar but sometimes they had different opinions.

Table 1: Research interview (Hotel B and Hotel C)

Hotels	Hotel B	Hotel C
Block 1: Overview of the Hotel Revenue Management		
1. What is the most common profile of your hotel guest?	<p>Individual bookings or individual couples traveling for leisure and business.</p> <p>Average age of 40 years mainly from the United States.</p> <p>Average stay of 3 nights.</p>	<p>During the winter months the leisure tourist form only 45% of hotel nights. While in the summer season they form almost 70%.</p> <p>Business customers come more in April, May, June, September and August. And are mainly from Germany, Spain, United Kingdom and the United States.</p> <p>Leisure customers are mainly from Asia (China,</p>

		Japan, Taiwan, Hong Kong), and Europe (Spain, France)  The average stay is 2.4 nights.
2. Does the hotel have a Revenue Management department?	yes	yes
3. The person in charge of Revenue Management is responsible only for your hotel or also for other hotels in the region or within the chain?	The revenue manager is responsible only for this hotel	The revenue manager is responsible only for this hotel
Block 2: Factors influencing the Revenue Management: human resources, software		
4. Is it necessary for revenue management personnel to get experiences from other departments of the hotel such as sales, marketing or reservation?	Yes, I have trained and gained experiences at the Front office, Human resources and reservation departments to get basic knowledge about each filed and get better orientation while implementing the RM.	Yes, especially the reservation department where the whole concept of RM comes from. It is very important to train RM staff in other departments to increase revenues.

5. What software is used for the Revenue Management?	Software designed by the chain and it is used in all hotels that belong to the chain.	EzRMS and sometimes Excel to calculate necessary formulas
Block 3: RM bases: market segmentation, seasons, revenue centers		
6. How many revenue centers do you have at the hotel?	Accommodation, F & B, SPA, Events and Conferences	Accommodation, F & B with catering services, Conferences and events.
7. Do you think that focusing on market segmentation, offering contracts, different rates and conditions for each of those segments is more effective than just offering fixed rates for all customers?	Of course, market segmentation is the most important base of RM. Each segment has its own different conditions and approaches different rates.	Market segmentation is the most important factor helping the RM to get the right customer.
8. Do you implement the technique of changing tariffs and rates according to the season or a specific event in the area?	Of course, it is another “must” another important effective RM base.	Yes of course.
Block 4: Personal opinion and recommendations for the future		
9. What are the most	Demand, market	The size of the hotel,

common factors that can influence the level of implanting RM in any hotel?	conditions, level of competition, available tools, staff experience and their training, data and information availability.	access to statistics, staff experience, hotel historical data, amount of time with in reservations are made, occupation (if the hotel usually is busy and occupied over 80%, it is necessary to change the use of RM tools)
10. Is there anything that you would like to change in the current revenue management system of the hotel?	Not yet.	Yes, to invest more in the revenue system, provide greater market segmentation, and improve the forecast possibilities.
11. If yes, what are the main constraints to implement it now?	-	Financial resources
12. What do you think are the factors that can limit the implementation of the most effective ways of RM in the future?	The knowledge of relevant data.	I think RM today still needs a lot of training and better experience and I think that in the future there will be more online development and there will be only few bookings made face to face with the customer.

Table 2: Research interview (Hotel A and Hotel D)

Hotels	Hotel A	Hotel D
<b>Block 1: Overview of the Hotel Revenue Management</b>		
<p>1. What is the most common profile of your hotel guest?</p>	<p>Both leisure and business customers are divided into individuals and within groups. Mainly from the United State, Russia and middle east which are the main hotels targeted markets.</p> <p>Average age of 40 years</p> <p>Average stay of 3 nights</p>	<p>75% are leisure customers and the rest are corporate clients. Both leisure and corporate customers are divided into individual clients or customers within a group.</p> <p>Between 40 and 60 years old.</p> <p>Average stay is 3.2 of nights.</p>
<p>2. Does the hotel have a Revenue Management department?</p>	<p>Yes</p>	<p>Yes</p>
<p>3. The person in charge of Revenue Management is responsible only for your hotel or also for other hotels in the region or within the chain?</p>	<p>The revenue management department is responsible for five different hotels in Czech republic</p>	<p>The revenue manager is responsible for 5 hotels in Czech republic and one in Germany</p>
<p><b>Block 2: Factors influencing the Revenue Management: human resources, software</b></p>		

