POLITECNICO
DI MILANO

Marketing mix

Pricing

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Agenda

1. Basic elements of pricing
2. Steps to set the price
3. Dynamic pricing and Yield management

1. Basic elements of pricing

Price: The amount of money charged for a product, or the sum of the values that consumers exchange for the benefits of having/using the product or service.

Why is pricing so important?

- Determines business profitability
- Determines demand
- Determines positioning and distinctiveness
- …

Pricing

Price and the Marketing Mix:

- Only element to produce revenues
- Most flexible element
- Can be changed quickly
- First strong communication

A. Price as a tool of Competition

B. Pricing is a process!

Common Pricing Mistakes

- Determine costs and take traditional industry margins
- Failure to revise price to capitalize on market changes
- Setting price independently of the rest of the marketing mix
- Failure to vary price by product item, market segment, distribution channels, and purchase occasion
- Determine price without considering the customer
- Nobody sets the price, all are determining the price
- "Dart Doard" pricing

What drivers affect pricing?

- General economic situation
- Elasticity of demand
- Product lifecycle
- Laws and norms

And the four key elements

- Objectives of the company
- Cost structure
- Competitive system
- Customer value

Environmental Influences on Pricing Decisions

- Currency Fluctuation
- Inflationary environment
- Government Controls, Subsidies, Regulations
- Competitive Behaviour
- Sourcing
- Distribution costs
- Marketing costs
- Taxes(Vat) and Duty
- …

Pricing

Why is pricing so important?

- Determines business profitability
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- …

2. Steps to set the price

How to set the price?

Generally, 6 steps are required

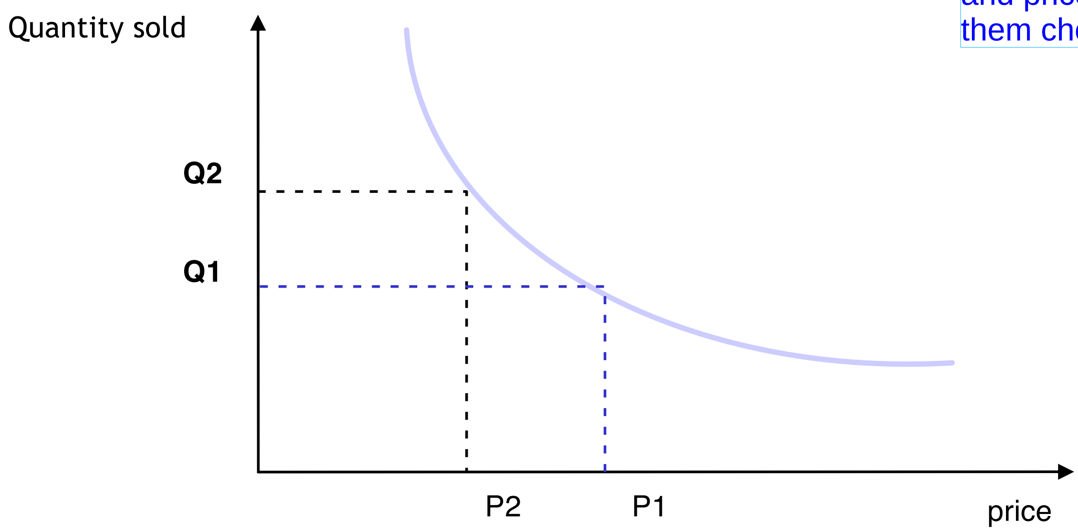
1. Defining pricing objectives
2. Forecasting demand
3. Cost estimation and marginality
4. Analysis of competitors' behavior
5. Selection of the pricing method
6. Pricing decision

1.Defining pricing objectives

ORIENTATION	*PRICING OBJECTIVE*
Market	• *Volume* • *Market share* • *Growth rate*
Profit	• *Contribution margin* • *Short-term profit* • *long-term profit* • *ROI* • *Rapid recovery of R&D investment*
External evnironment	• *Creating brand image* • *Increasing intermediaries' loyalty*
Survival	• *Cash flow* •*Use of the plants*

How to set the price?

