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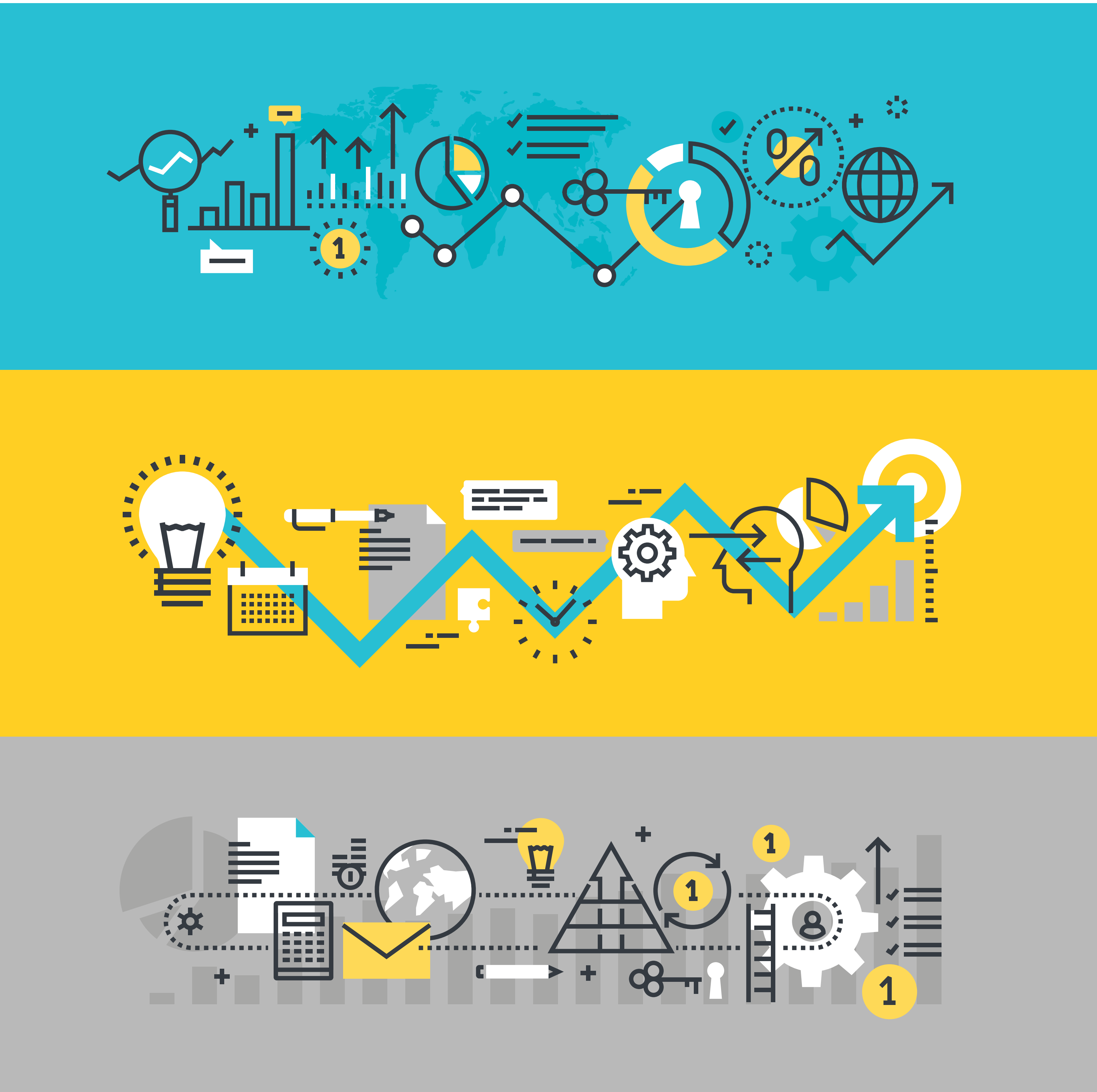
Aggregating Data Streams for More Effective Revenue Management

Sarah Thompson and Alex Hadwick



Aggregating Data Streams for More Effective Revenue Management

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About EyeforTravel

We bring together everyone in the travel industry, from small tech start-ups to international hotel brands, to form a community working towards a smarter and more connected travel industry.

Our mission is to be the place our industry goes to share knowledge and data so that travel and tech brands can work collaboratively to create the perfect experience for the modern traveler.

We do this through our network of global events, our digital content, and our knowledge hub - EyeforTravel On Demand.

Our Values

We believe the industry must focus on a business and distribution model that always puts the customer at the center and produces great products. However, to deliver an outstanding travel experience, the strength, skills, and resources of all partners in the value chain must be respected and understood.

At EyeforTravel we believe the industry can achieve this goal by focusing on a business model that combines customer insight with great product and, most importantly, places the traveler experience at its core.

At our core, we aim to enable the above by valuing impartiality, independent thought, openness and cooperation. We hope that these qualities allow us to foster dialogue, guide business decisions, build partnerships and conduct thorough research directly with the industry.

These principles have guided us since 1997 and will continue to keep us at the forefront of the industry as a vibrant travel community for many more years to come.

Our Services

Our events are the heart of EyeforTravel. These draw in experts from every part of the travel industry to give thought provoking presentations and engage in discussions. It is our aim that every attendee takes back something new that can help their business to improve. This might be in the fields of consumer research, data insights, technological trends, or marketing and revenue management techniques.

Alongside this we provide our community with commentary, reports, white papers, webinars and other valuable expert-driven content. All of this can be accessed through one place - the On Demand subscription service.

We are always expanding the content we create, so please get in touch if you want to write an article for us, create a white paper or webinar, or feature in our podcast.

EyeforTravel in Numbers

70,000+ database contacts

2,500+ annual event attendees

100,000+ monthly online reach

1,000+ online conference presentations

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Introduction

Dear Colleague,

Progress is a double-edged sword for revenue managers: with increased information comes more opportunities and the possibility of better accuracy. However, datasets become more complex, workloads increase and knowing where to look and what to measure can be harder.

Not only this, but revenue managers are increasingly required to cross into other business areas and disciplines. Now a revenue manager can only succeed in cooperation with other departments, including, but not limited to, marketing, distribution, sales, analytics, e-commerce, and senior management to achieve their objectives.

In this challenging environment revenue managers need to be on top of the changing inputs that are influencing their forecasts and ready to interpret and act on the data faster than ever before. In this white paper we aim to help the revenue manager embrace their growing influence and equip them with an overview of the major challenges and how to deal with them. In particular, we will be discussing:

- The effect of competitors on pricing, how to account for them and what strategies to take to get a competitive edge.
- Understanding and constructing predictive analytics.
- Understanding the costs of a business's channel mix and how to win direct bookings.
- The state of the industry's approach to ancillary revenues.
- The key metrics every revenue manager should be working toward.
- The future of a revenue manager's role and the skills they will require.

I hope you enjoying reading our white paper and feel free to get in touch with any questions.

Alex Hadwick
Head of Research, EyeforTravel Ltd

Executive Summary

Chapter 1 - Measuring up the Competition

- The effect of competitors in the market was the biggest challenge revenue managers faced when creating their pricing and distribution strategies for half of the respondents to EyeforTravel's survey.
- The first step to understanding the marketplace is to correctly ascertain whom the property competes with and build a competitor set (or compset) to benchmark your performance.
- A compset should look at more than just proximity and needs to consider amenities and target market.
- Pricing should always take into account the individual strength of the property in relation to competition.
- Revenue managers should be wary of reducing prices due to competitor moves. Reducing prices is not effective at recouping losses in most cases as the gains in occupancy do not offset falls in Average Daily Rate (ADR).
- Consistently lower prices are especially damaging as they are likely to become the consumer's reference prices and make raising rates again difficult.
- Aim to undercut only the most direct competitors in a compset and not by more than 5%.

Chapter 2 – The Crystal Ball of Predictive Analytics

- The most effective method for increasing revenues and profits is through increasing pricing, so predicting demand accurately is key.
- Automation offers revenue managers enormous opportunities to free up their time to spend focusing on the details of pricing and guest decisions.
- Data collection and categorization is the key to building out any forecast. Although past behavior is not does not necessarily provide a guarantee of future demand, no forecast can be built with historical context.
- Look to reduce manual data collection and to put all data into a 'data lake' so everyone in the organization is working from the same starting point. This lake should broaden out from just transactional data to behavioral information that can inform future demand patterns.
- Revenue managers should first understand their property's target market segments and the Price Elasticity of Demand (PED) in these segments and look to build out their forecasting from this data.
- Re-evaluate data constantly and over time increase detail and complexity of the data mix so it can include more forward-looking information, such as flight arrivals and web traffic.
- Understand when demand exceeds your room supply, otherwise known as unconstrained demand, as this is when prices can be raised most effectively and give insight into building products that will take this demand over to lower demand periods. Examples of when unconstrained demand occurs include major events and festivals in the property's area.
- Collect data on regrets and denials comprehensively and consistently to predict periods of unrestricted demand. These are the number of customers who look into booking but fail to convert and the customers that a hotel must turn away at a time of high demand, respectively.

Chapter 3 – Understanding the Costs and Benefits of Your Channel Mix

- Tools are still lacking to understand the costs and benefits of different distribution channels completely. Similarly, there is not an industry standard for the Key

Performance Indicators (KPIs) to measure this area.

- Revenue managers need to go beyond looking at purely the production of the channel and commission rates, especially as direct channels have their own costs and disadvantages.
- Use a net ADR yield calculation to get a general view of channel performance and profitability.
- However, go beyond this metric and consider volumes. For example, a high net ADR Yield channel with high sales volumes but a considerably lower ADR than alternatives will have a negative impact on Gross Operating Profit Per Available Room (GOPPAR).
- Include metrics such booking pace, ancillary spend generated, forecasted sales, and periods of unconstrained demand to understand when to close off channels.
- There is no way around the power of non-direct channels, so hoteliers should look to take advantage of these. For example, trying to compete on search terms may reduce profitability far more than handing the booking over to an Online Travel Agent (OTA).
- Also remember that third parties provide considerable visibility and help with brand identity.
- Therefore third parties can be extremely useful for getting the initial booking, but brands should then look to win the customer over for the future with targeted communication before and after the stay and customer service during.
- When customers do arrive on the brand's direct digital channels, they should encounter a first-class experience through rich content, a responsive mobile site and an intuitive booking mechanism that has as few clicks as possible to purchase.

Chapter 4 – How and Why You Should Be Measuring Ancillaries?

- Revenue management systems have progressed since 2014 and they are able to account for more ancillary streams than before across the board.
- Meetings, Incentives, Conferences, and Exhibitions (MICE) are more measured than any other ancillary stream, with 45.8% of revenue managers surveyed reporting their system could measure the area, a growth of more than 10% over the previous survey in late 2014.
- Measurement of tours and activities more than doubled over the period.
- 71% of revenue managers feel that they don't have the tools to do their job effectively.
- RevPAR and TRevPAR are no longer enough to measure revenue properly.
- GOPPAR is the key metric for revenue managers as it can account for all revenues and also variable expenses, giving a complete view of a property and its performance over time.
- GOPPAR is now rated as the most important metric for revenue managers, whilst RevPAR and TRevPAR are in decline.
- Including ancillary items in packages can provide benefits for a property, such as improving review scores, giving a property a competitive edge, or incentivizing guests to choose higher category room types.
- GOPPAR can help to evaluate the cost of using ancillary items as incentives. Low to no-cost items should be emphasized in marketing.

Chapter 5 – Creating Total Revenue Management

- 70.8% of revenue managers feel that revenue management as a practice should be recognized as profit management.
- 60.3% of revenue managers believe that revenue management will look more like total revenue management in five years' time.
- The fast changing pace of revenue management practice makes instituting total revenue management a challenge.
- Key to instituting total revenue management are the skills and training of revenue managers as well as the approach of the revenue management department and coordinating with other departments.
- Soft skills will be key for revenue managers in the future in order to work with other departments, as will a wider strategic understanding of how revenue management fits within the business and its goals.
- A guest focus is key and should be directly incentivized so revenue managers consider the guest experience and look at the lifetime value of guests.