<p>4. Is it necessary for revenue management personnel to get experiences from other departments of the hotel such as sales, marketing or reservation?</p>	<p>Yes it is definitely beneficial but I do not think that it is a must.</p>	<p>Yes, I have myself great experience in the hospitality industry in general and especially at the front desk and reservations departments.</p>
<p>5. What software is used for the Revenue Management</p>	<p>Opera as operation property system and own software developed by the hotel chain.</p>	<p>Opera as operating system at the hotel and different small software responsible for various tasks.</p>
<p>Block 3: RM bases: market segmentation, seasons, revenue centers</p>		
<p>6. How many revenue centers do you have at the hotel?</p>	<p>Accommodation, F &amp; B, Events and Conferences, SPA, Gift shop.</p>	<p>Accommodation, Spa, Conferences, F &amp; B. but Revenue Management is used primarily for housing.</p>
<p>7. Do you think that focusing on market segmentation, offering contracts, different rates and conditions for each of those segments is more effective than just offering fixed rates for all customers?</p>	<p>Yes it is very important especially if the marketing department decides to focus on three main markets to attract customers from with totally different needs and preferences.</p>	<p>Yes, of course</p>



8. Do you implement the technique of changing tariffs and rates according to the season or a specific event in the area?	Absolutely yes	Yes of course.
Block 4: Personal opinion and recommendations for the future		
9. What are the most common factors that can influence the level of implanting RM in any hotel?	The size of the hotel plays a big role in Implementing RM, continuously analyzing the market, customers, and competition, and having a good strategy.	1-Member ship chain 2-Size of the hotel 3-Enviroment of the hotel
10. Is there anything that you would like to change in the current revenue management system of the hotel?	No.	Yes, Gather all small systems that we use in a good integrated one. We are thinking about buying EzRMS, but it is very expensive.
11. If yes, what are the main constraints to implement it now?	-	Financial resources.
12. What do you think are the factors that can limit the implementation of the most effective ways of	Today I would say a lack of training and experience.  In the Future there is a risk that all this innovations and	In my opinion it will be the same as it is in the airlines. Systems will be very advanced. Prices will change automatically and

RM in the future?	competition monitoring strategies could lead all hotels to have the same implementing strategies and the revenue analysis will lose its sense.	attract people to approach the product by changing the prices.
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In Block 1 General information on RM were investigated, asking questions about the customer profile, existence of separate revenue department and the responsible person for it.

In question 1, about the customer profile of the hotel, all respondents mentioned leisure customer and cultural tourism in the first place even if the percentage of leisure travelers and business vary in each hotel, but all hotels are located in the city center and that is why they receive more cultural customers than hotels outside the center of Prague. Some respondents mentioned the countries of origin of their customers, like hotel C where the business customers comes mainly from Germany or Spain, while the leisure tourists comes mainly from Asia.

In the next question the respondents answered if there is a revenue management department at their hotels. All four hotels have a revenue management department and based on the answers you can see the importance of RM in the establishments since they have separate department for it.

We can recognize in the responses to question 3, if the revenue director is responsible for a single hotel or more establishments that in hotels B and C the revenue director is in charge only of a single hotel while in hotel A and D the director is responsible for more hotels in the region. This could be because hotel D has the smallest number of

rooms from the entire sample and there is no need for them to hire a person who controls only income in the hotel.

In Block 2 the investigation focuses more on factors such as human resources and software, the two main factors mentioned in the hypothesis of this research, the profile of the director of revenue and the main used software.

Therefore the fourth question was focused on getting information about the profile, experience and training of the responsible person for RM. We can see that only the director of hotel C does not have previous experiences in any other department before he started at the revenue while the other three do. In the same question we can note that the interviewees mentioned the importance of two departments where those experiences are most acquired (Reservation department and Front Office-reception)

In the responses of the fifth question, respondents mentioned software revenue used in the hotel and in this case all the answers have been different. Hotel A and Hotel B uses their own system designed by the chain, Hotel C uses EzRMS + Excel, and respondent from hotel C says that the knowledge of the person is very important, because before entering the software, the responsible person had to design the sheet in Excel according to their knowledge in computing each of the metrics. In Hotel D small software are used and each is responsible for a different task, comparison with the competition, pricing and positioning.