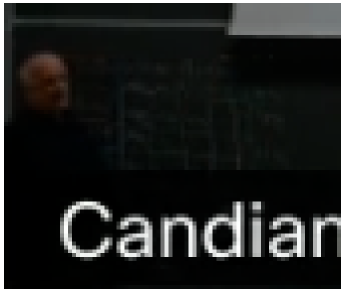
2.Demand forecasting



conjoint analysis for demand forecast:

5 brands
5 characteristics

and price and let them choose



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How to set the price?

3.Cost analysis

At first it is necessary to cover COGS → cost estimation

Methods

- Job Order Costing
- Process Costing
- Operation Costing
- Activity Based Costing
- etc.

Then, also other costs must be covered
(administration, marketing, sales, etc.)

Marginality Estimate

Price decrease in %	Contribution Margin 70%	50%	30%	10%
1	*1.45*	*2.04*	*3.45*	*11.1*
5	*7.70*	*11.1*	*20.0*	*100.0*
10	*16.67*	*25.0*	*50.0*	*--*
20	*40.0*	*66.67*	*200.0*	*--*

Increase on sale to keep the same margin in value

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How to set the price?

4. Analysis of competitors’ behavior

- Generally every product has a limited market price range set by competition
- If our product is distinctive, we can obtain a **premium price**

How to set the price?

5.Selecting the pricing method

A framework of reference (3 C model)

Excessively high price: no demand

ceiling price

costs

competitor's price

Excessively low price: no profits

Pricing policy

How to set the price?

5. Selecting the pricing method

Which methods

- traditional
  - markup pricing
  - break even pricing
  - target return pricing
  - perceived value pricing
  - going-rate pricing

- innovative
  - real-time pricing

Pricing policy

Traditional methods

- markup pricing with multiplier
- break even pricing OLD
- target return pricing

→ Cost-based pricing

- perceived value pricing perceived value in mind of customer

→ Customer-based pricing

- going-rate pricing

→ Competitor-based pricing

Cost-plus/markup

Price = product cost + mark-up (fixed)

$$\text{Price} = \left(\text{variable costs} + \frac{\text{Fixed costs}}{\text{Quantity}}\right) \times \left(1 + \frac{\text{Mark-up \%}}{100}\right)$$

- Easy to understand

- Need to estimate product costs (not so easy, in reality)
- No impact of demand elasticity
- No impact of the product lifecycle

Limit of cost approach

- Several methods to detect the costs that lead to different costs and relative prices (accounting technique affects the price)
- There is no comparison with the market (competitors and consumers)
- Pricing responsibilities for corporate/operation functions " distant " from the market reality
- Particularly negative in the definition of the price of a product line , not justified by the market possible differences
- Particularly negative if different factories with different cost base

Advantage of cost approach

- Relatively easy to do
- Responding " quickly " to the needs of financial / strategic objectives
- It does not require a structure and / or people " dedicated full time " on these issues

Going rate pricing

Pricing is fixed analyzing competitors (often market leaders)

- Easy and widely adopted

- In industrial market competitors' price is hard to know (negotiation, unreal catalogues, etc.)
- Needs a deep analysis not to lose important opportunities

Going rate pricing

Limits

- It requires a market analysis capabilities
- It requires a function and / or people dedicated to this theme
- It requires a budget
- Difficult to have all the data
- A price based than the competitors can not cover costs
- If the competitor wrong price policy we risk it wrong we

