Kyiv National University of Trade and Economics Department of hotel and restaurant business

FINAL QUALIFYING PAPER

on the topic:

Revenue management of the Hotel "Number 21", Kiev

Student of the 2 ^d year, group 3a,	
specialty 073 «Management»	
Specialization «Hotel and Restaurant	
Management»	Valeriia I. Lysenko
Scientific adviser	
Candidate of Sciences (Economics),	
Associate Professor of hotel and	
restaurant business department	Mariia V. Kulyk
Manager of the educational program	
Doctor of Sciences (Economics),	
Professor of hotel and restaurant	
business department	Nadiia I. Vedmid

Kyiv National University of Trade and Economics

Faculty of Restaurant, hotel and tourism Department of Hotel and restaurant business business

Specialty 073« Management »

Specialization Hotel and Restaurant Management

	Approved by
Head of the	Department
	(Margarita H. Boyko)
on	,, 2018

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Valeriia_I_Lysenko

(last name, initials)

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Purpose of research is to develop theoretical and methodological regulations, methods of effectiveness estimation, guidelines and suggestions for implementation of Revenue management in the hotel industry based on the study of new conceptual framework and methodological approaches to improve the assessment of the development of hotel revenue management system.

The object of research is theoretical, methodological and practical aspect of Revenue management in the hotel industry.

The subject of research is implementation of Revenue management system in "Number 21 Hotel", Kyiv.

- 4. Illustrative material, Figures:
- Figure 1.1. Hotel Revenue management process; Table 1.1. Pricing techniques in Revenue management; Table 1.2. Non-pricing techniques in Revenue management Figure 2.1 Segmentation of the guests by the purpose of stay; Table 2.1 Daily price rates for "Number 21" hotel; Figure 2.2 Max. Occupancy in "Number 21" hotel during November 2017 till October 2019; Table 2.2.Dynamics of revenue management in "Number 21" hotel during 2018 2019
- Figure 2.3. The structures of revenue in "Number 21" hotel in 2018, 2019
- Figure 2.4. ADR of "Number 21" hotel during 01.01.2018-01.10.2019 period
- Figure 3.1. Reasons of development of Revenue management
- Figure 3.2. Survey in "Number 21" hotel during April October 2019

5. Contents of a final qualifying paper (list of all the sections and subsections)
Introduction

Part 1. Theoretical foundations of implementation of Revenue management system in hospitality

- 1.1. Analytic literature review
- 1.2. Functions and process of Revenue management system in hospitality.

Part 2. Practical aspects of Revenue management system in "Number 21" hotel.

- 2.1. Organizational and economic assessment of "Number 21" hotel.
- 2.2. Pricing and non-pricing instruments in Revenue management system of "Number 21" hotel.

Part 3. Directions for implementing Revenue management system in "Number 21" hotel.

- 3.1. Propositions for implementing Revenue management system in "Number 21" hotel.
- 3.2. Improvement of pricing and non-pricing instruments of Revenue management system in "Number 21" hotel.

Conclusions and proposals

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Appendices

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11. Resume of a scientific adviser of a final qualifying paper

Student Valeriia I. Lysenko performed the final qualifying paper in a due time according to the schedule. According to the content, structure, and design the performed work meets the requirement. The final qualifying paper is performed on the actual topic.

In the first chapter was investigated the theoretical and scientific basis of Revenue management system in hotel industry, the essence of "Revenue management", its functions and process and importance.

In the second chapter organizational and economical assessment of "Number 21" hotel was analyzed. The analysis level of revenue management realization and how it is implemented in the hotel were explored.

The third chapter is dedicated to the propositions for implementing Revenue management system in the hotel and developing pricing and non-pricing instruments of Revenue management of "Number 21" hotel. The purpose of the final qualification work was achieved and scientific tasks were met the execution. The work is recommended for the defense in the examination committee. Scientific adviser of a final qualifying paper M.V.Kulyk 12. Resume about a final qualifying paper research A final qualifying paper (project) of the student Valeriia I Lysenko (last name, initials) can be admitted to defense in the Examination Board. Manager of the educational program Nadiya I. Vedmid Head of the Department Margarita H. Boyko , 2019

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INTRODUCTION

Revenue management has many different scientific definitions; however, the most accurate will be to say that it is about "selling every product to the right customer at the right time". Even though Revenue management idea was implemented in 1960-s for the first time, many industries still use it and successfully implement it in their businesses. Not so many years ago the Revenue management was mostly common only in big hotel chains, but nowadays we can witness how fast this tendency spreads among smaller hotels. Its main feature is that hotels started to implement more personalized policy of price formation towards the customers considering many various factors. Modern entrepreneurs have to note that all the customers have different income and can afford different expenses, and may also have different needs. So using the mechanism of Revenue management the price for the room or service can vary depending on time of the day, particular day's demand (either it is high or low), longevity of stay, requested level of comfort and many other features as well. It is possible to assume, that Revenue management nowadays has a role of a trigger for the sales departments in many hotels and hotel chains.

Actuality of the research: it is vital to understand, implement and use Revenue management as one of the key tools for price formation in the hospitality. The implementation of Revenue management cannot be ignored anymore, not only it can raise the demand, but also it can help a hospitality enterprise to increase competitiveness and develop faster and more confidently. By using this technology correctly, given that all the enterprises also collect the needed data, its analysis and optimization and control over it, they can achieve the best ratio between the demand for hospitality services and supply, which increases the income and this will lead to the increase of enterprises' longevity of existing.

Tourism industry and hospitality together make a very promising component of a global economy as a whole, and as it is growing quite fast, it requires constantly using new tools and strategies of management. Current market conditions are highly competitive and, in order to be successful and opponent resistant, many enterprises are implementing Revenue management in their activity.

The object of research is theoretical, methodological and practical aspect of Revenue management in the hotel industry.

The subject of research is implementation of Revenue management system in "Number 21 Hotel", Kyiv.

Purpose of research is to develop theoretical and methodological regulations, methods of effectiveness estimation, guidelines and suggestions for implementation of Revenue management in the hotel industry based on the study of new conceptual framework and methodological approaches to improve the assessment of the development of hotel revenue management system.