The third block of the interview includes the basics of RM as market segmentation, the seasons or revenue centers. In this part the aim was to obtain the information if the hotels use the theoretical principles of Revenue Management and analyze its usefulness. In the first question of this block information about revenue centers of the hotel were investigated, the common answer for all four hotels has been the accommodation, Food and Beverage (F & B) and event. However hotels A, B and D have also SPA as a

separated department. Hotel A is the only one who mentioned gift shop as revenue center.

According to the responses of the seventh question, important information were explained about the market segmentation, all respondents said that it is the basis of RM, noting its importance to the expression "of course" or "Sure, right" is obtained. Respondents of hotels B and C explain why it is so important to implement market segmentation, while respondent from hotels A explain the reason behind the implementation and how to focus on segments. All of them agree that segmentation positively influences the hotels revenue. In fact, in question number 8 all managers admit that the hotel applies the technique of changing the rate due to the season or special events in the area.

The block four is the most important block of the interview as it investigates manager's opinions and helps to identify the most important factors that affect the degree of implementation of RM at the hotel. In fact, in question nine each of the respondents highlighted, in their opinion, the most important RM factors influencing in any hotel. In hotel B the manager mentioned demand, current market conditions, level of competition, data availability, available tools and the personnel experience and training. While size of the hotel, occupation, saying that if the hotel has more than 80% occupancy, it is necessary to implement RM, access to statistics and historical date of the reservation were highlighted by the manager of hotel C. The interviewee of hotel D has chosen three factors as the most important ones: "belonging to a chain, the size and environment of the hotel". Finally the respondent of hotel A mentioned the size of the hotel, continuously analyzing the market, customers, and competition, and having a good strategy. We can see that three respondents mentioned the size; two said that training is important to have a good staff and also to have an access to data. After analyzing the personal opinions about the factors that have an important role in the hotel RM, it shows that those values vary from each hotel and there are also common factors like size, training of the staff and access to statistics and information.

The next question about their opinions on making any desired changes in the current system has divided the sample into two groups, Hotels A and B which are the international chains said that they would not change anything in the operations of revenue management which they are currently providing at the hotel. However, managers from Hotels C and D, the European chains, would like to change some things that could improve the function of RM. The director of revenue in hotel C would invest more in the revenue system and make greater market segmentation as he believes that it will increase their benefits and the ability of providing better forecast. While hotels C director would like to “gather all small systems they use in a good and well integrated system”. In the same block we can see that both respondents which would like to apply some changes in their systems admits that it would require a greater economic investment that it is currently unavailable, but it is included in the hotels plans for the coming years.

The final question was about the factors that can limit the implementation of the most effective ways of RM in the future. Respondents of hotels A, B and D highlighted the lack of training of staff or lack of knowledge to access relevant data, while the director of hotel C stated the importance of versatility on the hotel sector. Regarding the future of RM both interviewee from hotels C and D believe that the future if RM is in Internet-reserves. The manager from hotel D believes that in the future the RM will work in similar way as today airlines are working, revenue systems will be more advanced and whenever the customer see the offer online, the rate will change depending on the number of visits to a particular page to motivate consumers to make reservations as soon as possible and to ensure hotels occupancy. The manager from hotel A suggests a very interesting idea, saying that “that all wants to innovate and monitoring competition, eventually will lead the revenue analysis to lose their sense since all hotels will cut and paste the same applied strategies”.

### **Interview design validation**

The design of the interview questions in protocol enabled to obtain the necessary information to investigate the factors influencing the RM, including the research hypothesis (H1). Respondents felt safe and comfortable answering the questions and the interview script allowed the researcher to do it smoothly and safely.

