Hotel Revenue Management and Inventory Optimization to Maximize Profitability
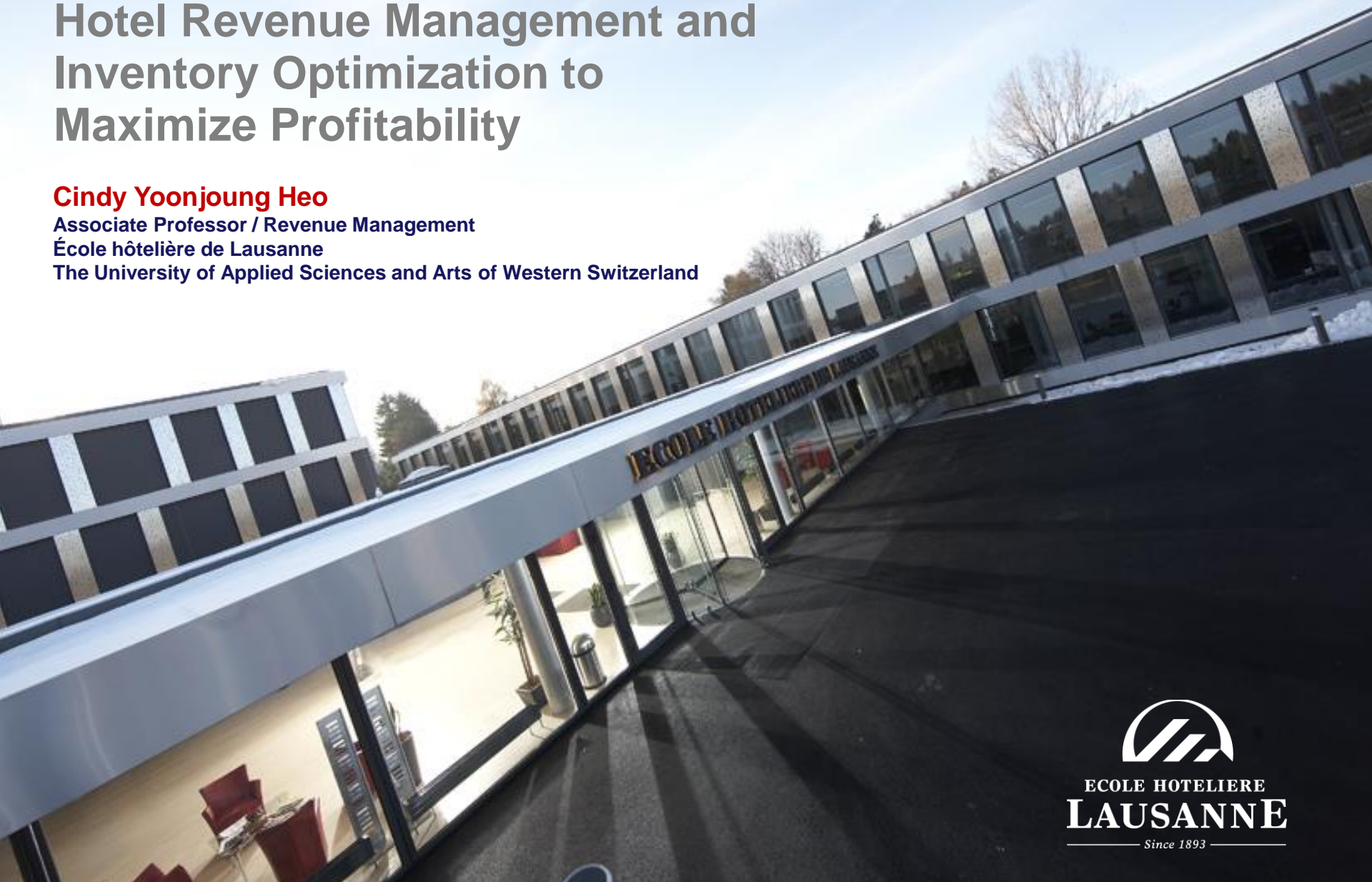
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ECOLE HOTELIERE LAUSANNE
— Since 1893 —

THINK OUTSIDE OF THE BOX

RM for non-traditional sectors

- RM for Theme parks

- RM for Theaters

- RM for Tourism Destinations

- RM for Rental Cars

- RM for Restaurants

Where does RM work?

