Services and Relationship Marketing

Unit III
Topic: Managing Demand and Supply of Services

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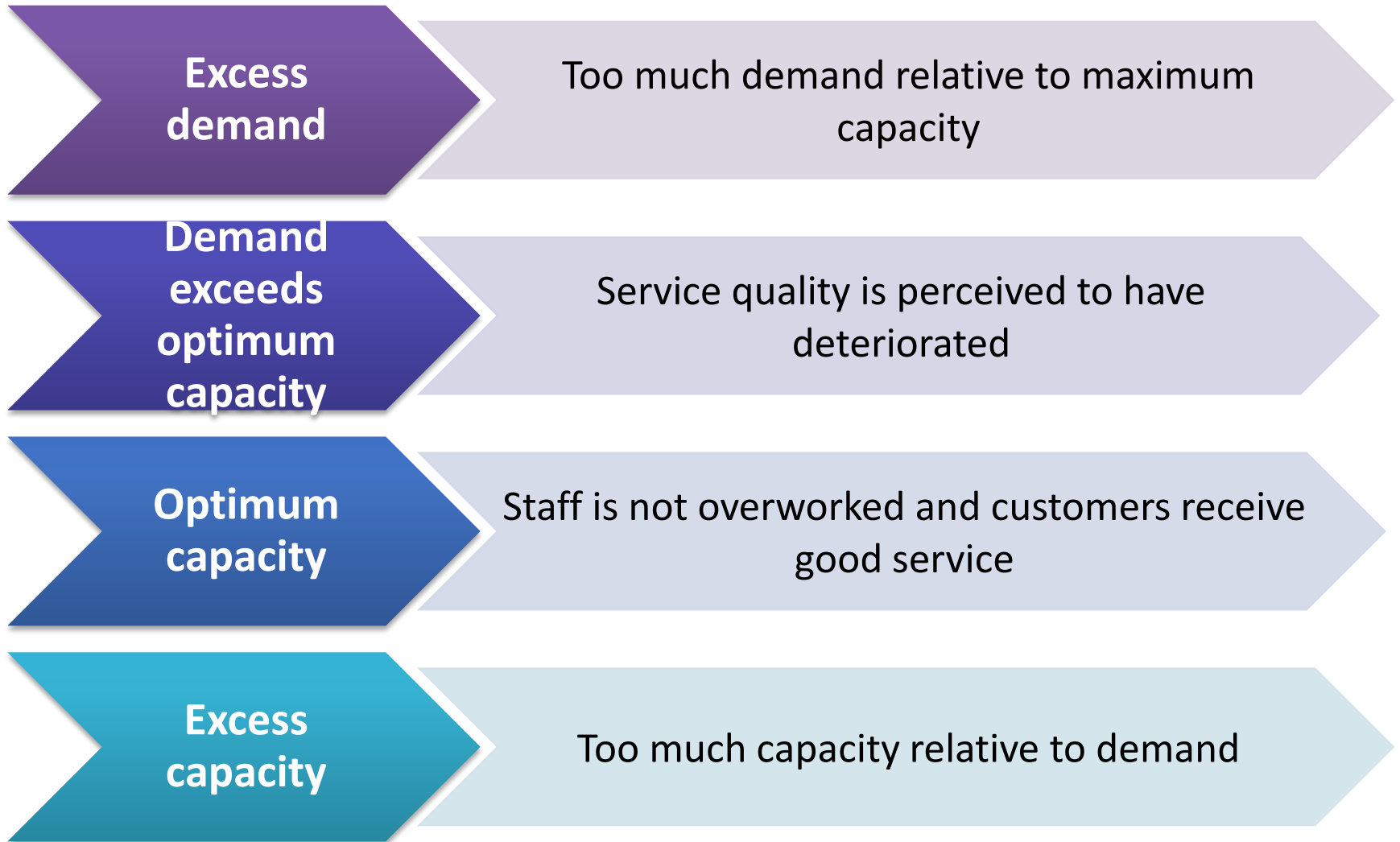University of Lucknow

