



*Prof. Chris Anderson*

*School of Hotel  
Administration,  
Cornell University*



*RJ Friedlander*

*Founder/CEO, ReviewPro*

# *Webinar: The Influence Of Reputation Analytics On Hotel Revenue and Financial Performance*



Cornell University  
School of Hotel Administration

ReviewPro

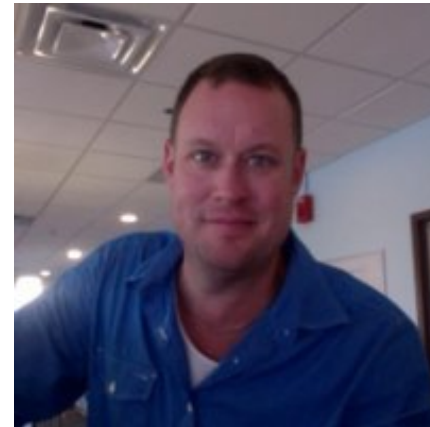


Host

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**Chris Wofford**  
Video Content Manager

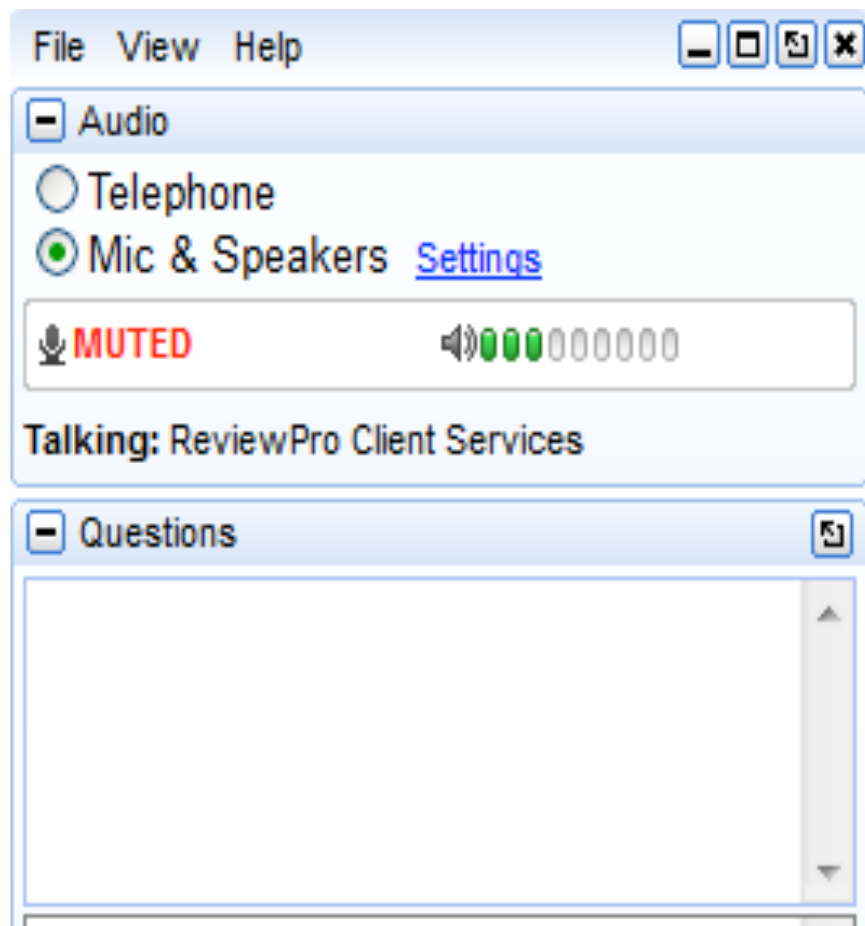


# Today's Flow

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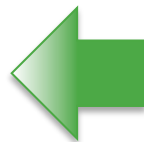
1. Presentation & poll questions
2. Your questions for Chris and RJ

