THE FACTORS THAT INFLUENCES REVENUE MANAGEMENT POLICY

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ABSTRACT

The main objective of this article is to determine the typology of TAROM passengers and to determine what actions we undertake in terms of Revenue Management System for passengers to be satisfied taking into consideration the main factors: the gender, the age, the nationality, travel frequency, the purpose of the trip, the time between booking and departure, the booking method, the time at destination.
For this purpose we applied a questionnaire designed to help us identify market segmentation criteria.
Segmentation is a theory widely used and very often seen in the airline industry, representing a way to detect, evaluate and select homogeneous groups.
In order to conclude our scientific research we utilized survey and interview.

KEYWORDS: *revenue management, flight, ticket, airline.*

JEL CLASSIFICATION: *M10, M16*

1. INTRODUCTION

TAROM operates on more than 50 own destinations as well as destinations operated by its code share partners. The company has been a member of *SkyTeam Alliance* as of June 25th, 2010. (http:// www.tarom.ro)
The Revenue Management System uses econometric methods and, from the mathematical point of view, using specific methods focuses on detailed forecast and on optimizing existing opportunities to obtain incremental revenue (Belobaba, 2009).
Revenue Management is used by:

- Airlines
- Hotels
- Car rental
- Tour operators
- Cruise ships / Ferries etc.
- Healthcare
- Amusement parks, golf courses.
- Theatres, Opera.
- Energy companies
- Advertising & TV companies

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A synonym for Revenue Management is Yield Management. Yield Management is an approach to maximizing profit by carefully monitoring and managing pricing, inventory availability and sales.
The literature on Revenue Management System is recognized frequently that people who turn to services business airlines are more interested in their own program than the rate charged by the airline to carry on this business destination.
In comparison, passengers traveling for pleasure are those who are more influenced by the rate charged by the airline than their own program.
The key to success in Revenue Management is to manage to divide customers by their demand characteristics and offer customized products and services for each category (Shaw, 2011).
It is more difficult for airlines to differentiate their products and services so as to perfectly fold markets tourist traffic demands.
Thus the company will be deficient in achieving expected results on the implementation of the planned fare policy, resulting that its application is of the passenger's benefit and therefore we will have an income lower than planned. (Bijan, et al., 2008).
From an operational perspective, capacity and price are two decision variables and can be optimized together when airlines adjust them both simultaneously (McGill et van Ryzin, 1999).
While fare adjustment can be performed in a tactical way in a short period of time, usually airlines set capacity before setting the time. An airline flight capacity can influence its fare policy (Robinson, 1995).
The Revenue Management System is able to earn more revenue through, among other things, the two concepts of forecasting and revenue adjustment. That means the system analyzes the demand in the light of history and determines the service-sensitive and fare-sensitive demand by each booking class (BC). It further estimates the demand elasticity or the number of passengers who would be willing to 'buy up' to a higher BC if their preferred BC were closed (http://www.sita.com).
Since one of the purposes of revenue management system is to efficiently distribute passengers to demonstrate efficiency, the airline must be able to segment the market in which it operates according to the different categories of existing passengers.
It is necessary to find a system that can correlate the load factor with the payment ability of passengers.
A very good example is the comparison between the businessman, for whom time is money and is willing to pay a high price for that ticket in order to reach the destination as quickly as possible and the customer who is very attentive to price, preferring to seek discounts.
One is willing to pay a higher rate in exchange for a series of benefit (open return, free chance of flight/flight program program), the second is willing, on the contrary, to give up a number of benefits only to receive a lower price for the ticket. Such a strategy will allow airlines to sell the entire capacity available (Shumsky, 2006).
For airlines, the capacity is predetermined, so when the flight is concluded and when the flight to beconducted, unsold seats can not generate income anymore. Airlines use a fine-tuned revenue management system to monitor the way in which a number of seats is reserved and can react accordingly.
There are various ways to control the inventory of flights, for example, can provide discounts for low demand flights, it is evident that these flights will not be sold. The converse is true, namely, management of demand: when demand is high we will have more seats sold at a high price (Meadows and Dibb, 1998). Another way to get the availability of payment is the market segmentation.
Market segmentation is also necessary, because simplified tariff structures allow passengers who previously would pay a higher price to pay a lower price.
A technique that was developed for the airline industry named "Expected Marginal Seat Revenue" (*EMSR*) analysis by Peter Belobaba: for two fare classes with prices r_L and r_H (r_H is the higher fare,

while r_L is the lower fare,). Since there are just two fare classes, the optimal booking limit for low fare class is equal to the total capacity minus *Q*.

$$\frac{B}{B+C} = \frac{r_H - r_L}{r_L + r_H - r_L} = \frac{r_H - r_L}{r_H}. \quad (1)$$

From the newsvendor analysis, the optimal protection level is the smallest value *Q** such that:

$$F(Q^*) \geq \frac{B}{B+C} = \frac{r_H - r_L}{r_H}. \quad (2)$$

If airlines know which customers act the same, they know that they can use one targeting strategy for all these customers with equal characteristics. Segmentation gives the airline a number of benefits that lead to satisfied passengers. These benefits are: better understanding of passengers needs, more appropriate allocation of resources, easier identification of market opportunities and more effective marketing programs (Meadows and Dibb, 1998). Nowadays, companies are searching for new markets in the developing world. In these markets, segmentation is maybe even more necessary as it already is, because of the high diversity in demographic profiles and market conditions in those countries.

2. OBJECTIVES, HYPOTHESIS AND RESEARCH METHODOLOGY

2.1. Objectives:

The objective of this article is to highlight the importance of the main factors that influences *Revenue Management* policy.