1.

Measuring up the Competition

Key learnings

- The effect of competitors in the market was the biggest challenge revenue managers faced when creating their pricing and distribution strategies for half of respondents to EyeforTravel's survey.
- The first step to understanding the marketplace is to correctly ascertain whom the property competes with and build a competitor set (or compset) to benchmark your performance.
- A compset should look at more than just proximity and needs to consider amenities and target market.
- Pricing should always take into account the individual strength of the property in relation to competition.
- Revenue managers should be wary of reducing prices due to competitor moves. Reducing prices is not effective at recouping losses in most cases as the gains in occupancy do not offset falls in ADR.
- Consistently lower prices are especially damaging as they are likely to become the consumer's reference prices and make raising rates again difficult.
- Aim to undercut only the most direct competitors in a compset and not by more than 5%.

Choosing a hotel is hard from the consumer perspective – with location, facilities, types, and quality just some of the attributes often considered before price. This means they rarely choose accommodation in isolation and are exposed to a wide, competitive marketplace and a range of pricing points across these options. Revenue managers are therefore rarely, if ever, working in isolation and need to decipher how consumers see both their own and rival properties.

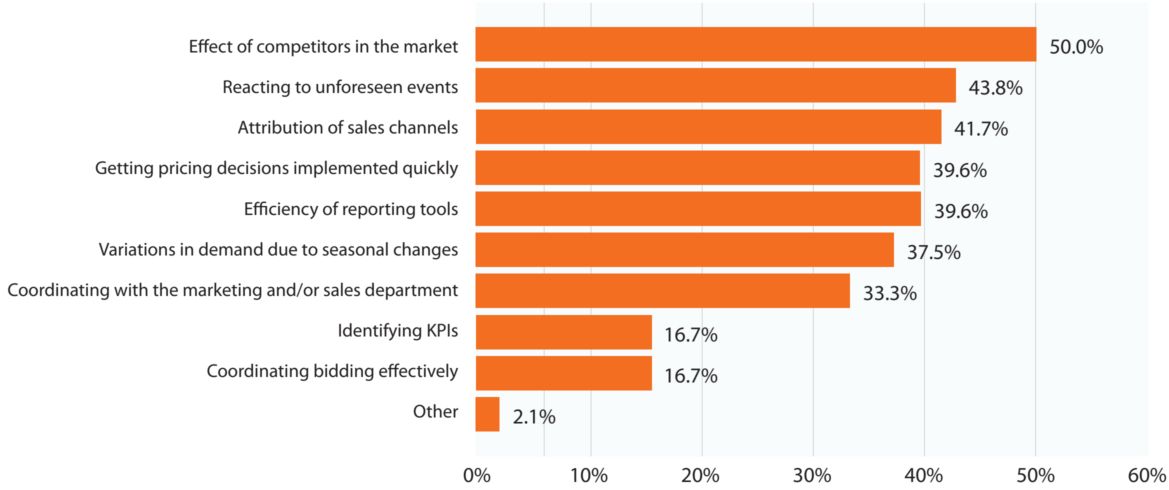
There arises a number of difficult questions from the competitive environment: How do I identify my competitors? What effect are they having on my prices? Do I follow suit or push ahead with my own strategy regardless? What effect will changes have on my own prices in the long term?

The complexity of these choices and dealing with a competitive marketplace is therefore a key concern for revenue managers. As part of our State of Data in Travel Survey 2017, we asked revenue managers about a number of key issues. One of these was what they thought was a challenge when it comes to creating a pricing and distribution strategy. Above all others was the effect of competitors in the market, with half of those surveyed identifying it as a key challenge.

Similarly, a study by Cornell of 381 revenue managers noted competition as a major concern for the revenue managers in their study. Competition was rated as the third highest future challenge facing the hotel revenue management, scoring 3.93 on average from a possible score of 5. Above this came OTAs, another form of competition (see Chapter 3 for more on OTAs and channel management), and then economic conditions at the very top, which is a perennial concern for revenue managers (Kimes, 2017).

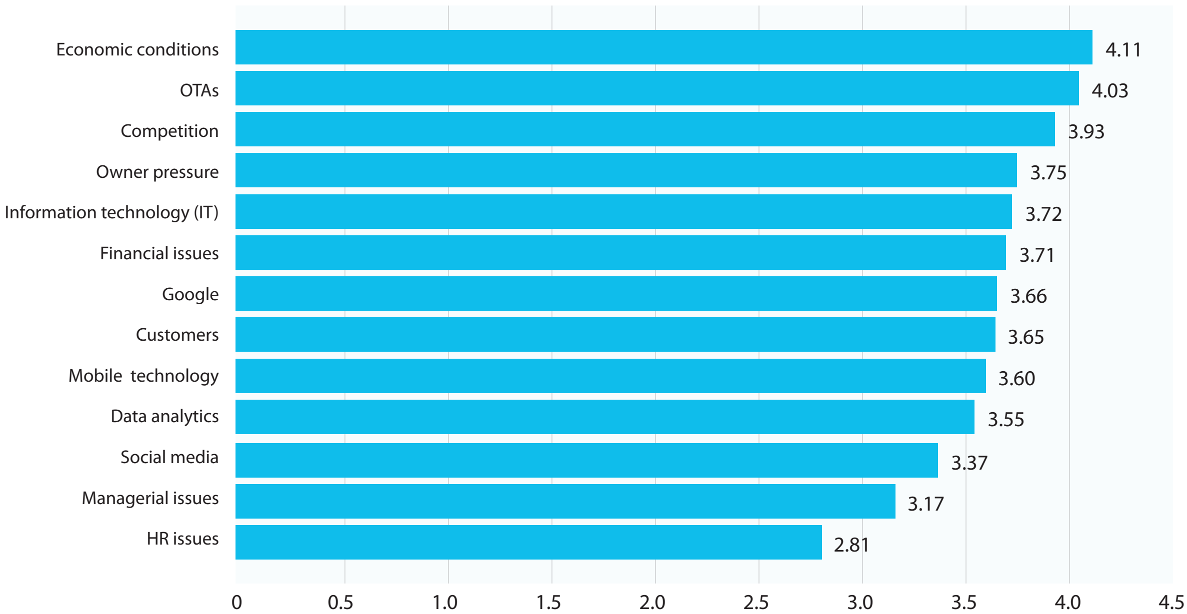
When it comes to dealing with the competition, revenue managers must consider all pricing decisions

Figure 1: Which of the Following is a Challenge when Creating a Pricing/Distribution Strategy?



Source: Source: EyeforTravel's State of Data in Travel Survey, 2017

Figure 2: The Biggest Future Challenges Facing Hotel Industry Revenue Management



Source: Kimes, 2017

carefully, and the impact they may have, not only on their own business, but also on the marketplace. Reducing rates publicly may not necessarily stimulate demand, and may send out the wrong message, not only to their compset but also the customer. Revenue managers must consider their customer mix and set their strategies according to their booking window, in order to capture the right customer, at the right time, for the right price via the right channel.

1.1 Competitor Sets

The first step to understanding the marketplace is to correctly ascertain whom the property competes with and build a competitor set (or compset).

Compsets are used for benchmarking purposes and hotels should take into account any property that is directly competing for the same business, and as such, consider any of these properties, whether similar or not. Take, for example, a group of airport hotels. Your own hotel is within walking distance of the terminal building as are three other branded hotels. Does this mean that these three hotels make up your compset alone, or should you be considering a wider market?

For example, there is a country house hotel only two miles from the terminal building that offers a complimentary shuttle service to and from the terminal building and parking is included in the rate. Should we then consider that, although this hotel is smaller and at greater distance from the airport, it is actually competing for the same business? Clearly, despite its difference in initial look and feel, it is competing also for business derived from the airport and should be added to your compset. Revenue managers need to look beyond their immediate horizons.

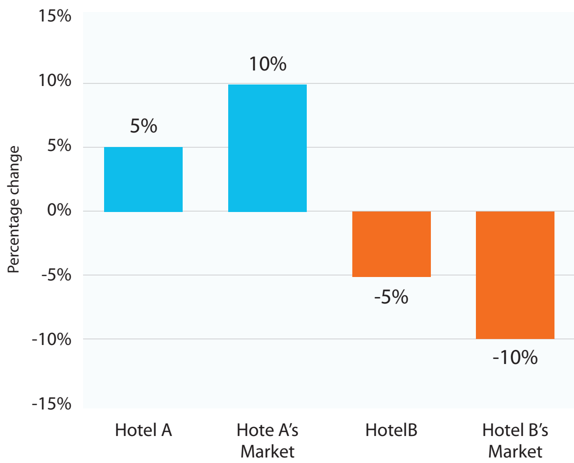
George Titlow, Business Development Manager for UK & Ireland at STR notes that "there is absolutely no harm in hotels benchmarking themselves against a wider market, if this gives them the valuable information they need in order to achieve their business objectives. Just because a hotel may not think that they have direct competitors in close proximity, does not necessarily mean that they don't have competitors further afield in a different city, or even a different country. Once a hotel has identified what type of customer they are trying to attract, they can then establish their compset."

Within a compset, there may be a combination of larger branded hotels, who offer robust loyalty rewards for guests and flex their rates daily when demand dictates, and also smaller independent hotels who may employ a static rate strategy in place of flexing rates, as they simply do not have the skill set or manpower available to implement a flexible pricing strategy.

George from STR continues: "Benchmarking your own property against others, whether branded or independent, is a way to learn about the marketplace

Figure 3: Benchmarking the Performance of a Hotel can put its Performance into Perspective

Market comparison for Hotel A and Hotel B



overall and how you perform within it. If, for example, hotel A has grown revenues by 5% since last year, and the market has grown by 10%, then hotel A has not reached its full potential in line with its marketplace. However, if hotel B has declined by 5% since last year and its respective market has declined by 10%, then perhaps hotel B is the better performer of the two hotels (as in Figure 3). Benchmarking provides a cornerstone of an effective revenue management strategy." Hotels operating in a silo, without the benefit of market intelligence or information relating to their competitors, may face far greater challenges when trying to practice revenue management.

1.2 Price Transparency and Why Competing Might Mean Holding Firm

The challenge of a competitive environment has been heightened by the consistent growth of accommodation comparison tools available to the consumer.

With such a wide array of comparison sites at the consumers' fingertips, conducting a quick price comparison across a range of competing hotels can be made with great ease. For many hotels, particularly those without the skillset of larger brands or even a channel manager, this can become challenging as metasearch engines, such as trivago and KAYAK, can offer the consumer a range of accommodation prices, across multiple channels for the same room type in the property. In addition, the metasearch engine will also select multiple hotels in the consumer's chosen area and these suggestion tools are becoming more powerful, as online players improve their targeting algorithms. As such, hotels need to keep a mindful eye on their competitor set's pricing to ensure they are offering rates in line with their marketplace.

The era of metasearch comparison and increasingly transparent pricing creates dilemmas for the revenue manager. The reflexive response is to always try to beat the competition. If consumers increasingly use price comparison websites, then it seems logical that price is the key part of the decision matrix and therefore your hotel should be the best in its compset. However, revenue managers need to hold back from this mindset and refrain from immediately introducing discount rates in a highly reactive manner.

Instead, revenue managers need to consider pricing from the buyer's mindset. Consumers are not buying a tin of beans, they are engaging in a choice that reaches beyond price, so price sensitivity may be low. Furthermore, aggressively using price can result in problematic long-term effects.

1.2.1 What Does Your Property Offer in Relation to the Competition?

Your hotel's value proposition should represent a fair price in relation to the customer's perceived value, in terms of both the product and the level of service that they will receive. If not, the customer's expectations may not be met. Whilst you may have an understanding of your competitor pricing, your competitor analysis should also be expanded to include the services that the competitors offer. If, for example, all of your competitors have car parking facilities and your hotel does not, then you may choose to reflect this in your strategy by setting your price slightly lower than the compset, representing value for the customer.