# Questions and Comments



twitter

Tweet your  
comments & favorite  
tips using  
@ecornell\_online  
@reviewPro



# About ReviewPro

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## ReviewPro

**RJ Friedlander**

Founder & CEO

Twitter: @rjfriedlander

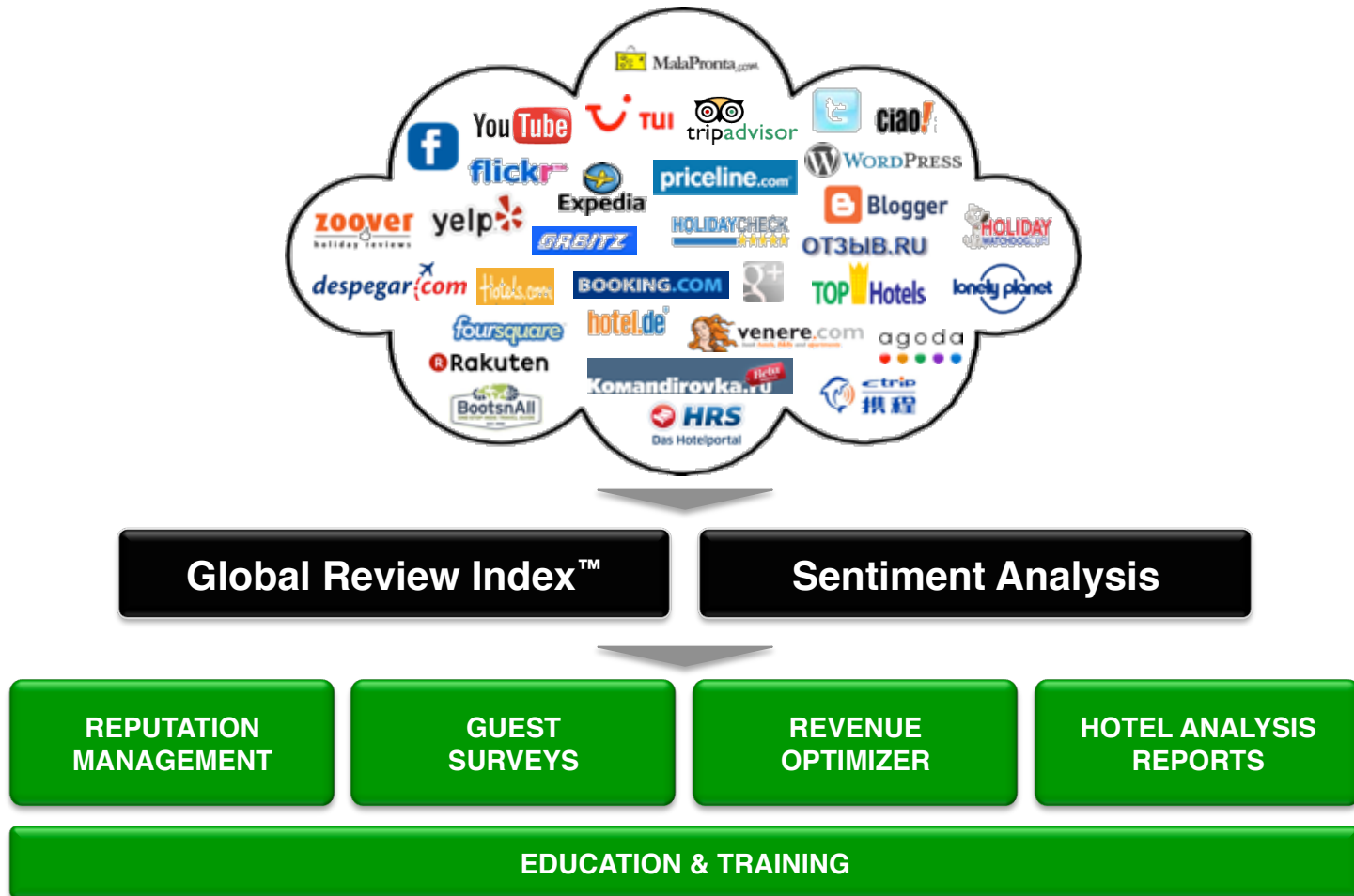


# Agenda

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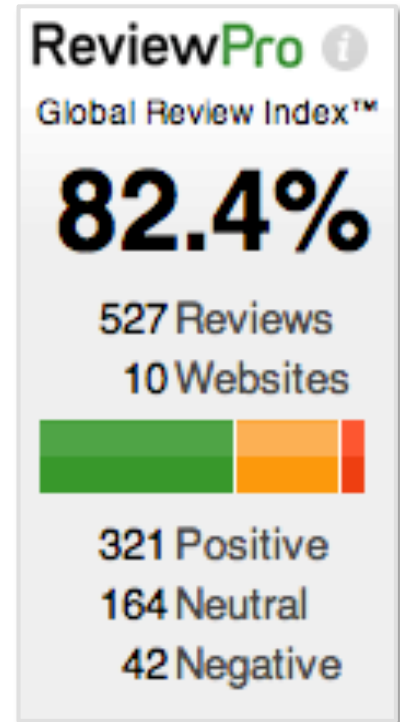
- **Intro to ReviewPro & the Global Review Index™ (GRI)**
- The impact of Social Media/UGC on revenue performance
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- Key Takeaways
- Q & A

# What We Do



# Global Review Index™

- General online guest satisfaction score for an individual hotel, group or chain
- Based upon a proprietary algorithm based on quantitative analysis of data from all major OTAs and review sites
- Can be viewed for any time period (day, week, year, etc) and used to track internal & competitive performance
- The industry standard online guest satisfaction benchmark





