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OPPORTUNITIES OF REVENUE INCREASE IN AIR PASSENGER TRANSPORT

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Abstract

The supply in the air passenger transport has overcapacity. For this reason there is a competition in pricing strategies and in quality management. With the help of Revenue/Yield Management, strategic market prices can be created according to the demand curve of flights.

Keywords: yield management, revenue management.

1. Introduction

The average profitability of air transport is relatively low. Even the greatest American airlines have figures much lower than 10%.

The air passenger and cargo demand are increasing with the globalization, with the higher living standard and changing customers' habits.

The specific profitability of air cargo is greater than that of air passenger transport, but these capacities are alternatives for each other just in a limited way (cabin is changeable, or because of empty seats, more cargo can be delivered in weight, etc.).

Several aircraft are designed exclusively for passenger transport.

In my paper I deal neither with cargo transport nor with the revenues coming from other activities of airlines.

The demand is increasing and the same time also the supply. The competition is stronger and stronger.

The product of air transport is very specific. The processes of production and consumption occur at the same time. Seats remained empty are lost forever.

Components of the product:

- destination
- arrival and departure time, duration
- other services
- price.

2. Segmentation of Air Passengers

The basic principle is the exact knowledge of customers (3). Air passengers can't be handled as a homogeneous mass, they may be divided into the following groups.

According to the kind of journey:

- business passengers
  - employees
  - private undertakers
  - incentive passengers
  - conference participants
- leisure passengers
  - tourists
  - visitors of friends and relatives (VFR)

2.1. Requirements of Business Passengers:

- seasonality (high at the beginning and at the end of the year and the month, on Monday and on Friday, lower in summer)
- often travelling
- short time booking before travelling
- time sensitivity (late booking, buying ticket at the airport: go show, separate check-in, luggage on the borard, etc.)
- minimum time sensitivity: the firm pays the fare and prestige is taken into consideration, but private undertakers sometimes concern themselves with the high business fare
- schedule: for short-haul 1 day return: early morning to and in the afternoon or evening back, for long-haul: immediate connection, arrival in proper time for business meetings, etc.
- Comfort: separate lounge, wider seats, individual board entertainment, unlimited catering, wide choice, board phone, etc.

2.2. Requirements of Leisure Travellers:

- seasonality: high during summer holiday and winter holiday, school vacations, state and church days-off, etc.
- yearly 1 or 2 trips as an average
- early booking
- less time sensitivity: careful and patient in time, coming early to the airport, patient at baggage reclaim, etc.
- great price sensitivity: tourists pay accommodation and the whole stay, visitors mostly just the air fare

- schedule: tourists prefer arriving in the morning leaving in the evening because of the hotel price, visitors are neutral just the work time of relatives or friends (who are waiting for them) influences their preferation
- comfort: not high requirements, tourists and visitors want to enjoy the stay on the destination, the comfort of the travel is not important.

Tourists may travel in groups. They use early booking and they need low tariffs. The group revenue is less than the individual fares would take.

3. Opportunities of Revenue Increase

Airlines have to be aware of the above mentioned passengers' requirements.

Further opportunities of increasing revenue:

- *Safe fleet*
  The fleet of the world is getting homogenised (Boeing, Airbus, etc.). It is not modern aircraft that are advantage in competition, but it is a disadvantage if an airline company doesn't have them. Because of the environment protection (gas emission, noise, etc.) airlines should replace their old pieces of aircraft (high fine, prohibition, etc.).
- *Excellent cabin crew*
  There are international requirements, everybody has to fulfil them.
- *Punctuality*
  Business travellers and connecting travellers expect high punctuality. If there is no reserve, the smallest delay can cause a dynamo effect (ground handling, weather, slot, etc.).
- *Optimum flight allocation* (determining destinations)
  Share of Point-to-Point flights, Hub and Spoke flights, interline flights.
- *Advantageous departure and arrival time*
  Mostly arrival time is more important than the starting time, good connection, business meeting at day light, shop opening hours, public transport, etc.
- *Flexibility*
  In case of cancellation quick rebooking, charter flights in season, flight doubling, shuttle flights, etc. are important
- *Other services*
  Luxurious board service, gifts to children, FFP, etc.
- *Service quality (5):*
- Urban connection

  Easy accessible booking and ticket sales units. Phone capacity, agent network, internet, etc.
  Easy ticket access: at frequent users' institutes local ticket printing, ticket by mail, ticket by credit card or by internet, etc.