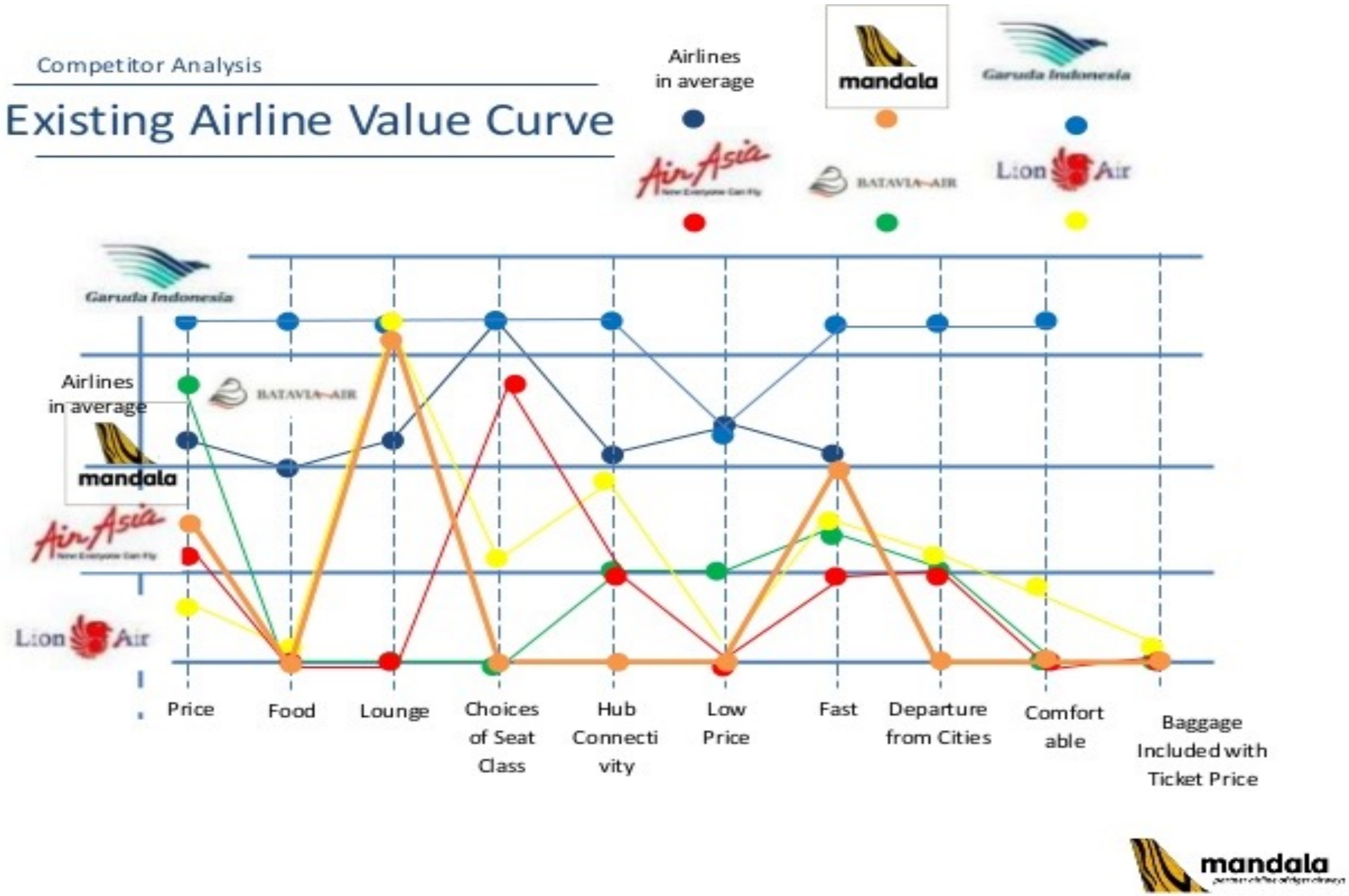
Advantages

- Market understanding
- The activities carried out for the pricing were held together with those of the analysis of competition on the whole mix mktg
- Can increase contribution margins
- The positioning is " wanted " by the company, also with long-term impact

Value based pricing

- Effective, customer-oriented pricing involves understanding how much value consumers place on the benefits they receive from the product and setting a price that captures that value.

- Use buyer's perception of value rather than the seller's cost to set price
- Measuring perceived value can be difficult
- Customer attitude toward price and quality have shifted during the last year
- Consider the lifetime value of the client
- Without understanding the real VALUE of the project for the customer, you will likely only scope the "traditional" way.