# Leading Independent Hotels & Brands Depend On ReviewPro

- Nearly 10,000 clients in 83 countries leverage ReviewPro to improve guest satisfaction and increase revenue



# Clients & Partners



# Cornell Research

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Cornell University  
School of Hotel Administration



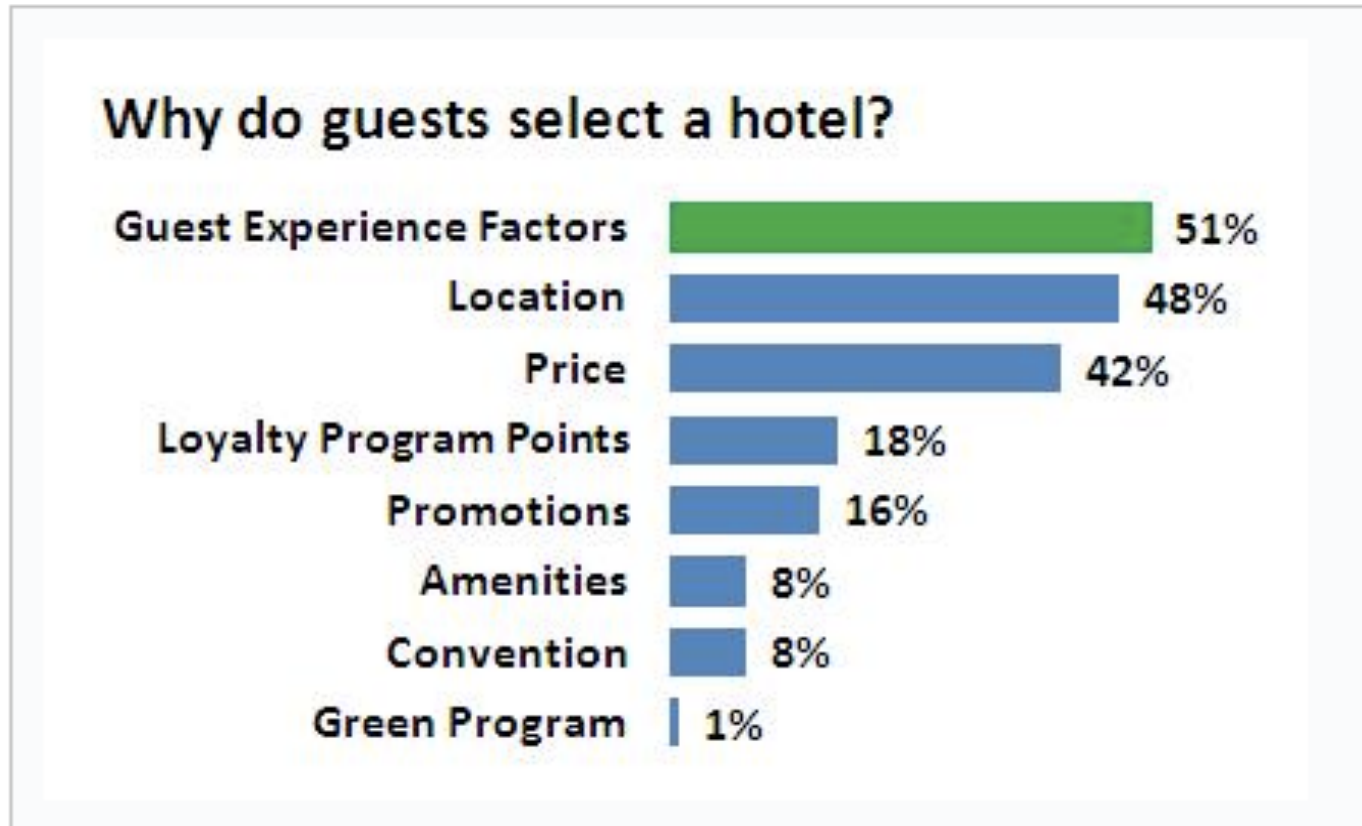
**Chris Anderson**  
Associate Professor

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# Social Media/UGC Impact on Hotel Performance



2010 Market Metrix

# Social Media/UGC Impact on Hotel Performance

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- Triangulate the impact of UGC on hotel pricing/performance
  - comScore online consumer panel
    - ✓ Do people visit UGC sites
  - Transactional data Travelocity
    - ✓ Impact of reviews on purchase decision
  - Matched performance data from Smith Travel Research and ReviewPro
    - ✓ Impact of online reputation upon performance (Occupancy, ADR, RevPAR)