OBJECTIVES

- To understand the meaning of productive capacity and fluctuations in demand to supply scenario

- To develop knowledge about relationship between fluctuations in demand and productive capacity

- To identify approaches to managing fluctuations in demand

- To learn how to manage capacity

- To comprehend methods of managing demand through waiting lines, queuing and reservations systems

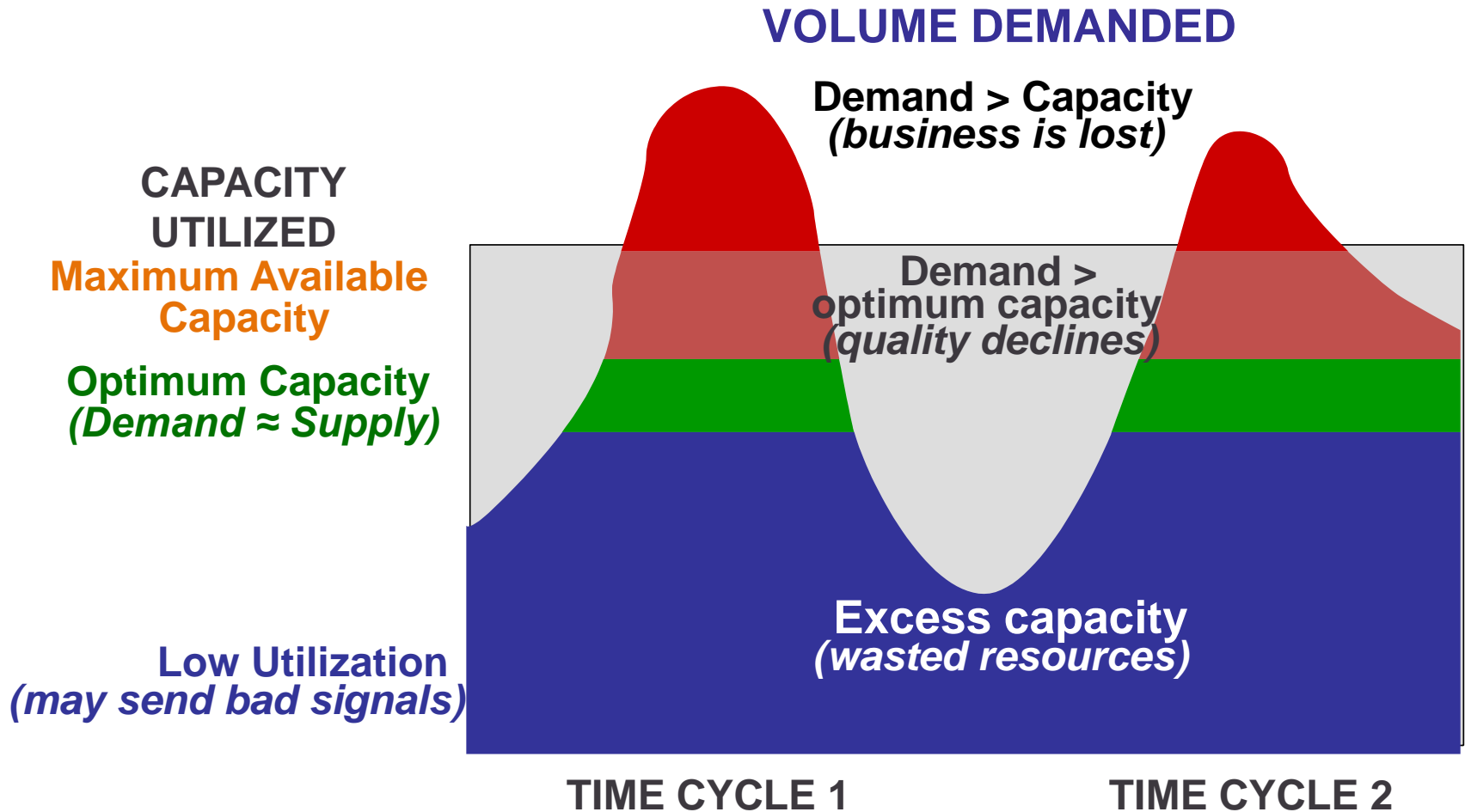- To know the various information needed for managing demand & capacity

What is Productive Capacity in Services?