Competitor Analysis
Existing Airline Value Curve
Airlines in average
mandala
Garuda Indonesia
AirAsia
Batavia Air
Lion Air
Airlines in average
Price
Food
Lounge
Choices of Seat Class
Hub Connectivity
Low Price
Fast
Departure from Cities
Comfortable
Baggage Included with Ticket Price

Value based pricing - Limits

- It requires a market analysis skills (knowledge of techniques and listening skills)
- It requires a function and / or people dedicated to this theme
- It requires a " budget " of more ' or less significant spending on " market research "
- Difficult to have all the data needed
- A customer-oriented price can not cover costs
- Follow the customer in the various demands can lead to too much tactical attitude and can make you lose significant margins

Pricing policy

Innovative methods

- dynamic pricing
- auctions   Ebay - English Auction / Dutch
- group pricing
- yield management (in the next chapter)
  revenue management

Dynamic pricing

Every transaction has ideally a different price

- eCost.com fixes price at the lowest competitors' price in that moment
- Example: Amazon Price's Policies

Note: it can generate the perception of being discriminated

Auctions

The price is not decided a priori but is discovered through the process of competitive and open bidding. Internet has transformed auctions: now products may be offered for bidding by anyone from anywhere and at any time, e.g. eBay.com

Group pricing

Group pricing

Exploits quantity discount by grouping buyers

e.g. student discounts

Pricing introduction in the market

Pricing

Price along the product lifecycle

Introduction is crucial

Two strategies

- Skimming pricing
- Penetration pricing

Pricing

Skimming pricing

1.High entry price
Objective: acquiring segments low in elasticity (thus higher in value)

2.Successive reduction
Objective: enlarging customer base in time

- **Bad** when customer segments are unclear
- **Good** when there are entry barriers (e.g. patents)

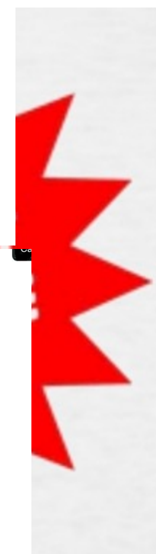
Pricing

Penetration pricing

Low entry price
Objective: acquiring the highest market share asap to accomplish economies of scale and scope

Suited for

- Products without defects at the launch
- Rapid adoption by customers
- Enough capability to meet demand
- Efficient distribution channels
- High potential demand



6. Price decision

Several factors involved, such as:

- Psychological factors (price-quality schema)
- Product life cycle
- List price e discounts
- Line product price
- Price and channels
- Pocket price
- Pay per use
- Component included in the price
- Inflaction
- ..and
- Company’s pricing policies
- Possible customer reactions

Psychological factors influence price perceptions!

Decoy effect

You visit a car lot to consider two cars, one listed for $30,000 and the other for $40,000.

At first, the $40,000 car seems expensive, so the salesman shows you a $65,000 car.

Suddenly, the $40,000 car seems reasonable by comparison.

The decoy effect is the $65,000 car that the salesman knows you won’t buy.

The bias occurs when someone believes they have two options, but you present a third option to make the second one feel more palatable.

Anchoring effect

Anchoring effect is the tendency we have to fixate on a value or number that in turn gets compared to everything else.

Individuals tend to see (and value) the difference in price, but not the overall price itself. This is why some restaurant menus feature very expensive entrees, while also including more (apparently) reasonably priced ones.

3. Yield Management or Revenue management

Yield Management

It is a particular pricing strategy, commonly applied in tourism services such as airline and hotel, but also other service industries such as gym, energy, telecommunication, TV advertising, and so on.

Based on understanding, anticipating and influencing consumer behavior, Yield Management use variable pricing strategy to maximize revenue or profits from a **fixed**, **time-limited resource**.

Why Yield Management

- High fixed cost structure
- Relatively fixed capacity
- Perishable inventory
- Variable and uncertain demand
- Varying customer price sensitivity

Example of application

An airline has to own at least one aircraft. An A320 costs around $100 million.