Tasks of research:

- analyze and review the scientific literature;
- define and analyze methodological approaches of Revenue management system in hospitality;
- present and describe organizational and economic assessment of "Number 21" hotel;
- present pricing instruments in "Number 21" hotel;
- present non-pricing instruments in Revenue management system in "Number 21" hotel;
- develop propositions for improvement of Revenue management system in "Number 21" hotel;

• develop and present improvements of pricing and non-pricing instruments of Revenue management system in "Number 21" hotel.

Practical essence of research: the results of research can be reviewed and implemented in the hotel by the management. The results were published in articles' collection of master programs students "Hotel Restaurant business: focus on international trends" (Appendix A).

Methods of research: In this paper, we will discuss the essence of revenue management, review and analyze various scientific works and analytic articles, observe various methods and methodological approaches of Revenue management.

PART 1

THEORETICAL FOUNDATIONS OF IMPLEMENTATION OF REVENUE MANAGEMENT SYSTEM IN HOSPITALITY

1.1 Analytic literature review

Before the Revenue management started to be so broadly used by hospitality industry it was a result of the deregulation of airlines companies back in 1978 in the United States of America. The deregulation of the airlines sector (Airline Deregulation Act, 1978) has caused a situation of high concurrence and competitiveness between the airlines which started to emerge at that time [4]. Due to this deregulation, airlines companies launched somewhat which can be described as a "pricing war", because they had to attempt to optimize their strategic tools and here is where the Revenue management was used as a tool for contributing to managing the price war. The purpose of revenue or yield management is to improve the organization's performance in general by obtaining the best revenue streams possible from its own resources [27]. According to Okumus, the development of Revenue management had benefited in a major way from such technical and economical innovations during that time, as marketing and pricing tools, computerization of bookings and reservations and the development of Global Distribution Systems [19].

Today, the Revenue management is not only preserved by the airlines companies, but it was adopted by other various fields of services, where the main industries are hospitality (International groups as Accor, Starwood, Intercontinental, and independent hoteliers), restaurants, entertainment parks, etc.

Many researches give different definitions of the Revenue Management, and they are the following:

Revenue (yield) management (RM) is an essential instrument for matching supply and demand by dividing customers into different segments based on their

purchase intentions and allocating capacity to the different segments in a way that maximizes a particular firm's revenues [8].

It is also called the application of disciplined analytics that predict customer behavior at the micro market level and optimize the product availability and price to maximize the revenue growth. In plainer words, Revenue management is selling "the right product to the right customer at the right time to the right price" (Cross, 1997) [7].

The main idea of Revenue management is making "smart" decisions regarding offering a particular product, to which customer, at what price and time. Information about the demand forecast, capacity constraints and price sensitivity serves as the base for making such decisions or choices. Talluri and Van Ryzin [28] claim that there are three categories of decisions addressed by Revenue management: structural decisions, price decisions and quantity decisions. The structural decisions determine particular selling formats that are used, should the differentiation or segmentation be applied, sales and discounts, etc. Such features as individual offers and setting the price in general are the responsibility of the price decisions. When speaking about the choices either to accept or decline some particular offers, capacity allocation in different channels, products or segments or restriction decisions, we are speaking about quantity decisions. While the pricing and quantity decisions are made more often and will eventually define the type of Revenue management strategy that the enterprise applies, the structural decisions have to be made at the strategic level for the enterprise. The authors – Talluri and Van Ryzin define these two types of Revenue management strategies as either quantity (inventory) based Revenue management, where the remaining inventory or allocation is optimized for a given price, or price based, where the prices are more flexibly adjusted to manage demand [29].

The history of Revenue management was majorly transformed by the following three topics: demand forecasting, demand modeling and pricing optimization models. These three factors can be observed as Revenue management main pillars. It is examined, that the essential part of any Revenue management is demand forecasting. As we look in the Lee's works, he has shown that an improvement of 10% in forecasting accuracy may cause a 3% increase in revenue for airlines. Although, it is crucial to know the true demand for a particular product in order to be able to create an accurate forecast, because here will be the place where the demand modeling is used. It can also be called demand unconstraining and it is responsible for any issues of censored data, basically with the estimation of demand that was not investigated before [14]. When the hotel has sold out all its rooms or, for example, when the airlines have closed some certain booking class, does not automatically mean that there is no more demand for these products. Moreover, people who found a room or a ticket for a cheaper price than the maximum one, they are highly willing to pay at once, while the customers who feel that the rate is somehow high for them are most likely to do not buy. Demand unconstraining is all about estimating the full, uncensored demand; it is also necessary since it was reported that up to 3% of potential revenue may be lost when the forecast for a Revenue management system has a negative bias [14]. Another author has estimated that revenues may be hurt by 1-3%, when the demand was initially underestimated [34]. It was also noted by Cooper that a spiral down effect occurs when the historical booking data remains constrained, where the expected revenue decreases monotonically [5].

In their article in 2012 Guo, Peng, Xiao, Baichun, and Li, Jun described five possible ways how to deal with constrained data, these are:

- 1. Directly observe and measure all demand;
- 2. Ignore the fact that data is constrained;

- 3. Discard all data that is constrained and use only instances with no constraining;
- 4. Replace all censored data by applying simple imputation methods;
 - 5. Statistically unconstrain the data [11].

The authors also claim that most unconstraining methods should be included into one of the following categories: basic, choice-based, statistical [2]. At the same time, basic methods are, on their opinion, non-parametric methods. The choice-based models integrate a discrete choice framework in RM systems that provide more flexibility to take customer behavior into account. Finally, the statistical methods cover optimization based methods and can include parametric unconstraining methods.

Hospitality is one of the industries where the Revenue management is not only widely used, but also is used as a strategy for future development of an enterprise. However, as any other industry in business, hotels in particular are no an exception to the case, when "any product that was not immediately consumed becomes irrelevant" according Rannou [25].

If the room in the hotel was not sold at the expected time and for the estimated price, this is will be an opportunity to try to increase the revenue by offering a discounted price, if the cost of the service is lower than the revenue, according to Okumus [19]. It was also claimed that one of the conditions of Revenue management is cyclical demand due to the fact that reservation of rooms is highly dependent on particular events or holidays.

Another condition for applying Revenue management in modern circumstances is a segmentation of the market. Nowadays, it has become a very important and widely used tool in many organizations, as they should be able to divide their customers into different categories. As an example, the guests can

be segmented by the purpose of the staying: business trips, family or group tours, leisure travelers, price sensitive customers, etc. The goal of this segmentation will be to help the revenue managers to identify the right service or product to the right customer at the right price, as this will consider their needs.

