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IDEAS
Revenue Optimization



Demand Forecasting

– the What, How and Why

Facilitated by: Lisa Donald



- **Demand Forecasting**
 - **What** Should we Forecast
 - **How** Should we forecast
 - **Why** is it important

Accurate forecasting is the foundation of successful revenue management.

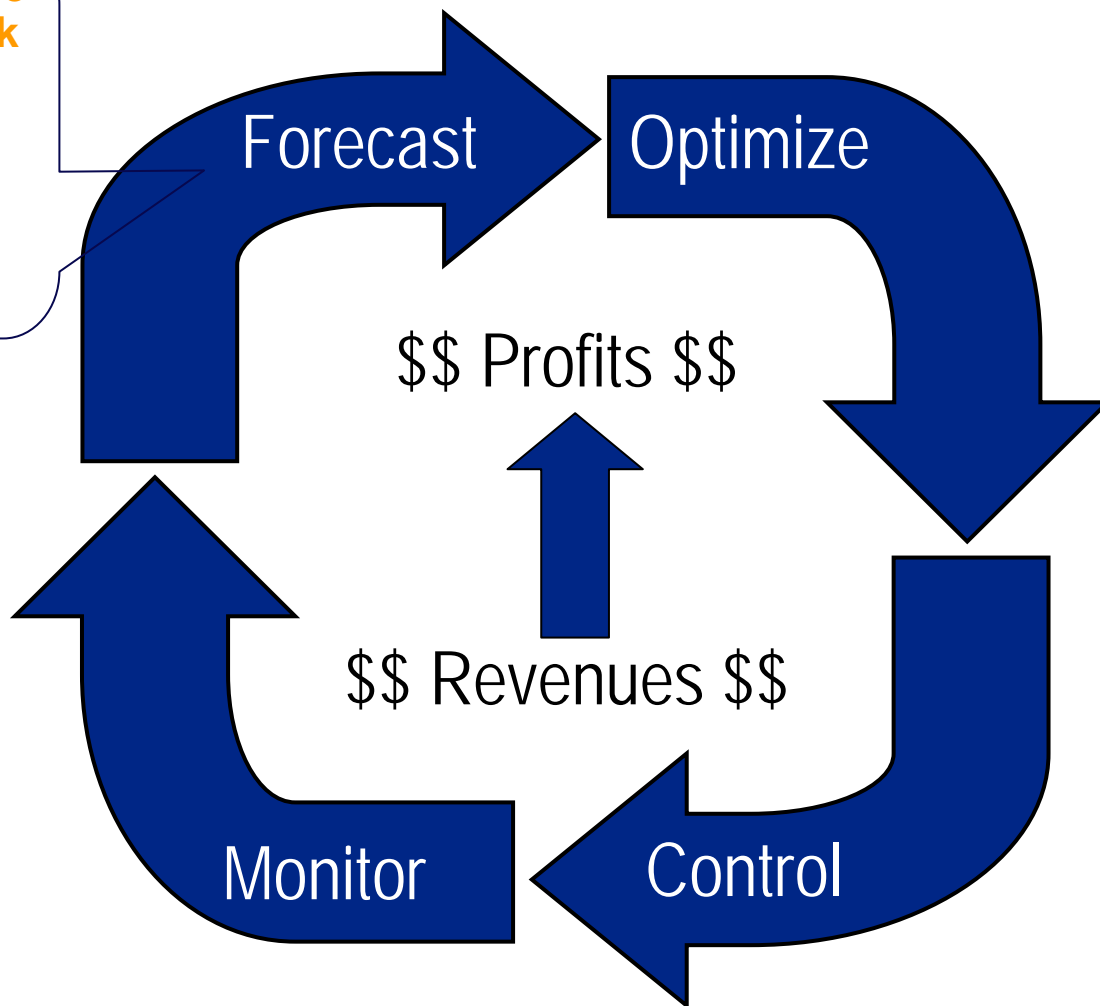


- **IDEaS is a global company, recognized by Hotel Groups World Wide as the number one Hospitality Revenue Management Company**
- **Installations in over 30 Countries**
- **Installations running in Asia Pacific for over 8 years**
- **In September of 2004 the Cairnhill Group entered into a strategic partnership with IDEaS, to distribute IDEaS revenue optimization throughout Asia**
- **Cairnhill has offices in Singapore, Beijing, Shanghai, Hong Kong**



Successful Revenue Management is a Cycle

Today we are
going to talk
about
Step 1



- **What do you currently forecast?**
- **Occupancy Forecast?**
- **Financial Forecast?**