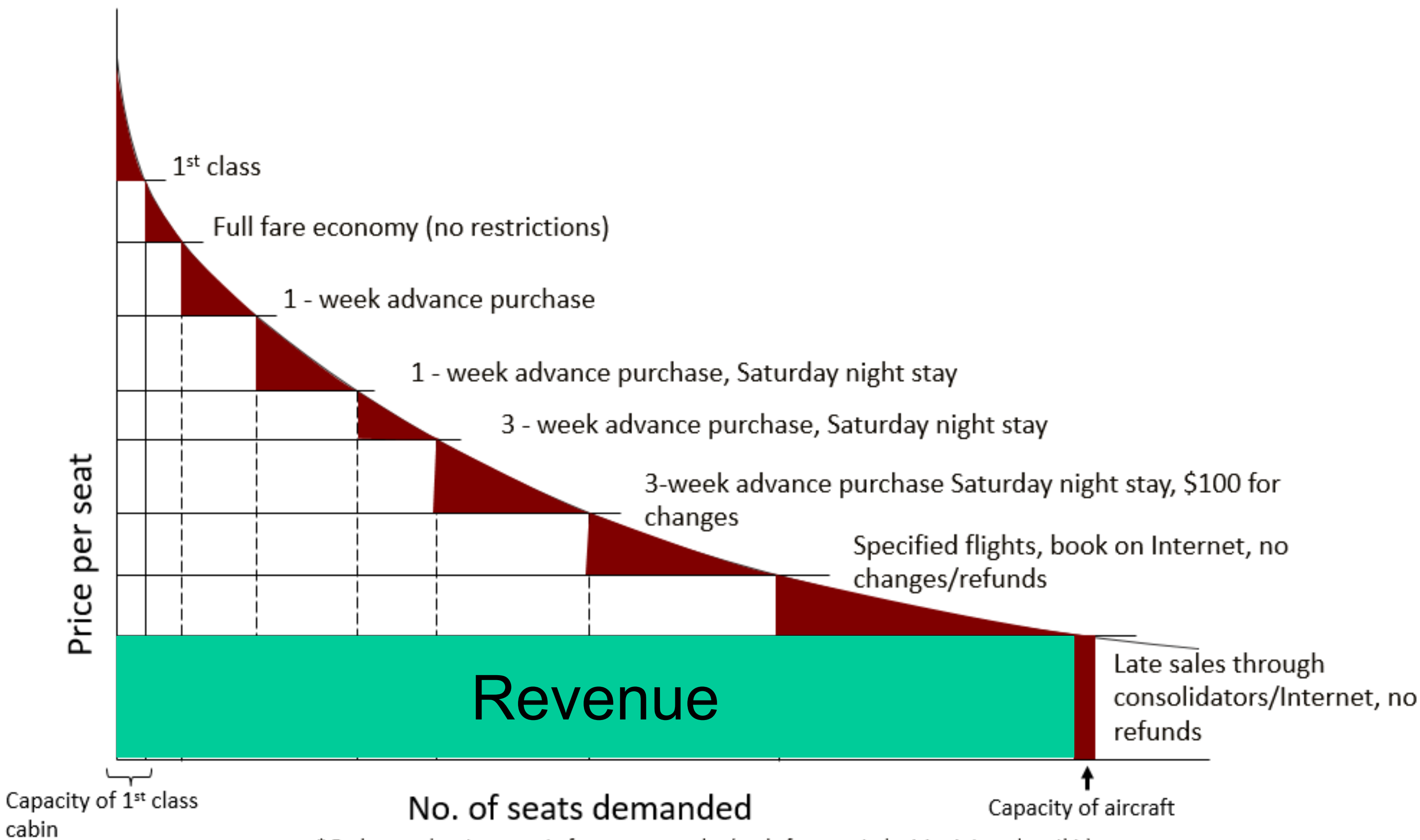
No additional seats could be installed upon demand, nor passengers could be standing in the cabin.

However, the empty seats during a flight could not be sold for the next flight.

The airline could never be sure they will have exactly the number of passengers to fill all seats.

