Hotel and Lodging Industry

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Agenda

Introduction
- Identification of the Major Players
- The Technological Impact

Industry Overview
- Hotels and Traditional Hospitality
- Online Travel Agencies
- Airbnb and the Sharing Economy

Pricing Strategies
- Raw Data Pricing Analysis
- Revenue Management Tactics
- Uses of Technology for Versioning and Dynamic Pricing

Recommendations
- Investment Considerations
- Pricing Considerations
Executive Summary

We focused on analyzing three topics: the hotel industry, the online travel agency (OTA) industry and Airbnb’s introduction to the market.

Online hotel reservation and online travel agencies have been operating for the last several decades and have been dominated by four or five major companies.

Airbnb has recently been introduced and threatens to weaken these firms’ foothold.

The pricing strategies employed by these firms include bundling, price match guarantees, versioning and dynamic pricing based on a variety of factors.

We noticed how proximity to local city centers affect price across different cities.

We collected data on how prices change via seasonality for different levels of hotels.

We ultimately recommend that firms continue to use price match guarantees and versioning in conjunction with new technologies to achieve maximum profitability in the marketplace.
Hotel and Lodging Industry Overview

- The hotel and lodging industry is a subset of the greater hospitality industry.
- For the purposes of this project we focused on the differences in how hotels price their rooms on two different booking methods: the supplier’s website and on an online travel agency (OTA) such as Expedia or Priceline.
- This is important as more millennials are tending to use OTAs to book their travel.
- We want to know if millennials are saving money or wasting money by using OTAs more often than the older generations.
- We also investigated the change correlation between seasonality and proximity for different classes of hotels.

Source: Industry Reports
Industry Structure
Overview of Players in Lodging

Hotels and Traditional Hospitality
- Occupancy rates have climbed steadily to an all-time high of 66% in 2016 after bottoming at 55% in 2009

Online Travel Agencies
- In 2015, 14.9% of bookings were online versus 34.7% made on hotel’s direct website

Airbnb and Sharing Economy
- Company launched in 2008 and already has over 60 million users and 2 million listings
Hotels and Traditional Hospitality

- Industry Overview and Drivers
  - Industry consists of over 15.5 million rooms and broadly segmented into branded such as Marriott and non-branded independent hotels

- Increasing Consumer Demand
  - Demand for hotel rooms has outpaced the supply leading to higher RevPAR and increasing industry revenue at annualized rate of 4.2% to $864.1 billion
  - Marriott RevPAR grew from $87.28 in 2010 to $110.09 in 2014 with Hilton also showing increases during same period of $86.16 to $105.63

- Accommodating for Growth
  - Hotels have been hiring with intensity to meet customer expectations with employment growing at annualized rate of 2.9% to a total of 4.1 million workers
  - Profit margins have been rising with increased prices and expansion of largest companies into new markets with mergers such as Marriott and Starwood

Source: IBIS World
Hotel Industry Structure

- In the US, 70% of the industry supply is branded whereas internationally it’s between 45%-55%
- Labor accounts for 26% of total industry revenue and is declining with growth of technology
- Companies pursue franchisor and managed strategies depending to limit exposure to real estate
- The industry has many segments that target consumers with versioning based on ADR:

<table>
<thead>
<tr>
<th>Luxury</th>
<th>Upper Upscale</th>
<th>Upscale</th>
<th>Upper Midscale</th>
<th>Midscale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 15% of average room rates</td>
<td>Next 15% of average room rates</td>
<td>Middle 30% of average room rates</td>
<td>Next 20% of average room rates</td>
<td>Lowest 20% of average room rates</td>
</tr>
<tr>
<td>Brands include St. Regis and Four Seasons</td>
<td>Brands include Le Meridien and Sheraton Hotel</td>
<td>Brands include Crowne Plaza and Residence Inn</td>
<td>Brands include Comfort Suites and Doubletree Club</td>
<td>Brands include Candlewood Suites and Ramada</td>
</tr>
</tbody>
</table>

Introduction  | Industry Overview  | Pricing Strategies  | Conclusion
## Major Companies in the Industry

- In the US, concentration is **moderate** because top 4 companies account for estimated 39.3% of industry revenue with ensuing buyouts and merger occurring and pushing the C4 up.
- Globally, concentration is **low** with a C4 of 12.7%, but increasing due to same reasons.
- Barriers to entry are **medium and increasing** because of high capital outlay and brand recognition.