- Productive capacity in services can be understood in terms of:
  - Physical facilities provided for customers-hotel, aircraft, classroom
  - Physical facilities designed for storing or processing goods-warehouse, parking lot, pipelines
  - Physical equipment used to process people, possessions, or information-bank ATMs, airport security detectors, toll gates
  - Labor-staff
  - Infrastructure-public & private-congested airways/highways

- Financial success in lies in management's ability to use productive capacity as efficiently and profitably as possible.

Relationships between Demand & Capacity

Excess demand	Too much demand relative to maximum capacity
Demand exceeds optimum capacity	Service quality is perceived to have deteriorated
Optimum capacity	Staff is not overworked and customers receive good service
Excess capacity	Too much capacity relative to demand

Variations in Demand Relative to Capacity

VOLUME DEMANDED

Demand > Capacity
(business is lost)

**CAPACITY
UTILIZED**
**Maximum Available
Capacity**

**Demand >
optimum capacity**
(quality declines)

Optimum Capacity
(Demand ≈ Supply)

Excess capacity
(wasted resources)

Low Utilization
(may send bad signals)

TIME CYCLE 1   **TIME CYCLE 2**

Approaches to Fluctuating Demand

Two basic approaches :

- Adjust level of capacity to meet demand

- Manage level of demand
  - Use marketing strategies to ease out demand or create demand to suit available capacity
  - Inventory demand till capacity is created and made available

Managing Capacity

Methods of Managing Capacity

- Stretch and shrink:
  - Offer inferior extra capacity at peaks (e.g., bus/train standees)
  - Use facilities for longer/shorter periods (extend opening hours, evening classes)
  - Reduce amount of time spent in process by minimizing slack time (seat, menu, bill fast)

- Adjust capacity to match demand

  ➜ Rest during low demand-vacation, repair

  ➜ Cross-train employees

  ➜ Use part-time employees

  ➜ Customers to perform self-service

  ➜ Ask customers to share

  ➜ Create flexible capacity

  ➜ Rent/share facilities and equipment

Analyze Patterns of Demand

Analyze Variations in Demand

- Analyze different market segments, reasons for their purchases

- Keep records to analyze demand patterns

- Analyze if weather conditions and other special factors (diseases, accidents, etc.) influence demand
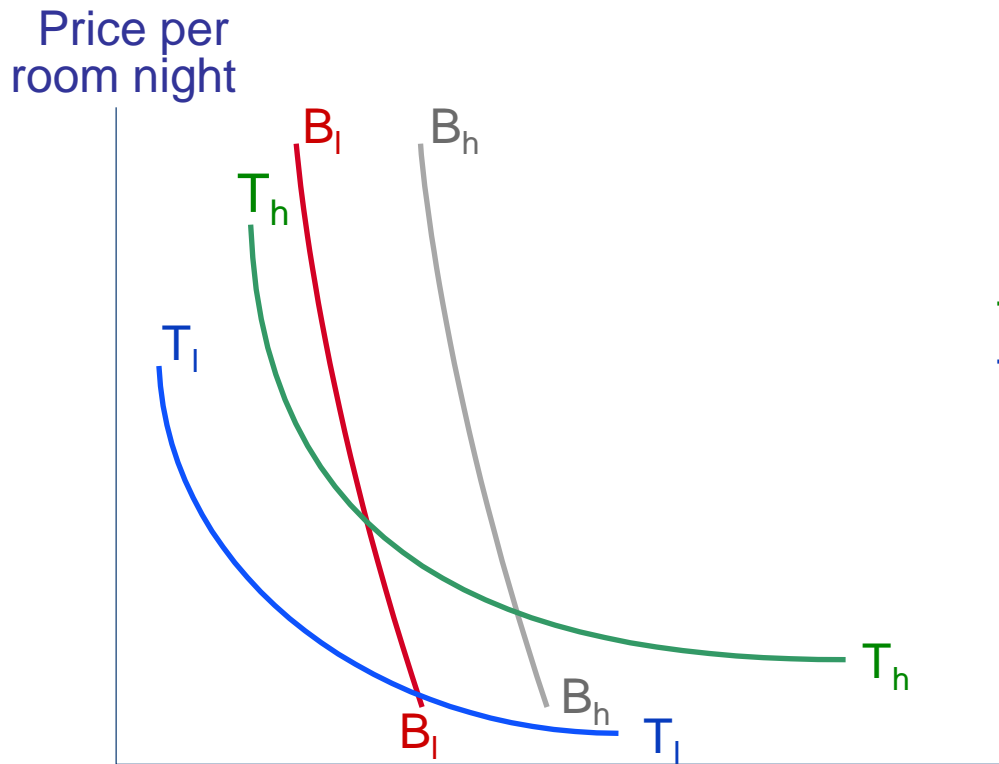
Managing Demand