To conclude, Revenue management has many common factors as in the airlines but still there are some significant differences and peculiarities as it was explored by Rannou [25]. One of them is that the hotels, unlike any airlines, can sell rooms for several nights to one customer. It also includes the case, when a guest arrives late at night at a low rate and stays during the next day which will be a high rate for other customers. And this will be a responsibility of revenue managers. Another factor is the optimization of the number of guests per one room. For example, the hotel can have one room with three beds inside and the room was sold to two people and this will mean that one bed is "lost". This room could have been sold differently, but it it very important for the hotel to sell its rooms in order to continue the optimization of its revenue. The hotel rather sells his room even given that one bed would be a "loss", rather than not selling the room for the night at all.

1.2 Functions and process of Revenue management system in hospitality

Revenue Management is a complicated discipline as it consists of many important factors that have to be taken into consideration and none of them can be left out.

There are key levers that help Revenue managers continue the Revenue management strategy of a hotel. Within 30 years these levers have significantly evolved and developed and now they serve a big role for the mangers. Ivanov and

Zhechev claim that Revenue management tools can be divided into two categories: pricing and non-pricing revenue management tools [12]. The researchers did not pay much of attention to the price as a variable in Revenue management before 1995. Price was mostly considered as some variable that was provided by a certain third party and that was the reason so few companies considered that the price can drive demand and that the prices the hotel offers may not be optimal for someone. Considering the fact that any decision in Revenue management is a result of both a price and duration, it is very important that modern RM models include information that concerns the price and demand, and considers the potential effect of their relation on the revenue maximization [29].

Dr. Ravi Mehrotaand Mr. James Ruttley offer the conceptual approach to Revenue management that consists of four stages: forecast, optimize, control and monitor [26]. Accurate demand forecasting can be a key to the success of Revenue management in a hotel. The decisions regarding the price policy is more measured and deliberated when there is a possibility to forecast correctly the hotel occupancy and segments of the customers. Once the forecast is prepared, it is easy to foresee the days with the lowest demand. This means that after creating the forecast, there will be a need in decision making processes which can also be called optimization: the booking request should be accepted or denied in order to maximize both the revenue and the hotel occupancy. This step is very significant and it involves taking into consideration all the existing aspects about current hotel's situation.

The stage "control" means to have control over length control (minimal length of stay, minimal stay through and maximal length of stay) in a particular hotel and also rates control. The stage "monitor" is the stage of the process when we compare current situation to the previously expected situation based on the forecasts were made. If the forecast was not correct, this means that the methods of forecast that were used are not effective. In this concept there is no information

about human resources. But the author's initial concept was that Revenue management has human resources in the center of the attention and studies, however it cannot be done without modern software and a professional revenue manager.

Also, Tranter, Hill and Parker have introduced a different view on the process and key elements of Revenue management and defined them as following:

- 1 Customer knowledge and customer behavior;
- 2 Market segmentation and selection;
- 3 Internal assessment and competitive analysis;
- 4 Economic principles and demand forecasting;
- 5 Reservations and channels of distribution;
- 6 Dynamic value based pricing;
- 7 Channel and inventory management [35].

It is obvious that the authors identify more or less similar stages or steps in the Revenue management process. Here are the 7 steps that were developed by Ivanov and Zechev [12]. They did not consider segmentation as a step of Revenue management process, but as a part of larger marketing process of a hotel.

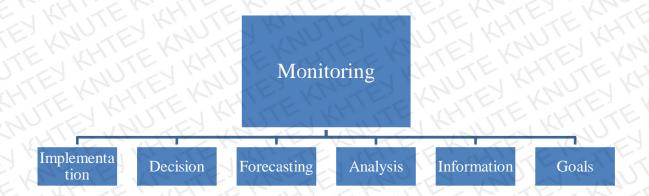


Figure 1.1. Hotel Revenue management process

Many authors who researched Revenue management have come to the conclusion of many various functions and the steps of the process for this type of activity. However, there are some tools and techniques applied in Revenue management that are undeniable and are widely used among big hotel chains and small private hotels. These are called pricing and non-pricing techniques. They both serve one goal – to increase the revenue of a hotel.

Table 1.1.

Pricing techniques in Revenue management

Pricing techniques	This is the step when the price is announced to the customer and now it is his turn to make a decision. The Revenue manager should be prepared before this step, keeping in mind the concept about "right price, right customer", so that he can hope the presentation will be accepted.	
Price presentation		
Dynamic pricing	This is the latest trend in ecommerce, however, it has been used by many companies before too. It is a strategy in which the service or a product prices are continuously being adjusted, sometimes in a matter of minutes as a response to the real-time supply and demand.	
Price discrimination	It is a selling strategy that charges customers different prices for the same product or service based on what the seller thinks they can get the customer to agree to. In plain words, the seller charges each customer the maximum price they are able to pay.	
Lowest price guarantee	This is a technique, when the hotels "guarantee" that the price they offer is the lowest on the market and usually they also	

TEKNTEKN	promise the customer to "return" the difference if anything cheaper than they offer.
Rate fences	These are the rules or restrictions that allow customers to segment themselves in particular rate categories based on their needs, willingness to pay and behavior. This technique is used in order to force customers into higher-paying or lower-paying groups [32]. For example: offering a lower price room in a hotel and will be nonrefundable and has to be paid in advance in order to be booked, and this will decrease the chances of the last minute cancellation.

All the techniques above are highly used by the hotels nowadays in order to increase the revenue and also to be insured from different last minute changes of decision and cancellations. However, there are also non-pricing techniques that will help a manager to improve the revenue of the hotel. Those are:

Table 1.2.

Non-pricing techniques in Revenue management

Non-pricing techniques	Description	
Room availability guarantee	This service is mostly available for the loyalty program members or VIP guest, meaning that it is allowed to book the room in a last minute, even when the hotel is fully booked.	
Length of stay control	It is a requirement for the guest to stay for a particular number of nights even though the guest needs just 1 night accommodation. Length of stay control can also be legally prohibited in different states of America [28].	
Overbooking	It is a very common practice in hotels which happens when more rooms are booked than availability allows. Overbooking is done based on estimating the number of noshow guests, understays and stayovers, walk-ins, in order to meet 100% occupancy.	
Capacity management	It is a bit difficult to define due to the fact that most of researchers have talked about it in a context of manufacturing sector. However, Armistead and Clark define capacity as the ability to balance demand from customers and the ability of the service delivery system to satisfy the demand [1].	