<table>
<thead>
<tr>
<th>Company</th>
<th>US Share</th>
<th>Global Share</th>
<th>Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marriott</td>
<td>13.8%</td>
<td>4.2%</td>
<td>Marriott is based in Bethesda, MD with more than 4,200 properties globally in 79 countries including high end brands such as the Ritz-Carlton and budget brands such as Fairfield Inn.</td>
</tr>
<tr>
<td>Hilton Hotels &amp; Resorts</td>
<td>13.6%</td>
<td>3.9%</td>
<td>Hilton is based in McLean, VA with over 758,502 rooms worldwide in 4,610 hotels. The company has 1,600 new properties under development in order to continue to compete with Marriott.</td>
</tr>
<tr>
<td>IHG InterContinental Hotels Group</td>
<td>7.3%</td>
<td>2.9%</td>
<td>IHG is a UK based company that manages more than 5,000 properties worldwide. The company's franchise business is most profitable with regard to Holiday Inns, Kimpton Hotels, and other brands.</td>
</tr>
<tr>
<td>Starwood Hotels and Resorts</td>
<td>4.6%</td>
<td>N/A</td>
<td>Starwood is a White Plains, NY based company operating in the luxury and upscale segments with brands such as St. Regis and W. The company operates 1,300 hotels with 370,000 total rooms.</td>
</tr>
<tr>
<td>Wyndham Hotels and Resorts</td>
<td>3.7%</td>
<td>1.1%</td>
<td>Wyndham is a NY based company that targets the economy and midscale market with 5,700 properties worldwide. The two largest brands are Super 8 and Days Inn, with 2,000 locations each.</td>
</tr>
<tr>
<td>Accor Hotels</td>
<td>N/A</td>
<td>1.7%</td>
<td>Accor is a French company that is a leader in European hotels and tourism with 3,500 hotels. It offers accommodations across segments with 15 complementary brands including Sofitel and Motel 6.</td>
</tr>
</tbody>
</table>

Source: IBIS World
Online Travel Agencies

High Growth, Decreasing Competitiveness
- The top 4 online brands: Expedia, Priceline, Orbitz and Travelocity command a 95% market share of the online bookings
- Expedia, Orbitz and Travelocity are all owned by Expedia, Inc. which leads to decreased competition in the marketspace

Competition based on Price
- Competition in the industry is based on price, travel agencies use bulk purchasing of rooms to make profits
- Direct online information from hotels is causing companies to price more competitively as consumers focus heavily on this

Globalizing Business Model
- International areas like Latin America and the Asia-Pacific region are experiencing higher growth than the U.S.
- Major players will soon shift more resources towards these markets and will focus on them to drive growth
## Major Players and Competition

- Expedia, Inc. and The Priceline Group control the Online Travel Agency (OTA) market.
- Barriers to entry are low for offline agencies but **medium and increasing** for online agencies as web pages and algorithms take time to create.

<table>
<thead>
<tr>
<th>Company</th>
<th>U.S. OTA Share (2013)</th>
<th>Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expedia.com</td>
<td>42%</td>
<td>Expedia.com is operated by Expedia, Inc and is based in Bellvue, WA. Expedia, Inc. controls the largest stake of all OTAs and processes $60.83 billion worldwide in gross bookings per year.</td>
</tr>
<tr>
<td>priceline.com</td>
<td>19%</td>
<td>Priceline.com is operated by the Priceline group and is based in Norwalk, CT. The Priceline Group has the second largest share of OTA’s with gross bookings of $55.5 billion worldwide.</td>
</tr>
<tr>
<td>ORBITZ</td>
<td>19%</td>
<td>Orbitz was bought by Expedia, Inc. in 2015 and has been a leader in the OTA industry. The company is headquartered in Chicago, IL and was the third largest OTA before the acquisition.</td>
</tr>
<tr>
<td>travelocity</td>
<td>14%</td>
<td>Travelocity.com is headquartered in Dallas, TX and is operated by Expedia, Inc. It once led the OTA industry but fell behind Priceline.com and Expedia.com as they introduced new technology and features.</td>
</tr>
</tbody>
</table>
Airbnb and the Sharing Economy

- Airbnb is a website where consumers can find and rent lodging for different periods of time.
- “Airbnbs” are often cheaper than traditional hotel rooms and have been adopted quickly by millennials.
- This industry directly competes with the hotel industry and has seen impressive growth, revenues in 2015 were estimated to be $900 million where in 2013 they were just above $200 million.
- PwC expects the overall sharing economy sector to grow at a compound annual growth rate (CAGR) of almost 30% from 2013-2025 while it expects the traditional renting sector to grow at a CAGR of under 3% over the same time period.