## **VI. CONCLUSIONS**

### **Conclusions**

At the beginning of this research couple of objective has been set, the design of the research methodology and data collection tools helped to achieve these goals. First, the main objective was to identify and determine factors that have an important role in the field of RM and influence the degree of implementation of RM in hotels. Based on the answers of the interviews we can highlight several factors that influence the RM in the hotel sector, taking in consideration that several experts emphasized different factors. However, the most common factors found in the responses were human resources, staff training, access to information and statistics, and economic opportunities to invest in revenue system. Another factor that appeared in the responses was the size of the hotel and belonging to a chain. We can refer these factors to the H1 hypothesis where it is assumed that factors influencing the RM would be “the size of the hotel, belonging to the national or international chain, the staff experience and education in RM field and the need of the hotel to change the prices of their services due to the type of customer, the season, the market, and the economic status of the hotel”. After analyzing the results it can be seen that also the hotels needs to change the prices of their services according to the type of customer and season is considered by all four hotels as the basis of revenue management and is being in their strategies of RM.

The second specific objective was to identify whether the factors influencing the RM were related to the attitude of the staff, the economic condition of the hotel or rather to a general conditions of the hotel like size or membership. By analyzing the interviews we can see that the staff was mentioned as an important factor not by its attitude but by their trainings, experience or lack which is also related to the economic condition of the hotel and its possibilities of investing in trainings or in the best systems and revenue software.

The last specific objective in this research was ”to compare if the hotels belonging to international chains are able to implement the RM in greater degree than the European hotel chains”. By investigating two international and two European chains we can note that all four hotels are using the tools of revenue and that the condition of its implementation is not the membership of a specific chain but the size of the hotel. For example we can see that the smallest hotel of our sample (Hotel D) with his 62 rooms is having a revenue director responsible for more than an one establishment due to the lack of need for an own director while in hotel A the revenue department is not directing more hotels because of the size of the hotel but due to their wide experience and the size of their revenue management team. However, in the last two hotels no difference was noted in the degree of implementation. Therefore, H2 where we stated that “the hotels belonging to international chains have greater degree of implementation of RM” is rejected. On the other hand H3- hypothesis “the larger hotels use the RM tool in wider range and greater degree that the smaller hotels” could be confirmed based on the results of the investigation.

At the end we have to mention that the RM was introduce in the United stated a lot before it reached Europe which can play also an important role in the degree of implementation. And also that this sample has been quite small due to the limited access to the manager of the hotels and we cannot make conclusions for all hotels generally without performing the studies more deeply.



## **Recommendations**

A series of recommendations for the hotel industry, hotels that participated in the study and for managers who want to apply Revenue Management in their business are presented.

It is recommended to the hotel sector the need to train the working staff not only in the department of revenue in the hotel but also in other departments, because for customer loyalty, satisfaction and the ability to offer quality products and services you need to have trained personnel who know how to sell the service. Moreover, managers are recommended to invest in training in the field of RM, because it is fairly a new field and many revenue directors, even if they are successful, they started in other fields and have experience from other departments like sales or reception and are still new to the RM.

Also the investment in the RM software is highly recommended, because it will allow the director to better access to the information and also save it and take it as a basis for making decisions. As we have seen in the in-depth interview some establishments would like to have more effective ones but they are limited by the financial resources.

Finally, it is recommended to test the RM technique in every business which is having a limited capacity and significant demand.

## VII. BIBLIOGRAPHY

BERRY, R. S. Y. (1999) "Collecting data by in-depth interviewing" *British Educational Research Association*.  
<http://www.leeds.ac.uk/educol/documents/000001172/html>

IVANOV, S. (2014). *Hotel Revenue Management: From Theory to Practice*. Varna: Zangador. 978-954-92786-3-7

GUADIX, J., CORTES, P., ONIEVA, L. y MUNUZURI, J. (2010). "Technology revenue management system for customer groups in hotels." *Journal of Business research*, 65. May:519-527

CHIANG, W-C., CHEN, J.C.H. y XY, X. (2007). "An overview of research on revenue management: current issues and future research" *International Journal of Revenue Management*, 1. January: 97-128

WEN, C., JASON, C.H., XIAOJING, X. (2007). An overview of research on revenue management: current issues and future research. *International Journal of Revenue Management*. 1. January: 108-111

CROSS, R. G. (1997). *Revenue Management: Hard-core tactics for market domination*. Nueva York: Broadway Books

