Data and analytics: Why does it matter and where is the impact?

by Josh Gottlieb and Matthias Roggendorf

McKinsey is currently conducting global research to benchmark data analytics maturity levels within and across industries. We encourage you to take our 20-minute survey on the topic[1] (individual results are kept confidential), and register to receive results showing your organization's maturity benchmarked against peers and best practices.

The promise of using analytics to enhance decision-making, automate processes and create new business ventures is well established across industries. In fact, many leading organizations are already recognizing significant impact by leveraging data and analytics to create business value. Our research indicates, however, that maturity often varies by function or sector (or both), based on a number of contributing factors; for example:

- **Marketing and Sales**: Maturity in marketing and sales analytics tends to be more advanced, at least in the B2C context. Customer segmentation and personalization, social signal mining, and experimentation across channels have become mainstream across a number of industries, including retail, banking/insurance, and utilities. Intensity and sophistication largely varies and can still offer a significant competitive advantage if multiple analytics domains such as pricing, loyalty and segmentation are cleverly combined and integrated.

- **Operations**: Maturity of advanced analytics in operations tends to be lower. This is usually because opportunities are harder to spot and cross-business domain knowledge is required to create a step change. Also, use cases in operations are often connected with leveraging sensor and equipment data, which can be difficult to effectively expose for analysis. Data and analytics use in operations has traditionally included identification of new oil and gas drilling sites, but has now come to include mining sensor data for predictive maintenance, integrated and demand-driven workforce management and real-time scheduling optimization.

- **Data-driven ventures**: Only a few firms have started to explore the power of big data and advanced analytics to step outside their current business, either by leveraging internal data or developing analytics insights to offer as a service to customers. Examples include credit card companies providing data-driven customer targeting, or telecom companies selling location data for traffic monitoring and fraud detection. We believe that similar opportunities can be identified in the operations space and provide a competitive difference to those who do it well.

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[1] http://esurveydesigns.com/wix/p30952257.aspx

While some leading organizations are realizing great success with the emergence of these new capabilities, most companies are still in an exploration and piloting phase and have not scaled them up. McKinsey's digital survey in 2014 revealed that while respondents felt that data and analytics would be one of the top categories of digital spending in three years' time, they were also far more likely to believe that they were currently underinvesting in the space. Additionally, nine out of ten executives claimed that their companies would have a pressing need for digital talent in the next year, and nearly 60 percent of CIO and CTOs polled thought that the need for data and analytics expertise would be more acute than other talent gaps.

Given the value at stake, how do companies ensure an effective data strategy and recognize impact from the promise of analytics?

Our work helping clients to build robust programs in data analytics suggests that winners have a clear strategy and follow best practices across five key areas:

- **Strategy and value**: Understanding the business case for pursuing each use case and how it aligns with the company's overall value is critical to ensure that whatever is built delivers the business impact expected. Additionally, organizations must ensure that data and analytics is high on the senior management agenda and be prepared to invest in talent, data, and technology *at scale*.

- **Talent and organization:** While the decision to centralize or federate data and analytics capabilities depends largely on the anticipated use cases, the organizational positioning of any central group and the presence of analytics talent both centrally and in domain-specific roles is critical. Commodity services such as data cleansing or data infrastructure management may be outsourced to free up capacity for more proprietary activities, even as companies leverage capability-building programs to help grow talent organically.

- **Governance, access and quality:** Analytics leaders ensure that data from disparate systems such as finance, customer, suppliers, and transactions are linked and available across the organization, while also ensuring that proper accountability and policy management techniques are in place and tied to performance metrics. Distribution of reports is often quick and automated, and prominent use is being made of both external, open and unstructured data.

- **Technology and tools:** The broad availability of appropriate advanced tools for data scientists, power business users, and regular business users is critical to staying ahead of competition. New technologies, such as cloud, high-performance workbenches, and distributed data environments (data lakes) are a key component of successful data and analytics platforms.

- **Integration and adoption:** A good indication of organizational maturity can be seen by how far various data and analytics have penetrated various business units, and the speed with which new use cases can be implemented. Leaders in the space are careful to measure effectiveness and to tie incentives and performance metrics to generate impact through analytics.

While fairly intuitive, all of these factors are difficult to implement effectively, and no single element represents a silver bullet to achieve competitive advantage. Our client work has consistently shown us that the *combination* of these factors leads to superior maturity, and, in turn, superior decision-making and stronger impact from data and analytics programs.

We are currently building benchmarks on how companies are performing in data and analytics relative to these five key areas. You can contribute by following the link to complete a 20-minute survey (http://esurveydesigns.com/wix/p30952257.aspx); a copy of the results specific to your organization will be made available to participants who register■

Josh Gottlieb is a practice manager in McKinsey's Atlanta office and Matthias Roggendorf is a senior expert in the Berlin office.