# Online Consumer Behavior

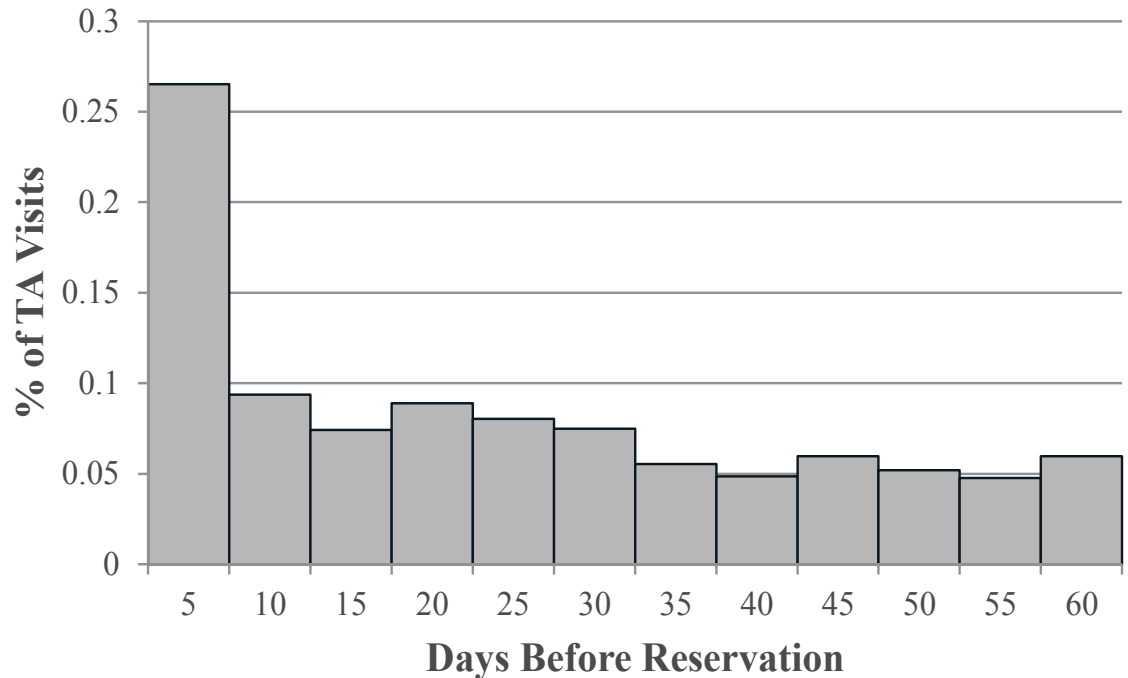
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- Online consumer panel (~2 million)
  - All domain level internet traffic
  - 2 months during each of 08,09 and 10
- All upstream traffic of supplier.com bookings
  - Search @ Google, Bing, Yahoo
  - Travel site – OTA, Meta Search ....
  - 60 days prior to booking
- FOCUS – TripAdvisor visitation prior to supplier direct online reservation



# TripAdvisor Opportunities

Year	% Brand.com visiting OTA	Visits per reservation	Pages/visit	Time/visit (minutes)
2008	26	3.7	6.9	4.5
2009	28	3.8	6.2	4.3
2010	36	4.7	5.5	3.4





# UGC - Impact at Point of Purchase



- 9 cities
- Property level information of purchased & not purchased hotels
- Estimate Logistic Regression models to assess attribute impacts upon purchase decision
  - e.g. Price, Star, Location, Screen placement, User Reviews

# Descriptives

	Review Score (5 point scale)	Price
<b>Booked</b>	3.90	\$129
<b>Not Booked</b>	3.89	\$155

Number of Reviews	Star Level									
	1	1.5	2	2.5	3	3.5	4	4.5	5	All
<b>Booked</b>	11.9	17.4	39.7	24.0	36.4	62.2	66.5	39.4	39.8	47.6
<b>Not Booked</b>	10.2	12.9	22.9	18.2	29.6	45.8	52.5	38.0	18.1	34.2
<b>All</b>	10.2	13.0	23.6	18.4	29.9	46.6	53.2	38.1	18.6	34.8

# Probability of Purchase

	PHX	LAX	MIA	ORL	CHI	BOS	NYC	DFW	HOU	ALL
Position	0.892	0.873	0.902	0.904	0.89	0.849	0.874	0.923	0.932	0.893
Score	1.238	1.164	1.134	1.095	1.084	1.112	1.112	1.11	1.17	1.135
#Reviews	1.005	1.004	1.003	1.002	1.003	1.002	1.001	1.005	1.006	1.003
Price	0.096	0.135	0.134	0.136	0.095	0.107	0.05	0.163	0.121	0.115

- Increase in review score by 1 point (say 3.8 to 4.8)
  - increases the odds of being booked by 13.5%
  - can increase price by 8% and maintain probability of purchase/market share