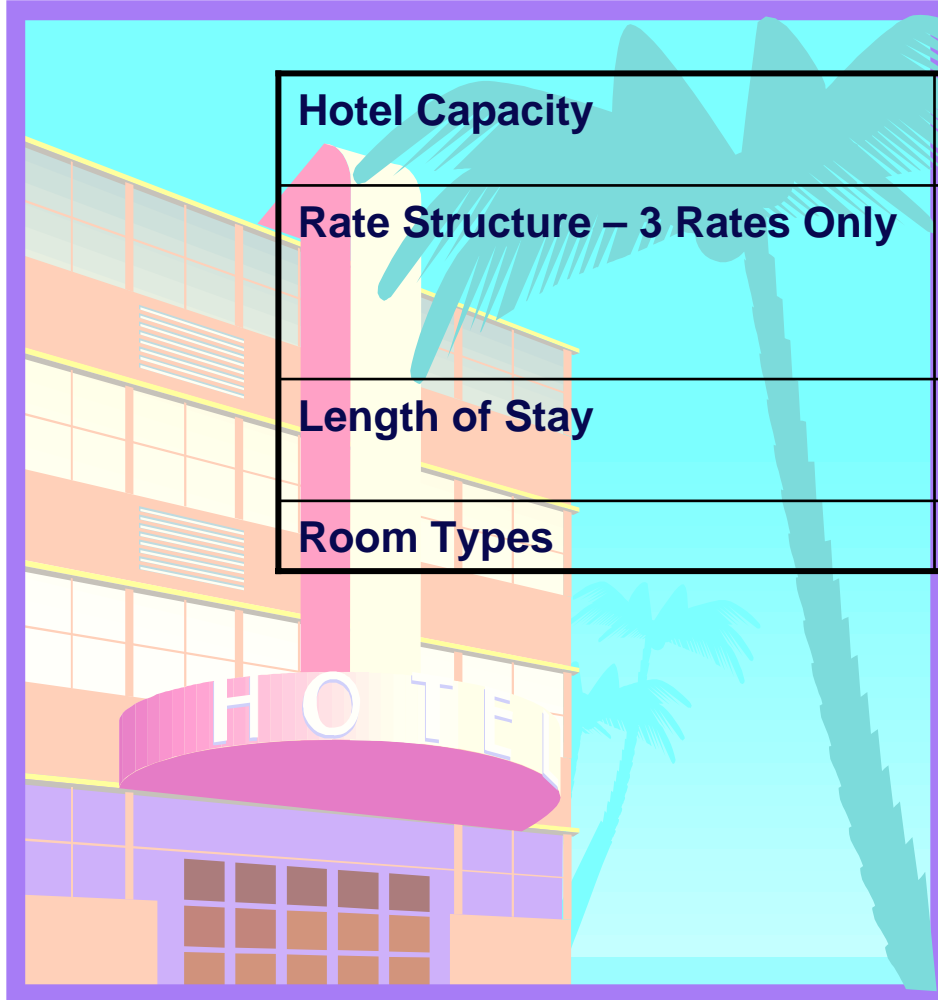
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Let's Play – What If

Hotel Profile



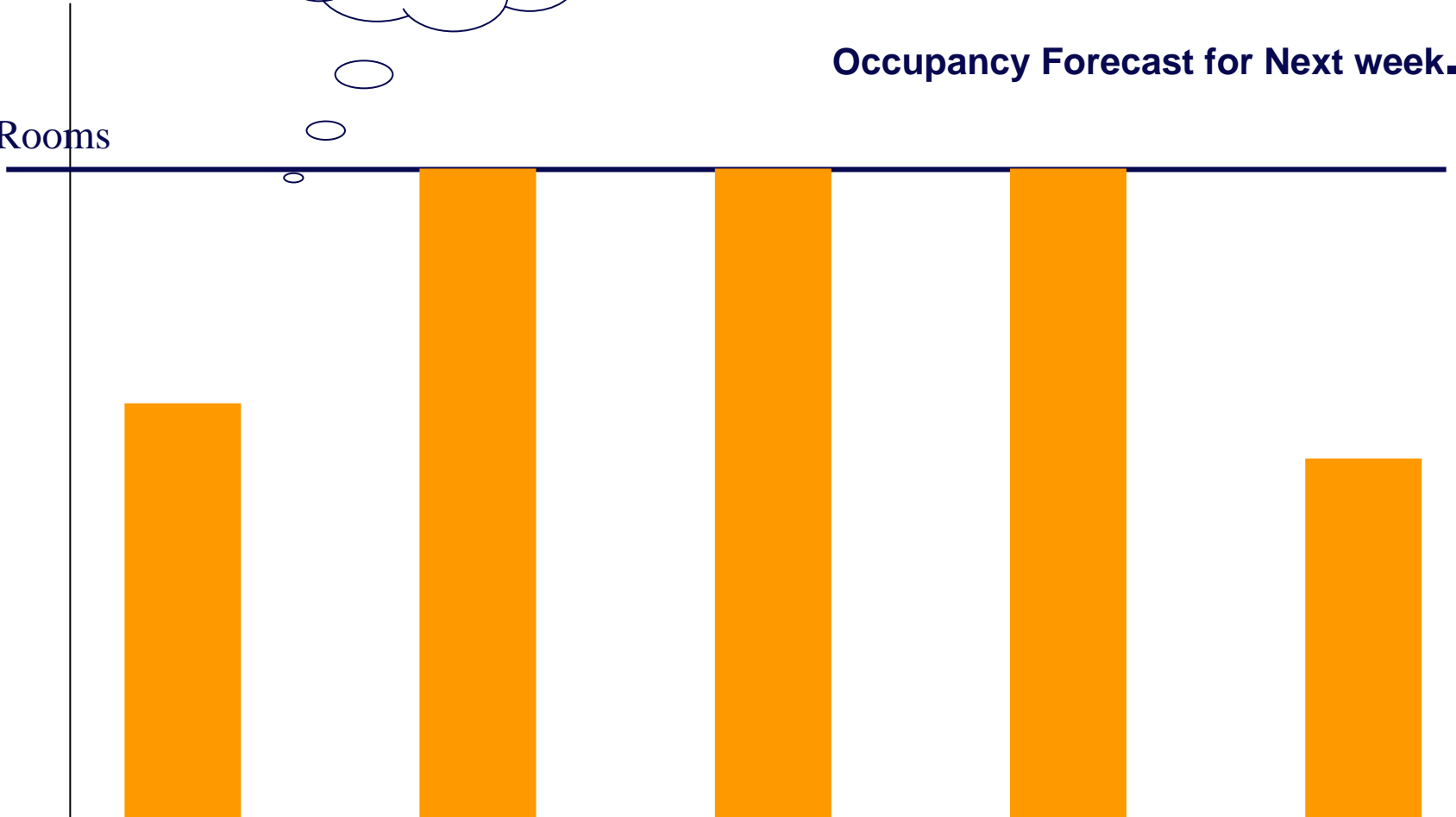
Hotel Capacity	150 Rooms
Rate Structure – 3 Rates Only	Rack Rate = \$100.00 Corporate Rate = \$90.00 Group Rate = \$85.00
Length of Stay	Guests stay only 1 or 2 nights at this hotel
Room Types	One Room Type Only - Standard