Trained sales personnel and agents: quick and exact information, languages speaking, polite personal contact, precise and quick mail response, nice and helpful behaviour of the staff, kind way of negotiation, technical facilities, etc.
Additional services: rent a car, hotel booking, tickets to cultural, sports or tourist events, etc.
City check-in: with customs authority the check-in is again possible in the city at several hotels like at SAS hotels or at certain points of the city (e.g. in London at Victoria Station at Gatwick Express).
Easy airport access with choice (public transport, airport bus, hotel bus, taxi, car stopping, etc.)

- Airport services

  Easy getting from the city, free and frequent transfers between terminals.
  Car stop and car parking for short or long time, eventually connected with car service station.
  Exact and good visible passenger information for outbound-, inbound and transit passengers.
  Separate check-in, quick service for business travellers
  Baggage on board (if the size is suitable)
  Separate longue (government, VIP, business travellers)
  Longue services (information, telecommunication, restaurant, buffet, tax free, etc.)
  Business center
  Rent a car service
  Currency exchange
  Accelerated baggage handling
  Special services (to handicapped, blind and ill passengers, to children, babies, religious purposes, meditation, etc.).

- Board service

  Continuous passenger information by the captain and cabin attendant/s (flight altitude, speed, weather, expected arrival time, local programs, etc.)
  Continuous information about the position of the aircraft
  Available press on board
  Behaviour of the crew (help in health events, help to handle babies or children)
  Comfortable seats in upper classes (first class and business class)
  Catering choice (in upper classes more choice, continuous offering, unlimited consumption)
  Computer, telecommunication access (upper classes)
  More and better trained and experienced cabin crew (upper classes)
  Individual board entertainment (music, videofilms, etc.)
  Menu choice at lunch and dinner (vegetarian, lacto vegetarian, muslim, kosher, Asian, etc.)

Non smoking and smoking flight
Other comfort services (cover sheet, pillow, necessaire, toys, gifts, give-aways, etc.)
Other specialities (country or airline specialities: e.g. salami, paprika powder, fresh strawberries, special spirits and wines, bulk beer, chocolate, china, lace, embroidery, orchid, etc.)

- Services for supplement

  Sleeping facilities on board
  Lying facilities on board
  Excess luggage
  More pieces of luggage

- *Code share flights*
  This way an airline company can enlarge the number of destinations and decrease the costs. Such a flight has 2 flight numbers. There are 2 kinds of code share:
  - soft block: number of seats sold to the partner airline is flexible
  - hard block: the other airline company buys always a standard amount of seats.
- *Frequent Flyer Programs*
  For loyality, airlines give bonus points according to the flown miles. One can get a free ticket (stand-by or with booking) or one can upgrade (to fly with tourist ticket on business class).
  One can get discount at certain hotel chains or at rent a car services or enjoy a free car. Airlines invite their FFP travellers yearly to an elegant party.
  For off-season flights one can get more bonus points, this way the load factor of these flights can be influenced.
- *Luggage excess*
  Several airlines do not charge more fee for excess weight or for plus luggage.
- *Airline image (4)*
  Every airline company has a strategy. E.g. SAS used to be the airline for business people. Swissair is an elegant one.
  Image is what people think of the company. Corporate Identity means the activity by which the airline wants to influence its image.
  The service of low cost airlines is simple (no refund, no rebooking, poor board service, etc.) but today they are serious competitors in the airline industry.
  The image of an airline will be influenced by the basic and additional services (modern fleet, proper schedule, highly qualified crew, nice staff, no delay, luggage lost and found, compensation in irregularities, etc.).
- *Marketing communication of airlines (3)*
  The commercial activity is very important increasing the revenue. Potential travellers should be informed about all the opportunities, actions, campaigns, etc.
  This way the off-season flights will be better utilized.

4. Price Policy (Revenue or Yield Management) as the most Effective Way of Revenue Increase

To increase revenue, the rise in air fare seemed to be the simplest way. But nowadays the competition in the field of prices is the sharpest. People would choose another (cheaper) airline company if one of them increases the fare.

The air passenger transport is a special consumption. Passengers sitting on the same plane pay different fares, because the airline is not able to fill the seats with one price category.

The total revenue is to be increased by the strategic decrease of prices. This way the average income/seat is less but the number of passengers more.

The characteristics of demand curve can be well followed and utilized (1).

Business travellers decide short before departure. They are willing to pay more for the ticket (mostly the company pays it). In case the business cabin is full, the most part of flight costs will be covered. 20% of travellers give 80% of revenue.

And what to do with the rest?

Tourists and visitors plan their journey in due time and they buy the ticket in advance, because it is cheaper, but it has some limitations (refund, rebooking, etc.)