WEATHERFORD, L. R. y KIMES, S. E. (2003). "A comparison of forecasting methods for hotel revenue management". *International Journal of Forecasting* 19. March: 401-415

OKUMUS, F. (2004). "Implementation of yield management practices in service organisations: Empirical findings from a mahor hotel group". *Service Industries Journal*. 24. June: 65-89

LIEBERMAN, W.H. (2003). "Getting the most from revenue management" *Journal of Revenue Management and pricing management*, 2. February: 103-115

KAWULICH, B. (2005) "Participant Observation as a Data Collection Method" *Forum: Qualitative Social Research*" 6. May  
<http://www.qualitativeresearch.net/index.php/fqs/article/view/466/996>

KIMES, S.E. y WRITZ, J. (2003). "Has revenue management become acceptable? Findings from an international study on the perceived fairness of rate fences". *Journal of service research*. 6. June: 125-135.

IVANOV, S., ZHECHEV, V. (2011). *Hotel marketing*. Varna: Zangador

GEHRELS, S., BLANAR, O. (2012). "How economic crisis affects revenue management: the case of the Prague Hilton hotels." *Research in Hospitality Management*. 2(112): 9-15

HAYES, D. K., MILLER, A.A. (2010). *Revenue Management for the Hospitality Industry*. New Jersey: Wiley. 245-235

EMEKSIZ, M., GURSOY, D. e ICOZ, O. (2006). "A Yield Management model for five-stars hotels: Computerized and non-computerized implementation". *International Journal of Contemporary Hospitality Management*. 9(2): 526-551

BOYCE, C., NEALE, P. (2006) "A Guide for Designing and Conducting In-Depth Interviews for Evaluation Input" *Monitoring and Evaluation-2*

CHÁVEZ- MIRANDA, E., RUIZ- JIMÉNEZ, A., PÉREZ DÍEZ DE LOE RÍOS, J. L. (2014). "Factores críticos que dificultan la aplicación de Revenue Management en hoteles urbanos" *International Journal of World of Tourism*, 1. January: 26-41

FERNANDEZ CASADO, I., GONZÁLEZ PLAZA, J., LASKOWSKA, Z., RODRÍGUEZ CASTAÑO, A. (2014) *Service Design and Management of Experiences: The Methodology of 3Ps. A case study of Room Mate Hotels (Madrid, Spain)* 203-233

WITHIAM, G. (2015). "Yield Management". Cornell University School of Hotel Administration. Nueva York  
<https://www.hotelschool.cornell.edu/research/chr/pubs/reports/abstract-13622.html>  
23/05/2015

TRANTER, K. A., STUART-HILL, T. y PARKER, J. (2008). *Introduction to revenue management for the hospitality industry*. Harlow: Pearson Prentice Hall. 321-567

## **VIII. Appendix**

### **In-depth interview questions:**

#### **Block 1- General information about the RM in the hotel**

1. What is the most common profile of the customer in your hotel?
2. Does the hotel have a Revenue Management department?
3. The person in charge of Revenue Management is responsible only for your hotel or also for other hotels in the region or within the chain?
4. Is it necessary for revenue management personnel to get experiences from other departments of the hotel such as sales, marketing or reservation?

#### **Block 2- Specific RM factors that influence the RM: human resources, software**

5. What software is used for the Revenue Management?
6. How many revenue centers do you have at the hotel?

#### **Block 3- the Core of RM: market segmentation, seasoning, revenue centers**

7. Do you think that focusing on market segmentation, offering contracts, different rates and conditions for each of those segments is more effective than just offering fixed rates for all customers?
8. Do you implement the technique of changing tariffs and rates according to the season or a specific event in the area?
9. What are the most common factors that can influence the level of implanting RM in any hotel?

