



Building a better  
working world

## Is the next evolution of big data, big judgment?

How data analytics is transforming  
the way decisions are made in the  
global hospitality industry

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The better the question.  
The better the answer.  
The better the world works.

**Hospitality organizations must be prepared to speak the language of big data in order to remain competitive.**

### Breaking down big data

Across sectors, and whether at home or at work, the role of analytics and big data has not only transformed the way we live, but the way we do business. Proof of this accelerating shift is evidenced by the fact that a staggering 90% of the world's data has been created in just the past 18 months.

Digital technologies, including analytics software and data visualization tools, have disrupted and redefined traditional business processes. Advancements such as these offer more efficient, powerful and accurate ways of working.

Regardless of what area of the hospitality industry we address – acquisitions or dispositions, property or asset management, marketing, tax, revenue management or customer care – there is virtually no area of the market that remains untouched by the advancing role of what is commonly called big data.

In this article, we cast a clarifying light on the concept of big data and illustrate its relevance for the hospitality sector. We offer examples of how data analytics has evolved in hospitality today, highlighting current uses as well as emerging applications. Then, we address considerations for implementation, as hospitality organizations look to modernize and digitize their business.

Simply put, the application of data analytics is becoming an increasingly mandatory aspect of our sector, and hospitality organizations must be prepared to speak the language of big data in order to remain competitive.



## Big data: What does it mean?

Data analytics refers to the analysis of a large data sets (big data), often from a number of different sources, to provide faster, more insightful and actionable information in a business environment. Effective analytics often involves software or web-based data visualization tools. Unlike traditional spreadsheets or presentations, which offer static outputs and often require multiple files for analysis, data visualization tools can aggregate hundreds or thousands of individual files from disparate sources offering a highly customizable, interactive interface to users.

While analytical applications are visually impressive, it is key to note that big data simply does not exist without the all-important human oversight. One does not replace the other; rather, they enhance each other. In our view, the human element is just as critical as technology in realizing true value from analytics. This involves individual and organizational considerations that become the bridge from data, to insights, to action. Without the human element, data analytics is simply a vehicle for raw information. With the human element, it becomes a transformative tool.

At its essence, data analytics can help build a platform to aid hospitality organizations in the effort to solve business problems. Its value lies in embedding these analytics into existing business processes that require judgment and decision making – by human beings.

## Data analytics at work: Existing insights

In the hospitality industry, market participants have enabled data analytics to provide both predictive and diagnostic insights to make informed decisions. But the speed of adoption varies by business function.

To date, the hospitality industry has adopted some advanced applications for analytics, focused predominantly around predictive insights, such as revenue management, guest behavior and marketing spend. For instance:

- ▶ **Revenue management:** Hotel brands have incorporated alternative data sets, such as weather reports and local event schedules, into revenue management functions to better forecast room demand. Incorporating alternative data provides organizations the ability to set room rates in real-time and to effectively respond to external changes.<sup>1</sup>
- ▶ **Guest loyalty:** Major hospitality players have incorporated analytics technology as a means of increasing guest loyalty. One hospitality brand empowered its front desk agents with analytical dashboards that tracked prior guest behavior, such as room service orders or amenity requests, to better predict the needs of repeat guests.<sup>2</sup>
- ▶ **Marketing:** One international hotel company reported an impressive increase in the return on its advertising spend of approximately 2,100% by deploying a new online advertising platform that combined data analytics with artificial intelligence technologies. The synthesis of this data enabled the company to determine the most appropriate media to focus its advertising spend.<sup>3</sup>

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<sup>1</sup> "How Big Data And Analytics Are Changing Hotels And The Hospitality Industry," *Forbes* website, <https://www.forbes.com/sites/bernardmarr/2016/01/26/how-big-data-and-analytics-changing-hotels-and-the-hospitality-industry/#77a98ed01c22>, accessed 14 February 2018.

<sup>2</sup> *Ibid.*

<sup>3</sup> "Hotel chain utilizes new digital advertising platform to great success," *ClickZ* website, <https://www.clickz.com/hotel-chain-utilises-new-digital-advertising-platform-to-great-success/5087/>, accessed 14 February 2018.