Airlines can attract them by discount fares (6). The questions are: how and when?

Let's take a flight with 100 seats where the unified fare is 50 (*Fig. 1*). This way 50 seats will be booked, so many people are willing to pay 50 for the flight. Load factor is 50%. Costs are 2500, Revenue 2500, Profit 0. According to the demand curve it is clear that several passengers could have paid more (they constitute consumer surplus), and who can't afford 50 for a ticket, will not fly.

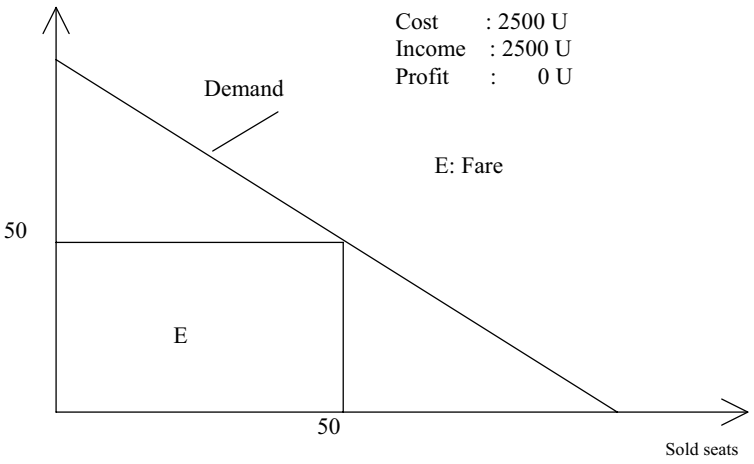


Fig. 1.

It is obvious in order to increase the revenue the demand curve should be

considered, and according to the willingness of passengers more price classes should be created. The load factor will be greater and the revenue as well. Let's have 4 price categories: 80, 60, 40, 20 with 20 passengers of each (*Fig. 2*).

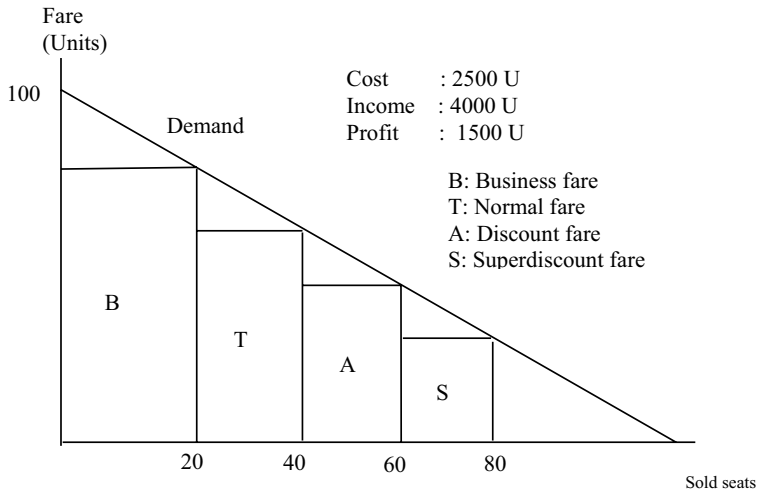


Fig. 2.

It may happen, that the last price class' revenue doesn't cover the costs, but no seat remains empty.

How to create optimum price classes? The Revenue/Yield Management searches balance between the revenue and load factor.

The basic concept: involves selling every ticket in the best moment for the highest price. On busy flights one should be careful with discount. Airlines have different philosophy for business and tourist classes.

There is no discount (or rarely) for business class and no overbooking. Airlines take the risk to fly with several seats remained empty on business class rather than to refuse a business traveller in the last minute (go show).

On the tourist class one can use tactics with the price classes (to determine the price level and the number of seats in different classes).

It is carried out by forecast based upon

- the historical data of flight (both legs)
- the shape of booking profile (*Fig. 3*).

The historical data are about the number of travellers (cancellation, no show, go show) in the last several years on the same day.

Data alternate with the fact whether the same day is not a work day or there is a celebration or any important cultural, religious or sports event, etc.).

On the basis of the historical data a capacity constrained and unconstrained forecast will be developed (capacity check, schedule change, etc.).