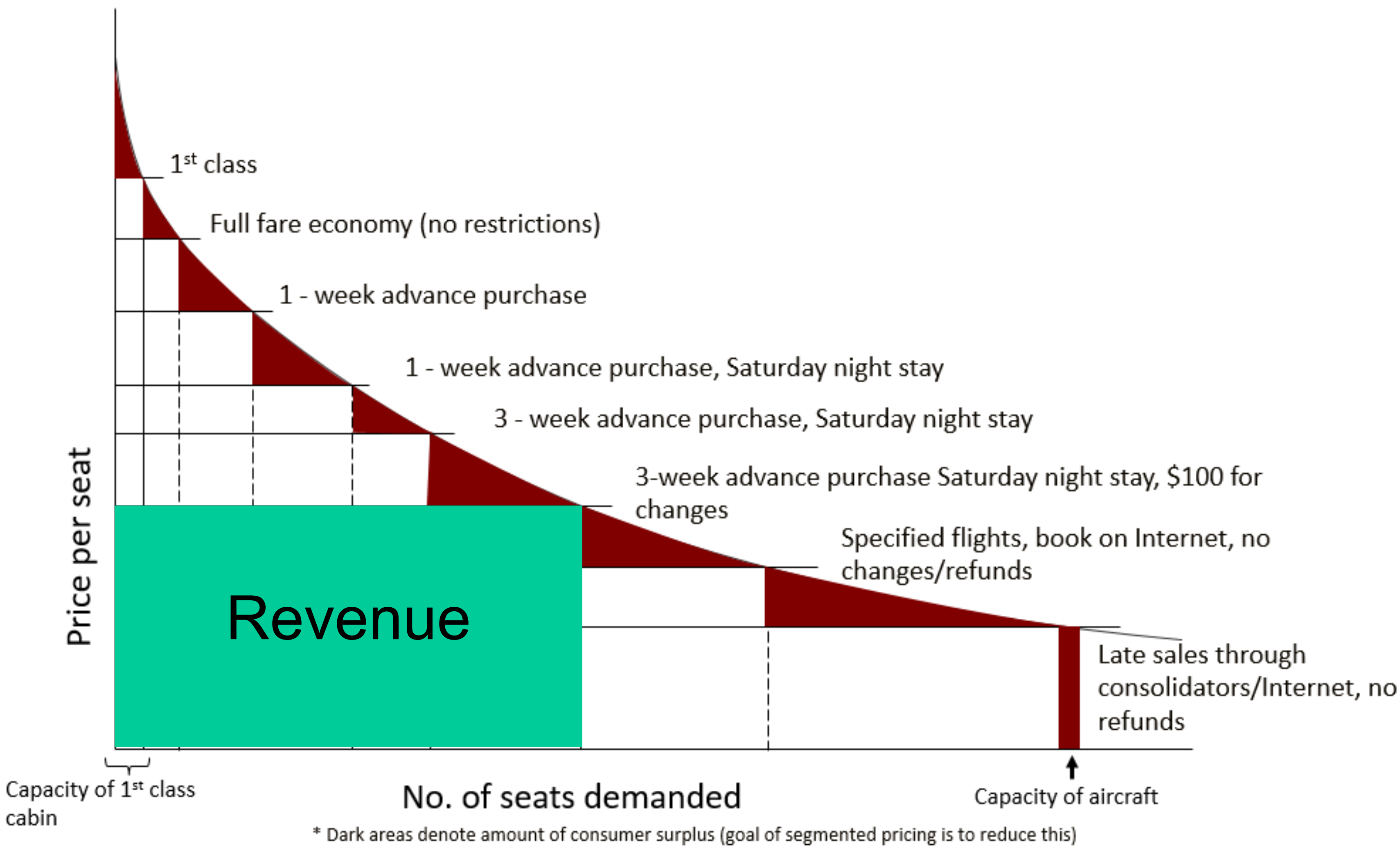
Finally, one who travels for business need to go regardless of the price; one who travels for leisure may opt for another destination or time if the price is out of their range.