2.2. Hypothesis:

a. Market *segmentation depends largely on passengers preferences.*
b. *Passengers satisfaction must take the first place when setting up the airline's market strategy*.

2.3. Research methodology:

For the study the methodology used is a questionnaire consisting of eight research questions (as we can see in addendum 1).
The research phase consists of an interview and the survey distributed to the individuals who benefit from services from the TAROM airline.

3. RESEARCH APPLICATION

Airlines use the time allocated for reservation to create this segmentation so as the passenger delay more time to make the reservation, the more it will pay more for it.
Opportunities arise through passenger segmentation availability payment. In practice, the approach to the segmentation process is based on appropriate segregation of passengers, establishing some criteria to separate them, so they do not have all the opportunity to pay the lowest price for a service (Peteraf et Reed, 1994).

Other approaches to these segmentations refer to the attributes that have an impact on the consumer, offering valuable services without incurring a high cost of him.
Revenue Management avoids the complexity generated by the interaction of absolute price and the current price level using surrogates price as booking classes (http://www.sita.com).
Since the mid-1990s, Revenue Management system implementation involved the implementation of certain measures to control the pricing elasticity (Rothman, 2006).
A good system of Revenue Management maximizes revenue for the same number of units, the same amount of services, taking advantage of high or low demand forecast in the next period, effectively controlling it by charging a higher rate in late bookings (Wensveen, 2007).
Revenue Management includes many widespread practices such as rates change over time to reflect demand. For example, airlines may set a higher price for a flight, the day after a holiday or special event, to the tariff for the same flight, a week away. Tickets purchased at the last minute have higher price compared to their price when purchased six months in advance (Netessine and Shumsky, 2002),
The purpose of this Revenue Management strategy is an attempt to force the demand to match or exceed the capacity. From a theoretical perspective, Revenue Management system is used to optimize revenue, but in practice it often fails because of the existence of image problems of a certain company.
Our research took place through the distribution of a questionnaire (addendum 1) that concerns establishing the typology of TAROM passengers. The questionnaire was distributed during ckeck-in process to 579 passengers.
Out of the 579 respondents, 51% were men and 49% women ("What is your gender?").
The majority of the survey participants are between 35-44 years (29%), the second group fall in the age range 26-34 years (26%). Next age category is 45-54 years (18%) followed by 55-64 years (12%). Last categories were over 64 years old (8%) and 7% did not respond.
For question number 3 ("What is your nationality?"), from the total number of respondents 75% were Romanians and 25% were Foreigners.
Out of the total number of respondents that travel with TAROM, the majority (32%) travel one time per year, 18% travel once every 2-3 weeks, followed by the passengers travelling once every 3 months (17%). 16% are once every 6 months travelers, only 3% travel once a week and 5 % chose to not answer.
Answering at question number 5, 37% of the participants in this survey are travelling for business reasons, while 22% are going into a holiday. 16% are visiting relatives/friends, 14% are attending conferences/ fairs/ expositions, 7% are working abroad, 2% are travelling for study and 2 % decided to not answer.
Regarding question number 6: on average, we can conclude that people are booking their tickets 16 days before the flight, considering that 25% are booking their tickets more than a month before, 20% with 3-7 days before and 19% with 15days-1 month before.
4 out of 10 travelers booked their tickets through a tourism agency; TAROM's website or TAROM agency were used by less than half people. Romanians use more than average TAROM agency (14%), TAROM's website (23%), tourism agencies (44%) and less on-line websites (16%).
Analyzing the answers to question number 8 we can conclude that Romanians spend more days at the destination vs. foreigners (approx.18 days vs.13 days). The results were: 44% spend between 3-7 days at the destination, 21% spend less than 3 days, 15% spend 15days-1 month, followed by 12% which spend 8-14days, 7% spend more than 1 month and 1% do not answer.

4. CONCLUSIONS

a. This research has helped to establish criteria for market segmentation, based on passenger typology which causes the imposition of fare rules taking into account the needs and preferences of each recipient of services.

b. A better market segmentation leads to better profitability races in terms of Revenue Management System, which causes long term high income.

c. The questionnaire in practice led to improvement on pricing policies: payment method purpose of the trip, time spent at destination.

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Addendum 1

QUESTIONNAIRE
FOR DETERMINE THE TYPOLOGY OF TAROM PASSENGERS

Please indicate, from the options below, your answer:

1. What is your gender?

a. Male
b. Female

2. Please select your age range:

a. 18-25 years
b. 26-34 years
c. 35-44 years
d. 45-54 years
e. 55-64 years
f. over 64 years old
g. no answer

3. What is your nationality?

a. Romanian
b. Foreigner
c. no answer

4. How often do you travel with TAROM?

a. Once a week
b. Once every 2-3 weeks
c. Once a month
d. Once every 3 months
e. Once every 6 months
f. Once a year
g. No answer

5. What is the purpose of the trip?

a. Business reason
b. Holiday
c. Visiting relatives/friends

d. Attending conferences/ fairs/ expositions
e. Working abroad
f. Study
g. *No answer*

6. How long before the trip did you book the flight?

a. Less than 3 days
b. 3-7 days
c. 8 - 14 days
d. 15 days - 1 month
e. More than 1month
f. No answer

7. How did you book the tickets ?

a. through a TAROM agency
b. on-line on TAROM's website
c. on-line using other websites
d. through a tourism agency
e. No answer

8. How many days do you spend at the destination?

a. Less than 3 days
b. 3-7 days
c. 8 - 14 days
d. 15 days - 1 month
e. More than 1month
f. No answer

THANK YOU FOR CONTRIBUTING TO OUR STUDY