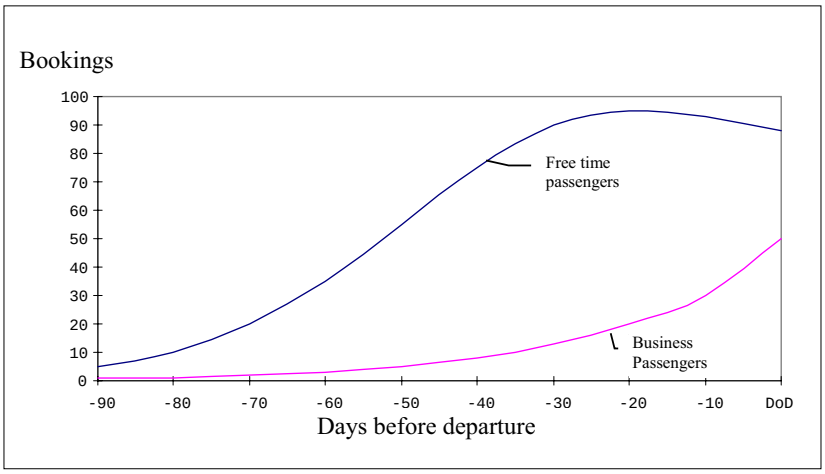


Fig. 3. Booking profiles

The booking profile shows the number of booked seats during the period. The actual number of booking (and the actual booking profile) will be compared to the flight booking profile (*Fig. 4*).

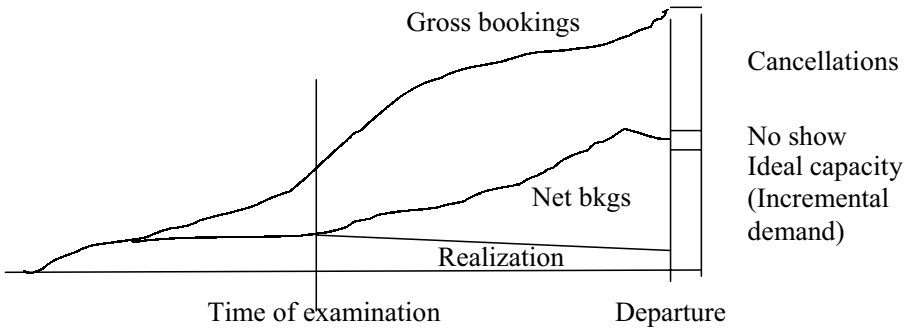


Fig. 4. Forecast based on the booking profile

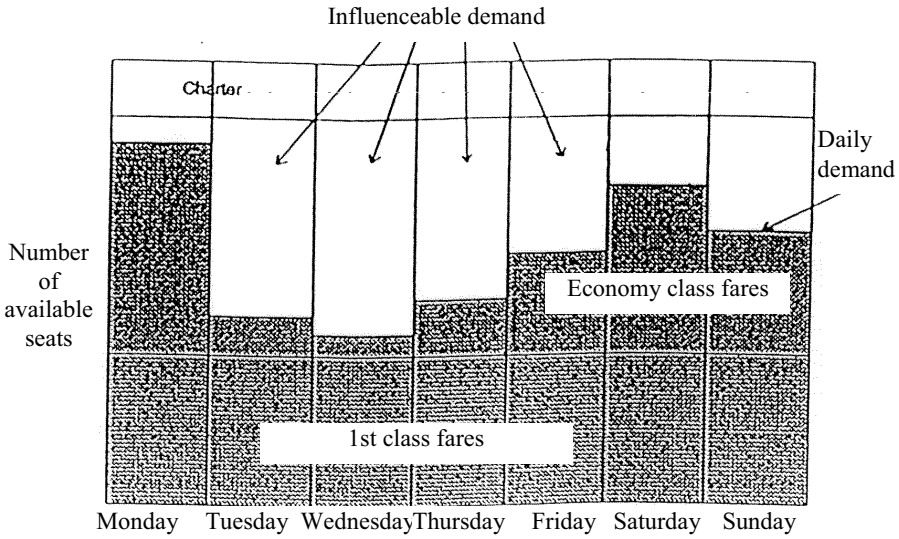
For forecasting, the historical data can be used better in very advance but getting closer to the departure the booking profile, or the combination of both is more usable.

- *Snapshot days*

Booking is possible 365 days before departure. There are selected days (snapshot days) when the data of the flight will be checked, data refreshed and the incremental demand recalculated.

If the demand seems to be greater than the available capacity, the volume of discount should be less.

Let's look at a demand share during a week.



-Seat allocation

Decision about = the prices
= the number of classes
= the number of seats in different classes (Limit Sale Value)

- *Seat allocation*

Decision about

- the prices
- the number of classes
- the number of seats in different classes (Limit Sale Value)

If we have a plane with 120 seats, for 100 seats we develop the seat allocation, 20 remain for business travellers. The aircraft may have movable curtain for business class to reduce the risk. The reliability level of forecast influences the efficiency of seat allocation.