Equally, any areas of weakness identified across your compset can be translated into a strength for your hotel. So, as an example, if your hotel is the only property within the competitor radius with leisure facilities, the opposite would apply, and perhaps a slightly higher rate may be achievable.

1.2.2 The Long-Term Costs of Discounting

Discounting can be a powerful tool for revenue managers and it is constantly tempting to undercut the closest competition in order to try and grab back market share. However, are revenue managers too quick to jump to discounting and what are the long-term effects of reducing prices?

A 2015 study found that revenue managers' behavior is influenced by a number of factors, principally the time of the booking, but also competition. It found that for hotels in crowded markets, if competitors were priced just $5 above their rate, most managers would discount even though they were already priced below the competition. The study also found that younger, less experienced and less educated revenue managers would make more erratic decisions, but overall revenue managers follow competitors in discounting rates (Lee, 2015).

Therefore, markets can quickly create downward pressure on pricing as revenue managers follow suit and react to peers, but this might not be the right answer. A 2016 study looking at European hotel performance from 2004 to 2013 came up with some counter-intuitive findings that suggest that hotels might benefit from the reverse of the prevailing behaviour. The study found that gains in occupancy from discounting against a compset were not enough to offset the reduction in revenues gained from doing so: "The results of this study and its predecessors have demonstrated a general unresponsiveness of demand to lower comparative prices. Although some degree of demand shifts up or down among direct competitors as pricing moves unfold over time, this series of studies indicates that revenues are more strongly influenced by ADR than by occupancy."

It goes on to note that, "given the positive coefficient for relative price positioning for the entire sample and for chain-affiliated hotels, it could be argued that, regardless of hotel chain scale, a price position above that of the competitive set yields the highest revenue results." In more detail, the paper found that hotels with 2-5% higher prices than competition saw occupancies that were also 1.46% higher and RevPAR 4.98% above their competitive set. In contrast, hotels that priced 2-5% lower saw better occupancies to the tune of 2.01% but 1.54% lower RevPAR. Overall, this would mean less revenue for the hotel pricing below its compset. Interestingly it also found that price sensitivity appeared to decrease over the time periods it studied, rather than increase (Enz, Canina and van der Rest, 2016). The study is also backed by a similar finding from a 2012 study of nearly 7,000 US hotels that found similar results (Noone, Canina and Enz, 2012).

Part of this counter-narrative to competitive discounting may be down to the fact of how consumers perceive value and reference prices. A 2016 study from the University of Bournemouth into hotel pricing changes found that:

- The first prices consumers view are more likely to form their reference prices, so lower hotel pricing initially will be remembered more and be of greater influence for consumer's future perceptions. This makes it more difficult to raise prices later as returning potential buyers will place more importance on the first price seen and view any higher prices in a more negative frame of mind.
- Consumers will be more perceptive to price changes if prices between properties change simultaneously, or near-simultaneously. The paper found that what people thought was a standard price for a hotel was lower for simultaneous pricing changes than if prices changed independently. This is because consumers will view price rises as unfair and how we construct an idea of value and pricing is in direct reference to other prices in the market. The finding suggests that hotels should not be too reactive to chasing competitors.
- Peak prices are more influential for consumers than the lowest price in a period when constructing a reference price. Consumers are also more perceptive of falling prices and more likely to remember them. Prices have an emotional aspect, with loss (increasing prices) felt more keenly and painfully than gains (falling prices).

The paper concluded: "The more often and longer hotel room rates are discounted, the more likely the discounted rate is to become the reference price, and the more difficult it will be for hotels to recover their value in the minds of consumers." (Viglia, Mauri and Carricano, 2015). Creating lower prices can therefore lead to lower consumer expectations and it can be difficult to raise prices back up again.

Another part of why consumers are largely not as price sensitive as revenue managers expect can be attributed to the fact that booking a hotel is a complex consumer decision. Presentation, reviews, brand perception, star ratings, location, and amenities and services are just some of the more prominent elements likely to come into a consumer's decision. These are all elements beyond price that reach into experience and emotion, leaving the consumer with a lot to consider beyond price.

Numerous studies have shown that when consumers are faced with processing large amounts of information in a purchase decision, they are more likely to refer to subconscious short cuts to help them decide. This means that for a decision as complex as choosing accommodation, rational pricing structures are less likely to be influential and people will rely on quick reasoning, such as inferring that slightly higher prices are indicative of quality.

This is not to say that discounting or pricing relative to competitors is ineffective and that consumers are not price aware, but more to say that managers need to be aware of their value proposition to consumers, understand the property's clientele in detail and consider their closest competitors very closely. Attempting to undercut the entire compset may end up hurting the property and the market, creating deterioration in pricing and leaving the property competing with lower segments and with reduced revenues. However, undercutting the very nearest competitor, who has a very similar property and set of amenities, can sway consumers and drive occupancy whilst increasing revenues.

Jose Murta, Head of Hospitality at trivago, emphasized the role that smaller pricing changes in relation to competitors can play at EyeforTravel Europe 2017: "Do you offer something different to our competitors? If yes, then highlight this. If not, and this is totally fine because usually your competitors are very, very similar to yours, then pricing will play a very important role. Through our internal research we have realized that a difference of 5% will actually lead to a 50% [rise] in booking conversion. This is a small thing that hotels are overlooking."

It is therefore important to consider objectives when setting prices. Ask who are you trying attract into the property and why? Would a promotional rate or special offer bring new business into the marketplace? If so, then it can bring value, but if the level of business coming into the marketplace remains the same, albeit at a lower rate, it will dilute the average room rate across the compset.

1.4 When Supply Outstrips Demand

With new hotel openings leading to increased competition, is it possible for hotels to remain competitive and still maintain their fair market share? The answer, simply put, if a market experiences a growth in supply at the same rate as demand, then yes, it is possible, with the right strategy, to maintain market share. However, if the growth in supply outpaces the demand, then the consequences of this formula may result in a decline in revenue per available room (RevPAR), either through a reduction in average rate or a reduction in occupancy, as more hotels are competing for the same level of business. So in this case, what strategy should a hotel follow? Angela Wu, Director of Revenue Management, W Hotels, says: "In this scenario, it is important to set expectations, especially at a higher level, and, depending upon the strategy you adopt, to either lose occupancy or rate, the overall result will still lead to a decline in RevPAR."

1.3 Case Study: The Dunstane Hotel, Edinburgh

Samantha Wright, Hotel Manager of The Dunstane Hotel in Edinburgh said: "Running an independent hotel in a competitive environment is both exciting and challenging. Being a stand-alone property means that we simply don't have the buying power that the larger chains have and, by comparison, our variable room costs are higher, which results in limitations on how flexible we can be with our pricing strategies. When our competitors reduce their rates or introduce offers, we have to consider our cost structure carefully as to whether or not we can follow suit." Samantha added: "Being a smaller hotel has its advantages in that we have less rooms to fill, therefore we can opt to wait for the higher-rated transient customer, who has a much shorter booking window, and price in line with our competitors, who by this point, have raised their rates. It is also important that our customers with a longer booking window, understand that our price reflects our value proposition."

Angela continues: "2015 in NYC saw the first non-recession decline in RevPAR, due to additional supply coming into the market. Having experienced this, it is key for hotels to re-focus their strategy in order to mitigate loss, as opposed to adopting a growth strategy. First and foremost, it is important to protect the price in elastic segments. If these customer types are still traveling, then there is no need to discount, as this will not drive incremental occupancy.

"Once the average rate starts to decline, other hotels will follow suit and it is more difficult to recover average rate than grow it."

1.5 What Are the Strategic Levers Available to Revenue Managers in Order to Manipulate Customer Demand?

As we have seen, comparing price alone may not necessarily paint a full picture. Therefore, in addition to price, a revenue manager must also consider the associated terms and conditions which may have been built around specific rates in order to manage customer duration.

Duration controls can be effective across all time periods and can contribute to maximizing overall revenue in conjunction with price. Revenue managers can attempt to control duration strategically in order to both reduce the uncertainty of arrival and also reduce the uncertainty of duration.

Universally accepted nowadays is to practice pre-payment rules on lower fares or discounted accommodation rates, and, by doing so, the provider is reducing the uncertainty of arrival by shifting the onus of this onto the customer. In addition, internal practices commonly used to reduce uncertainty of arrival may include setting an agreed over-booking level for the property, by way of intentionally selling more units than overall capacity. This potentially would counteract revenue loss from no-shows and late cancellations; however, the gain versus the impact for the customer must be carefully thought out in advance.

Some properties may also offer reduced accommodation rates, if the customer meets certain conditions, such as length of stay. By doing so, the hotel is reducing the uncertainty of duration, as the customer agrees to pay a specific rate based on the number of nights. Equally, hotels may choose to apply a length of stay restriction without discounting the rate, which may be appropriate to do across periods of extremely high demand.

2.

The Crystal Ball of Predictive Analytics

Key learnings

- The most effective method for increase revenues and profits is through increasing pricing, so predicting demand accurately is key.
- Automation offers revenue managers enormous opportunities to free up their time to spend focusing on the details of pricing and guest decisions.
- Data collection and categorization is the key to building out any forecast. Although past behavior is not does not necessarily provide a guarantee of future demand, no forecast can be built with historical context.
- Look to reduce manual data collection and to put all data into a 'data lake' so everyone in the organization is working from the same starting point. This lake should broaden out from just transactional data to behavioral information that can inform future demand patterns.
- Revenue managers should first understand their property's target market segments and the Price Elasticity of Demand (PED) in these segments and look to build out their forecasting from this data.
- Re-evaluate data constantly and over time increase detail and complexity of the data mix so it can include more forward-looking information, such as flight arrivals and web traffic.
- Understand when demand exceeds your room supply, otherwise known as unconstrained demand, as this is when prices can be raised most effectively and give insight into building products that will take this demand over to lower demand periods. Examples include events in the property's area.
- Collect data on regrets and denials comprehensively and consistently to predict periods of unrestricted demand. These are the number of customers who look into booking but fail to convert and the customers that a hotel must turn away at a time of high demand, respectively.

In today's revenue management environment, forecasting is probably one of the most important tasks within the revenue management suite of activities. A lot rests on the accuracy of the hotel's forecast as typically all costs are derived from the anticipated sales, and therefore the responsibility to predict realistic and achievable forecast figures can be the difference between the success and failure of a business.

Traditional revenue management, which originated from the airline industry, has developed in the hotel industry quite significantly over the last 15 to 20 years. Despite the developments, the goal remains the same: to sell the right room, at the right time, for the right price, to the right customer. However, can a human revenue manager accurately predict future demand? In the face of growing computing power, is there still a space for a human input in revenue management currently and in the future?

For Josh Henegar, Corporate Revenue Director at 1859 Historic Hotels, revenue managers will continue to have a role for the foreseeable future but it will subtly change: "I think it will continue to be more automated, which will allow us to focus on more things like what it looks and feels like to do business with us. That is an intangible human element that I don't think you will be able to automate…. I think we can automate pricing, restrictions, and yield management."

Neetu Ganesh, Director of Revenue Management at Redefine BDL, believes that a combination of man and machine is most powerful, but it needs deep knowledge and confidence: "To have an understanding of the business is of great importance when forecasting. Knowing the level of movement in rooms per day along with lead time can greatly assist, which can only be achieved through experience and having a 'feel' for the business levels generated on a daily basis. Backed up with data, this can provide a powerful combination to produce accurate forecasts with confidence."

Philip Gardner, Vice President, Revenue Management, Europe at IHG, also believes forecasting is a mix: "Predicting future demand is definitely part art, and part science." Philip continued: "What is important is that a revenue manager can utilize the tools available to them, and lets those tools do the job they are designed to. However, there is always the need for a skilled revenue manager to ensure these tools are set up to deliver, have reliable inputs and, where necessary, can qualify, interpret and communicate the outputs." When asked what the components of an accurate forecast are, Philip added: "Good quality information and inputs, coupled with tools that can assist in automating and processing data, so that skilled revenue managers can minimize the time spent on data processing."