Channel management

It has been used widely in the past couple of years and it serves Reservation departments as it helps to operate bookings and also accelerates hotel's online presence. This is a system that updates the availability and hotel's rates directly and makes it easy for the hotels to offer and sell rooms online.

However, most of the researches define two main tools when talking about pricing in Revenue management: Price Discrimination and Dynamic Pricing. Both of these tools, in general, depend on the customers' willingness to pay and according to Rousse and Harrison it is "the maximum price each customer is willing to pay to acquire particular service or product" [28]. Any customer pays big attention to the price and "if the price is higher than the customer was expecting, he will not buy the product because he potentially thinks the product's value does not correlate with the provided price, in plain words – it is not worth the money"[?]. On the other hand, when the prices are too low this could serve as a signal of a bad quality to the customer. All this means that pricing tools of a hotel have to be connected to the customers' willingness to pay to make it efficient and it is is extremely important to make sure the product or service is sold while the customers are ready to pay for it. When speaking about price discrimination, Ivanov and Zhechev stated that "the price discrimination lies in the center of Revenue management tools" [12]. The purpose of price discrimination is to sell the same service or product to the customers for different prices. They have developed three discrimination degrees: 1) a product sold at a different price from a person to another one; 2) prices are different based on the quantity of the product or service bought; 3) prices vary by the categories of customers based on the segmentation market analysis. These methods are all directed to increase the hotel's total revenue and occupancy.

PART 2

PRACTICAL ASPECTS OF REVENUE MANAGEMENT SYSTEM IN "NUMBER 21" HOTEL

2.1. Organizational and economic assessment of "Number 21" hotel.

The "Number 21" hotel is located in the historical part of Kyiv which is called Podil district and it is very close to many popular tourists' destinations, sightseeing places and landmarks. It is a part of DBI Hotels and Resorts portfolio.

The hotel itself offers 18 rooms for the guests:

- Classic single;
- Classic double;
- Deluxe;
- Mansard;
- Cathedral suite:
- Podil suite.

The rooms are divided into three following categories: standard, executive, luxury.

Each of the hotel's rooms offers unique atmosphere and original interiors utilizing designer fabrics. Favorites include the Magnolia Suite and the McNeil Suite. All rooms feature flat screen LCD TV, signature bedroom amenities courtesy of The White Company, signature DBI Pillow Menu, free Wi-Fi, and free parking [19].

Since the hotel is quite small, the number of staff is limited as well. The hotel also offers some additional services for extra payment, like:

- restaurant;
- laundry.

And free of charge services like:

room service;

- parking;
- ironing;
- luggage storage;
- taxi orders;
- safes at the front desk.

The hotel is operating from 07:30 to 23:00. However, some services inside the hotel the guests can enjoy 24 hours a day. Those are:

- parking, as the guests' arrival time can be various and the hotel needs to ensure all the guests will be able to feel comfortable and safe with their own transportation;
- security assistance, in case of an emergency or any kind of danger the guests can address or contact the front desk at any time;
- safe storage where the guests can leave their valuable belongings;
- wake up calls and taxi orders provided by the front office staff;

In order to analyze the general economic assessment of "NUMBER 21" hotel, we need to investigate market segmentation, what types of guests are the target audience of this hotel by analyzing the customer base. We also need to think about the specific needs this hotel and its services fulfills. Since it's located not far from the city center and it is very conveniently located in terms of transportation, we can conclude it will be a good choice for people traveling for business purposes, both foreigners and local businessman. The hotel is also close to many landmarks and sightseeing places which leads to a conclusion it will be a great choice for regular travelers, both Ukrainian and foreigner, but the latter will represent a bigger number, since the statistic of Ukrainian travelers using hotels in their country is a bit low. The hotel also welcomes couples and families with children as it offers good rooms with 2 and more sleeping places. As to the services and needs fulfillment, the hotel serves a role of mostly 2-3 nights

accommodation, which is very convenient for most of the target groups, however, there are some long-stay guests as well.

When talking about the segmentation, we can divide the guest by the purposes of their stays in 2 categories:

- 1) Business, both Ukrainian and foreigner businessmen travel and stay in the hotel because of business reasons, sometimes they use hotel's services like conference rooms or meeting rooms.
- 2) Travel, again, both local citizens and foreigner travelers use hotel services mostly for 2-3 nights, sometimes it can be a single or double room, depending if it is a couple of a single traveler. Or it can be a suite if there is a family with children.

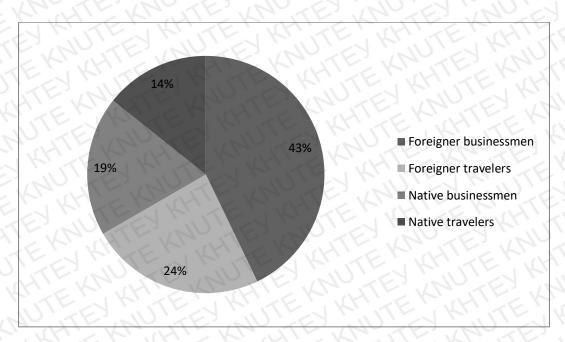


Figure 2.1 Segmentation of the guests by the purpose of stay

But if we talk about the guests' segmentation they can be divided in 4 groups. Those are the following:

- Foreign businessmen;
- Foreign travelers;
- Native businessmen;
- Native travelers.

From the Figure 2.1 above, we can summarize that most of the occupancy in the hotel is conducted by the foreign visitors; however, the fraction of native citizens is not very small as well.

2.2. Pricing and non-pricing instruments in revenue management system in "Number 21" hotel.

The "Number 21" hotel is quite small and this fact does not encourage to have the Revenue system and a Revenue manager who would monitor all the processes. The staff members have to count the revenue of the hotel by themselves. However, the hotel still uses some of the pricing instruments that were described in Part 2.2. We will research the hotel by each of the techniques in order to present the full picture of "Number 21" hotel structure.

Price presentation. On its website, the hotel does not have any price presentation; the customers can call, email or fill out the reservation form on the website directly in order to know the price of any of the rooms offered by a hotel.