#### **Block 4- Reflections and the recommendations for the future of your establishment**

10. Is there anything that you would like to change in the current revenue management system of the hotel?

11. If yes, what are the main constraints to implement it now?

12. What do you think are the factors that can limit the implementation of the most effective ways of RM in the future?

#### **Appendix 1: Responses of the director of revenue of hotel A**

1. Both leisure and business customers are divided into individuals and within groups. Mainly from the United State, Russia and the Middle East which are the main hotels targeted market. Average age of 40 years with an average stay of 3 nights
2. Yes
3. The revenue management department is responsible for five different hotels in Czech republic
4. Yes it is definitely beneficial but I do not think that it is a must
5. Opera as operation property system and own software developed by the hotel chain.
6. Accommodation, F & B, Events and Conferences, SPA, Gift shop.
7. Yes it is very important especially if the marketing department decides to focus on three main markets to attract customers from with totally different needs and preferences.
8. Absolutely yes
9. The size of the hotel plays a big role in Implementing RM, continuously analyzing the market, customers, and competition, and good strategy

10. No
11. –
12. Today I would say a lack of training and experience. In the future there is a risk that all this innovations and competition monitoring strategies could lead all hotels to have the same implementing system and the revenue analysis will lose its sense.

### **Appendix 2: Responses of the director of revenue of hotel B**

1. Individual reservations, couples or singles traveling for leisure and business. Average age of 40 years, mainly from the United States. Average stay of 3 night
2. Yes
3. Revenue Manager is responsible only for this hotel.
4. Yes, I have trained and gained experiences at the Front office, Human resources and reservation departments to get basic knowledge about each filed and get better orientation while implementing the RM.
5. Software designed by the chain and it is used in all hotels that belong to the chain.
6. Accommodation, F & B, SPA, events and conferences
7. Of course, market segmentation is the most important base of RM. Each segment has its own different conditions and uses different rates.
8. Of course, it is another “must” another important effective RM base.
9. Demand, market conditions, level of competition, tools available for use, staff experience and their training, data and information availability
10. Not yet
11. –
12. Knowledge of the relevant data and investment in RM tools (software)

### **Appendix 3: Responses of the director of revenue of hotel C**

1. During the winter months the leisure tourist form only 45% of hotel nights, while in the summer season this percentage rise almost to 70%. Business customers come more in April, May, June, September and August, and are mainly from Germany, Spain, United Kingdom and the United States. Leisure customers are from Asia (China, Japan, Taiwan, Hong Kong), and Europe (Spain, France)
2. Yes
3. Revenue Manager is only responsible for this hotel
4. Yes, especially the reservation department where the whole concept of RM comes from. It is very important to train RM staff in other departments to increase revenues.
5. EzRMS + Excel to calculate necessary formulas
6. Accommodation, F & B with catering services, Conferences and Events.
7. Market segmentation is the most important factor helping the RM to get the right customer.
8. Yes of course
9. Size of the hotel, staff experience, access to statistics and hotels historical data, amount of time with in the reservations are made, occupation (If the hotel is usually occupied over 80% then it is necessary to implement the RM tools).
10. Yes, to invest more in the revenue system, provide greater and wider market segmentation, and improve the forecast possibilities. Those changes are included in hotels plans in the following next five years.
11. Economic resources, the plan is fine but it is taking a lot of time to implement it.
12. I think RM in hotels today still needs a lot of training to get better experiencea and I think that in the future there will be more online development and there will be only few bookings made face to face with the customer.

#### **Appendix 4: Responses of the director of revenue of hotel D**

1. 75% are leisure customers and the rest are corporate clients. Both leisure and corporate customers are divided into individual clients or customers within a group. Most of the customers are aged between 40 and 60 years with an average stay of nights 3.2
2. Yes
3. The revenue manager is responsible for 5 hotels in Czech republic and one hotel in Germany
4. Yes, I have myself a wide experience in the hospitality industry in general and especially from the front desk and reservations departments.
5. Opera as operating system at the hotel and several small software responsible of different tasks.
6. Accommodation, Spa, Conferences, F & B. Revenue Management is used primarily for housing.
7. Yes of course, the most important segmentation is the reason behind the travel and the distribution channel
8. Yes of course
9. Chain membership, size and environment of the hotel.
10. Yes, gather all small systems that we use into a good integrated one. We are thinking about buying EzRMS, but it is very expensive.
11. Financial resources, EzRMS is quite expensive for us.
12. In my opinion it will be the same as it is in the airlines. Systems will be very advanced. Prices will change automatically and attract people to approach the product before the price rises.