It is notable that both Gardner and Henegar emphasize that one of the key advantages is the time saving afforded by bringing in predictive analytics. Removing the manual collection of data allows revenue managers to cast a more careful eye on reviewing the business performance and to reach pricing decisions in a more timely manner, arguably ahead of your competitors who may not use predictive analytics.

Jonathon Liu, Vice President Pricing & Revenue Management – UK & Ireland, also implored senior figures to free up revenue managers when speaking at EyeforTravel's European Summit 2017, where he set out a set of key points for revenue professionals:

- Align the time of RM professionals to add value to the business – make sure you're automating as much as possible to give your revenue managers as much times as possible to refine strategy.
- Broaden your data approach – don't just look at the transactional data.
- Taking a single view of the data that strategies and actions will be aligned.

Certainly, the concept of fully removing all human intervention can carry certain risks to a business, as the system will only be as good as the information supplied. The system set up is crucial to its success in terms of the algorithms used, for example, how do you remain impartial when weighting the impact of your competitor pricing? And what does this mean for your hotel? As with all new initiatives, there has to be a settling in period, and the risk is probably more apparent within the first three months of using a new piece of technology, while the system learns and makes sense of your property. Equally, the hotel must learn to trust the system and the information it generates, and for hotels who may favor traditional revenue management, this can be a difficult bridge to cross.

2.1 Data Collection

Traditionally revenue managers have analyzed past trends and actual results collected at hotel level, in an attempt to try and interpret this into a forward-looking business picture. Naturally this is a data-led exercise but the difference with predictive analytics is that the scale and automation of data is taken to the next level. 'Big data' is consolidated into one central stream, and then based upon various algorithms, an indication of future customer demand, combined with suggested price is generated.

Adriaan Kleingeld, CEO of Hospitality Software Development Services (HSDS), reflected these points: "Nowadays there are more and more data sources readily available that have an impact or correlation between demand and supply. In the case of hotel rooms, their availability and price in a particular market at a particular time. Good revenue management is often a very manual process as the data is fragmented. Manual data is taken from various sources, such as the hotel's property management system, the rate shopping report, or the channel manager. With this, past or current information is used, often not future, which makes the picture incomplete, disconnected and not aggregated."

Adriaan continued: "Step one is to aggregate this information professionally using predictive algorithms, such as linear regression, and then the process of predicting can begin. Once up and running, the cost savings are apparent, based on the time saved by employees. As the system delivers a complete spectrum of market data required, the manual collection of information becomes almost redundant."

For Jonathon Liu and Accor, their focus has also been about broadening their data collection and combining that in new ways across the business: "Traditionally in hotels, we've focused a lot on our systems in terms of Property Management System (PMS) data and it's always been very transactional. We know when the guest is booking, we know how many days out, we know what they're spending, we know what types of room types and rate levels, but what we are trying to do now is to take that to the next level and bring in other data that sits around that. More around behavioral analytics. Looking at how the guest is dreaming, how they're shopping, how they're browsing and combining that with that transactional data. So, it's moving from a systems-led, transactional space to more of a revenue culture across the whole business."

To this effect, what Accor "have been able to do is to build a data lake with a lot of our providers that brings the information into one central source." For Liu the goal of this is to unify the data so that they can bring "behavioral science right through to the transactional data to get an end-to-end approach from our data – from when they are dreaming right through the stay experience and into the post-stay."

2.2 Translating Data into an Effective Pricing Strategy

Predictive analytics requires the same data streams revenue managers would use for manual forecasting:

- Historical and current booking pace.
- Current business levels booked.
- Historical performance.
- Competitor pricing.
- No-shows and cancellations.
- Special events.

However, there are other inputs that managers need to take into account depending on how sophisticated they want their models to be. These include:

- Macroeconomic performance of key markets.
- Exchange rates.
- Visits to the hotel's website and abandonments of bookings (or regrets).
- Flight data.
- Search volume for related terms.
- Bookings turned away at times of high demand (denials, see Section 2.3 for more).
- Reviews and ratings.
- Weather patterns.
- Third party booking information.

In addition, length of stay and day of week performance may be considered, especially in hotels with an array of customer segments as behaviors vary, most obviously between business and leisure guests.

So, what is the key to an accurate forecast? Ganesh continues: "The key to producing an accurate and coherent forecast is to not overcomplicate the process. A good understanding of price elasticity within the marketplace, together with a daily insight into business performance and change, can provide the necessary components to produce an accurate forecast. Starting with the accommodation piece of the forecast, additional elements, such as food and beverage, can be derived to form a complete view."

Therefore, the underlying core of starting to make forecasts is an understanding of Price Elasticity of Demand (PED).

PED is a theory based on the principle that demand for a product will vary according to its price. In all hospitality cases we can broadly assume that when we decrease price, demand increases and when we increase price there is a reduction in demand. PED measures how sensitive quantity is in a change in price, and, by doing so, can support pricing decisions made.

Calculating the coefficient of PED

Percentage change in quantity demanded x 100
Percentage change in price

At its most basic the formula above will allow revenue managers to understand how sensitive consumers are to prices at a given time. Higher values – generally considered to be above 1 – mean that customers are sensitive to pricing changes However, core to the practice of revenue management is the knowledge that demand is not a constant, with often wild fluctuations across a booking window, and that there are almost always substitutes in the form of alternative accommodation choices. Forecasting, therefore to a degree needs to be a case of trial and error, sifting through variables and understanding what has the most effective for the property, as this can vary from property to property.

For example, luxury consumers are generally less sensitive to price changes. This is because the marginal utility of their spending per unit is lower, or to put it another way they are less interested in squeezing the value out of each dollar. Therefore, revenue managers can afford to be less active in changing prices for high-spending segments. Likewise, a small number of competitors in a market that then has a large influx of visitors for an event will see that customers in that market become less sensitive to pricing and PED will fall in value (zero being the point of a perfectly inelastic demand curve). In periods where there is a major event, understanding the potential market size and conditions in that time period and the effect on PED is the only way to maximize profits.

Over time revenue managers should collect data to understand their target markets and the various segments that these consist of. Segmentation is critical as different groupings of consumers act in different ways to pricing levels and changes and can help with marketing efforts. For Accor they are taking segmentation to a personal level: "One of the critical things we are able to do in our systems it to track each individual with a very unique I.D. and within that unique I.D. they may have two or three different profiles. For example, I have three profiles that sit within our system. I have Jonathon, who travel on Tuesdays and Wednesdays to Paris on business. I have a certain hotel that I go to. It's close to the office. It's one person. So all that data is relevant for just myself on business. My second profile is when I am traveling on leisure. Long weekends. I will stay in different styles of hotels, usually around our more boutique brands, and I will be indulging in a lot more food and beverage and activities in the hotel. My third profile I have is when I go away to conferences and things like that when I am traveling in a business group.

"Now what we are able to do is to individually segment those three profiles under one unique I.D., so when we go out to our customers in our emails or our text messages we are able to put the right offer in front of me." This is an example of advanced categorization and segmentation, but at a more basic level, all revenue managers should make sure that guests are tagged with codes in the PMS that refer to their segment. This allows them to trace data back easily and understand that segment's booking behaviors.

Once revenue managers are armed with the requisite data, they then need to see how changes in the variables in the bullet points at the start of this section affect demand levels for each key segment across a booking window. Weighting can then be applied to these variables and changes modeled to the current circumstances. Rates, prices and product offerings can then be set up for the booking window for each segment.

The key for forecasting demand is to continue to evaluate the variables and adjust as the booking

Table 1: Price Improvement is the Key to Improved Operating Profit

1% improvement in	Creates an operating profit improvement of
Fixed costs	2.4%
Volume (or occupancy)	3.3%
Variable Costs	7.8%
Price	11.1%

Source: Harvard Business Review, 1992

window develops, otherwise known as dynamic re-evaluation. As Ganesh notes: "Data can become dated and, with this in mind, how quickly can a piece of technology identify a change in the marketplace over and above an experienced revenue manager?"

This is where the revenue manager should be using time freed up by automation so they can move towards the end goal of different rate plans, at different price points, at different times and products that will attract all targeted customer segments. With each variable accounted for, weighted and measured, it is possible for hotels to create their own revenue management formulas, although there are also now a host of third-party providers in the market as well.

Having a good understanding of your cost structure will also help to determine the flexibility you have in relation to price. Fixed costs remain the same regardless of occupancy, and variable costs increase in line with occupancy. Therefore, it is important that your pricing strategy does not fall below a level whereby the hotel does not cover its costs.

Pricing decisions should also be reflective of your overall strategy in terms of what you are striving to achieve, and it is important to have this in the forefront of your mind. For example, if you happen to be a new hotel opening in a busy city center, and the strategy the hotel has chosen to adopt is one of occupancy, then penetrating the market through price has to be the overall objective, regardless of all other factors.

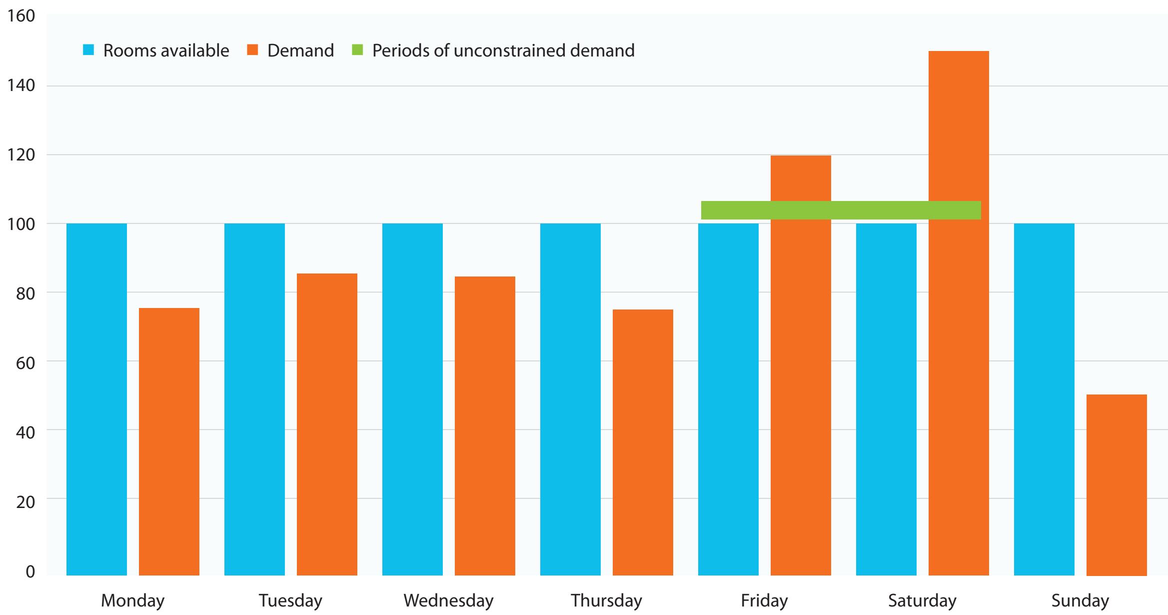
2.3 Unconstrained Demand

Predictive analytics can help to identify periods of unconstrained demand, whereby the demand for a hotel exceeds the available capacity. This is important as periods of unconstrained demand can fail to be captured and understood as business is turned away and potentially not recorded, which is also known as a denial. More importantly, to really optimize profits, revenue managers need to know when these periods will occur as this is when prices can rise most and, as we can see from the table below, increases in pricing are the best way to better profits. A 1% improvement in price can create an 11.1% improvement in operating profit according to a cross sector Harvard Business Review study (Harvard Business Review, 1992).