For a company that

- operates with a relatively fixed capacity,
- has multiple and clear market segments,
- has perishable inventory,
- can sell products well in advance (predictable demand),
- has high demand fluctuations,
- has high fixed costs and has low variable costs.

Traditional RM Industry	Airline, Hotel
Non-traditional RM Industry	Restaurant, Golf Club, Cruise, Casino, Resort, Hospital, Rental Car, Health care, Theme Park, Theater, Gallery, Internet Service, etc

Typology of RM Industry

Industry Examples	Traditional RM Industries	Non-traditional RM Industries	
	Hotels, Airlines	Restaurants, Golf Clubs	Theme Parks, Tourism Attractions
Service Capacity	Fixed	Relatively *Fixed*	Relatively *Flexible*
Service Duration	Fixed (Predictable)	Variable (Unpredictable)	Variable (Unpredictable)
Physical Constraint	Very Constraint	Constricted but Flexible	Not constricted and Flexible

Adopted from Heo (2012) Restaurant Revenue Management in *Revenue Management for Hospitality and Tourism*

5

Revenue Management for Theme Parks?

May 5th - - - - - - - - ➔

May 4th - - - - - - - - ➔

5월4일 vs 5월5일...어린이날 사진은?

2015년 5월 4일 오전 경기도 용인시 에버랜드를 찾은 시민들이 입장권을 구매하기 위해 줄을 길게 서 있다.(사진 위) 같은해 5월5일 에버랜드 매표소 모습.(사진 아래)/사진=뉴스1

Samsung Everland in Korea
(Children's day, 5th of May)

Theme Park Revenue Management

Characteristics	Ideal Applications of RM	Theme park	Degree of common feature
Perishable Inventory	- Inventory is perishable	- Inventory is perishable	Similar
Cost Structure	- Low cost of marginal sales in comparison to marginal revenues - High fixed cost	- Low cost of marginal sales in comparison to marginal revenues - High fixed cost	
Demand	- Variation in demand is significant - Demand is somewhat predictable	- Variation in demand is significant - Demand is somewhat predictable	
Segmentable Market	- Market is capable of being segmented - Significant differences in price elasticity by market segment	- Market is cable of being segmented - Differences in price elasticity by market segment	
Capacity Limit	- Capacity is fixed - Service providers have excess capacity at certain times and excess demand at other times	- Capacity is relatively flexible - Theme parks have excess capacity during low-demand seasons and excess demand at high-demand	
Reservations made in advance	- Service is reserved by customers in different time periods - Uncertainty of actual usage despite reservations creates possibility of unsold seats	- Small percentage of or no reservations are made in advance	Different

Adopted from Heo (2009) Application of revenue management practices to the theme park industry

hotelleriesuisse Swiss Hotel Association   NL EA S C   Hes·so Haute Ecole Spécialisée de Suisse occidentale University of Applied Sciences Western Switzerland

Theme Park Revenue Management

	Current Practice	Suggested Practice
Capacity Control	- Queue management in parks - No capacity limit	- Control Demand with variable price - Limit number of attendees during high-demand seasons and/or times
Pricing Policy	- Flat admission rate all though the year. - Discount for specific target - Seasonal pricing promotion	- Time-based pricing policy (Pre-fixed) - Demand-based dynamic pricing strategy (Variable)
Reservation System	- Presale of admission tickets through online resources	- Operate online reservation system connected with revenue management system

Adopted from Heo (2009) Application of revenue management practices to the theme park industry

Application of revenue management practices to the theme park industry

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ARTICLE INFO

ABSTRACT

Revenue management (RM) has been an essential strategy to maximize revenue for many capacity-limited service industries. Considering the common industry characteristics of traditional RM industries, the nature of the theme park industry suggests potential for enhancing revenue by exercising a variety of RM techniques. This study suggests practices for theme park operators for successful RM application. In addition, this study examines how customers perceive RM practice in the theme park industry compared to a traditional RM industry, hotel industry. The findings indicate that customers seem to perceive RM practice in the theme park industry as relatively fair practices as similarly perceived for the hotel industry. The findings are encouraging for the theme park industry because a relatively similar level of its customers' perceived fairness of the RM practice compared to the hotel industry suggests that adoption and implementation of the RM practice has great potential to become successful as it has been in traditional RM industries, such as hotels.

Revenue Management for Theaters?

Revenue Management for Tourism Destination Management?

Samsung Everland in Korea
(Children's day, 5th of May)

Overtourism?