Table 2.1

Daily price rates for "Number 21" hotel

Daily price,		UAH	
Room Type	Work day rate	Weekend rate	
Classic Single	2139	1829	
Classic Double	2449	2139	
Smart Double	2999	2689	
Deluxe King / Twin	3379	3069	
Suite	4929	4619	

Dynamic pricing. As to dynamic pricing, "Number 21" hotel does not use this technique, the prices are fixed and they depend on the currency rate only. However, the reservation tool Booking.com sometimes has various offers for the accommodation in "Number 21" hotel. i.e. special rate for the included breakfast into the package, the included city tax in the accommodation rate, etc. The prices also are not corresponding to the seasonality of the occupancy. For example, the highest tourism season to Kyiv is in May – October, and the "Number 21" hotel had the same pricing during this period, which leads us to a conclusion that no Revenue management technique was used in order to receive higher revenue in total.

As to the lowest price guarantee or price discrimination, these tools are not used by "Number 21" hotel management at all.

When talking about the rate fences in "Number 21" hotel, it was defined that the hotel has a cancellation policy, where the guest will be charged 100% of the price in case of late cancellation which is within 24 hours before arrival. Same policy is described on Booking.com source, however it also offers an opportunity

to book a room without any guarantee and the cancellation will be free of charge in case of early cancellation like 7 days before arrival. This leads to high cancellation rate in the hotel during 2018 as presented in Manager Report (Appendix#). However, during the period 01.01.2019 – 01.10.2019 there were no cancellations made for any of the booked or pre-booked rooms in the hotel. Even though the cancellation rate for current 2019 year is 0, the occupancy in the hotel has significantly decreased, as presented in Figure 2.2.1. We can see, that the hotel's high season is during May – November in 2018, however, in October 2019 it is very low. Overall, the occupancy in 2019 is very low comparing to the same months in 2018.

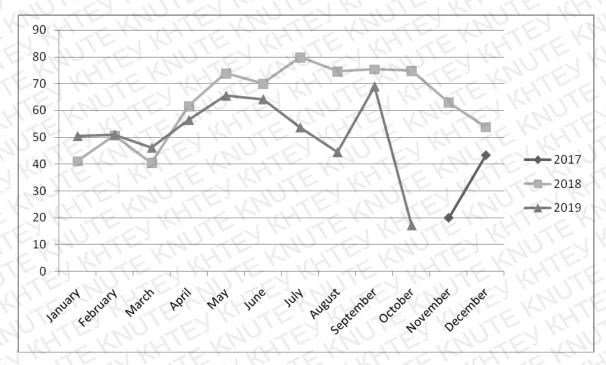


Figure 2.2 Max. Occupancy in "Number 21" hotel during November 2017 till October 2019

As a result of a constant low occupancy during 2019, the hotel's total revenue had also decreased. Accommodation has brought 89% to the total hotel's revenue in 2019 and is a main factor for the hotel's income in general, which equals 5639876.64 UAH. Second metric that contributes to the total revenue is

Food and Beverage, which is 427977.08 UAH in 2019 and it has also decreased in a current year due to the low occupancy. This leads to the assumption that most of the guests who stay in the "Number 21" hotel prefer to eat and drink outside. Other metrics like Mini Bar and other revenues (different services i.e. laundry) had decreased as well during the current year. As presented in Table 2.2. we can see the total revenue of a hotel and each of the revenues separately during 2018 and 2019 period, as well as the difference between the years in national currency UAH and in percentage.

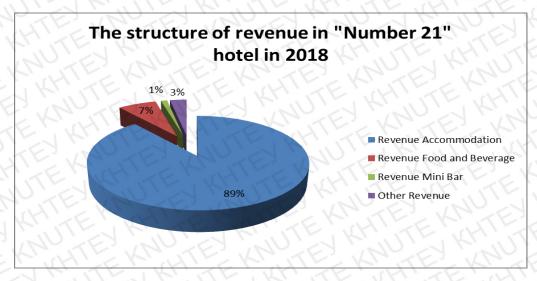
Table 2.2.

Dynamics of revenue management in "Number 21" hotel during 2018 - 2019

HTEKNUTE	2019	2018	Difference in UAH	%
Total Revenue	6322972,41	8385555,94	-2062583,53	-24,6
Revenue Accommodation	5639876,64	7582306,8	-1942430,16	-25,6
Revenue Food and Beverage	427977,08	586726,15	-158749,07	-27,1
Revenue Mini Bar	69445	82375	-12930	-15,7
Other Revenue	185673,69	134147,99	51525,7	38,4

Also, for a better image of the current revenue situation in "Number 21" hotel, the diagram was created, where we can see which part of the total revenue contributes what percentage. During 2018 period, the accommodation revenue was 89% of the total revenue, food and beverage was 7%, mini bar was 1% and other services -3%.

In 2019 period the revenue distribution remained almost the same. We can see some small changed in percentage like accommodation is 90%, food and beverage is 7%, mini bar is still 1% and other different hotel services had decreased to 1%.



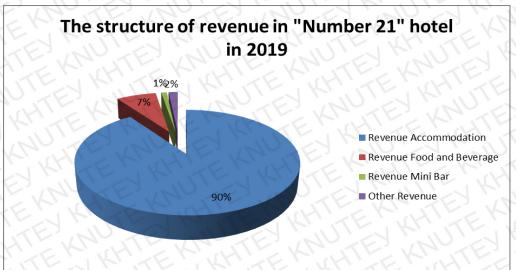


Figure 2.3. The structures of revenue in "Number 21" hotel in 2018, 2019

Low occupancy also influences Average Daily rate. In order to research the dynamic of ADR during 01.01.2018-01.10.2019 period, the graphic presented on Figure 2.4 was created. In this way, we can conclude that most of the rooms that are sold in "Number 21" hotel are the cheapest rooms available and during the low season ADR indicators decrease as well. The highest ADR was detected in July 2019 which was also the peak season for the hotel and the lowest indicator of ADR is in January, where the significant decrease of occupancy was noticed.