Unconstrained demand can be seen in Figure 4. Across the week demand in the property falls below the number of available rooms, but on the high points of demand for this property, Friday and Saturday, demand exceeds the number of available rooms and customers cannot book accommodation. This suggests that this property is underpricing its weekends and potentially overpricing others, although it should be noted that a higher ADR may be preferable to lowering rates to increase occupancy. In this case, it may make sense for the property's revenue manager to increase prices on Friday and, in particular, Saturday, but then create an offer to extend stays into Sunday on a much-reduced rate for the latter day to stimulate demand and reverse what is an under-occupied day currently. This would not have been known without measuring unconstrained demand.

Normally the main ways of identifying periods of unconstrained demand are regrets and denials, or the number of customers who look into booking but fail to convert, and the customer that a hotel must turn away at a time of high demand, respectively. It is therefore vital to measure consistently these two factors across all possible booking channels.

Figure 4: Identifying Periods of Unconstrained Demand Can Support Pricing Decisions



Rate shopping data can contribute to forecasting decisions as this may identify constrained days within the marketplace whereby a hotel can optimize price, and also periods of low demand where competitors are priced more favorably to stimulate demand.

Overall, revenue managers should look beyond their own property to get a full grasp of unconstrained demand as the aim is to understand the total demand in the market and then reflect this in property pricing. Flight arrival data and competitor analysis can help in this regard.

To make the most of this potential, revenue managers need to move beyond static pricing and fixed models to a dynamic pricing regime that accounts for demand levels not just on a month-to-month but day-by-day basis. Calculating unconstrained demand is a key element in this as it is a key to identifying the most profitable periods in a property's year and directly flies in the face of set rates constructed far ahead of time or at the start of the booking window that cannot be varied or only modified slightly.

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3.

Understanding the Costs and Benefits of Your Channel Mix

Key learnings

- Tools are still lacking to understand the costs and benefits of different channels completely. Similarly there is not an industry standard for the KPIs to measure this area.
- Revenue managers need to go beyond looking at purely the production of the channel and commission rates, especially as direct channels have their own costs and disadvantages.
- Use net ADR yield to get a general view of channel performance and profitability.
- However, go beyond this metric and consider volumes. For example, a high net ADR Yield channel with high sales volumes but a considerably lower ADR than alternatives will have a negative impact on GOPPAR.
- Include metrics such booking pace, ancillary spend generated, forecasted sales, and periods of unconstrained demand to understand when to close off channels.
- There is no way around the power of non-direct channels, so hoteliers should look to take advantage of these. For example, trying to compete on search terms may reduce profitability far more than handing the booking over to an OTA.
- Also remember that third parties provide considerable visibility and help with brand identity.
- Therefore third parties can be extremely useful for getting the initial booking, but brands should then look to win the customer over for the future with targeted communication before and after the stay and customer service during.
- When customers do arrive on the brand's direct digital channels, they should encounter a first-class experience through rich content, a responsive mobile site and an intuitive booking mechanism that has as few clicks as possible to purchase.

In a time when technology is advancing at such a rapid pace, hoteliers may not appreciate or understand how crucial it is to ensure their property is taking full advantage of the distribution landscape. Revenue managers nowadays need to fully comprehend the complexities of distribution and the supporting technology available in order to effectively execute their desired strategy.

Every channel the hotel uses comes with a cost and the key to making the most of this channel mix is understanding when they produce business, how many bookings they bring and at what cost. Whether this be traditional methods such as voice, global distribution systems (GDS) or branded websites, alongside more current avenues such as online travel agents (OTAs), metasearch engines, or social media sites, they should contribute towards the hotel's overall revenue strategy in conjunction with the associated sales and marketing efforts.

Creating an optimal channel mix will vary from business to business and marketplace to marketplace, but the end goal should ultimately be to achieve the desired occupancy levels at the right rate in the most cost effective way possible. Hotels can expect to pay anywhere between 8% and 35% commission for accommodation sales delivered via certain models. Given the potential costs it is imperative for revenue managers to understand what factors they need to consider in order to achieve the optimal mix.

Whilst identifying the highest producing channel combination is relatively straightforward, by taking the room nights booked and multiplying by the average room rate, is it fair to assume that the highest producing channel solely in terms of revenue is the best?

This view would be far too simplistic. For revenue managers to begin to assess and solve the problem of channel related costs they need to ask are the distribution costs too high and are they increasing? Should they eradicate high cost channels? How can they shift customers from booking via a high cost channel to a lower cost channel?

By looking at only top-line key performance indicators, such as average daily rate (ADR) and revenue per available room (RevPAR), there isn't a clear picture in terms of the associated costs to identify profitability by channel. Typically, this task is undertaken by hotels retrospectively, in order to evaluate results at the end of a particular month or financial period, as opposed to proactively to create a strategic understanding of cost per channel.

Neetu Ganesh, Director of Revenue at Redefine BDL said: "Whilst we are completely aware of the direct costs of our distribution channels, we tend to focus on OTAs alone as opposed to other channels such as voice, central reservations or GDS. We take a broad view. If revenue has grown by X amount, commission costs have grown by Y. [We] are not as analytical as we would perhaps like to be."

Henegar echoes this sentiment: "Whilst there is a lot of data available to us and a lot of tools that allow us to gauge our own pacing and forecasting, as well as what the market and our competitors are doing, there is still a gaping hole in streaming it all together in one place, but also the inability for us to manage our channel distribution strategy based upon cost of acquisition. We do not have the tools available to us to do this in an automated or less manual way."

"We do try to do our own analysis on our least to most profitable channels, obviously starting with direct business – direct in the truest sense of picking up the phone and calling us," continues Henegar, "and then our direct booking engines and call centers and then GDS and all the OTAs. When you analyze the data it is very eye opening and makes us rethink our strategies."

In an ideal world, hotels may want to restrict the higher cost channels in favor of steering customers towards lower cost channels, which would prove more profitable; however, restricting specific channels based on cost alone may not necessarily be the right decision. As we have identified earlier, customers are conducting more research than ever before and visit multiple websites researching their vacation right up until the purchase, therefore if your hotel is not visible to the customer via a particular channel, you may be constraining demand.

Savvy revenue managers realize that distribution costs can vary dramatically from channel to channel and must be managed. Carefully selecting lower cost channels is one way of managing these costs, as well as a focus on shifting repeat guests from booking through a high-cost channel to a lower-cost channel.

3.1 Going Direct

In 2016 Hilton launched their largest ever advertising campaign – "Stop Clicking Around" – with the express aim of grabbing more direct bookings and driving loyalty. They are not alone, with many of the world's largest hotel chains also engaging in similar campaigns to fight back against the idea that third parties have the best value deals. If hotels are able to turn around perceptions of price and value it will be a long road and there will always be a layer of intermediaries in the mix. So, hotels should accept that customers will continue to shop around and focus heavily on making sure that they are ready to convert that customer when they do visit own-brand properties.

Fig Cakar, Managing Director for The Americas at SiteMinder, emphasizes the importance of user experience (UX): "Hotels must have a presence across all channels in order to build their brand identity; however, as soon as the customer lands on the hotels own website, there is an opportunity to convert that customer to book direct. Primarily, by having a fantastic, content-rich website, then secondly, although just as important, the functionality of the booking engine contributes to the booking experience, and by shortening the number of clicks to pay, can capture the guest there and then to book direct."

This latter point is key and revenue managers should work with marketing and digital sides of the business to A/B test websites and refine the experience. The right price is one thing, but if the potential guest is turned away by flaws and complexity in the booking process then this is essentially worthless. More than four in five (81.7%) travel consumers abandoned their cart in Q1 2017 according to SaleCycle (SaleCycle, 2017), demonstrating the importance of refining the nuts and bolts of the process. Simplifying forms, reducing steps to booking, pre-filling customer data and making information easier to digest are all important steps to increasing conversion.

Hotel brands should also make particular effort to get the initial stages of customer inspiration and research right on mobile and ask: is my website mobile friendly? Globally, travelers are now mobile-first when thinking about their holiday. Although the vast majority of bookings in developed markets are completed on desktop, mobile is growing and it now outranks desktop for visits. It is a priority for a hotel to ensure that it conforms to Google's mobile-friendly ranking algorithm, designed to give a boost to mobile-friendly pages in Google's search results. If not, you may get left behind by your competitors.

Use a responsive site and keep content consistent and engaging, but make sure that it loads quickly for all users as more than five seconds of loading is usually enough to turn off most mobile visitors (for more, read our mobile report here). As space is limited mobile sites should present the user with the most important piece of information immediately. In the case of hotels this is an intuitive booking mechanism and content that addresses the inspiration and research phases. And, once again, conduct rigorous, large-scale A/B testing to get the UX right.

However, when hotels have to go through third parties, they should think about the next steps to maximize the lifetime value the brand has with the customer. "Earn the guest," says Henegar, "meaning that if you are going to leverage the OTAs, which to some extent we have to, then leverage them strategically. Participate with them and make it a two-way street. As soon as they get into our doors, they are ours and we need to convert them into direct booking, loyal guests from that point forward. That starts with pre-arrival communication and then the front desk." Once again revenue managers need to work with other departments to maximize CRM and to communicate to the guest both pre- and post-stay

3.2 Weighing Up the True Cost of Direct Bookings

Of course, direct is not a cost-free channel either. Hotels "must also consider the additional costs associated, such as performance marketing relating to Pay-Per-Click (PPC), PR efforts to raise awareness, and costs interrelated with reward points that are often offered in conjunction with book direct campaigns," said Ganesh. When taking all of this into account, it is important to evaluate whether direct bookings are, in fact, the most cost-effective way, or could the costs as outlined above potentially outweigh a booking received via an OTA with an all-encompassing commission of 15%.

To get a true picture of channel analysis and decide upon the optimal channel mix, brands must not be centered on the revenue generated or the ADR achieved, but around the ADR that remains once all of

Table 2: Identifying the Cost per Channel Will Allow Further Analysis in Order to Categorize the Most Profitable Channels.

Channel	Net ADR Yield %	Selling Rate	Selling Cost	Net Rate Per Room
A	96.8%	£189.00	£6.00	£183.00
B	92.1%	£189.00	£15.00	£174.00
C	84.1%	£189.00	£30.00	£159.00
D	83.1%	£189.00	£32.00	£157.00
E	79.9%	£189.00	£38.00	£151.00
F	77.8%	£189.00	£42.00	£147.00
Average	85.6%	£189.00	£27.17	£161.83

the associated distribution costs have been removed, otherwise known as the net ADR yield percentage.

The table below illustrates a selling rate of £189.00 sold across six different channels (A–F) with varying costs.

Each channel's revenue contributions vary from 77.8% to 96.8% and carry an unweighted net ADR yield average of 85.6% across all six channels. As typically production per channel will vary, using a calculation such as this will give a revenue manager important information relating to the actual room rate and the element of the room rate that is retained by the hotel.

Calculating Net ADR Yield %

Net Room Rate / Selling Rate = Net ADR Yield %

It is important to understand that a higher Net ADR Yield channel (like Channel A in the chart above) will yield top-line revenues that are more profitable than rooms sold at the same rate on a channel with a significantly lower Net ADR Yield (like those from Channel F). This is so because Channel A yields more net revenue per sale. Once this information is gathered, strategies relating to channel optimization can be created in order to create the optimal mix, focusing on channels that deliver a higher net ADR yield, or trying to shift customers from low net ADR channels to those with higher yields.

This may sound fairly simple; however, it's important to note that high net ADR channels that deliver low production may be of little value. For example, a social media channel such as Facebook would have a high net ADR yield as the associated costs are low; however, production via this channel may be negligible as it is not a mainstream booking channel.

Also, a very low ADR with a high net ADR Yield can have just as negative an impact on Gross Operating Profit Per Available Room (GOPPAR) as a high ADR with a low net ADR yield. Today's revenue manager must address total revenue generation and the effect on profitability of any individual channel used by the hotel.

In today's competitive pricing environment, a revenue manager must not only price effectively in line with the marketplace, but also consider the profitability of sales channels used. Restricting a particular channel because it has a low net ADR yield may not be the right decision if that channel is a powerful OTA with a large presence in the target marketplace.