Managing Demand

- Do nothing
  - Let demand find its own levels

- Intervene
  - Reduce demand in peak periods
  - Increase demand when there is excess capacity

- Inventory demand through
  - Queuing system
  - Reservation system

Marketing Strategies to Influence Demand

- Use price and other nonmonetary costs to manage demand

- Change product elements

- Modify place and time of delivery
  - No change
  - Vary times when service is available
  - Offer service to customers at a new location

- Promotion and Education

Hotel Room Demand Curves by Segment and Season

Price per room night

B_l = business travelers in low season
B_h = business travelers in high season
T_h = tourist in high season
T_l = tourist in low season

B_h = business travelers in high season
B_l = business travelers in low season
T_h = tourist in high season
T_l = tourist in low season

Quantity of rooms demanded at each price by travelers in each segment in each season

Note: hypothetical example

Inventory Demand Through Waiting Lines and Queuing Systems
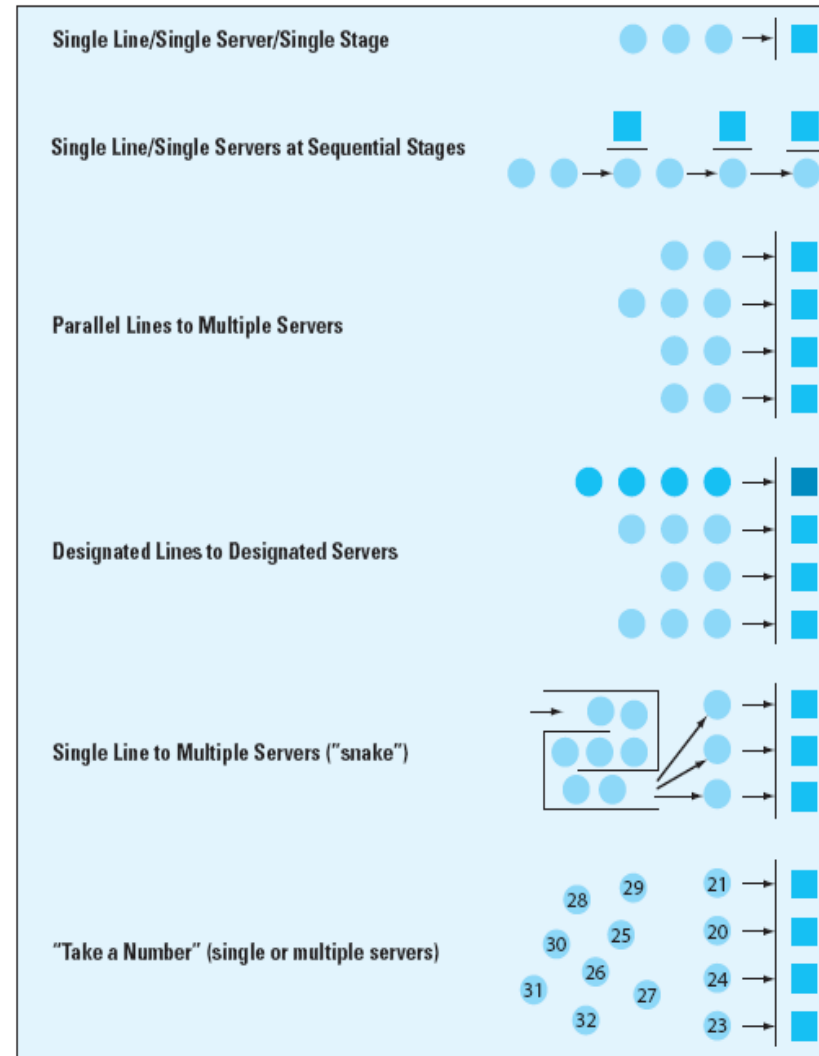
What is Your Waiting Experience?

