



I D C A N A L Y S T C O N N E C T I O N



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Implementing an Analytics Strategy to Accelerate Insight

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Organizations are investing in new analytics technologies to improve decision making. IDC highlights key findings from ongoing market research in the analytics market to help organizations deliver analytics capabilities across the enterprise. IDC advocates for a multipronged approach to business analytics, where IT has the opportunity to redefine its role in a more complex analytics and data management environment while collaborating more closely with business and analytics colleagues.

The following questions were posed by SAP to Dan Vesset, group vice president of IDC's Analytics and Information Management market research practice, on behalf of SAP's customers.

Q. Why do organizations invest in new analytics technologies?

- A. Several drivers affect ongoing investment in new analytics technologies. Foremost is the belief in the superiority of data-driven decision making over decisions made by relying only on intuition or experience. This belief is substantiated by real-world outcomes. As business analytics projects have followed best practices in agile methodologies, more organizations have started to experience benefits sooner. IDC research shows that 82% of organizations see quantifiable benefits for new analytics initiatives within 12 months and 45% see quantifiable benefits within 6 months. Furthermore, 92% of organizations state that revenue increases resulting from insights delivered by new business analytics solutions meet or exceed expectations, while 84% of organizations state the same about cost decreases.

Additional evidence of the potential value of analytics comes from the trend to establish top-level management roles such as chief data officer and chief analytics officer. These roles are tasked with developing and executing analytic and information management strategies.

The two other major drivers for investment in new business analytics solutions are:

- **Availability of data.** Digitization of everything is driving greater demand in data capture, management, and analysis software. Internet of Things (IoT), consumer behavior tracking, and risk management requirements are some of the biggest factors contributing to this driver. The greater variety of data also means more sources of data from internal operations and external data providers, both on-premises and in the cloud.
- **Demand for self-service.** The need for on-demand access to the freshest data with easy-to-use tools or applications and the need for associated data integration and management tools continue unabated. These requirements are driving purchasing for a range of tools that help ensure self-service functionality to support the full business analytics workflow, including self-service data discovery and self-service data preparation.

Q. How do organizations successfully address these new analytic needs?

A. Successful deployment and use of business analytics solutions depend on a multipronged approach guided by a strategy that accounts for not just technology but also human and capital resources, business and IT processes, and the data. IDC defines the following five dimensions of business analytics that should be taken into account:

- **Vision**, which includes attributes such as strategy, capital and operational budgets, performance metrics, sponsorship, and project and program justification
- **Technology**, which includes attributes such as the appropriateness, integration, support for standards, and performance of technology and IT architecture to all the relevant big data and analytics (BDA) workloads
- **Data**, which includes attributes such as the quality, relevance, availability, reliability, governance, security, and accessibility of multistructured data
- **People**, which includes attributes such as technology deployment and management, data analysis, analytic application, report, dashboard development skills, and intra- and intergroup collaboration, as well as organizational structure, leadership, training, and cultural readiness
- **Process**, which includes attributes such as the processes of data collection, consolidation, integration, analysis, information dissemination and consumption, and decision making

An organization can be at a different level of maturity for each dimension, but IDC research shows that the best results are achieved by organizations that take a balanced approach to investing across all five dimensions. An example of a tactic employed by successful organizations is the establishment of business analytics competency centers with representation by IT, line-of-business, and analytics groups. To foster cross-group collaboration, these organizations also find success in running internal hackathons or gamified competitions that facilitate greater understanding of business needs and technology capabilities and risks.

Q. How is IT's role changing given today's business analytics requirements, especially the need for self-service?

A. There has always been some tension between line-of-business and IT groups, but in this area, the interaction is further complicated by a third party — the analytics group. Today, the demand for self-service support is coming from not only the line-of-business decision makers but also business analysts and data scientists, who are part of a centralized analytics group.

As a result, leading organizations are changing the role of IT. In the past, the IT group may have felt it was in charge of "all things data." Today, IT must contend with numerous "shadow IT" analytics projects. While BYOD became known as a mobile devices issue, today, bring-your-own data/software/analytics is an option for more end users. In this environment, IT has a critical new role to play. Its function must change from that of developing and maintaining all possible forms of end-user business intelligence and analytic applications to being in charge of data and technology provisioning, external vendor management, data governance and, importantly, dissemination of best practices throughout the organization. For example, the IT group is in the best position to:

- Assess the ongoing viability of all the new data management options from Hadoop to a wide range of NoSQL databases and streaming data technologies
- Optimize enterprise contracts with preferred technology vendors

- Operationalize results of analytics work by individual data scientists into production systems that can benefit the rest of the organization
- Focus on data provisioning — ensuring that all internally generated data is available and, where possible, augmented with externally procured data for analytics (This increasingly nontrivial task requires data integration and federation strategy, skills, and technology.)

Q. In what specific areas are organizations uncovering new insights?

- A. Online consumer behavioral data from social media, sensor data, geolocation data, and third-party weather data are examples of the variety of data sources that can provide new insights. With successful business analytics solutions, granular data provides a sandbox for creative knowledge workers to explore new opportunities. When organizations enrich transactional data, it opens the door to new insights.

Data mining, text analytics, spatial analytics, graph processing, and data visualization are being applied to data sources for deeper understanding of performance, opportunities, and risks. For example, marketing departments can gather email campaign conversion rates along with web channel sales rates and compare that data with social media feedback to tailor future marketing campaigns that better anticipate customer behavior. With the emergence of the IoT, we see examples of organizations combining financial data with maintenance events to prioritize which physical assets are serviced, how, and by whom. New insights from the combination of different data types and sources lead to opportunities and revenue streams in the marketing example and cost and risk reduction in the asset management example.

Q. How are companies extending their business analytics solutions from descriptive to predictive analytics?

- A. This transformation is highly dependent on the use case and the user's predictive needs. There are organizations that employ data scientists to develop sophisticated predictive models and provide output to marketing, sales, finance, and operations. There are analysts who conduct predictive analysis and collaborate with the line of business and data scientists to incorporate discoveries into business processes. And there are predictive analytics capabilities that are being increasingly embedded into enterprise applications that hide complex functionality from business users.

All three approaches require different functionality. With 60% of organizations claiming an advanced analytics skills shortage, expertise is an inhibitor to a successful analytics initiative. In response, some organizations are increasingly distributing predictive capabilities with easier-to-use tools that are better suited for the business analyst and business user. When looking at user needs, consider that users may not need a deep understanding of predictive techniques to apply to a data set. More automation of the process of performing advanced analysis can give business users a powerful tool for making predictions. Guiding users to the variables that most impact a prediction is also helpful in narrowing the scope of effort required to understand what drives future performance.

ABOUT THIS ANALYST

Dan Vesset is program vice president of IDC's Business Analytics research. Mr. Vesset's research and consulting is currently focused on business analytics, business intelligence, and data warehousing software markets. Mr. Vesset is also the co-lead of IDC's Big Data research. He has authored numerous research publications, is a frequent speaker at business analytics conferences and seminars worldwide, contributes to IDC's Business Analytics and Big Data blog, and tweets at @danvesset.

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