Trentino Guest Card

# Revenue Management for Rental Cars?

Restaurant Revenue Management?

Menu Engineering

- Menu engineering is a structured approach to build and monitoring a menu
- Two Key Measures
  : Contribution and Popularity of each menu item
- Contribution is the amount of money we make from a menu item
  = Menu price – food cost
- Popularity is the number of a menu item sold in a give period as compared to other menu items.

- Stars: extremely popular and have a high contribution margin.
  Ideally Stars should be your flagship or signature menu items.
- Plow Horse or Cash Cows: high in popularity but low in contribution margin.
  Plow horse menu items sell well, but don't significantly increase revenue.
- Puzzles: generally low in popularity and high in contribution margin.
  Puzzle dishes are difficult to sell but have a high profit margin.
- Dogs: low in popularity and low in contribution margin.
  They are difficult to sell and produce little profit when they do sell.

Menu Engineering Matrix
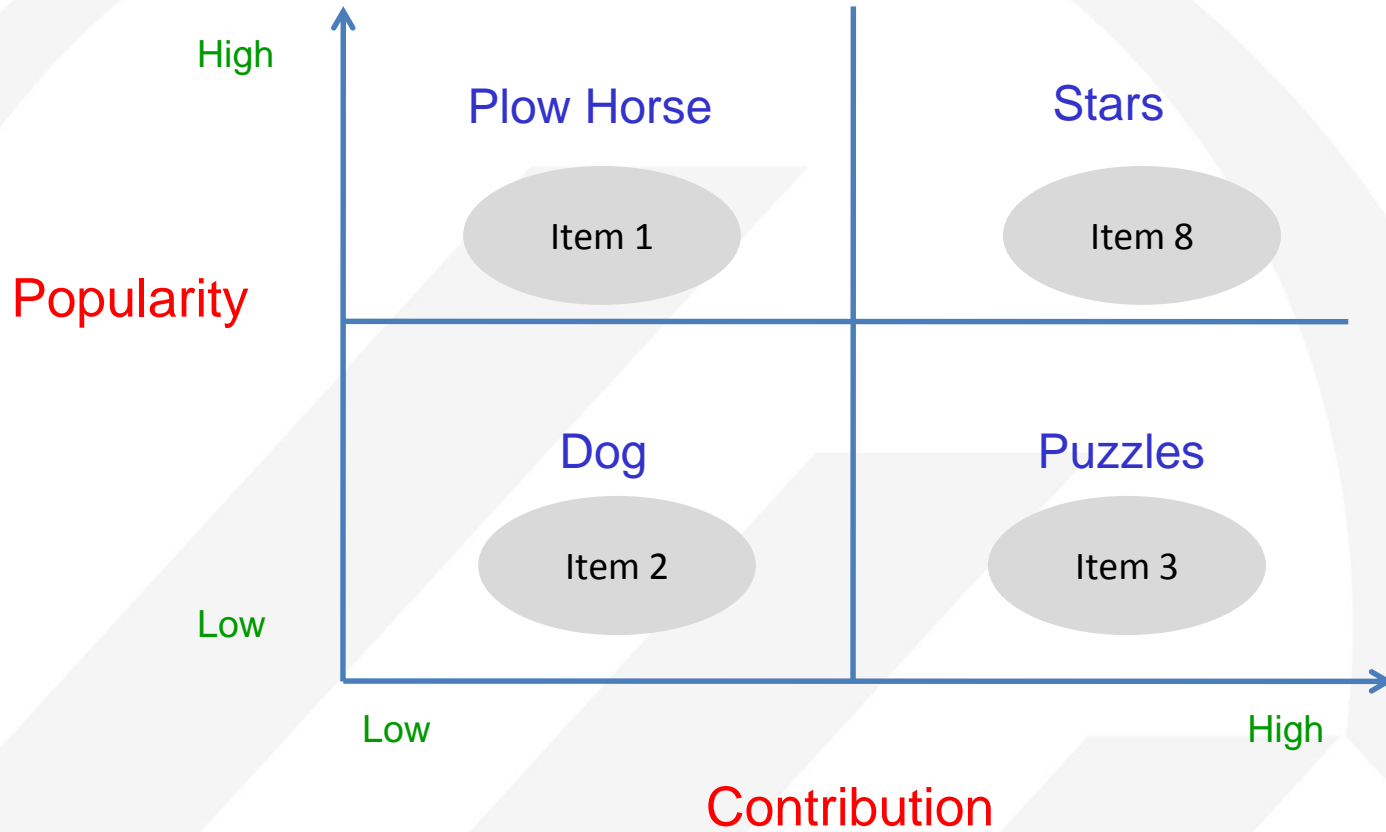
Restaurant Revenue Management