To take this one step further, channel decisions made by day of week, in conjunction with the forecasted sales, and identifying periods of unconstrained demand may reap better results in terms of profitability. By applying constraints to channels with a low net ADR yield, brands can leverage profit opportunities, in particular across periods of high demand.

Darren Schembri, Cluster Revenue Manager at Starboard Hotels believes: "To develop an optimal channel mix, revenue managers should consider metrics such as production per channel, in line with cost per channel, and in addition, booking pace and ancillary spend. This will assist with developing a robust revenue management strategy based on data available, and an understanding of when to adjust inventory by channel."

Hotel revenue managers may opt to use a channel manager which will provide a one-stop route to market and allow the distribution of rates across multiple channels. Fig Cakar, Managing Director for The Americas at SiteMinder said: "The biggest challenge with distribution is that, unlike airlines, the hotel market is very fragmented and it becomes difficult for a hotel to reach out to all markets. For example, local partners may not necessarily have the ability to connect and therefore it becomes difficult to strategically align your product or brand to fit with what's best for your property." Cakar continued: "When selecting a vendor, the hotel must consider the connectivity and whether this fits with the existing technology in place, for now, and into the future."

Whilst we may have an understanding of the hotel channel mix and the associated costs, hoteliers are a long way from tracking or understanding customer acquisition. With this in mind, it becomes a challenge to influence the customer journey in an attempt to steer them to book in a particular way. Having inventory available across multiple channels gives the customer choice, and allows the hotel to be visible alongside competitors.

Ian Robertson, Revenue and Inventory Manager at Crerar Hotel Group, believes that embracing OTAs is of great importance: "Being part of an independent group of hotels means that sometimes we have less marketing presence than the large chains to invest in expensive Pay-Per-Click (PPC) campaigns, and in some ways, may put us at a disadvantage. Partnering with the large OTAs across the distribution landscape, such as Priceline and Expedia, evens out the playing field for us and allows us to compete effectively with all properties in our marketplace, whether branded or independent. Whilst customer acquisition may originate from a commissionable OTA, we then need to try and convert that customer to book direct thereafter."

Henegar, also an independent hotelier, agrees that costs need to be weighed and it may be more beneficial to defer: "It becomes a different situation when we are competing in a metasearch environment or in an search engine marketing environment, where the cost of that click or that acquisition outweighs the cost of what we would be paying in our margins to an OTA anyway. In those cases, we will defer to an OTA." He also emphasized the importance of consistency and avoiding the trap of making offers on OTA channels that make it easy to do so whilst ignoring others: "If you're going to make an offer on OTA channels that are less profitable, then most certainly offer it on your more profitable channels."

Critically, he noted that whatever channel a customer arrives through, hotels "need to connect with that guest. Gather their information, get their email, get their phone number, whatever information we can, put them into our CRM database and market directly to them henceforth. … Shame on us if we let them get back on to those booking channels where we have a problem." Robertson concluded: "Being an independent hotel chain, we believe that the opportunity to increase direct business is by way of growing our central database, which allows us to market directly to previous customers. Capturing third-party data is challenging; however, we strive to collect as much information as we can from guests upon arrival at our hotels, and this contributes to our overall marketing initiatives."

4.

Why and How Should You Be Measuring Ancillaries?

Key learnings

- Revenue management systems have progressed since 2014 and they are able to account for more ancillary streams than before across the board.
- MICE is the most measured ancillary stream at 45.8% of revenue managers surveyed, a growth of more than 10% over the period.
- Measurement of tours and activities more than doubled over the period.
- 71% of revenue managers feel that they don't have the tools to do their job effectively.
- RevPAR and TRevPAR are no longer enough to measure revenue properly.
- GOPPAR is the key metric for revenue managers as it can account for all revenues and also variable expenses, giving a complete view of a property and its performance over time.
- GOPPAR is now rated as the most important metric for revenue managers, whilst RevPAR and TRevPAR are in decline.
- Including ancillary items in packages can provide benefits for a property, such as improving review scores, giving a property a competitive edge, or incentivizing guests to choose higher category room types.
- GOPPAR can help to evaluate the cost of using ancillary items as incentives. Low to no-cost items should be emphasized in marketing.

The term ancillary revenue is commonly defined as revenue generated from goods and/or services over and above the main product. In the hotel industry, the main revenue stream, as we know, is accommodation revenue, and therefore the ancillary is driven predominately from food and beverage outlets, spas, golf and leisure, conferences, and events.

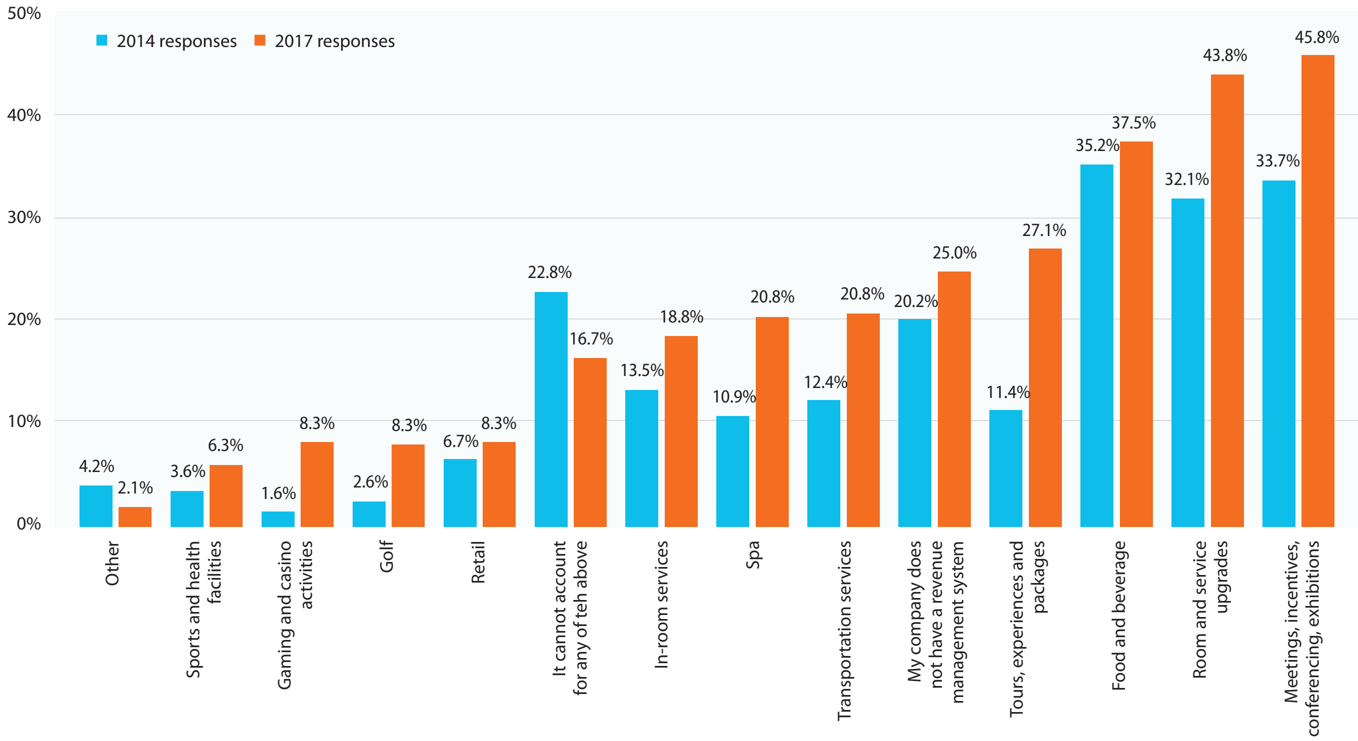
José Ignacio Sánchez Butragueño, Vice President of Revenue Management at NH Hotel Group, put the power that hotels' ancillary revenues hold in perspective when speaking at EyeforTravel Europe 2017: "Did you know that the top ten hotel chains would be also in the top 25 restaurant chains worldwide?"

Despite this huge potential, he noted that "the existing average resources that we invest in the hotel industry to manage other revenue [streams] is less than 10% [of total time]. It is quite confusing. Are we dedicating the needed resources to manage this revenue contribution? Probably not."

Statistics taken from the recent smart travel data survey, conducted in early 2017, indicate that revenue managers today are beginning to turn this lack of attention around and are taking a much broader view on the business and not just solely on accommodation revenue. Results of the survey show that supporting technology available to revenue managers in 2017, which allows them to account for incremental revenue, is on the rise.

We asked revenue managers in both 2014 and 2017:

Figure 5: Change in Ancillary Revenue Streams Measured by Revenue Management Systems from 2014 to 2017

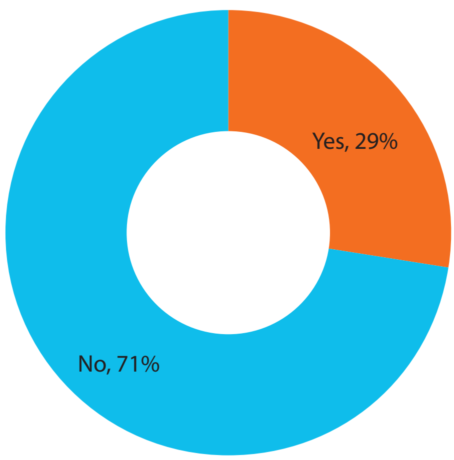


Source: EyeforTravel's State of Data in Travel Survey, 2017, EyeforTravel's Revenue Management Executive Survey, 2014

"Which of the following ancillary revenues can your revenue management system account for?" For every type of ancillary revenue stream we asked about, there was a rise in the percentage of managers responding that their system could account for them and a fall in the number who reported that their system could not account for any ancillary revenues from 22.8% to 16.7%. In 2014, food and beverage was the most measured type of ancillary revenue but that has now been overtaken by room and service upgrades, at 43.8% of respondents, and Meetings, Incentives, Conference & Exhibitions (MICE) at 45.8%. In both categories the percentage of systems measuring revenues increased by more than 10%, and measurement of tours, experiences and packages more than doubled, pointing to substantial progress in including and quantifying ancillary revenues. However, there was no type of ancillary reported as being measured by more than 50% of respondents, pointing to there still being some way to go (EyeforTravel's State of Data in Travel Survey, 2017, EyeforTravel's Revenue Management Executive Survey, 2014).

Despite this recent progress in developing better measurement of additional revenues, 71% of revenue managers surveyed in the recent Smart Travel Data Survey thought that they did not have the necessary tools to do their job effectively. Cornell's study also found that progress in the area of applying revenue management to ancillaries had been slower than expected and likewise

Figure 6: Do you Currently Feel that you Have all the Tools Necessary to Effectively do your Job?



Source: EyeforTravel's State of Data in Travel Survey, 2017 found that function space was the most likely area for revenue management practices to have been put in place. It therefore seems that revenue managers will need help from technology providers to make greater strides.

4.1 In Light of Technology Shortfalls, How Can Ancillaries be Measured Effectively?

Whilst Revenue Per Available Room (RevPAR) will measure the performance of accommodation revenue, by taking the net room revenue divided by the total rooms available, is the industry's long-held standard measure no longer enough to adequately reflect hotel performance?

In some cases, a room's revenue may only contribute a percentage of the overall revenue mix for a hotel with substantial conference and banqueting facilities. In this case, RevPAR would only reflect a proportion of the hotel's revenue performance, disregarding all other sources of incremental revenue. By measuring ancillaries, this can make interesting revenue analysis through the use of key performance indicators (KPIs).

One common KPI used to measure ancillary spend is Total Revenue Per Available Room (TRevPAR), which takes the total hotel net revenue from all outlets divided by the total rooms available in the hotel. However, looking at TRevPAR independently of any other KPI does not necessarily give a good indication of ancillary spend, unless it is benchmarked against another KPI, such as RevPAR.