Forecast



Occupancy Forecast for Next week.

150 Rooms



MON
82%
123 Rooms

TUE
100%
150 Rooms

WED
100%
150 Rooms

THU
100%
150 Rooms

FRI
75%
105 Rooms

What Rates Should Be Available?

What LOS Controls if any should be in place?

How do we set strategy to make the most money?

How do we revenue manage this week?

150 Rooms

MON
82%
123 Rooms

TUE
100%
150 Rooms

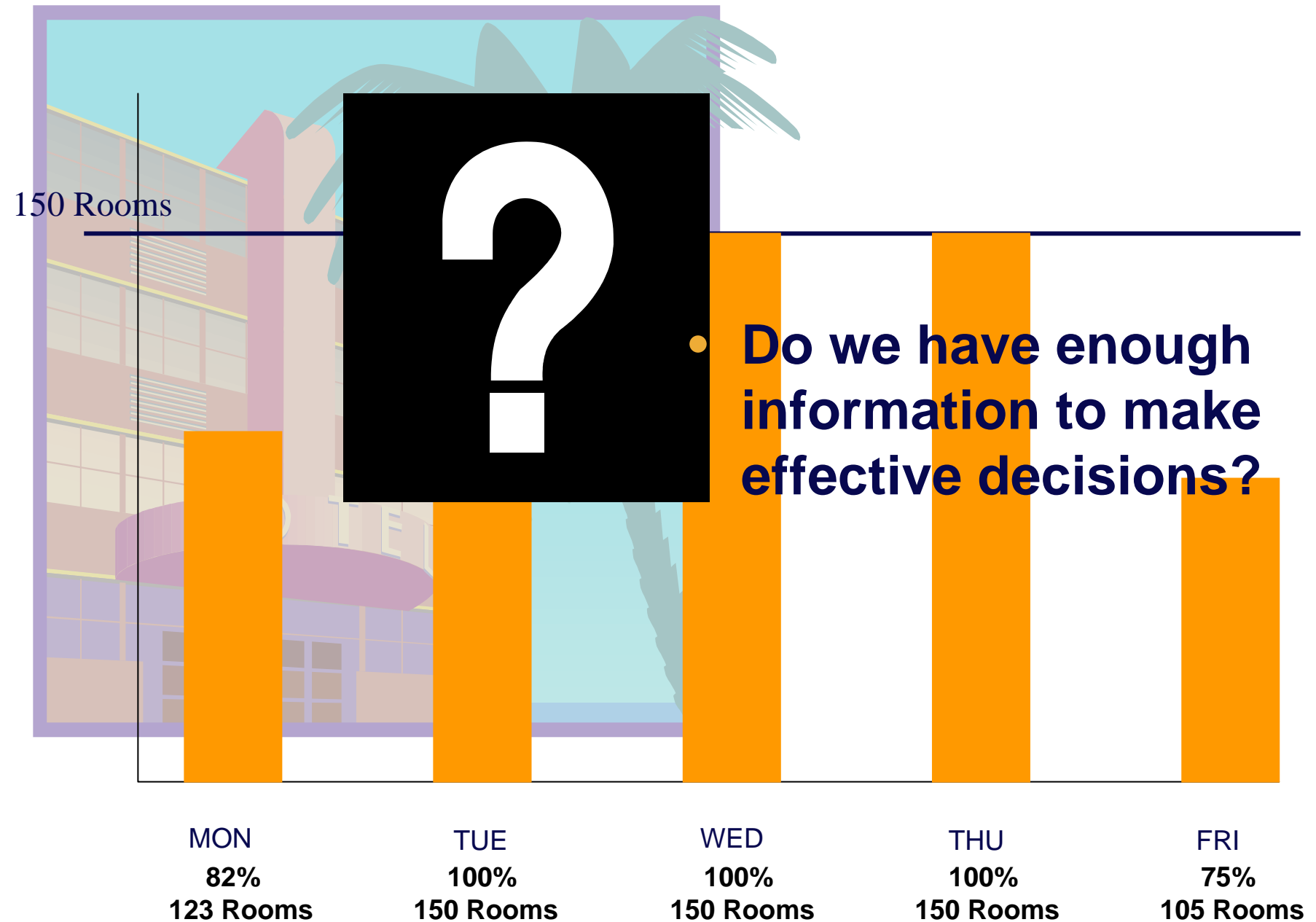
WED
100%
150 Rooms

THU
100%
150 Rooms

FRI
75%
105 Rooms



Decision



What is Total Demand?