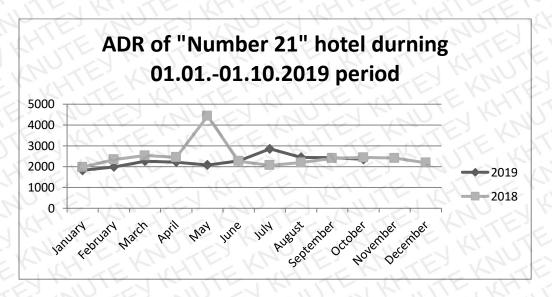


Figure 2.4. ADR of "Number 21" hotel during 01.01.2018-01.10.2019 period

Overall, ADR metrics between 2018 and 2019 are slightly different, the highest during this period ADR was noticed in May 2018 which was 4429.21 UAH and it was caused by high occupancy of the hotel, so we can suppose most of the cheap rooms were sold out and the guests had to book more expensive ones. ADR indicators are closely connected to the occupancy of the hotel and as we can notice, the more occupied "Number 21" hotel is the bigger ADR indicators it performs.

PART 3

DIRECTIONS FOR IMPLEMENTING REVENUE MANAGEMENT SYSTEM IN "NUMBER 21" HOTEL

3.1. Propositions for implementation of revenue management system in "Number 21" hotel.

Overall, Revenue management is all about challenging the resources in the importance of gathering information about the market so that the hotel's management can be proactive and not reactive. This all information must be used to divide the market and adjust the product or service through distribution, to the right customer at the right time and at the right price. As Revenue management in the hospitality industry grows, hospitality managers need to be aware of its key role in hotel sales strategy, paying special attention to new market trends. One of the most important benefits of implementing Revenue management is that it provides companies with a better and clearer understanding of what is expected by the customers from the product or service. Many researchers have proved that Revenue management gives hotels a bright insight into specific needs and wants of the customers and guests, it helps to shape and flex the product in a right way in order to satisfy the existing customers as well as to attract new ones. It also allows to "manipulate" the pricing of hotel to make sure it is "right" for the "right" customer.

Revenue management can allow the manager to add or remove some products or services that potentially can benefit. This does not necessarily require big amount of money or resources. In smaller hotels, like "Number 21" revenue manager can directly contact the guests and ask about their preferences, needs or wants, something that that would like to see in the future or something that they find useless. In order to be a successful hotel it is vital to be in good

communicational relationship with the guests, especially with returning guests, who can directly advise on the future developments.

Below are listed some of the most common reasons why hotels need Revenue management and what benefits it beholds for the enterprise in general.

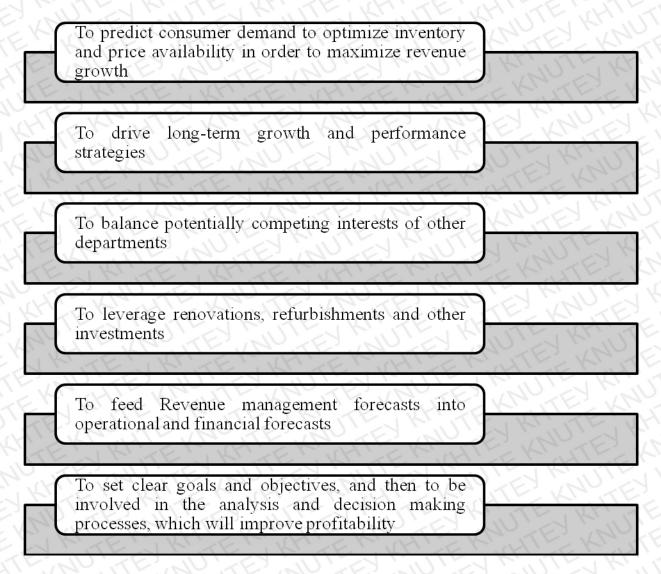


Figure 3.1. Reasons of development of Revenue management

In order to improve its Revenue management, "Number 21" hotel needs to, first of all, know its potential market. As it was presented above, most of the customers are businessmen and tourists, who mostly choose this hotel because of its close location to the city center and famous landmarks.

The hotel's management also needs to learn the competitors in order to be more profitable and competition-resistible. The competitor may not always be a particular hotel in the same location, it can also be various seasons or weekend. The hotel can start using standard metrics of: brand strength, house count, facilities, star rating, etc. Knowing competitor can be useful, because in this way the hotel can investigate and create its own unique service or product that will make it different among other hotels, or also to make sure the hotel is not offering something out-of-date which is commonly used.

The strategy "Think & book like a customer" is very widely used nowadays as more and more hotels tend to use it while creating or developing a web-page or booking tools. It is very up-to-date matter for "Number 21" hotel, as now they do not have an open price list on their web-site. In order to make a reservation the potential guest needs to fill out the form and wait for the answer. But at the same time it would be a lot more convenient to make a reservation or see the price directly on the spot. The hotel can have strong and rational pricing, but if the customers cannot find it, cannot book it or understand what is offered and make a comparison, and then the hotel is less likely to convert potential customers.

There are plenty of different tools that can provide the management with booking rate but they do not always give the customer's perspective. However, understanding how hotel's Revenue management strategy is "seen" and "bought" from the outside-in is critical [18]. In order to keep the track of regular or loyal customers, to monitor and increase brand awareness and to attract new customers and as a result achieve better revenue and occupancy metrics the following plan is proposed.

Table 3.1. Program of implementation of Revenue management

Task	Responsible	Frequency
Monitor overall position of the hotel in a random web search by location and dates.	FO agent	Once a week
Search on 2 or 3 major OTAs and check – how are you ranked, compare in pricing with other hotels (metrics F&B, Packages, etc.)	FO agent / Marketing team representative	Once a month
Make a booking on different cites, check how competitor assess their websites, compare how easy it is to book a room on your website and on the others.	FO agent	Once a month
Activate social media presence (e.g. Facebook page, Instagram): post pictures, monitor subscribers, likes and attendance to the page.	FO agent	Every two days
Create/update a list of loyal customers, regularly update with your new services, seasonal offers, new events, discounts, etc.	FO agent / Marketing team representative	Two times a month
Develop monthly and weekly pick-up reports in order to be able to adjust the prices according to the current demand and to monitor the overall condition of the revenue	FO agent / financial department representative	Every week, report of total state once a week.

As we can see from the plan, it does not require any additional expenses for the hotel. All these responsibilities can be completed by the existing staff and they are not very time consuming and do not require special skills. The data received from this research can be followed to the management so that they can apply the needed changes or adjustments. This research will also provide both staff and management with a better understanding how the booking process is for the consumer and what needs to be added or removed. This factor is very important and it can also be one of the reasons of low occupancy and weak revenue.