- Relatively fixed capacity

  - More flexible than traditional RM industries

- Predictable demand

  - Reservations VS. Walk-ins

  - Less predictable demand

- Perishable inventory

  - RevPASH: Revenue Per Avaliable Seat Hour

- Appropriate cost and pricing structure

  - Relatively low variable and high fixed cost

  - Pricing flexibility during low-demand times)

- Time-variable demand

CAN'T YOU SQUEEZE ME IN?

SCOTTIE

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WAIT HERE TO BE SEATED

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"Khan - reservation for a horde."

RevPASH (Revenue Per Available Seat Hour)

Kimes, et al. (1998)

- Revenue accrued in a given time interval divided by the number of seats available during that time. It takes into account perishable products of a seat and restaurant operating hours.

  - RevPASH = Total Revenue / No. Available Seats / Hours open

    or = Capacity Use * Average Check

- RevPASH indicates *the rate at which capacity utilization generates revenue*, and it increases as the number of table turns increases and the length of a meal's seating duration decreases.

RevPAR and RevPASH Commonalities

Industry	Capacity Utilization Measure	Sales per Unit Measure	Formula Variation
Lodging	Occupancy %	Average daily rate (ADR)	Occupancy % × ADR = RevPAR
Foodservice	Seat utilization %	Check average	Seat utilization % × Check average = RevPASH

Right Time (& Duration)

■ Restaurant operators typically face an unpredictable duration of customer use, which inhibits their ability to manage revenue.

■ To allow for better RM opportunities, managers must increase control over the length of time customers are occupying their seats.

■ **Restaurants sell time and space in the form of meals of predictable length.**

Managing Demand:

Uncertainty of Arrival

Internal Approach
- Forecasting
- Overbooking

External Approach
- Guaranteed reservations
- Reconfirm reservations
- Service guarantee

Kimes, S. E. (1999)

Managing Demand :

Uncertainty of Duration

Internal Approach

- Menu design
- Process analysis
- Labor scheduling
- Communication systems

External Approach

- Pre-bussing
- Check delivery
- Coffee and desert bar

Kimes, S. E. (1999)

Right **Customer**   Right **Menu**

Reservation and Table Management Systems (OpenTable)

Airbnb Takes Aim At OpenTable With Restaurant Reservations
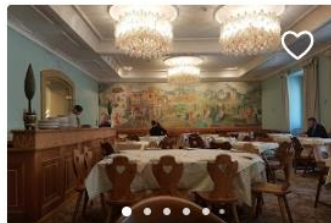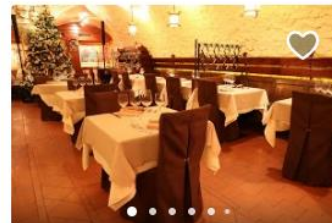
Contents lists available at ScienceDirect

International Journal of Hospitality Management

Discussion paper

New performance indicators for restaurant revenue management: ProPASH and ProPASM

CrossMark

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Profit Per Available Seat Hour

Profit Per Available Square Meter

ABSTRACT

Measuring business performance is the first step of the improvement process but without knowledge there can be no purposeful action. Revenue per Available Seat Hour (RevPASH) is an effective and reliable indicator of a restaurant's performance, however, it may not provide the whole picture of a restaurant's business performance. In restaurants, the contribution margin of each menu item is different and it should be taken into consideration when evaluating restaurants' performance, because the goal of restaurant revenue management is to maximize profit, not just revenue. Although several researchers have explored various issues regarding restaurants' revenue management (RM) strategy, there has been little discussion on how to measure the performance of RM strategies as they apply to restaurants, except RevPASH. Therefore, this study proposes new metrics, ProPASH (Profit per Available Seat Hour) and ProPASM (Profit per Available Square Meter) and discusses how they can be applied to measure the effectiveness of restaurants' RM strategies.

Restaurant **R**evenue **M**anagement is

to provide the right Menu

to the right Customer

at the right Time (& Duration)

for the right Price

by using right Table mix.

2019 REVENUE MANAGEMENT & PRICING IN SERVICES CONFERENCE

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Jan Krasnodebski , Expedia

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