The situation is more sophisticated if the flight has a stop between origin and destination.

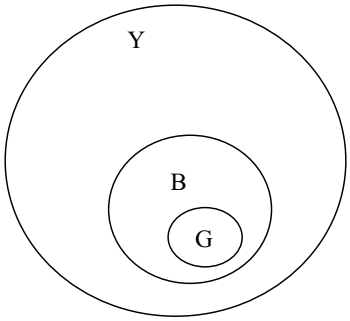
Terms to be taken into consideration in the case of seats allocation involve

- capacity (plane seats, overbooking)

- realization of current booking
- demand in the future
- the reliability level of the forecast
- prices
- kind of nesting (movable curtain or cabin nesting)

- *Nesting (2)*

There is a rule: the class with higher price can take a seat from the class with lower price. On the plane with fix cabin the plus business traveller can have a seat just in the tourist class (downgrade).



Limit Values:

B: 30 (+20)

G: 20

If the demand on B class is greater than 30 seats, then the B class can take seats from the G class automatically

- *Overbooking*

Because of the no show, cancellation, go show airlines receive more booking than the capacity. Overbooking occurs in order to increase the load factor. The volume of overbooking is forecasted as the other data of the flight.

Overbooking can be different at different flights and at different price classes. Typical values are 5–20%.

- *Optimum overbooking rate*

The minimum total costs are to be found by Revenue Management.
There are 2 groups of costs:

  - loss because of the empty remained seats (Spoilage)
  - compensation because of Denied Boarding
    (telephone, hotel, allowances, transfer, taxi, compensation fee: cash or free ticket)

Recapture probability: if the traveller him/herself takes another flight, he/she gets some award. In case there is no volunteer, the arriving order gives the preferation.

Several passengers may not be denied (transit passenger, VIP, not guided child, handicapped passenger).

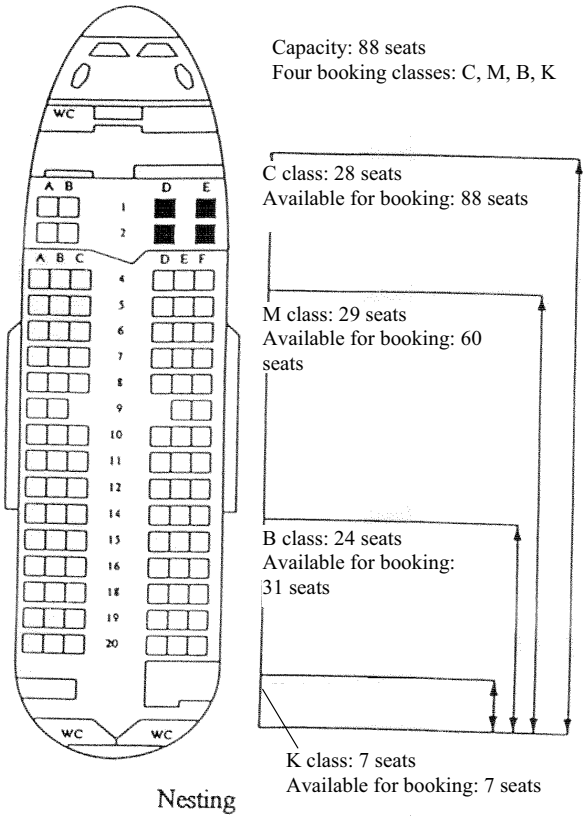


Fig. 5. Nesting

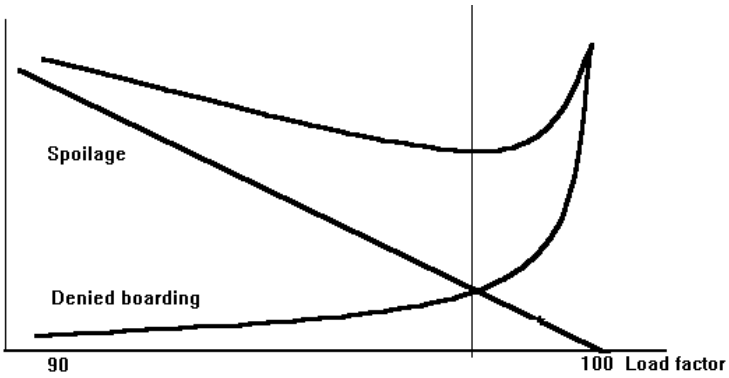


Fig. 6. Determination of the optimal overbooking rate

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