3.2. Propositions for implementation of revenue management system in "Number 21 hotel

Knowing ones product and making the most of it is one of the most significant keys to successful Revenue management development. Another key to success is knowing and implementing pricing and non-pricing instruments of Revenue management system. For the "Number 21" hotel we decided to conduct a survey, where we wanted to learn either the guests would be willing to book a city tour with our hotel service, having a trustworthy guide and having an opportunity to book directly at the hotel, not spending hours of searching in the Internet. Below the survey and its results are presented. As we can see, 82% of the guests said that they would agree to use this service, so that means that hotel could find a private city guide and sing an agreement for his/her services. They could develop an authentic tour which will be only sold in "Number 21" and add some unique features to the hotel and make it different among the competitors.

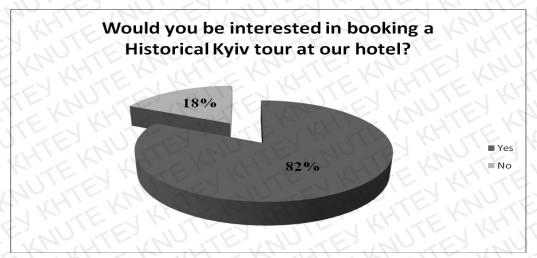


Figure 3.2. Survey in "Number 21" hotel during April – October 2019

This city tour could become one of the key features of the hotel and will not only attract potential guests, but also people who are willing to explore the city. In both cases the hotel's revenue management will benefit. Below the possible excursions types and price list are presented.

Table 3.1.

Price list of excursions

Type of excursion	Duration	Price in UAH
Old History of Kyiv	2 hours	Individual: 500 Group (up to 8 persons): 450 per person
Gastro tour in old town	3 hours	Individual: 700 Group (up to 8 persons): 650 per person *includes two meals

Another key point can be adding a lunch menu to the Food and Beverage options in "Number 21" hotel. Since the hotel is located in a historical and at the same time a business area, it can attract a lot of people during lunch time. It is a common practice when hotels invite people over for a business lunch and they offer a full lunch menu which includes at least 2 positions. This additional option can bring additional revenue to the Food and Beverage revenue as well as to the total hotel's revenue. The hotel can also offer special rates for dinner or breakfasts or apply "happy hour" specialty. It is very common, when after implementing these features the organization's revenue starts to grow. This is a real possibility to make the revenue grow, as it can be presented as a "business lunch to go", which allows the staff not to wash the dishes all the time and since it will be open limited time only, the staff can prepare a particular number of the packages ready by the needed time. Average price of a business meal in Kyiv is approximately 100 UAH. It also depends on the variety of the dishes that are offered and served, but to start with the hotel can produce 5-7 lunches for an estimated time of the day and to see

how profitable it will be. In the future, the number of the requested business lunches can grow.

As the research has shown, "Number 21 hotel" does not have a price differentiation policy. However, implementing one can be rather beneficial. For example, the hotel management knows its high and low seasons, so the prices can vary during these periods. In low seasons, some of the guests can be attracted by the label "sales" or "discount" on a price even if it is only deducted by 10%. Again, as Revenue management principle states, it is better to sell a room for a lowered price, than not selling it and "losing" instead. As we saw from the research, the occupancy during November 2018 – March 2019 was quite small, the hotel management can benefit from implementing discount policy or low rate policy during the season.

We can calculate the approximate revenue during this period. We have the data that during November 2018 – March 2019 the total number of guests in "Number 21" hotel was 258. So with 258 guests the revenue was at least 613842 UAH.

We take the cheapest room rate which is 2449 UAH and will calculate it by deducting 10%. This will be 2204.1 UAH. With this rate we can suggest that 5% more of the tourist would choose this hotel for accommodation during this period. The approximate result can be 271. Which means this lower rate can possibly attract 13 more guests.

And with 13 new guests, they can bring 28653.3 UAH of revenue just for the accommodation. And the additional revenue will be gained from the Food and Beverage and mini bar sales.

When talking about non-pricing instruments of Revenue management, the research has shown that the hotel, even though it has low occupancy, still has some loyal and regular guests. This means the hotel can consider the implementation of

some loyalty program. By collecting guests' emails the hotel can "stay in touch" with the guests, alert them about any upcoming discounts or offer some special deals. In such way the hotel shows that it cares about loyal guests and on a psychological level the guests will feel connected to the hotel. Nowadays, discount or loyalty programs are very widely used and show successful results of attaching people to the brand and show repetitive use of one's services or purchase of products. Application of this tool can also lead to creation of "lowest price guarantee" tool. The hotel can announce that the first 5 reservations that will be made within one day will have an exclusive "lowest price guarantee" label and in case the customers find any cheaper offer for his hotel, the hotel will return the money. This method is quite effective as well.

Social media can play a crucial role for the customer before booking a room in any hotel. Independent reviews encourage the customers a lot more than a simple description of the hotel on its own webpage. Magnuson stated that once the hotel has information on what the customer thinks of it, then the management can work on that: this can also guide hotel's pricing policies. In general, it is important to know what guests think about the hotel and be aware of social reputation as it is directly connected to the guests' willingness to book [17].

Another non-pricing instrument is distribution channel. As the research has shown, the hotel's attempts of growing internet presence are not very successful. Instead, the duty front office manager, can spend 1 hour per day for posting a new picture, for adding hashtags to it, for monitoring the number of likes and attendance on the official hotel page. Most of the people use their mobile phones for everything now via the gadget.

As we can see, most of the tools require using mobile phone or computer, and Internet so being in trend is one of the keys to successful implementation of Revenue management system for "Number 21" hotel. It is vital to follow and

monitor the competitors' marketing campaigns and strategies in order to be unique on the market and offer to the guests something that they will not find anywhere else or something that you can be excellent at. The importance of social media and Internet presence are clearly identified for many forms of business activities. High involvement of customers in the hospitality industry is crucial factor of adaption. New ways of communication support the hotels in identifying the customers' needs and wants in order to achieve high guest satisfaction and helps to increase hotels' revenue.

CONCLUSIONS AND PROPOSALS

The results of the research show that Revenue management is a vital and important part of successful functioning of the hotel. Revenue management allows managers to monitor and forecast demand, to optimize the inventory and price availability in order to maximize the hotel's revenue. The main purpose of the Revenue management was identified as selling the room at the right price at the right time to a right customer.