True / Total / Unconstrained Demand

150 Rooms

Observed or Historical Demand

Occupancy Forecast

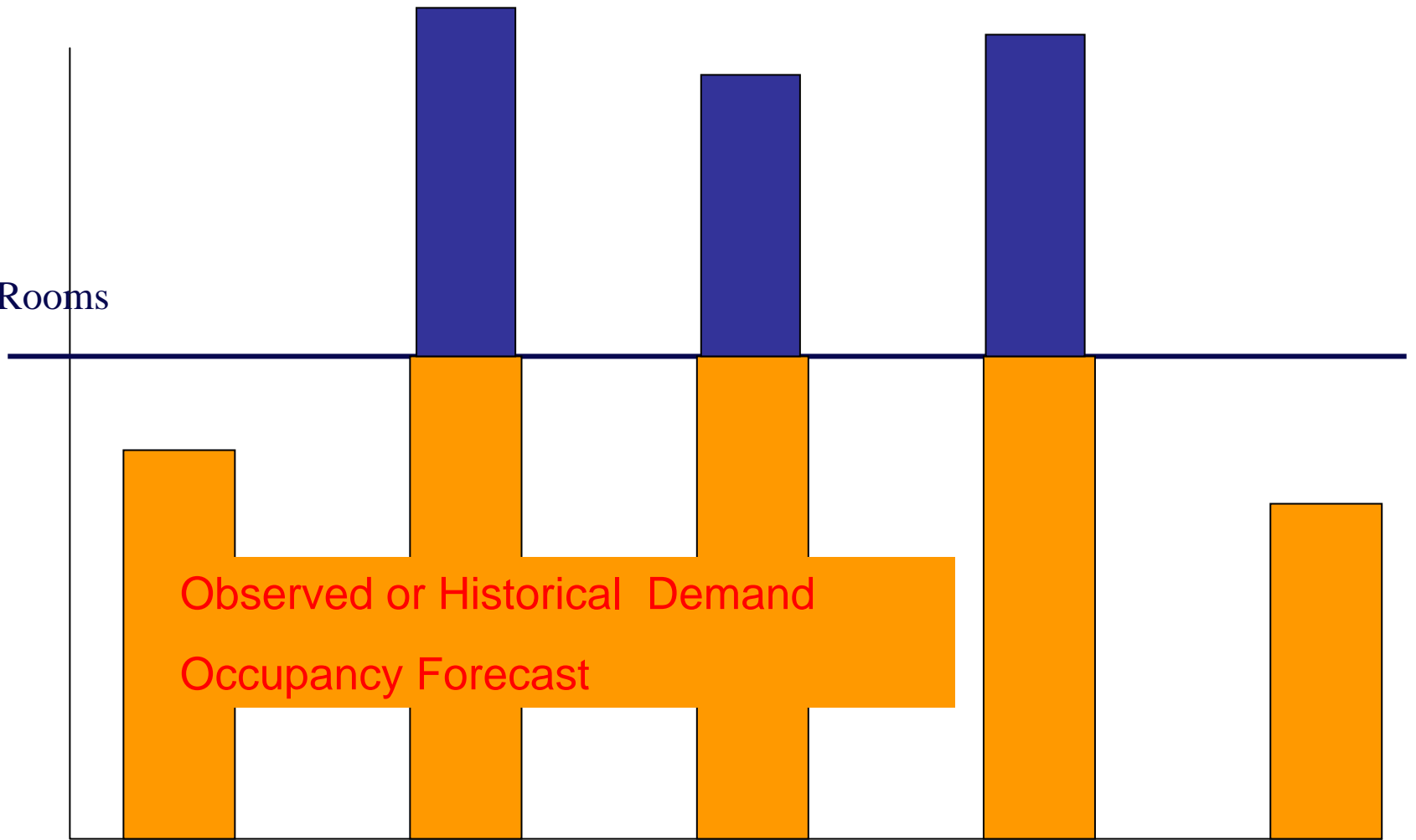
MON

TUE

WED

THU

FRI