Source: PWC
Role of Government Regulation on Airbnb

Taxation and Housing Laws

- NYC requires a 5.875% hotel room occupancy rate, but remains unclear as if Airbnb hosts or guests are expected to pay this municipal tax.
- Airbnb, the company, is not responsible for collecting this as a platform but has offered to facilitate the collection of more than $20 million that it collects in other cities already.

Collaboration or Abusing the System?

- “Founded on belief that housing should be more accessible, more affordable and more available,“ but fostering illegal hotel operators.
- In NYC, worked with the Attorney General who found that there were many abusers of the system and further questions the idea of “house guests” as long as they stay less than 30 days versus regular customers.

Source: WSJ
Pricing Strategies
Price Regression Model

- Ran a regression to test how price correlates with number of hotel rooms in a city, the home price index, the cost of living index, and the number of visitors.
- Very strong positive correlation with the home price index.
- Independent of number of rooms and number of visitors.

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
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<tbody>
<tr>
<td>Intercept</td>
<td>30.43949388</td>
</tr>
<tr>
<td>Number of Rooms</td>
<td>-0.000245688</td>
</tr>
<tr>
<td>Home Price Index</td>
<td>-0.244401796</td>
</tr>
<tr>
<td>Cost of Living Index</td>
<td>1.46713693</td>
</tr>
<tr>
<td>Number of Visitors</td>
<td>0.000000324</td>
</tr>
</tbody>
</table>
Contrary to popular belief, no difference in prices between third-party websites such as Expedia, Hotels.com and the hotel’s own website for all tiers.

Type of computer/browser/private viewing also has no impact on prices.

Booking the same room from different cities also gives the same price.

### New York

<table>
<thead>
<tr>
<th>Date</th>
<th>Hotel</th>
<th>Expedia</th>
<th>Hotels.com</th>
<th>Own Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>04/22/2016</td>
<td>Ritz Carlton</td>
<td>760</td>
<td>760</td>
<td>760</td>
</tr>
<tr>
<td>04/22/2016</td>
<td>Marriott Marquis</td>
<td>284</td>
<td>284</td>
<td>284</td>
</tr>
<tr>
<td>04/22/2016</td>
<td>Holiday Inn Express</td>
<td>179</td>
<td>179</td>
<td>179</td>
</tr>
<tr>
<td>6/17/2016</td>
<td>Ritz Carlton</td>
<td>828</td>
<td>828</td>
<td>828</td>
</tr>
<tr>
<td>6/17/2016</td>
<td>Marriott Marquis</td>
<td>341</td>
<td>341</td>
<td>341</td>
</tr>
<tr>
<td>6/17/2016</td>
<td>Holiday Inn Express</td>
<td>252</td>
<td>252</td>
<td>252</td>
</tr>
</tbody>
</table>

### San Francisco

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<th>Date</th>
<th>Hotel</th>
<th>Expedia</th>
<th>Hotels.com</th>
<th>Own Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>04/22/2016</td>
<td>Loew’s Regency</td>
<td>349</td>
<td>349</td>
<td>349</td>
</tr>
<tr>
<td>04/22/2016</td>
<td>Hyatt Regency</td>
<td>229</td>
<td>229</td>
<td>229</td>
</tr>
<tr>
<td>04/22/2016</td>
<td>Courtyard Downtown</td>
<td>189</td>
<td>189</td>
<td>189</td>
</tr>
<tr>
<td>6/17/2016</td>
<td>Loew’s Regency</td>
<td>349</td>
<td>349</td>
<td>349</td>
</tr>
<tr>
<td>6/17/2016</td>
<td>Hyatt Regency</td>
<td>268</td>
<td>268</td>
<td>268</td>
</tr>
<tr>
<td>6/17/2016</td>
<td>Courtyard Downtown</td>
<td>349</td>
<td>349</td>
<td>349</td>
</tr>
</tbody>
</table>
Seasonality Across Cities