When TrevPAR is aggregated against RevPAR, as we can see from the above example the correlation between the two can provide useful information to revenue managers as to where revenues are genuinely changing and therefore what strategies are required. For example, we can see at a glance that ancillary spend is by far the highest on a Saturday night, as opposed to other days of the week. But why is this? And how can revenue managers strategize to make the most of this? How can we determine that total revenue generated is from hotel residents alone? The simple answer is, from this data alone we can't, so let's add another KPI, occupancy, to allow for further analysis.

This data now begs the question: if occupancy is of similar levels across Fridays and Saturdays, why is the ancillary spend so different? How can revenue managers anticipate this kind of trend in order to produce an accurate forecast for their hotel? What measures can be put into practice to drive ancillaries on other nights of the week?

By drilling down further, and using a KPI such as Total Revenue Per Available Customer (TRevPAC), which takes the total hotel net revenue from all outlets, divided by the total number of customers, revenue managers can shift their focus from the asset value, namely rooms, and concentrate more on the spend per customer, thus leveraging all opportunities.

Figure 7: Measuring TrevAPR Against RevPAR Can Provide a Good Indication of Ancillary Apend in Addition to Accommodation Revenue

TevPAR v RevPAR, day of the week analysis

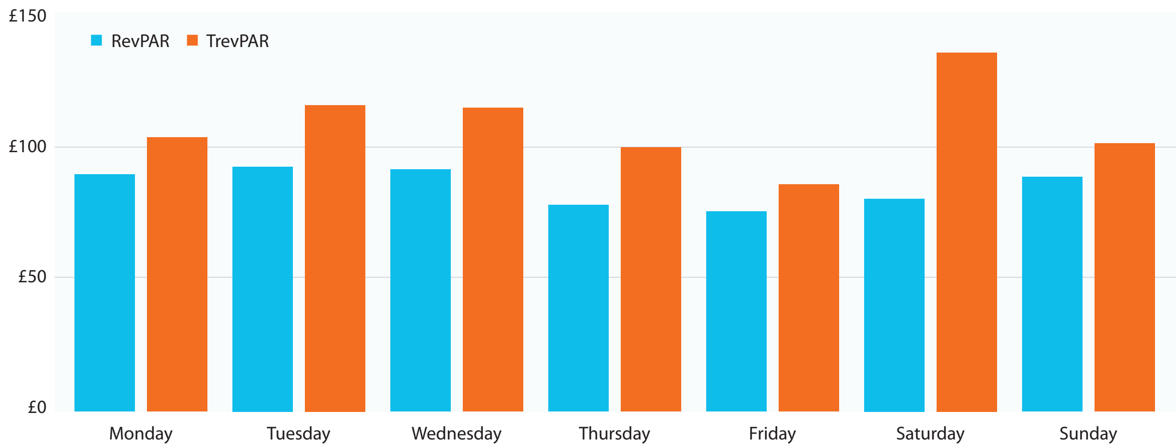
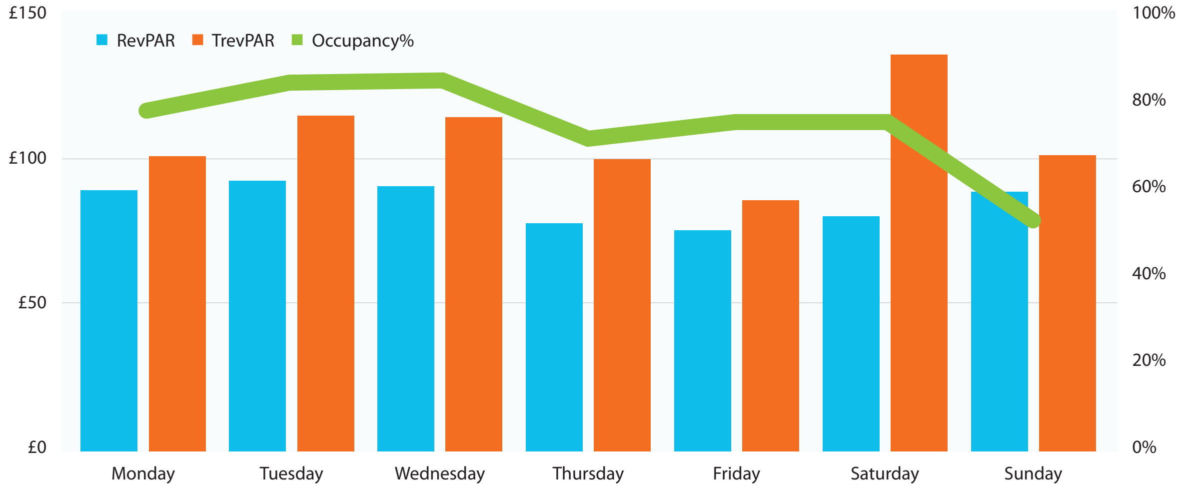


Figure 8: Aggregating Occupancy Against RevPAR and TrevPAR Can Provide Further Revenue Analysis

TevPAR v RevPAR, day of the week analysis



When considering this KPI, the business mix of the hotel will always have a bearing on the TRevPAC. For example, when a hotel accepts residential conference business over and above transient leisure, the TRevPAC will be greater, as the rate paid by the conference guest will include ancillaries such as dinner and an element of the conference package; whereas the transient customer may not have any associated additional spend, and therefore the TRevPAC will be lower. With this in mind, would a higher TRevPAC driven through ancillaries be a good measure? We need to ask ourselves what the impact is of accepting different customer types on the profitability of the business, as incremental revenue from areas such as conference or spa, for example, would have higher associated variable costs and therefore be less profitable than the transient customer with little or no ancillary spend.

In addition, looking at these two customer types, it is fair to assume that the transient guest would generate a higher Average Room Rate (ARR) than that of the conference guest, mainly due to the package inclusions of each rate type in Table 3.

Whilst we may view the transient guest more favorably in this example due to the higher ARR, we don't know how both bookings were generated, and the associated distribution costs. Although average room rate, occupancy and RevPAR may still be key measurements of a hotel's business performance, they do not take into consideration the cost of sale and may not necessarily be profitable. If the transient customer booked via an online travel agent at 30% commission, and the conference guest booked directly with the hotel, we would therefore change our mind when associated costs come into play. Additional metrics such as GOPPAR provide a much more holistic view of the business, as this considers the total net revenue, less departmental and operating expenses, divided by the total rooms available.

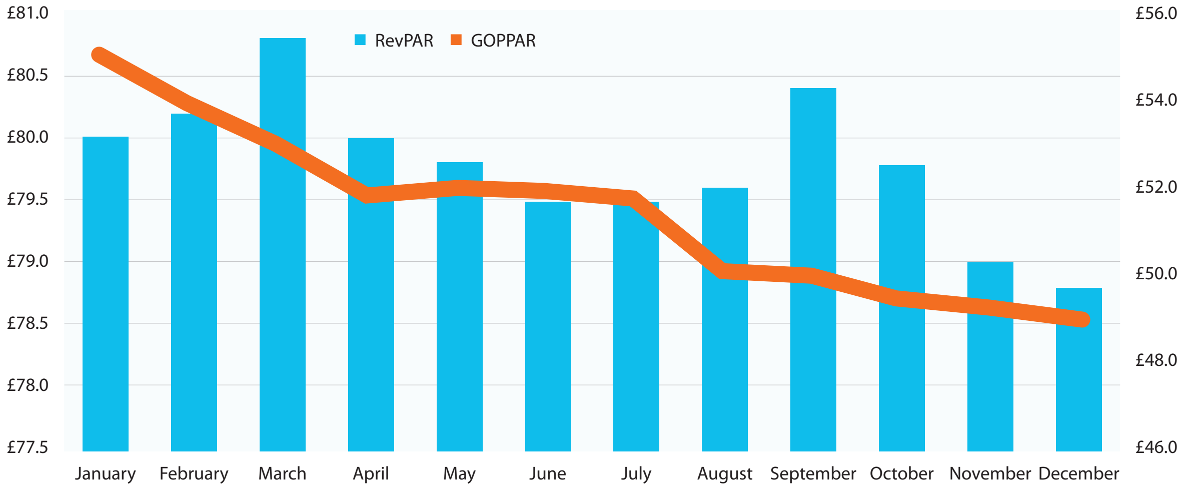
Using GOPPAR as a measurement takes into account all factors and is a way to monitor growth in variable expenses, such as: in-room amenities, linen and

Table 3: The Higher Accommodation Price Paid May Not Necessarily Be the Most Profitable

	Transient Guest	Conference Guest
Rate	£120.00	£170.00
Less Package Allocations:		
Breakfast	£10.00	£10.00
Dinner	~	£25.00
Conference Package	~	£35.00
VAT @ 20%		
Average Room Rate (ARR)	£91.67	£83.30

Figure 9: GOPPAR is a Strong Indicator to Measure Profitability Within the Hotel

RevPAR v GOPPAR



distribution costs, and also the additional income from any ancillary spend such as food and beverage or spa. If, for example, you took the decision to increase commission through a particular distribution channel, this would be reflected in GOPPAR but not RevPAR. Equally, if food costs were to increase, again this would impact GOPPAR as an indicator and not RevPAR. By using GOPPAR as a KPI, this can measure profit management trends within the hotel.

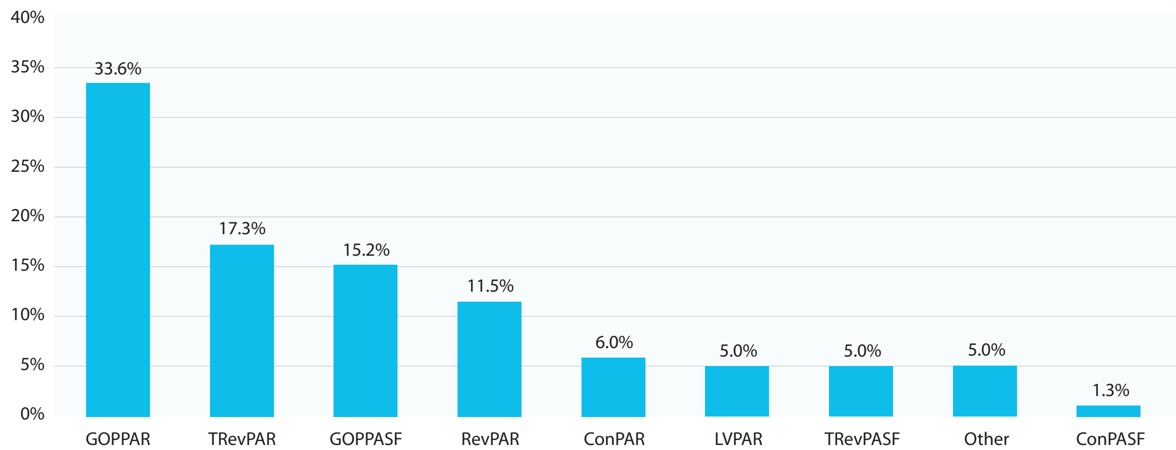
Cornell's survey of revenue managers echoed the usefulness of GOPPAR to revenue managers now and in the near future, especially when compared to TRevPAR.

Table 4: Most Important Benchmark for Revenue Managers in the Near Future

Measurement	2016	2010
GOPPAR	33.6%	29.6%
TRevPAR	17.3%	20.9%
GOPPASF	15.2%	
RevPAR	11.5%	18.5%
ConPAR	6.0%	7.6%
LVPAR	5.0%	5.4%
TotRevPASF	5.0%	13.7%
Other	5.0%	4.3%
ConPASF	1.3%	

Source: Kimes, 2017

Figure 10: Most Important Benchmark for Revenue Managers in the Near Future



Source: Kimes, 2017

In 2016, GOPPAR was rated far above any other KPI by the revenue managers surveyed as the most important benchmark and also saw a substantial rise in those rating it as the most important benchmark. In comparison, RevPAR and TRevPAR both saw declines in how many revenue managers rated them as the most important KPIs, falling 7% and 3.6%, respectively (Kimes, 2017).

