

Roundtable Recap: Driving Operational Excellence Through Analytics

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The analytics function in hotels is still relatively new. While some hospitality companies began to build out an analytics function earlier, it has only been in the last ten to fifteen years that the majority of industry players have made investments in people and technology to support broader and deeper use of analytics in their organizations. Through the years, industry functions like sales, marketing and revenue management have come together to drive awareness and education across their disciplines, but there has yet to be a similar forum for hospitality industry analytics leaders.

On May 17, 2022, Cornell's Center for Hospitality Research (CHR) hosted a roundtable called "Driving Operational Excellence Through Analytics" in Washington D.C. that aimed to fill this gap, bringing together analytics leaders from brands, management companies, ownership groups, vendors, OTAs, academia and consulting to address a question facing their companies:

How do we advance the supplier's analytical expertise, such that those who are closest to the guest experience (the suppliers), can manage it more efficiently and effectively?

Three major discussion topics were covered:

1. What is the right organizational structure for an analytics organization?
2. How do we evaluate the "big bets," those areas of investment that are designed to dramatically improve the use of data and analytics, but can be multi-year, large dollar projects?
3. What is the right balance between business analytics, answering the burning "what happened" questions from business leaders, and advanced analytics, which are more proactive and forward-looking analyses?

Several themes emerged from the discussions:

- Most organizations struggle to maintain the balance of being responsive to the insights required by the business with ensuring centralized data integrity and efficient use of analytical talent.
- Attracting and retaining analytical talent remains a huge challenge.

- Most hospitality organizations have recognized the value of analytics, but, particularly given the hospitality ownership structure, it will continue to be challenging to encourage investment in skills and resources.

WHAT IS THE RIGHT ORGANIZATIONAL STRUCTURE TO BALANCE RESPONSIVENESS WITH EFFICIENT USE OF RESOURCES?

There has been an ongoing debate across all industries about whether analytics organizations should be centralized or distributed. In a centralized organization, the analytics function reports up to a single leader, and acts as a "shared service" to the business. While the analytics teams collaborate closely with their business counterparts, ultimately the priorities are set by the analytics leader. In a distributed model, the analytics resources are all within the business, and the business leader ultimately controls the priorities for their team members.

Each organizational structure has its advantages and disadvantages:

	CENTRALIZED	DECENTRALIZED
PRO	Facilitates standardization of data and processes, making it easier to achieve the "single version of the truth"	Speed to answers for burning business questions, since business leaders can directly set priorities from their teams
	Provides better access to scarce skills sets and more efficient deployment of resources	Better alignment between business needs and analytical outputs
		Analytics teams understand the business deeply because they work next to business leaders

	CENTRALIZED	DECENTRALIZED
CON	<p>Can create a disconnect between the priorities of the business and the priorities of the analytics teams</p> <p>Business leaders can become frustrated that their “burning questions” are not being addressed at the speed of business</p> <p>Analytics resources may not deeply understand the business because they are not imbedded in or dedicated to a function, so it may take longer to understand data or interpret outputs</p>	<p>Analytics in silos can create multiple versions of the truth, with the source and definition of data varying from group to group</p> <p>Not every group in the organization may have access to all analytical capabilities, particularly the deeper data science skills sets that are more expensive and harder to recruit</p> <p>Analytics resources can feel “disconnected” from their discipline, and their professional development may suffer from not being led by a leader that understands their discipline</p>

One participant proposed that as long as you have the right guiding principles in terms of the relationship between the business and the analytics teams, the organization’s structure doesn’t really matter. Guiding principles could be elements like ensuring that there is always a counterpart for analytics leaders within the business, actively measuring the split between the production of reactive, or past performance-oriented analytics and proactive, more advanced predictive analytics to ensure the right balance of each to understand the business and move it forward.

Next steps: The participants thought it would be useful to do a survey of hospitality analytics departments to

gain a deeper understanding of current organizational structures and the advantages and challenges associated with them. From this, a set of industry best practices could be developed that would help analytics leaders advocate for the right structure (and resourcing) to support their organization.

HOW CAN HOSPITALITY ORGANIZATIONS ATTRACT AND RETAIN ANALYTICAL TALENT?