The Concept of Yield Management



* Dark areas denote amount of consumer surplus (goal of segmented pricing is to reduce this)

The Concept of Yield Management



The Concepts of Yield Management

The concept of YM, is not about “how to improve productivity”, or “how to sell more”, but “how to create more revenue and profit based on the current resource and market condition”

The result of YM is not only the price, but:

which product, for which market segment, during which period of time, at what price

The Concept of Yield Management

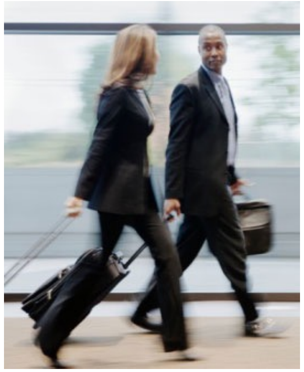
Will customers accept the same product at different price?

In fact, the market always does (as demonstrated by the demand curve). YM extends the application of this basic market principle.

However, the difference in price should always be justified by certain relevant factors, for example, time, place, condition of service, etc.

Customers in Yield Management

Yield Management applies in the industries where the customers need the same service, but have different expectations from this service and different motivations in using this service.



Inter-continental flights

Business travelers:

- Minimize waste of time: priority boarding, more hand luggage
- Comfort in cabin so that it’s possible to get rest during the flight
- Possibility to work and stay connected during the travel
- Flexibility to change in case of their schedule change
- …

The Concepts of Yield Management

The key factors which determine price difference include:

Physical factors (product-related factors), for example:

Basic product

- Travel class on a flight
- Size, furnishing, and location of a hotel room
- Seat location in a theater

Amenities

- Free breakfast at hotel
- Spa access

Service level

- Increase luggage allowance
- Priority waiting list

sub group of dynamic
when
limited capacity
high fix cost

The Concepts of Yield Management

The key factors which determine price difference include:

Transaction factors, for example:

Time of purchase/booking

- Advance booking vs. last minute

Location of purchase/booking

- Booking the same flight from different countries may differ in price

Terms and conditions

- Free reservation vs. paid in advance
- Free cancellation vs. nonrefundable

The Concepts of Yield Management

The key factors which determine price difference include:

Consumption factors, for example:

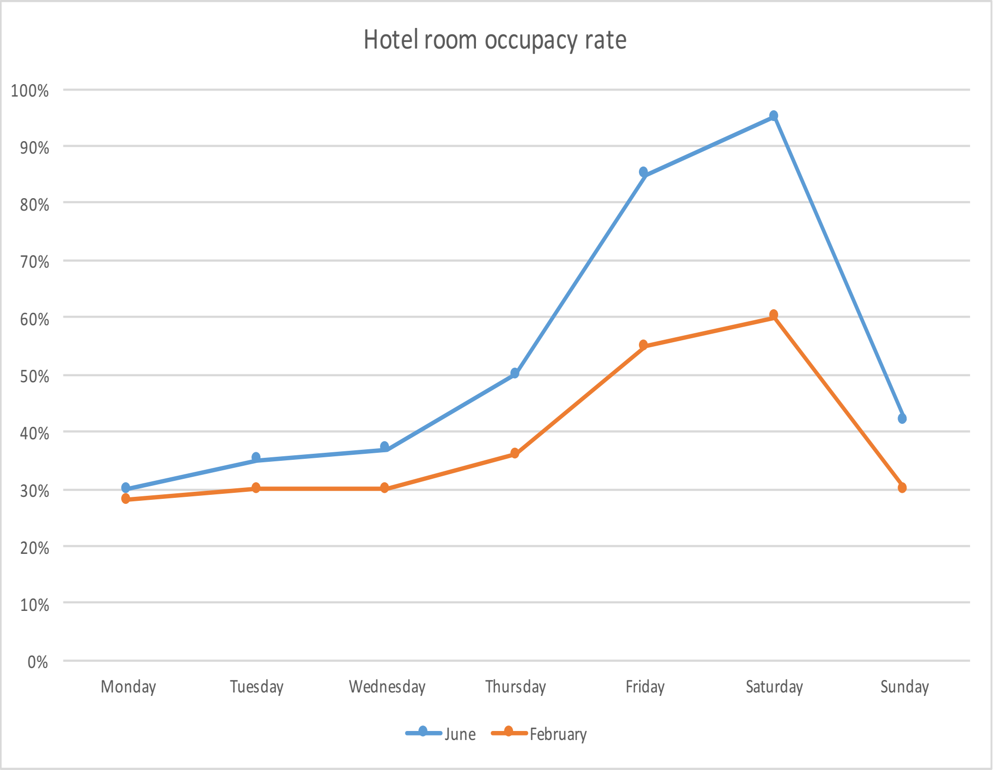
Time of consumption

- Happy hours/”Aperitivo”
- Nights of working days vs. weekends in hotel
- Minimum duration of stay