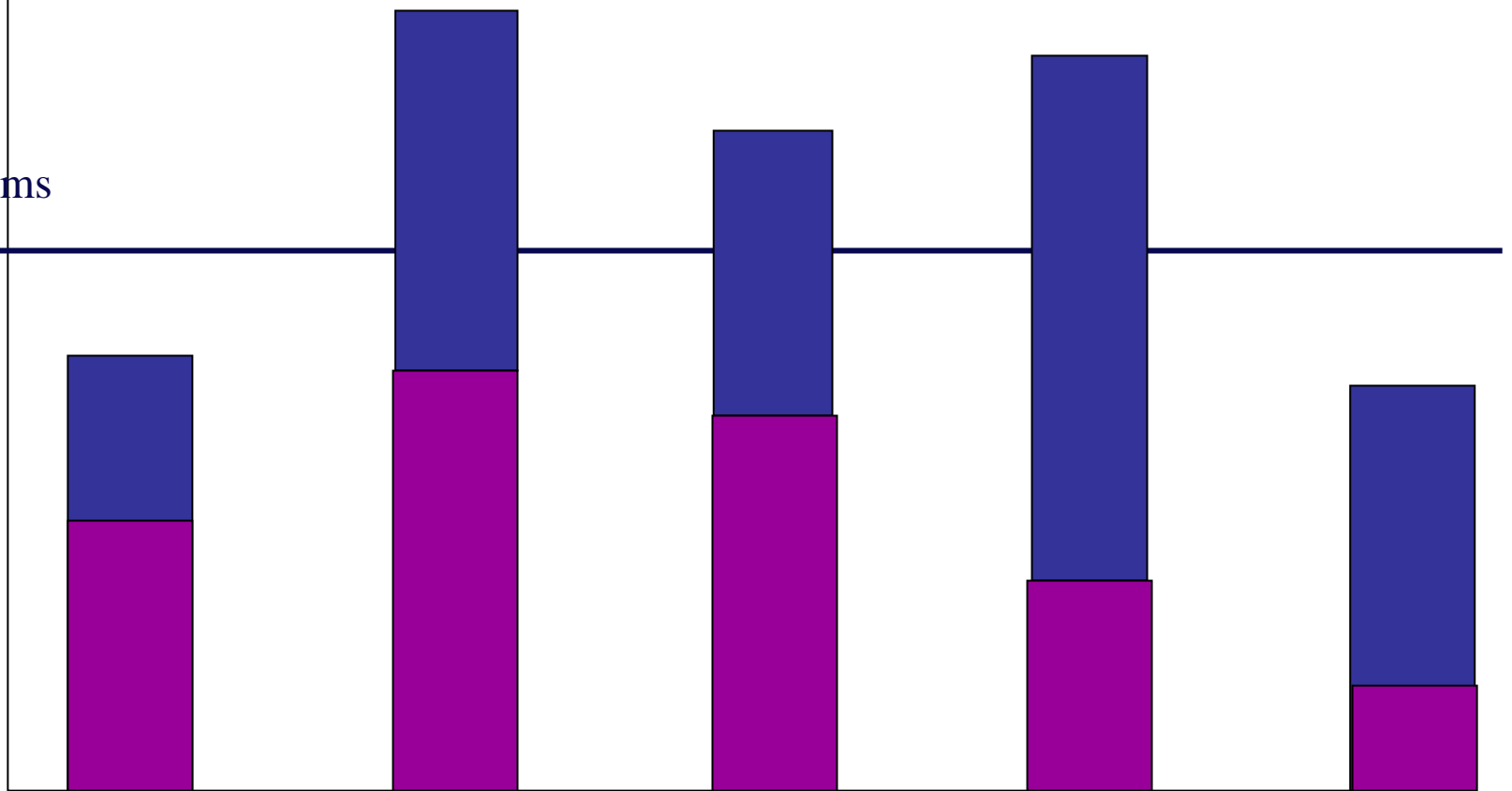


What If we knew our true demand?

Demand To Come

Sold/ On the Books

150 Rooms



MON

TUE

WED

THU

FRI

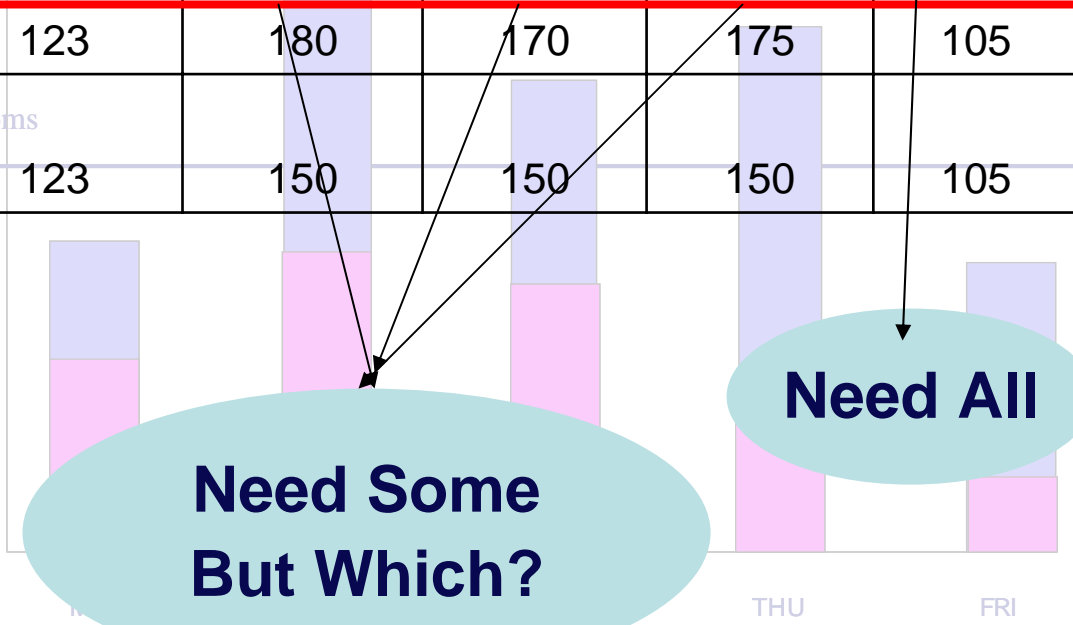
What If?