The competition for analytical talent was intense before the pandemic, and its only gotten more so. When hospitality organizations were forced to furlough or lay off analytical talent, the talent went to other industries, and it isn’t showing signs of returning. As an additional challenge, while all industries have their unique characteristics, the nuances of the hospitality industry, particularly the implications of the ownership structure and the complexity of the distribution landscape, require some industry specific training/knowledge. Ideally, an analytics specialist for hospitality would also have hospitality industry expertise, but this combination of skills is in even shorter supply. Ideas for closing this talent gap included:

- Upskilling or reskilling team members that show aptitude, but don’t have an analytics background. These team members already have the hospitality experience. Improvements in democratization of analytics means that you might no longer need to train analytics resources to write code, but instead, they can be trained to derive insights from data leveraging their existing business acumen.
- Create bridge roles between analytics, IT and the business. These resources can fill in the gaps for the industry or domain specific knowledge with the analytics teams by imbedding with the business and representing their needs to the analytics organization, and then explaining the analytical insights, methods and outcomes to the business.
- Emphasize the positives of industry and offer unique incentives to encourage

people to come back to the industry and stay. Everything from paying for college tuition for family members to reminding people of hotel stay benefits was on the table. This a fun industry, but of course, we still need to offer competitive salaries to ensure we are attracting the best people.

Next Steps: Continue to track the success of recruitment and retention initiatives within and outside of hospitality.

HOW CAN HOSPITALITY ORGANIZATIONS CONTINUE TO BUILD MOMENTUM IN ANALYTICS PROGRAMS?

Analytics leaders know that the insights that will provide the largest impact on the organization tend to be produced by the more advanced analytical applications (like AI and Machine Learning), on the most robust and diverse data sets (frequently messy unstructured data). This raises several challenges:

- Business leaders still require performance insights to support their day-to-day responsibilities, so the analytics team needs to dedicate some effort to produce this more business intelligence-oriented work.
- Business leaders and executives are not always proficient in the difference between reactive and proactive analytical questions and answers. As such, they don't always see the "art of the possible" to ask for or support more advanced applications.
- Advanced analytics and unstructured data require investments in technology and people. Specialized applications are required to build and operationalize algorithms, and a more robust and agile data storage and access process is required to support running these algorithms on complex, unstructured

data sets. Trained data scientists are required to develop the algorithms.

- The initiatives that will have the largest long-term benefits have multi-year roadmaps due to the effort required to design and execute. Maintaining momentum and interest in these lengthy projects can be challenging if the organization is not realizing value along the way.

Several points were raised in the discussion about mitigating these challenges:

- Priority must be given to the insights delivered to the business. Without the ongoing support of the business, analytics teams will never be successful within hospitality organizations. The faster and more efficient teams become at delivering business intelligence and standard reporting, the more trust they build with business counterparts, and the more likely their business counterparts will be to ask for deeper insight.
- Given the importance of accurate and timely business intelligence, it is still crucial to maintain a balance between these short-term performance insights and the more forward-looking, proactive analyses. Analytics leaders need to ensure that the requests coming from the business truly are aligned with business priorities. One leader mentioned that they tried to implement a "data tax" to demonstrate the value associated with the analytics team's time.
- C-Suite executives have become more familiar with the importance of data and analytics, and the strategy to support them, so justification for investment has become somewhat easier. That said, every initiative still needs a business case. Establishing the ROI, especially for longer term investments, can be

tricky, but some have found success with ensuring they not only calculate the ROI, but also place some focus on documenting the cost of not making the investment. For example, it can be difficult to calculate the ROI of a room renovation in terms of additional ADR, but if you also include the impact on guest satisfaction and ultimately demand for the room product if you don't renovate, the importance of making the investment becomes clearer.

- Small projects with high impact and a relatively short time to value typically are a good way to demonstrate the value that more complex, proactive advanced analytics can provide. Even better if the impact can be demonstrated cross-functionally, so you can get the advocacy of multiple business leaders. For projects that have a longer duration, building in frequent checkpoints and incremental benefits keep the organizations attention and ensure that the outcomes remain relevant to the team.

Next Steps: Technology providers that support the collection and storage of hospitality data should continue to work toward more seamless and flexible integration with the systems that analyze and operationalize that data. Advancements here benefit the entire industry. There is an opportunity for both industry and academia to continue to find ways to demonstrate the value of investments in forward looking, predictive analytics, such as AI and Machine Learning, through research and case studies.

CONCLUSION

There are no easy solutions to the challenges and questions raised by the roundtable participants. The nature of the hospitality industry, including the sales and distribution landscape, ownership structure, existing technology infrastructure and ongoing talent shortages makes advancements in analytical excellence quite challenging. Despite these headwinds, hospitality industry is making progress, as evidenced by the number of participants in the roundtable and the range

of organizations they represented. It is important to continue these discussions and collaborations to ensure that the suppliers continue to drive operational excellence through analytics. ■

THANK YOU TO OUR PARTICIPANTS

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Kelly McGuire, PhD, Managing Principal, Hospitality, ZS is passionate about helping hospitality and gaming businesses infuse science into the art of hospitality with data and analytics, through strategic investments in technology, talent and business process redesign. She helps organizations turn desire into strategy and strategy into execution to ensure the organization responsibly and effectively realizes value from data, analytics and technology investments. She is the author of two books on analytics in hospitality, "Hotel Pricing in a Social World" and "The Analytic Hospitality Executive".

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