- There is a lot of seasonality in the holiday period. Prices are relatively less seasonal in non-tourist cities like Dallas as compared to Las Vegas or Miami.
- One limitation was data being collected too far in advance of the reservation date.
3 Star hotels show the most seasonality and variation of prices throughout the year. Possible cause could be more price sensitive customers.
Seasonality – 5 Star

- 5 Star hotels show the least seasonality and have low variability in prices
Proximity to City Center

- Negative correlation between prices and distance from the center of a city. This difference seems to be higher for 3-star hotels compared to 4-star ones
Revenue Management

- A hotel that charges one rate to all consumers is not maximizing its revenue because some of its consumers are willing to pay a higher rate than others.

- Dynamic pricing is a necessity as rates are accessible by the clients and across a wider variety of distribution channels than ever before. The most innovative hotel companies are moving toward a revenue optimization approach based around the optimal price point for every day in the future.
Using Price as a Strategic Weapon

Appropriate Price
- Requires excess demand
- Price according to elasticity of the segment
- Rate and stay controls
- Framing

Segmentation of customers
- Need for amenities
- Willingness to make non-refundable reservations

Understanding customer reaction
- Perception of fair prices
- Reference pricing
- Have the same price through different channels
- Avoid customer confusion

Introduction | Industry Overview | Pricing Strategies | Conclusion
How Marriott Uses Dynamic Pricing

- Hotels that have an average room rate lower than their competitive set achieve lower revenue per available room (RevPAR) than their competition.
- Marriott uses the Group Pricing Optimizer (GPO), a decision support system, that provides guidance to Marriott personnel on pricing hotel rooms for group customers.
- GPO uses demand segmentation, price-elasticity modelling, and optimization techniques to recommend an optimal rate.
- Studies show that the system has improved Marriott’s hotel profitability and enhanced the sales process for both managers and customers.
Self Selection (Second Degree)

Most hotels allow consumers to self select themselves by choosing a package that is the most appropriate. Segmentation occurs by:

- **Physical**: room type, floor level, view, amenities, additional products such as Internet access, breakfast or newspapers
- **Controlled Availability**: A lower rate may be available for someone booking through an online website or a particular area
- **Customer Characteristics**: age, group membership, employee status
- **Transaction Characteristics**: purchase restrictions, quantity discount pricing, differential pricing (tour operators)
- **Product Line**: Hotels have multiple different brands that pursue similar policy
Versioning

• Many hotel companies are able to use versioning to extend their product line by catering to the needs of different segments of the market
• Marriott Group owns 19 different brands and target different segments such as: Luxury, Lifestyle Collection, Signature Collection, Select Service, Extended Stay, and Destination Entertainment
• Able to diversify and charge a premium depending on the version of the hotel and increase its total revenue
Brand Mapping for Marriott

Price

Quality

Residence Inn Marriott
Gaylord Hotels
Delta Hotels and Resorts
AC Hotels by Marriott
Protea Hotels
FairField Inn & Suites Marriott
Courtyard Marriott
Edition
JW Marriott
Renaissance Hotels
Autograph Collection Hotels
The Ritz-Carlton
Bulgari Hotels & Resorts

Introduction
Industry Overview
Pricing Strategies
Conclusion
Bundling

Hotels are able to bundle in their existing resources in addition to their room rates to increase revenue (Second Degree Price Discrimination)

- The W provides packages that include “Stay two nights, and get one free.”
- Hotels generally tend to provide packages that include the room rate, free wifi and breakfast to consumers that are not price sensitive
- Most full service hotels have facilities that are not fully used (ex: goal course, and spa); increase revenue by including the unused capacity in the room rate
- Discount hotels tend to UNBUNDLE their products by charging for towels, and internet
Bundling

Holiday Inn has a range of Holiday focused packages

- Location specific packages (Hawaii), Bonus Points Package, Tourist Package, In-Hotel Dinner Package, Daily Parking Package, and Fantastic Escapes.