# Hotel Performance

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ReviewPro

- 2 ½ years monthly hotel performance (ADR, Occupancy and RevPAR) from STR matched online reputation scores (ReviewPro's GRI) by hotel and (STR) competitive set
- 3 regression models to estimate impact of reputation upon
  - Demand (Fair Share or Occupancy Index)
  - Pricing Power (ADR Index)
  - Performance (RevPAR Index)

# Elasticity

% change in performance / % change in review score

	Pricing Power (ADR)	Demand (Occupancy)	Performance (RevPAR)
All	0.80	0.20	0.96
Luxury	0.44	0.09	0.49
Upper Upscale	0.57	0.30	0.74
Upscale	0.67	0.19	0.83
Upper MidScale	0.74	0.42	1.13
MidScale	0.89	0.54	1.42

# UGC Impacts

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- User generated content/review scores an important part of research process
- Three separate data sources confirm the increasing importance and impact of UGC
- Substantive impact at time of purchase
- Impact translated into pricing power, demand and overall performance

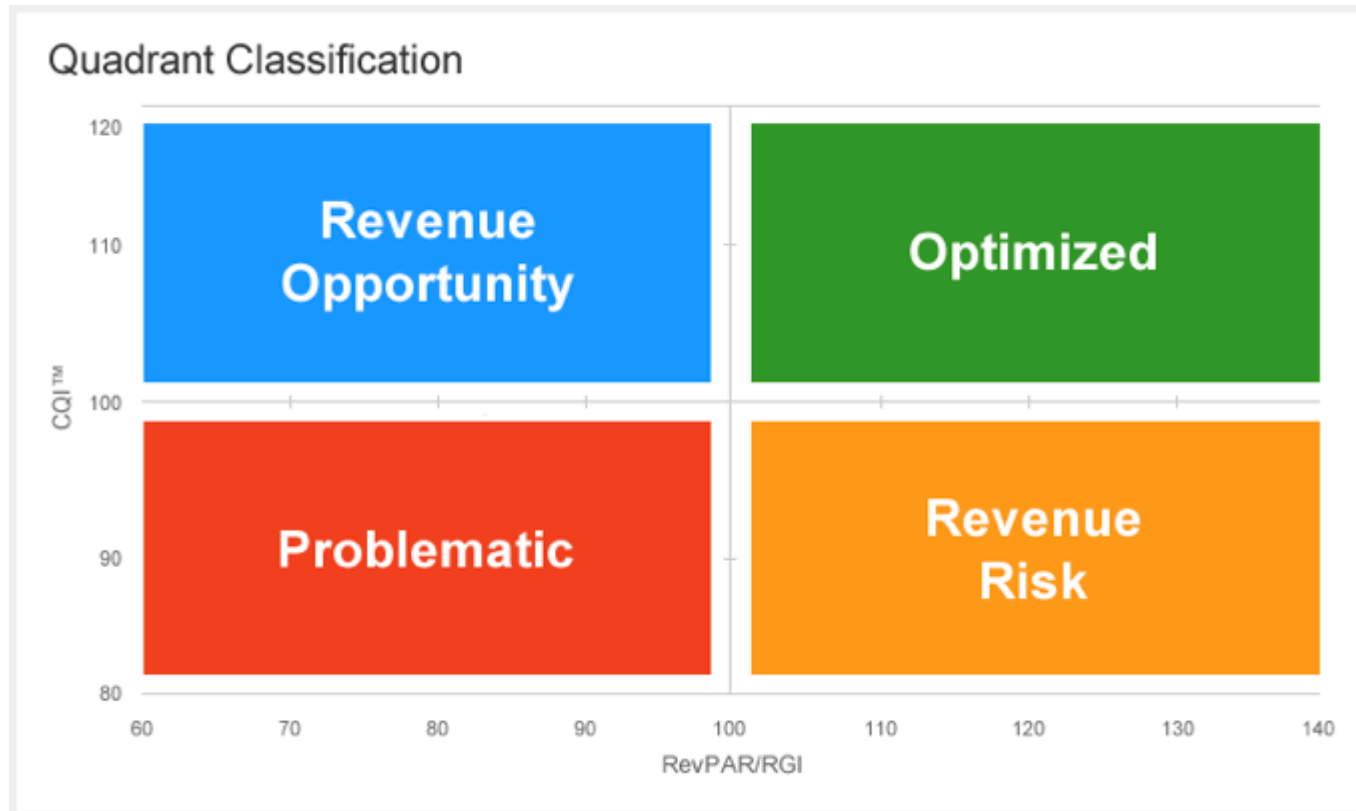
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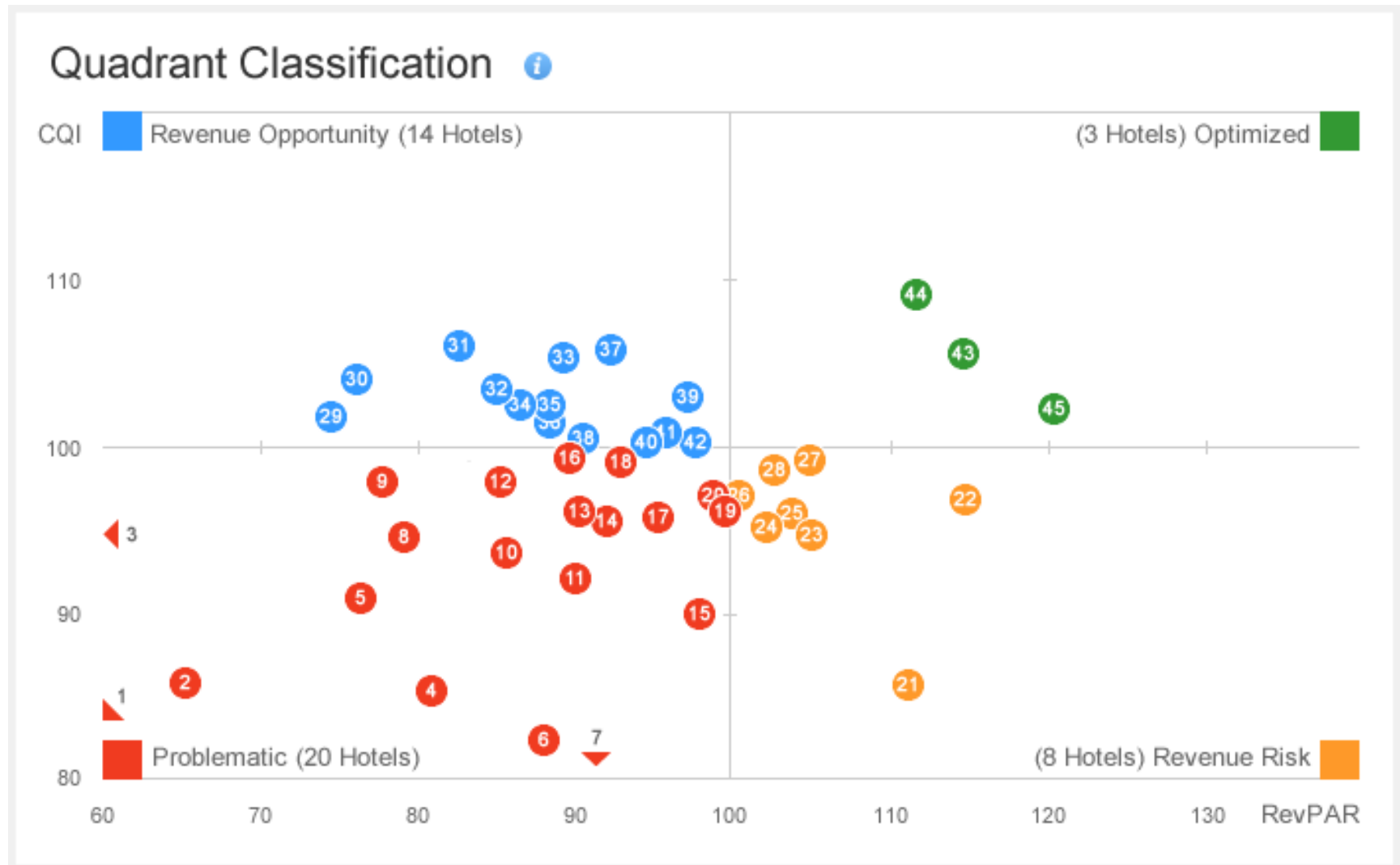
# Turning the Cornell Study into a Product: Revenue Optimizer