4.2 Getting the Package Right

The thought process behind packaging ancillaries together should still follow the same revenue management course that we know, which is to sell the right product, to the right customer, for the right price at the right time, and therefore bundling package elements together will not suit all customer requirements. Understanding your customer is paramount in order for you to match your product offering to their needs and wants; without this, your efforts may be depleted.

Revenue managers may also consider offering particular ancillary items on a complimentary basis, if this fits in line with their hotel strategy. Packaging low or no-cost items together with accommodation, for example car parking, may give a hotel the competitor edge to encourage customers to book into your hotel over and above another. Another option could be to include low cost ancillaries with higher category room types, encouraging customers to trade up; however, as we have already identified, creativity could potentially be limited based upon the system capabilities available to revenue managers.

When taking the decision to offer guests ancillary items on a complimentary basis, a revenue manager should consider the impact this may have on GOPPAR. For example, offering an ancillary such as car parking on a complimentary basis, may not necessarily have a direct impact on GOPPAR as there are no or little associated costs. Savvy revenue managers should base their decision to include ancillaries on whether this will have a positive impact on demand and not result in a loss of incremental revenue.

Whilst traditional key performance indicators, such as RevPAR, are still commonly used, additional measures such as GOPPAR are becoming more widely used as this provides a more rounded view of the business and the associated cost of sale.

RevPAR is just one piece of the performance puzzle as it indicates the performance of a hotel in terms of inventory management, however, it does not provide a cost indication of a hotel. GOPPAR, on the other hand, provides a deeper indication of a hotel's profitability by measuring controls and efficiencies on a per-unit basis, which is a more robust measure.

RevPAR remains a strong and widely used KPI within the industry; however, revenue optimization and the use of GOPPAR are equally as important to the overall success of a hotel. Revenue management remains the best way to maximize profitability and any actions taken to increase RevPAR should translate into improved profit.

5.

Creating Total Revenue Management

Key learnings

- 70.8% of revenue managers feel that revenue management as a practice should be recognized as profit management.
- 60.3% of revenue managers believe that revenue management will look more like total revenue management in five years' time.
- The fast changing pace of revenue management practice makes instituting total revenue management a challenge.
- Key to instituting total revenue management are the skills and training of revenue managers as well as the approach of the revenue management department and coordinating with other departments.
- Soft skills will be key for revenue managers in the future in order to work with other departments, as will a wider strategic understanding of how revenue management fits within the business and its goals.
- A guest focus is key and should be directly incentivized so revenue managers consider the guest experience and look at the lifetime value of guests.

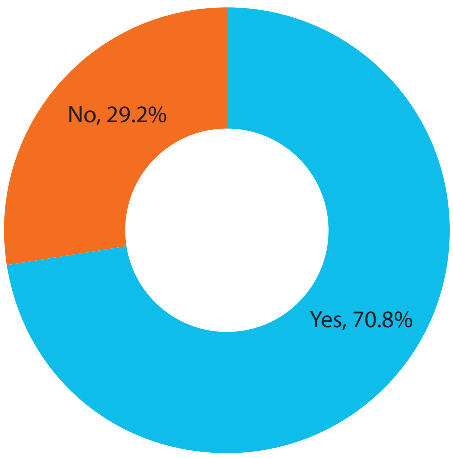
Progressive revenue managers are beginning to realize that revenue management is no longer just about rooms and rates, and is becoming an all-encompassing role which focuses on revenue generation and maximizing profitability across multiple outlets.

In the Smart Travel Data Survey, 70.8% of the revenue managers surveyed thought that the role should be recognized as profit management as opposed to revenue management, reflecting the wider change going on in the industry to recognize more profit streams and better methods of managing them (EyeforTravel's State of Data in Travel Survey, 2017).

Similarly, Cornell respondents believe that revenue management will become more all-encompassing. In 2021, 63% of revenue managers expect that the practice will look more like total revenue management, far ahead of any other category (Kimes, 2017).

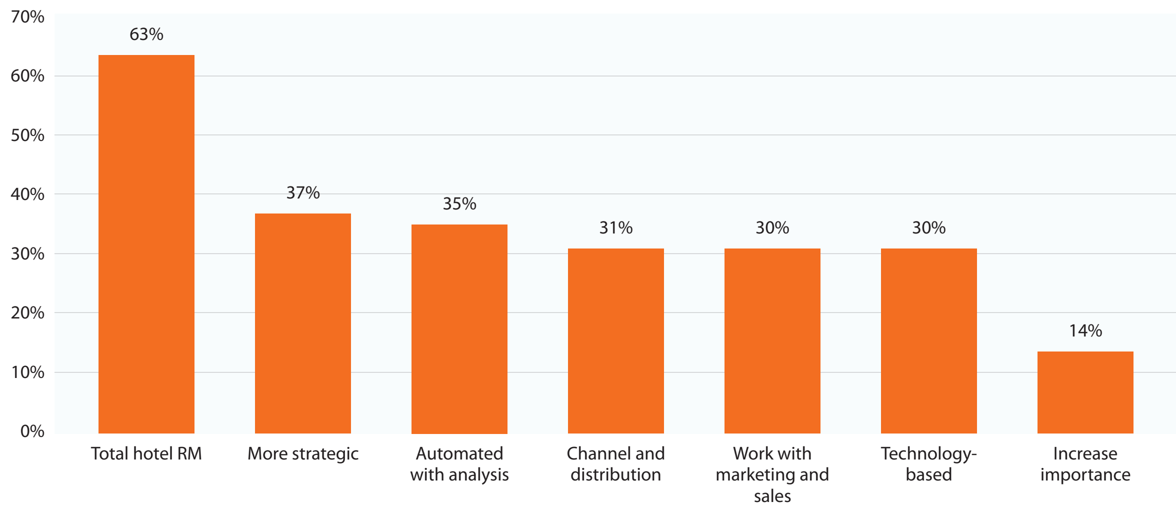
"Let's be clear, we are all talking about total revenue management," says Butragueño "but very few are

Figure 11: Should Revenue Management Be Recognized as Profit Management?



Source: EyeforTravel's State of Data in Travel Survey, 2017

Figure 12: What Will Hotel RM Look Like in Five Years?



Source: Kimes, 2017

applying strategies for other revenues. There is a very clear lack of strategy, processes, technology, and teams. Total RM culture is probably the most important thing and covers all the other elements."

Neetu Ganesh, from Redefine BDL, views total revenue management as a challenge: "Our primary focus still remains with accommodation revenue across the estate. We don't overly manage other outlets effectively, due to limitations with supporting technology. We can't extract meaningful data relating to food and beverage or conference and events performance with ease, therefore this makes the whole process difficult in terms of evaluating results and aligning goals for the team. Revenue management processes are complex enough for rooms, and customers are still trying to make sense of this. The industry is not yet in a position whereby an all-in-one solution can be utilized to practice total revenue management."

A void in today's technology solutions for the industry may hamper a creative, strategic, forward-thinking revenue manager, as the required tools are not readily available.

Philip Gardner at IHG notes that "when it comes to looking at total revenue management, or profit management, we have a long way to go as an industry, even down to the method we ordinarily take in measuring revenue share versus profit share. The distribution and intermediation landscape has, and is continuing to evolve at a rapid pace, and the increasing costs of operation is impacting hotel owners' ability to maximize profit. Driving profitable revenue through good revenue management practice is going to be key to ensuring we continue to grow the profitability of a hotel."

Getting to total revenue management means that the challenge for the next generation of revenue managers will be handling revenue management beyond rooms, by moving into areas such as conference and events, food and beverage, spas and golf, and with this, factoring the whole asset when applying revenue management practices and making decisions. "We need to play Tetris together," says Butragueño. He also believes that revenue managers will need to venture further into new areas such as "activities at the destination, transfers, and packages. Most of them are delivered by third parties so there is a huge opportunity" but one that will "elevate the customer experience as well."

5.1 Revenue Manager Skills and a Guest Focus

The traditional career path for revenue managers has typically taken the route through the reservations department; however, as the role evolves and it becomes more strategic to maximize revenue across all departments, where should the revenue manager now sit within the hotel organizational structure?

With more emphasis placed on total revenue management, businesses are beginning to look for different skill sets and competencies in revenue managers. "We have been trying to change our analysts into strategists – becoming more commercial," say Liu, "and it's been really important to get those revenue managers understanding commerciality, understanding marketing, understanding sales relationships, understanding the web behaviors, so as we bring our revenue managers up through the ranks they are able to look at things holistically and take a total revenue approach."

If revenue management is to become more strategic, then the candidate must have solid analytical skills to be able to strategically align revenue processes across different departments, and also to be able to work with those departments on the successful implementation of these processes; in addition, strong leadership skills in order to communicate effectively with personnel across all levels of the business.

A silo mentality may be the first hurdle to cross in order to implement a total revenue management culture within a hotel, a one-team approach. This may prove challenging based on the current skills shortage in the hospitality industry today, however. Teams need training and development alongside a strong culture of revenue management.

It must also be understood from the perspective of the guest and what their experience was before, during and after their stay. For Henegar and 1859 Historic Hotels, they "tend to look at the success of a property in the format of a balanced score card. A property's success is determined by guest satisfaction, market share and profitability."

Accor's teams also share the emphasis on the guest: "Every single one of our revenue managers … also have a guest experience part of their bonus." This is because "what we're pricing, what we're delivering to the customer is coming back through in the guest experience. It's about getting that balance right. Understanding that the customer lifetime value isn't just about that one transaction. It's about having that come back time and time again, spending that little bit more, upgrading but also understanding the needs of that customer."

As revenue management becomes more important to a business in today's competitive environment, it must be understood and supported by the team as a whole, from the ground up, and with the guest front and center in order to drive profitability effectively.

6.

Conclusion

It is fair to conclude that the practice of revenue management still lies predominantly with accommodation sales, and has not successfully expanded beyond this point in today's hospitality environment. Although there may have been advances in terms of revenue management across other areas of the business, such as function space, and this is now rapidly accelerating, the industry, as a whole, does not have a robust solution available in order to effectively practice total revenue management.

Competitor analysis, rate shopping, benchmarking data, segmentation, market analysis and predictive analytics provide information to support pricing decisions and forecasting assumptions for accommodation sales. However, other areas of the business such as conference and events, food and beverage, remain overlooked and are only beginning to see these practices applied so that it can be brought into the body of revenue management practices.

Revenue managers nowadays need to consider costs, and use additional metrics such as Gross Operating Profit Per Available Room (GOPPAR) to make rounded decisions that will positively impact profitability, as opposed to top-line sales alone. Without a full comprehension of the cost structure, strategic decisions cannot be made. Whilst a discounted accommodation rate, to include dinner and spa treatments for example, may result in a positive impact on occupancy performance, this may have a negative impact on GOPPAR, based on the associated costs. Also for consideration is the route to market, and the cost implications that channels utilized may have on the net ADR yield.

Further to these measures of profitability is the guest's experience, their perception of the hotel and the value proposition it makes to them. This area is also continuing to expand as proprietary data is better organized and third-party data becomes more accessible. It is also a key area to be brought into the realm of total revenue management, not only as reviews have a measurable impact on rates, but also because if hotels are to bring in more direct revenue they will need to make and substantiate this value proposition to the customer.

As the role of revenue management evolves, savvy revenue managers must be able to take a holistic view and align strategies across multiple departments to ensure that the overall objective of the business is reached. In order to achieve this, the type of person required to fulfill this ever more analytical role, may require additional skills over and above the traditional revenue manager, a skill set that is perhaps in short supply in today's industry. Hotels must consider what requirements are needed to bridge this skills gap and act accordingly: invest in training and development of the team, or possibly look to outsource this role to a third party.

Methodology

EyeforTravel conducted a survey of self-identified data professionals working in the travel sector between January 2nd, 2017 and February 6th, 2017. The majority of respondents were from EyeforTravel's internal database of travel professionals. A total of 453 respondents replied to our survey. A branching question identified revenue managers, who were then asked four separate questions. A total of 48 revenue managers answered all the available questions. For Figure 5, data was drawn from a previous EyeforTravel survey of revenue managers in Q4 2014 that received 218 total responses.

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