## Data analytics at work: A new tool for the transaction life cycle

While analytics focused on the guest and predictive insights continues to evolve, an emerging application for big data in hospitality focuses on operational and organizational analysis. By using data analytics as a diagnostic tool, industry participants are offered a new and efficient way to evaluate investment decisions throughout the transaction life cycle.

Most hospitality organizations today use traditional business tools, such as presentation templates and spreadsheets, to evaluate capital decisions. The power of big data lies in the adoption of business intelligence tools, such as data visualization software, to more efficiently analyze and respond to investment opportunities.

For example, the owner of a portfolio of 50 hotels may generate 50 different reports to evaluate the monthly performance of each property. Analytics software, including data visualization tools, can quickly process and condense the 50 reports into one interactive dashboard on a real-time basis. The result provides the user the ability to analyze the portfolio – or a single asset – all in one interface. Relative to traditional business tools, analytics dashboards contain interactive features that enable the user to view an investment holistically, or in great detail, with the click of a computer mouse.

Consider the use of a single data analytics dashboard across the investment life cycle:

- ▶ **Buy side:** The presentation of big data provides an efficient way to quickly evaluate a potential acquisition; as deal times shorten and demands increase, investors must gain insights at optimized speeds. A single dashboard can complement a virtual data room on a live transaction, providing prospective buyers one interactive tool in which to analyze historical operational performance and organization structure, including finance, accounting, IT and tax functions. Data analytics can help set parameters for transition road maps, including the retention of key personnel and systems as well as expediting the creation of synergy analyses. A single dashboard can further complement post-close activities, including closing procedures and purchase price allocations.
- ▶ **Hold period:** The same dashboard can be utilized as a tool for asset management. Ongoing investment monitoring and performance improvement functions, such as capital investment and synthesizing competitive set data, are enhanced by data analytics software. Instead of toggling through multiple operational reports, hospitality professionals can rapidly assess the overall health of their investments in real-time. For portfolios of properties, for instance, dashboards can quickly identify individual outperformers and underperformers; such insight enables management to take quick action to address performance gaps and identifying candidates for disposition. Use of data analytics as a monitoring tool also allows users to weigh various value creation opportunities, optimize their tax structures and human resource deployment, and effectively evaluate risk.
- ▶ **Sell side:** When it comes time to divest, the same analytics interface supports rightsizing strategies as well as preparing disposition analyses. Again, the dashboard can complement a seller's data room organization, synthesizing hundreds of financial, legal and tax documents for prospective buyers. Data analytics can be further utilized to create scenarios for carve-out financials or alternative tax structures, increasing the speed to transaction close.

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<sup>4</sup> "Analytics: Don't Forget The Human Element," *EY website*, <http://www.ey.com/Publication/vwLUAssets/EY-Forbes-Insights-Data-and-Analytics-Impact-Index-2015/%24FILE/EY-Forbes-Insights-Data-and-Analytics-Impact-Index-2015.pdf>, accessed 14 February 2018.

## Making data your own: Implementation success factors

The successful transformation of a hospitality organization into one where business decisions are founded deeply in data analytics is a top-to-bottom initiative. To achieve success of adoption, big data must be embraced as an essential business tool by organizational management.

A critical success factor for implementation is the human element of analytics. It is not enough simply to purchase technical software without a supportive and disciplined environment to draw out its insights. Data analytics must be aligned with a corporate culture that embraces the use of those insights to inform action. In doing so, an important transformation takes place; data as a tool and a process becomes imbedded in the corporate profile, enabling employees to team more effectively, and eventually leading to better performance results.

Additionally, if there is a gap between delivering insights and taking action, analytics will fail. A recent survey conducted jointly by EY and Forbes Magazine revealed that 89% of global corporations surveyed agreed that change management issues are a barrier to delivering analytics-driven results.<sup>4</sup> Thus, data analytics requires the appropriate organizational structure and governance framework to thrive.

In the aforementioned survey, organizational decision-makers affirm that big data and analytics are changing the nature of their competitive advantage. Executed with the appropriate effort, investment of time and leadership support, data analytics will enhance and expedite business decisions in the hospitality sector. Embracing big data is a rewarding path to competitive advantage and value enhancement – for your property, portfolio or your business.

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