Location of consumption

- Pick-up and drop-off locations of rented car
- One-way vs. return vs. multi-destination flights

Historical data – statistics, demand and trends



Although you can never be 100% certain, patterns from historical data can be useful in forecasting the future. For example:

- Rises and falls of booking by day of week
- Rises and falls by season of year
- Probability of no-shows
- Unexpected events
- …

Many data could be broken down to more detailed levels:

- Type of room
- Length of stay
- How far in advance does the customer book
- …

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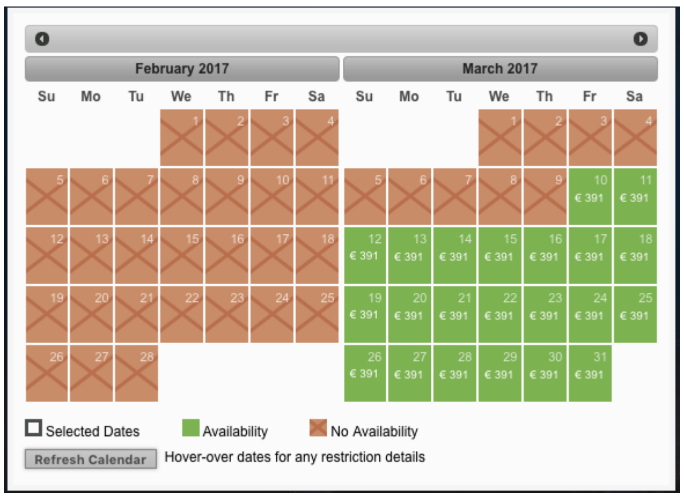
Overall strategy



Some strategic decisions have to made in order to provide input to the mathematical optimization. For example:

- What is the minimum price that is consistent with the image of the service?
- During low season, it is more convenient to offer the service at low rate or to temporarily close?
- How the market and our offerings could be segmented?
- …

- Which approach (cost, competition, strategy, customer perception)?
- What is the cost of providing service (floor price)? What is the highest price that customers are willing to pay (ceiling price)?
- …

Challenges of Yield Management

- Loss of competitive focus – when pricing becomes a mathematical exercise
- Customer alienation – customers may perceive price difference unfair
- Unethical practices – for example, purposely withholding capacity to last minute
- Overbooking – when estimation of demand is not accurate or information system fails
- Requirement of centralized information system – centralized information system needs to be synchronized in real time to ensure proper management

Price discrimination

Innovative pricing methods allow price discrimination.

This make it possible to capture the market’s consumer surplus, by setting the maximum price a specific consumer or consumer segment will pay. This allow to generate the most revenue possible for a product or service.

Price discrimination- industry examples

Example 1: **Airlines** alters fares based on factors such as time of day (unsocial hours), day of the week, peak seasons, period of purchase, time of buying a ticket.

Example 2: The **pharmaceutical industry** experiences international price discrimination. Drug manufacturers charge more for drugs in wealthier countries than in poor ones. e.g. United States has the highest drug prices in the world.

Price discrimination- companies examples

Example1: Visitors to **Home Depot**’s website: the retailer charges higher or lower prices based on each individual visitor’s zip code. Home Depot bases its virtual prices on the shopper’s nearest brick-and-mortar store.

Example 2: **Dell.com** discriminated price based on the customers profile according if they were home users, small businesses, or other categories. The prices for the same products varied according to the category you declared.

Example 3: **Orbitz** has been showing higher hotel prices to Mac users since at least 2012. Same-day booking app **HotelTonight** show discounted rates to users based on their location.

Source: Forbes, November 17th, 2017