The techniques of Revenue management, their purpose and functions were identified. Price presentation is the step where the hotel announces the price to the customer. Dynamic pricing is one of the latest trends in the hotel industry and it serves for adjusting the prices due to demand. Price discrimination is a selling strategy which aims to receive the maximum possible payment from a particular customer. Lowest price guarantee is not only widely used in hospitality industry, but also in many selling strategies of different enterprises. It basically promises the customer to return the difference of the rate found in any outside source. Rate fence is the rule of restrictions that allows the customers to segment themselves based on their needs and willingness to pay.

Other techniques are presented as non-pricing ones. Their purpose is the same: to grow revenue of the hotel. However, they work with some differences than the pricing tools. One of the most important one is room availability guarantee. This service mostly works when a hotel has loyalty program and it can guarantee to its premium guests a room which will be available no matter how big the occupancy at particular period can be. The hotel can also conduct a length of stay control and overbooking. These are very common practices in the hotels and they also help to control and increase the revenue. Capacity management is called and ability to satisfy the demand. One of the most important tools is channel or

distribution management. It helps to accelerate the hotels' online presence which is very crucial nowadays due to the mass usage of different gadgets.

It was researched, that "Number 21" hotel does not have many of the both pricing and non-pricing techniques. The hotel does not have price presentation on its website, the dynamic pricing is not applied during high or low seasons. As to the non-pricing techniques, the researched has shown that "Number 21" hotel does not have any membership or loyalty programs and it does not monitor returning guests.

In order to help to implement the Revenue management in "Number 21" hotel the following proposals were introduced:

- Monitor hotel's position among popular OTAs and in Internet search;
- Activate social media usage and Increase internet presence of the hotel;
- Create a regular member list; implement loyalty program;
- Introduce extra service: excursions, which can be offered not only to the guests, but also for tourists from other hotels;
- Business lunch offer that will help to increase the revenue of Food and Beverage;
- Discount/sales system during low season in order to maximize the occupancy.

Overall, "Number 21" hotel has very beneficial location as it is close to the historical and business areas and is rather comfortable. If the Revenue management system is applied, or at least, some of the techniques will be implemented the "Number 21" hotel can start increasing its revenue not only in accommodation, but in Food and Beverage and other services.

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APPENDICES

Appendix B

Manager report for the period from 01.10.17 to 01.10.19 Hotel: Number 21 by DBI

-	17	L'IKIN ITE I	Current period			Previous period		
		TEKKHITEK	Day	Period	Year	Day	Period	Year
K	M	LE KNUTE	01.10.19	01.10.17- 01.10.19	01.01.19- 01.10.19	01.10.18	01.10.16- 01.10.18	01.01.18- 01.10.18
Rooms	1	Days period	1,00	731,00	274,00	1,00	731,00	274,00
	2	Total rooms in the hotel	17,00	11 747,00	4 658,00	17,00	5 542,00	4 658,00
	3	Occupied (rooms/nights)	9,00	6 810,00	2 584,50	17,00	3 244,50	2 945,00
	4	Available rooms	8,00	4 975,00	2 085,00	0,00	2 318,00	1 732,00
	5	Maintenance rooms	0,00	581,00	421,00	0,00	110,00	92,00
	6	Total rooms - maintenance rooms	17,00	11 166,00	4 237,00	17,00	5 432,00	4 566,00
	7	Available - maintenance rooms	8,00	4 394,00	1 664,00	0,00	2 208,00	1 640,00
Guests	8	Guests in the house	10,00	3 854,00	1 452,00	21,00	1 845,00	1 676,00
	9	Adult	10,00	3 832,00	1 445,00	21,00	1 833,00	1 665,00
	10	Child	0,00	22,00	7,00	0,00	12,00	11,00
%>>>	11	Occ% all rooms	52,94	57,97	55,49	100,00	58,54	63,22
	12	Occ% all rooms-maintenance	52,94	60,84	60,89	100,00	59,55	64,32
	13	Max Occ% per day	52,94	100,00	100,00	100,00	100,00	100,00
	14	Min Occ% per day	52,94	0,00	5,88	100,00	0,00	0,00
Arrivals	15	Rooms arrivals	4,00	3 063,00	1 158,00	5,00	1 453,00	1 312,00
	16	Rooms departures	1,00	3 071,00	1 162,00	5,00	1 445,00	1 313,00
	17	Persons arrival	4,00	3 862,00	1 441,00	7,00	1 850,00	1 671,00
	18	Persons departure	2,00	3 852,00	1 446,00	6,00	1 829,00	1 665,00
	19	Rooms walk in	0,00	74,00	7,00	0,00	63,00	36,00
	20	Cancellation of the period	0,00	226,00	0,00	0,00	226,00	170,00
	21	No-show	0,00	227,00	0,00	0,00	227,00	170,00
Revenue	22	Total Revenue	20 651,25	18 099 380,80	6 322 972,41	55 210,56	9 164 545,80	8 385 555,94
	23	Revenue Accommodation	19 125,76	16 170 414,67	5 639 876,64	50 043,91	8 216 099,60	7 582 306,80
	24	Revenue Food and Beverage	1 200,00	13 57 288,23	427 977,08	3 338,00	702 669,75	586 726,15
	25	Revenue Mini Bar	0,00	198 540,00	69 445,00	0,00	96 645,00	82 375,00
	26	Other Revenue	325,49	373 137,90	185 673,69	1 828,65	149 131,45	134 147,99
	27	Breakfast	1 200,00	984 402,95	350 980,00	2 400,00	474 522,95	425 322,95
	28	Room charges	19 125,76	16 082 889,33	5 622 653,01	50 043,91	8 155 497,39	7 531 551,3
	29	City tax	292,11	99 793,17	99 793,17	0,00	0,00	0,00
	30	City tax	33,38	4 472,92	4 472,92	0,00	0,00	0,00
	31	ADR	2 125,08	2 361,66	2 175,53	2 943,76	2 513,64	2 557,40
Payments	32	Total payments	0,00	16 397 623,22	6 101 920,03	5 797,70	7 858 194,70	7 129 862,9
	33	Cash	0,00	2 393 472,66	867 716,26	0,00	1 216 291,83	1 080 454,2
	34	Credit card	0,00	12 288 266,83	4 551 907,26	5 797,70	5 908 860,87	5 420 886,6
	35	Bank Transfer	0,00	1 715 883,73	682 296,51	0,00	733 042,00	628 522,01