Marriott’s Packages
Relationship between Price and Amenities

65% Of customers said that they could do without the in-room bar, robes, guest room radio, and valet parking

50% Of guests agree that they would pay more for significantly improved television, bathroom soap and complimentary Internet access

70% Of variation in room rates amenities is due to the attributes of the mini-bar, hair dryer, free parking, and distance to downtown

Source: Cornell Hotel Library Reports
Relative Influence on Hotel Purchases

Source: Cornell Hotel Library Reports
Price Matching - Tacit Collusion

Holiday Inn’s Best Price Guarantee

- Every hotel reservation booked through an IHG website is guaranteed to have the lowest room price (room rate) or total room cost (including all taxes and fees) publicly available on the internet or IHG will provide the first night’s room price free and match the lower average nightly room price found for that stay for the rest of the nights of that stay, under the following terms and conditions.

Marriott’s Best Price Guarantee

- Marriott Rewards Member Rates
- Our best rate. Guaranteed.
- Mobile check-in

When you Book Direct on Marriott.com

It Pays to Book Direct™
See details
Price Opaque Websites

Opaque sites are online channels that hide product information until the purchase is finalized. Opaque Sites are often used to sell distressed inventories, sacrificing potential profit with deep discounts in the exchange for immediate non-refundable payments.

1. Hotwire.com
   - Hotwire.com uses a “brand opaque” booking method where the website shields the hotels rates by omitting the name or location of the property until customers have made the purchase

2. Priceline
   - Priceline.com uses the “price opaque” method where the customers to do not know the exact hotel until the payment is submitted –
   - Priceline also uses an opaque action method with their “Name you own Price” line of business where customers can offer a bid price for an undisclosed hotel.
Pricing in Niche Segments

‘Sun-and-Beach’

- More seasonality in higher star hotels
- Beach-facing hotels 19% more expensive
- Proximity to city-centre has no impact
- Availability of parking space increases prices by 8.5%

Airport Hotels

- More than 3,000 airport hotels
- Used more by business travelers
- Proximity to central business district more important than proximity to airport
AirBnb’s Impact on Hotel Prices

- **Negative Impact on Occupancy Rates**
  - Increase in AirBnb listings by 10% has led to 0.37% decrease in hotel revenue
  - Statistically significant decrease in occupancy rate and an even bigger decrease in hotel room prices

- **Larger Effect on Low Cost Hotels**
  - Impacts lower cost hotels the most which can easily be substituted for AirBnb
  - Hotels catering to corporate clients and ones with luxurious amenities have not been impacted as much

- **Implications**
  - Sharing economy is significantly changing consumption patterns
  - Increased regulation for AirBnb listings
  - Consolidation in the lodging industry

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Introduction  
Industry Overview  
Pricing Strategies  
Conclusion
Conclusion
Investment Considerations

**Players**

- Major companies in Hilton, IHG, and Marriott are trading at modest EV/EBITDA multiples between 10x - 14x
- Consolidation has created value in possible acquisition targets
- Investors are building properties after years of somnolence with supply growing 1.9% and expected to continue at that rate

**Factors to Consider as an Investor**

- Industry leaders in Expedia and Priceline, are trading at high tech EV/EBITDA multiples between 20x - 25x
- Low switching costs of consumers makes new competition and supplier websites a threat for concentrated market share
- Reliance upon search engines and metasearch algorithms

**Attractiveness**

- Airbnb raised $1.5 billion in private round in December of 2015 at high valuation of $25.5 billion (EV/Revenue of 28.3x)
- Government regulation poses a threat with expansion into new and existing markets that may slow company’s growth

Source: CapitalIQ
Investment Considerations

AirBnB vs. Public Competitors: Valuations Over Time ($B)

*AirBnB did not raise a round between 2012 and 2014, and therefore its valuation stayed the same during this time

**Valuations were taken at dates where AirBnB raised. 2013 data was taken at 6/1/2013

www.cbinsights.com
Pricing Strategy Recommendations

Price Match Guarantees
- Encourages firms to charge higher prices as other competitors can’t undercut them thereby raising overall revenue for the firms
- Takes advantage of tacit collusion by increasing the confidence in consumer’s price choices

Versioning
- Easy differentiation based on amenities allows consumers to self select themselves and foster second degree price discrimination
- Extends product line to cater to different segments of the markets allows firms to capture more consumers and book more rooms