- Benchmark ADR, occupancy, RevPar & reputation performance compared to direct competitive set to identify areas for action to maximize revenue



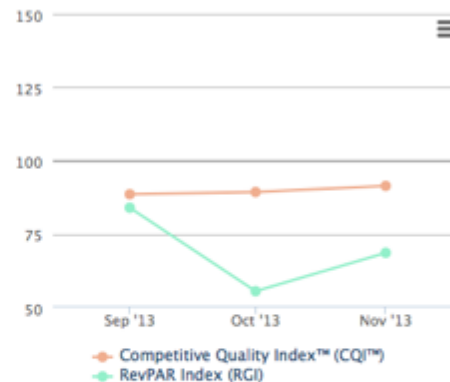
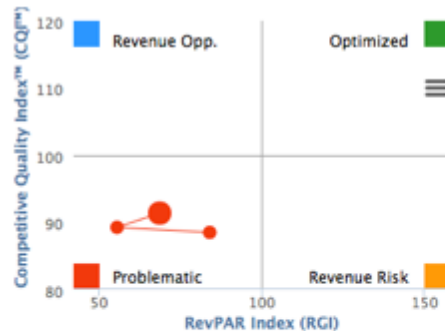


# Revenue Classification of a Leading European Chain



# Identify Critical Areas Effecting Revenue

▶ 1	Domina Capannelle	↓ RevPAR Index	↓ CQI™	Problematic	■
▶ 2	Hansar Samui Resort & Spa	RevPAR Index	↓ CQI™	Problematic	■
▶ 3	Hotel Geblergasse	RevPAR Index	↑ CQI™	Problematic	■
▶ 4	Trump SoHo New York	RevPAR Index	↓ CQI™	Revenue Risk	■
▶ 5	Abbatial Saint Germain	↓ RevPAR Index	↑ CQI™	Revenue Opp.	■
▶ 6	Crowne Plaza Times Square	RevPAR Index	↑ CQI™	Revenue Opp.	■
▶ 7	Equatorial Shanghai	RevPAR Index	↑ CQI™	Optimized	■
▶ 8	MGM Grand Hotel and Casino	RevPAR Index	↓ CQI™	Optimized	■



## Competition Ranking Changes:



















Month	CQI™ Ranking	RGI Ranking
Nov 2013	6 of 6 0	4 of 6 0
Oct 2013	6 of 6 0	4 of 6 0
Sep 2013	6 of 6 0	4 of 6 +1

## Reasons why your guest satisfaction is low:

ReviewPro Indexes	Semantic Mentions
61.8% ↓ Room	bathroom 75% Negative
65.1% ↓ Service	isolated 100% Negative
65.1% ↑ Food & Drink	tv 100% Negative

# Identify Areas Impacting Revenue: Department Indexes




## Department Indexes [?](#)

September 2013	Index	Change	Reviews	Distribution	Change
Entertainment	75.3% 	↓ 10%	2		0
Food & Drink	80.2% 	↓ 4.6%	2		-2
Value	81.2% 	↑ 3.6%	130		+35
September 2012	Index	Change	Reviews	Distribution	Change
Food & Drink	80.3% 	↑ 0.2%	2		0
Value	84.1% 	↑ 7.8%	124		+18
Global Review Index™	86.8% 	↑ 3.4%	338		+72
September 2011	Index	Change	Reviews	Distribution	Change
Entertainment	71.2% 	↓ 4.4%	1		0
Value	72.5% 	↓ 2.5%	67		-8
Service	80.1% 	↑ 0.1%	93		-11




# Identify Areas Impacting Revenue: Sentiment Analysis

## Semantic Concepts ?




September 2013

	Mentions	Distribution	Change	Related Concepts
<a href="#">bathtub</a>	5		5	<a href="#">bathtub + shower</a> (1), <a href="#">bathtub + staff</a> (1)
<a href="#">shower</a>	11		8	<a href="#">shower + room</a> (1), <a href="#">shower + bathroom</a> (1)
<a href="#">curtain</a>	3		3	<a href="#">curtain + bathroom</a> (2)

September 2012

	Mentions	Distribution	Change	Related Concepts
<a href="#">pool</a>	2		1	
<a href="#">drink</a>	4		1	
<a href="#">wi fi</a>	7		0	<a href="#">wi fi + for free</a> (4), <a href="#">wi fi + fast</a> (1)

September 2011

	Mentions	Distribution	Change	Related Concepts
<a href="#">price</a>	12		6	<a href="#">price + room</a> (5), <a href="#">price + hotel</a> (4)
<a href="#">noise</a>	7		0	<a href="#">noise + comfort</a> (7), <a href="#">noise + room</a> (1)
<a href="#">bathroom</a>	7		-2	<a href="#">bathroom + size</a> (2), <a href="#">bathroom + cleanliness</a> (1)

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# Online Reputation & REIT Performance

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- 19 Publicly traded hotel REITs
  - Financial Data
  - Stock Price Data
  - Online Reputation
  
- Construct standard financial models of REIT stock returns (CAPM, FF)
  - function of the market
  - Add online reputation
  - Change in monthly GRI score for portfolio of hotels in REIT weighted by RevPAR and scaled by star level

# REIT Returns (stock price) & online reputation

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Parameter	Estimate
<i>alpha</i>	-0.006
<i>Rm-Rf</i>	1.385
<i>SMB</i>	1.394
<i>HML</i>	0.549
<i>RMW</i>	0.124
<i>CMA</i>	-0.01
<b>Reputation</b>	1.9
R square	0.665

# Trading on Reputation

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- Calculate Weighted/Scaled Online Reputation of REIT
  - Sort Best to Worst
- Short worst, use proceeds to Long Best
- Close positions (monthly)
- Repeat
  - Assume need \$1 in cash for each \$1 shorted
- Test for 18 months (2012- mid 2013)
- Net position after 1.5 years \$0.31 per \$1 (31% gain)
  - Assumes no trading costs



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# Savvy Investors Rely on ReviewPro