	Mon	Tue	Wed	Thu	Fri
Capacity	150	150	150	150	150
Sold	60	80	75	45	30
Available	90	70	75	105	120
Demand To Come	63	100	95	130	75
Total Demand	123	180	170	175	105
Final Occupancy	123	150	150	150	105

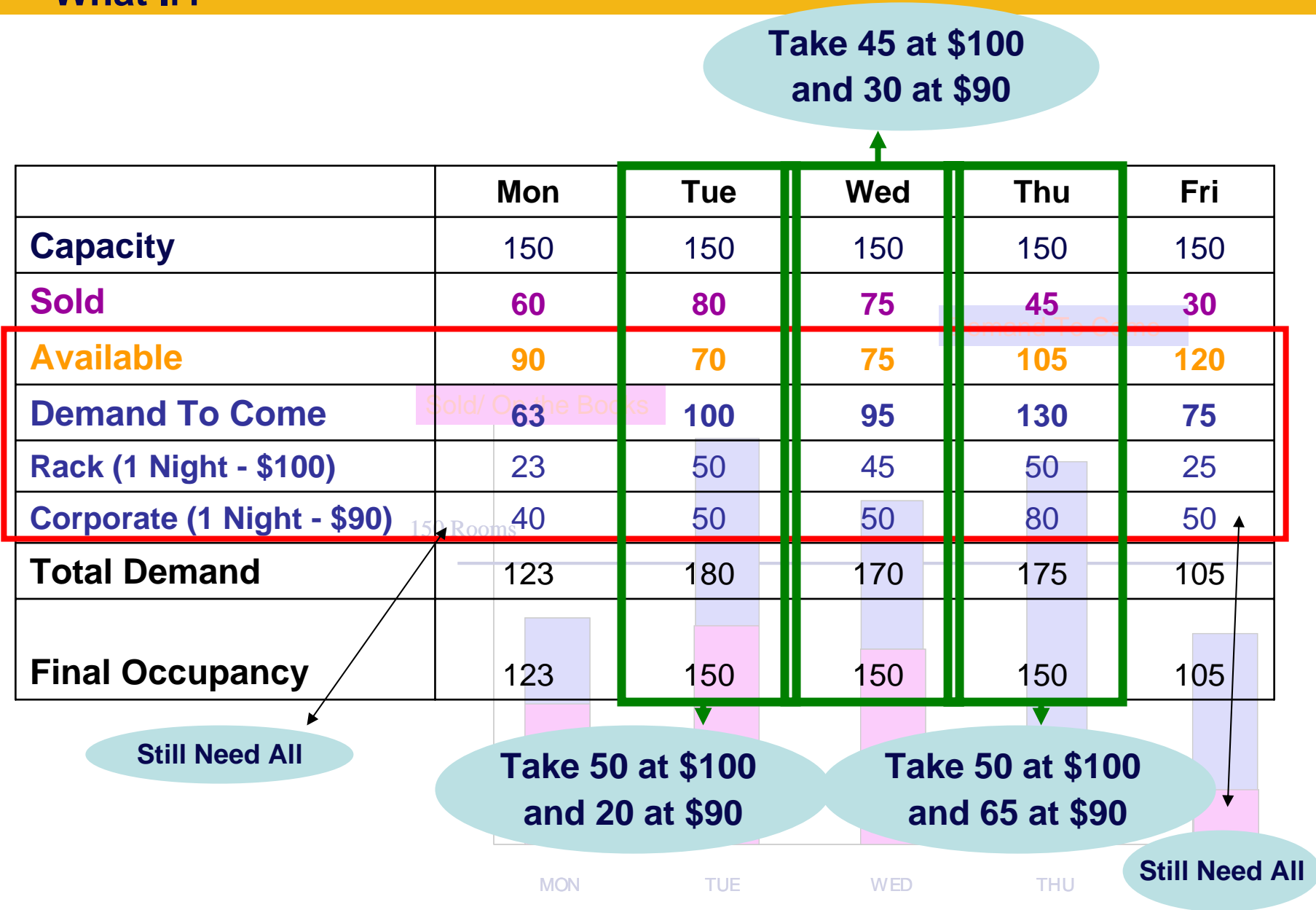
Need All

**Need Some
But Which?**

Need All



What If?



What If?

	Mon	Tue	Wed	Thu	Fri
Capacity	150	150	150	150	150
Sold	60	80	75	45	30
Available	90	70	75	105	120
Demand To Come	63	100	95	130	75
Rack (1 Night - \$100)	23	50	45	80	25
Rack (2 Night - \$100)	0	0	0	0	0
Corporate (1 Night - \$90)	40	50	50	15	25
Corporate (2 Night - \$90)	0	0	0	25	0
Total Demand	123	180	170	175	105
Final Occupancy	123	150	150	150	105

- With multiple night guest stays we can no longer assess one night in isolation.
- Total Demand for Friday has not changed, but some of the demand is arriving Thursday.
- The decisions we make for Thursday will define whether we can capture the full demand for Friday

What If?