- Like/Dislike?

- Boring

- Discomfort

- Waste of time

Why Do Waiting Lines Occur?

- When at a particular point of time, the arrivals exceed capacity of a system

- Queues indicate capacity management problems

- Queues can be physical, geographically dispersed or virtual (call waiting)

Managing Waiting Lines

- Rethink design of queuing system

- Install a reservations system

- Tailoring the queuing system to different market segments

- Manage customer behavior and perceptions of wait

- Redesign processes to shorten transaction time

Single Line/Single Server/Single Stage

Single Line/Single Servers at Sequential Stages

Parallel Lines to Multiple Servers

Designated Lines to Designated Servers

Single Line to Multiple Servers ("snake")

"Take a Number" (single or multiple servers)

Managing Queuing Systems

- Different queues depending on urgency of job

- Duration of service transaction can differ

- Charge premium price

- Queuing differs depending on importance of customer (e.g., frequent users)

How do Customers Perceive Waiting Time

Psychology Involved in Waiting

Feels longer than	
Unoccupied time	Occupied time
Solo waits	Group waits
Physically uncomfortable waits	Comfortable waits
Pre- and post-process waits	In-process waits
Unexplained waits	Explained waits
Unfamiliar waits	Known, finite waits
Unfair waits	Fair waits
Anxious waits	Calm waits
Monotonous waits	Valued waits