- Financial Investors

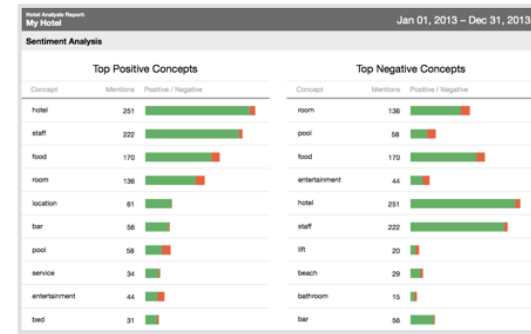
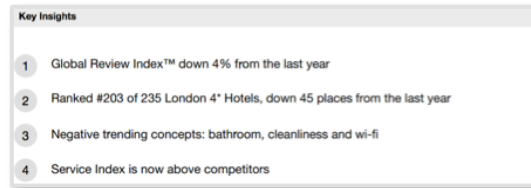
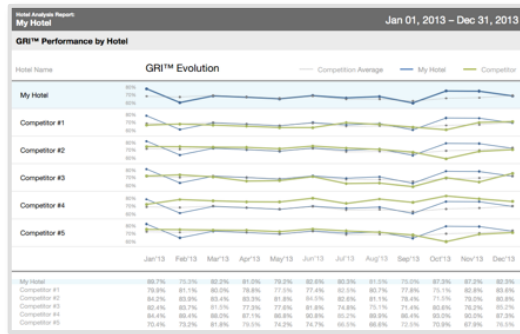
	Option 1	Option 2	Option 3
Global Review Index™	✓	✓	✓
Review Volume		✓	✓
Number of Sources		✓	✓
Number of Pos/Neu/Neg		✓	✓
Department Indexes			✓
Source Indexes			✓
Language Indexes			✓
Sentiment Concepts			✓
Free Data Sample for Testing	✓	✓	✓
Access to Developer Network Portal	✓	✓	✓
Update Frequency	Monthly	Daily	Daily
Delivery Format	SFTP	SFTP or API	SFTP or API

# Savvy Investors Rely on ReviewPro

- Hotel Investors & Brands

- Leverage Hotel Analysis Reports to:

- ✓ Identify strengths & weaknesses versus competitors
- ✓ Avoid unforeseen post-purchase capital expenditures
- ✓ Validate future revenue projections based on consumer feedback
- ✓ Assess detailed service and operational issues that were impacting revenue on a property-by-property level
- ✓ Post acquisition, management has implemented ORM as a business intelligence tool to increase guest satisfaction & revenue



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# Key Takeaways

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- Online reputation significantly influences at the time of purchase
- Significant impact on overall performance (ADR, occupancy & RevPAR)
- Reputation impact on hotel performance translates to overall company/financial performance
  - Highlights investment and trading opportunities
- Research makes clear the benefits to actively manage online reputation
  - Track, engage and improve guest experience to maximize revenue and company valuations
  - Essential to measure online reputation across all channels and languages

# For More Information

ReviewPro

To learn more about ReviewPro's award-winning solutions and web-based tools visit:

[www.reviewpro.com/ecornell](http://www.reviewpro.com/ecornell)

More helpful content at:

[www.ReviewPro.com/blog](http://www.ReviewPro.com/blog)

Email:

[info@reviewpro.com](mailto:info@reviewpro.com)

 eCornell

To learn more about Prof. Anderson's online certificate program in revenue management visit:

[www.ecornell.com](http://www.ecornell.com)



The screenshot shows the eCornell website interface. At the top, there is a navigation bar with the eCornell logo and links for ABOUT ECORNELL, CERTIFICATES, CORPORATE PROGRAMS, BLOG, and CONTACT. A search icon and a 'Enroll' button are also visible. The main content area features the title 'Advanced Hospitality Revenue Management: Pricing and Demand Strategies' in red and black text. Below the title, it says 'Certificate ID: SHAC16'. A paragraph describes the program: 'This program will build on the fundamental principles of revenue management and provide students with the advanced tools and techniques that guide strategic pricing decisions, set inventory controls, and encourage demand manipulation in a way that not only drives profits, but improves overall organizational performance.' Below this is a red banner with a photo of Prof. Chris Anderson and the program title. To the right, there is a sidebar with a 'Purchase Now' button, a 'Group pricing' link, a 'PayPal' logo with a '2024' badge, and a list of 'Certificate Courses' including 'Price and Inventory Controls', 'Price Sensitivity and Pricing Decisions', 'Segmentation and Price Optimization', 'Displacement and Negotiated Pricing', and 'Search Engines and Online Selling: Stimulating Incremental Demand'. At the bottom of the sidebar, there are buttons for 'Get More Info', 'Technical requirements', 'Download print version', and 'Talk to us now'.

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