	Mon	Tue	Wed	Thu	Fri
Capacity	150	150	150	150	150
Sold	60	80	75	45	30
Available	90	70	75	105	120
	Sold/ On the Books				
Cancellation Rate	5% or 3 Rooms	10% or 8 Rooms	8% or 6 Rooms	10% or 5 Rooms	6% or 2 Rooms
	150 Rooms				
True Available	93	78	81	110	122
Demand to Come	63	100	95	130	75
Total Demand	123	180	170	175	105
Final Occupancy	123	150	150	150	105

Incorporating Cancellations into the forecast process, allows us to better optimize available rooms

What If?

**Original Strategy:
Take 45 at \$100
and 30 at \$90**

	Mon	Tue	Wed	Thu	Fri
Capacity	150	150	150	150	150
Sold	60	80	75	45	30
Available	90	70	75	105	120
Demand To Come	63	100	95	130	75
Rack (1 Night - \$100)	23	50	45	50	25
Corporate (1 Night - \$90)	40	50	50	80	50
Total Demand	123	180	170	175	105
Final Occupancy	123	150	150	150	105

**Group Booking Request – 35 Rooms at \$85.00 per room,
with significant Function Space and ancillary revenue.**

FRI

DEMAND FORECASTING

- **To make the correct yield decisions, a good forecast is critical**
- **Hotels need to forecast true (unconstrained) demand in order to understand what type of demand is to be expected**
 - By segment
 - By LOS
 - Value it represents
 - Impact it has on shoulder nights
 - Accounting for special events, seasonality etc.
 - Account for the uncertainty level



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What can you do if you know the True Demand?

Let's play a game...

Playing with True Demand

Objective of the Game

To maximize revenue for a 350 room City Center Hotel for five nights by selecting the optimal mix of business from the true demand



Playing the Game

Each of the five nights has demands with different lengths of stay, however all have the same rate of \$100

City Centre Hotel - Let's Play

Capacity: 350		Forecast Demand				
	Rate	Mon	Tue	Wed	Thu	Fri
Mon 1-Night	\$100.00	60				
Mon 2-Night	\$100.00	150	150			
Mon 3-Night	\$100.00	40	40	40		
Mon 4-Night	\$100.00	30	30	30	30	
Mon 5-Night	\$100.00	20	20	20	20	20
Tue 1-Night	\$100.00		25			
Tue 2-Night	\$100.00		50	50		
Tue 3-Night	\$100.00		150	150	150	
Tue 4-Night	\$100.00		25	25	25	25
Wed 1-Night	\$100.00			5		
Wed 2-Night	\$100.00			55	55	
Wed 3-Night	\$100.00			30	30	30
Thu 1-Night	\$100.00				30	
Thu 2-Night	\$100.00				150	150
Fri 1-Night	\$100.00					75
Total Demand		300	490	405	490	300

Accept	Totals	Revenue
0		
0		
0		
0		
0	0	\$0
0		
0		
0	0	\$0
0		
0		
0	0	\$0
0		
0		
0	0	\$0
0		
Totals:	0	\$0

Next > Information Quit

Playing the Game

Choose how much of each of the demands to accept
 You can choose to accept just a portion of the demand

City Centre Hotel - Let's Play

Capacity: 350		Forecast Demand				
	Rate	Mon	Tue	Wed	Thu	Fri
Mon 1-Night	\$100.00	60				
Mon 2-Night	\$100.00	150	150			
Mon 3-Night	\$100.00	40	40	40		
Mon 4-Night	\$100.00	30	30	30	30	
Mon 5-Night	\$100.00	20	20	20	20	20
Tue 1-Night	\$100.00		25			
Tue 2-Night	\$100.00		50	50		
Tue 3-Night	\$100.00		150	150	150	
Tue 4-Night	\$100.00		25	25	25	25
Wed 1-Night	\$100.00			5		
Wed 2-Night	\$100.00			55	55	
Wed 3-Night	\$100.00			30	30	30
Thu 1-Night	\$100.00				30	
Thu 2-Night	\$100.00				150	150
Fri 1-Night	\$100.00					75
Total Demand		300	490	405	490	300

Accept	Totals	Revenue
30		
75		
40		
30		
10	185	\$18,500
20		
0		
0		
0	175	\$17,500
0		
0		
0	80	\$8,000
0		
0	40	\$4,000
0		
0	10	\$1,000
Totals:	490	\$49,000

Next > Information Quit

**Towards the end of the game
you will receive a group request**

***Good Luck* – you have 20 minutes!**



- **What did Playing with True Demand show us?**
 - Even when we know what the true demand is - selecting the best mix of business to accept is a difficult & time consuming task
 - Once the anticipated demand has been optimized, things will change, and so, therefore, will the best mix of business
 - The key to maximizing revenue is to focus on the shoulder nights

DEMAND FORECASTING - CHALLENGES

- **In a manual environment hotels have limited tools with which to measure and forecast true demand.**
 - Data is based on manual data entry
 - Only a limited amount of data can be taken into account due to resource and availability issues
 - Length of Stay impact cannot be fully accounted for.
 - Denial data is not really reliable
 - Time restrictions to forecast and re-forecast constantly
 - Dependent on one single person or a small team