Sources: Maister; Davis & Heineke; Jones & Peppiatt

Use Reservations System to Inventory Demand

Benefits of Reservations

- Saves customers from waiting in line

- Facilitates in controlling and managing demand

- Pre-sells the service and also customer are prepared

- Facilitates to understand demand patterns and plan operations and staffing levels
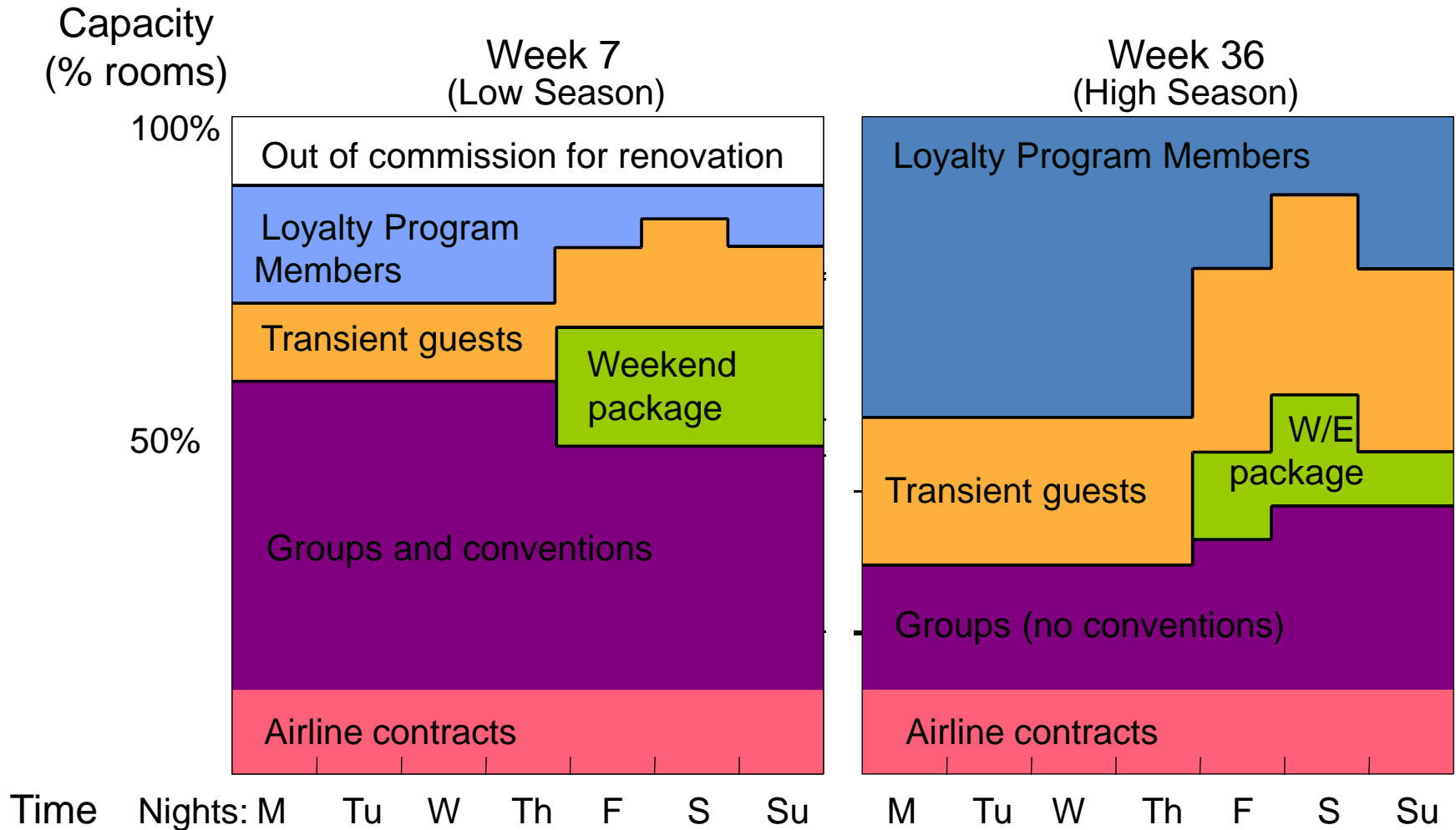
Characteristics of Well-Designed Reservations System

- User-friendly

- Responsive to customer needs

- Provides options for self service (e.g., through an online reservations system)

- Manages preferences (e.g., room with a view)

- Manages demand from unavailable first choices to alternative times and locations

Yield Analysis

- Yield analysis helps managers recognize opportunity cost of allocating capacity to one customer/segment when another segment might yield a higher rate later e.g. airlines

- Good information is a prerequisite
  - Detailed records
  - Current market information
  - Realistic estimate of the chances of obtaining higher demand

- Overbooking to increase yield,
  - Compensate victims of overbooking

Setting Hotel Room Sales Targets by Segment and Time Period

Capacity (% rooms)

Week 7 (Low Season)

Week 36 (High Season)

100%

Out of commission for renovation

Loyalty Program Members

Transient guests

Weekend package

50%

Groups and conventions

Airline contracts

Loyalty Program Members

Transient guests

W/E package

Groups (no conventions)

Airline contracts

Time   Nights: M   Tu   W   Th   F   S   Su   M   Tu   W   Th   F   S   Su

Managing Capacity When Demand is Less

- Utilize capacity for service differentiation

- Give reward best customers and build loyalty

- Customer and channel development

- Give reward to employees

- Barter free capacity

Information Required For Management Strategies

Historical data on demand level and composition, marketing variables	Demand forecasts by segment under specified conditions	Segment-by-segment data
Fixed and variable cost data, profitability of incremental sales	Meaningful location-by-location demand variations	Customer attitudes towards queuing
	Customer opinions of quality at different levels of capacity utilization	

Source: Lovelock et al, Services Marketing, Pearson

THANK YOU