Forecasting Quick Tips

- **Don't try to forecast more than you can handle**
 - Market Segment forecasting is a good high level place to start
 - Understanding demand by Length of Stay is also important
- **Understand your data sources**
- **Leverage your history**
- **Keep notes of unusual booking performance, market mix or Special Events**
- **Look at the relationship between Busy and Shoulder night occupancy and rates**
- **Identify nights where you think demand exceeds capacity**
- **Know how you are going to use the forecasts in the next step of the process**

DEMAND FORECASTING

- **IDEaS can help hotels by...**

- Applying proven scientific and mathematical models to analyse detailed data by LOS
- It accounts for uncertainty
- It adds consistency
- It adds accuracy
- It accounts for specifics to each hotel demand situation and seasonality
- It forecasts and reforecasts 24 hrs a day taking every little change into account

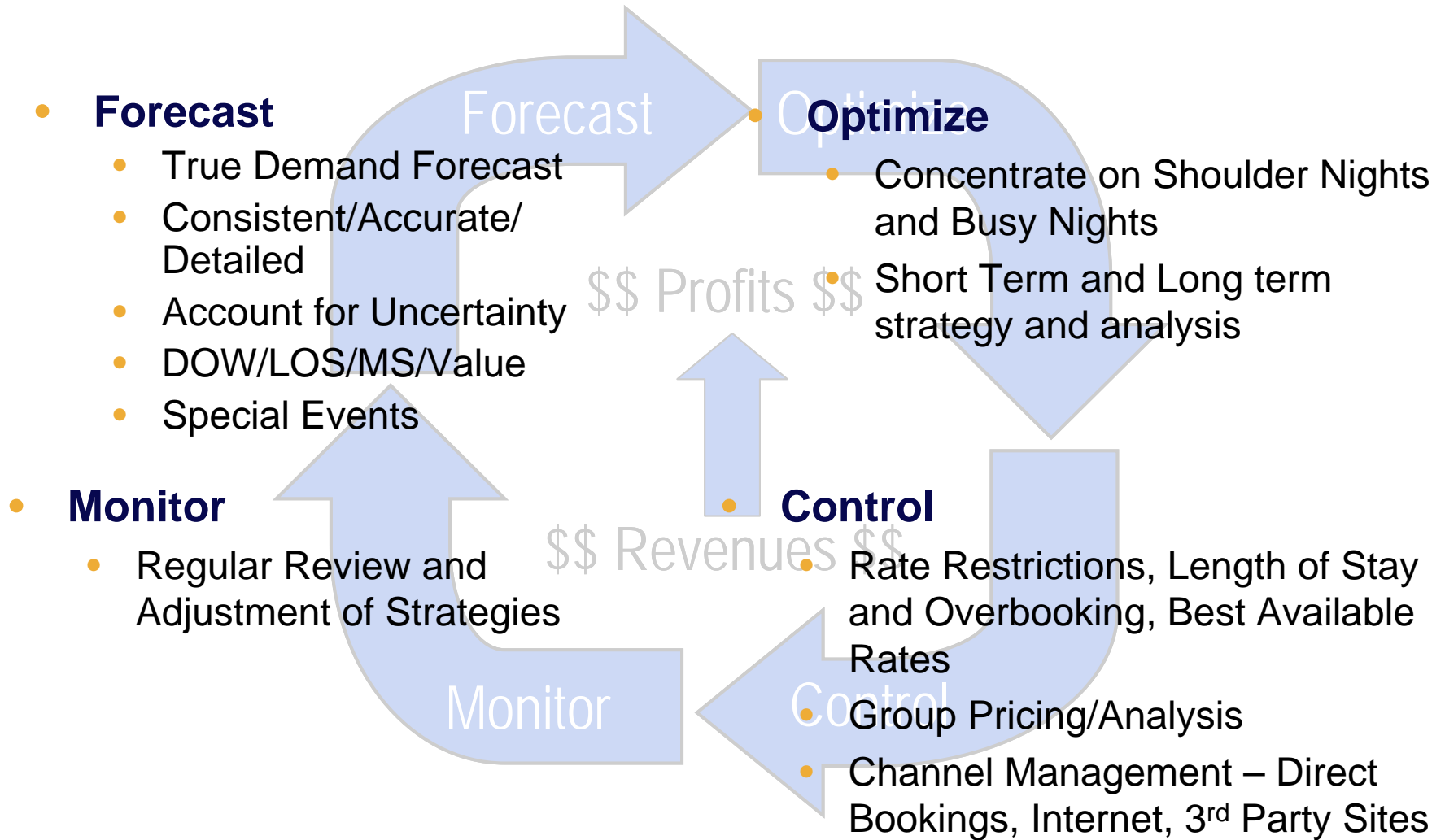


- **The purpose of hotel revenue management is to make more MONEY for the hotel.**



- **Where does the additional revenue come from?**

Revenue Optimization Cycle



- **Demand Forecasting**
 - **What** Should we Forecast
 - True / Unconstrained Demand
 - **How** Should we forecast
 - by Arrival, LOS & Market Segment
(as detailed a level as we can consistently maintain)
 - **Why** is it important
 - We can't make successful revenue management decisions without it.

Accurate DEMAND forecasting is the foundation of successful revenue management.

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