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Defining Business Analytics and Its Impact On Organizational Decision-Making

Research conducted by:

COMPUTERWORLD

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Defining Business Analytics and Its Impact on Organizational Decision-Making

Overview

In December 2008, *Computerworld* invited IT and business professionals to participate in a survey on business analytics. The survey was fielded via targeted broadcasts to *Computerworld* customers, as well as through an invitation on *Computerworld.com*. The goal of the survey was to better understand the audience's definition of and familiarity with business analytics as a growing market category, as well as to track the perceived benefits of business analytics software implementation. The survey was commissioned by SAS, but data was gathered and tabulated independently by Computerworld Research. The following report represents top-line results of that survey.

Profile of respondents

Total respondents: 215

All respondents were qualified to complete the survey through a series of screener questions as having involvement in decisions regarding business analytics software at their organizations with annual revenues of \$100 million or more. The chart below represents a breakdown of the percentage of respondents based on gross annual revenue. This chart is followed by breakdowns of respondents based on location, job function and industry.



What is your organization's gross annual revenue?

Mean annual revenue: \$2.7 billion

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Where are you located?

Which of the following best describes your primary job function at your organization?





What is your organization's primary business or industry?



Executive summary

Business intelligence (BI) is an important aspect of an organization's strategic framework. But what is beyond BI? Some indicators point to business analytics, a progression from BI, as the next step. Business analytics is predictive as well as historical, which requires a cultural shift to the acceptance of a proactive, fact-based decision-making environment, providing organizations with new insights and better answers faster.

Many IT and business professionals still continue to define business analytics in broad generalizations. According to the *IDC Market Analysis Report, Worldwide Business Analytics Software 2001-2011*: "The business analytics software market comprises performance management (PM) tools and applications and data warehouse (DW) platform software. This software is used to access, transform, store, analyze, model, deliver and track information to enable fact-based decision-making and extend accountability by providing all decision-makers with the right information, at the right time, using the right technology." Additionally, business analytics is a framework that extends beyond software and systems to include culture, process and performance strategies as well.

Through this research, we can see that IT and business professionals mainly align business analytics with BI products. In fact, more than half of respondents (54%) cited BI as the category of products that first comes to mind when they think of the term "business analytics." Business analytics may be the next logical step in the evolution of BI. Additionally, 18% of respondents think of PM products, 11% think of the general category of analytics and 13% reported that they do not use the term "business analytics" at their organization.

The top software tools that respondents consider part of business analytics spanned across various areas, including analytics, data integration, query/reporting and performance management. More specifically, seven out of 10 respondents (70%) consider advanced analytics tools, such as data mining or statistical software to be part of business analytics, followed by query/reporting/analysis tools (66%) and dashboards (60%).

Business analytics is broad enough to include capabilities and solutions that benefit a variety of disciplines. Since business analytics is designed to be used by all decision-makers, it is not surprising that almost three-quarters of respondents surveyed (73%) view business analytics as a function of both IT and business. While 21% consider it primarily a business function, 6% consider it primarily an IT function. With business analytics being a function of both IT and business, there is an increased need for collaboration across organizations, as well as the need for supervision by cross-departmental management teams.

When provided with the IDC definition of business analytics software, less than one-third of respondents (32%) rated themselves as extremely or very familiar with the product category, and only 10% rating themselves extremely familiar. While more than four out of 10 respondents (44%) are somewhat familiar with the business analytics software product category, 24% rated themselves as not very or not at all familiar. However, respondents cited a number of key benefits their organization derived or expects to derive from using business analytics software, which encompassed various areas of business analytics.

Top benefits included improving the decision-making process (75%), speeding up the decision-making process (60%), better alignment of resources with strategies (56%), realizing cost efficiencies (55%) and responding to user needs for availability of data on a timely basis (54%).

Conversely, there were also a number of challenges noted when implementing business analytics software. Respondents have encountered or expect to encounter problems with data integration with multiple source systems (59%), challenges with regards to data quality (56%) and issues when attempting to integrate with enterprise applications (44%).

The implementation of a flexible and straightforward business analytics framework would alleviate these challenges and provide organizations with the right information at the right time to enable fact-based decisions at every level of the enterprise.

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Business analytics category awareness

BI products (54%) are most frequently cited as the category of products that respondents said first comes to mind when they think of the term "business analytics," following distantly by PM (18%) and the general category of analytics (11%). Thirteen percent of respondents do not use the term "business analytics" in their organization.



When thinking about the term "business analytics" which category of products first comes to mind?

Software tools in business analytics

Seven out of 10 respondents (70%) consider advanced analytics tools, such as data mining or statistical software to be part of business analytics. Other top software tools considered part of business analytics included query/reporting/analysis (66%) and dashboards (60%).



Which of the following software tools do you consider part of business analytics?

Note: Multiple responses allowed.



Function of business analytics

Almost three-quarters of respondents (73%) view business analytics as both a function of IT and business. While 21% of respondents view business analytics as primarily a business function, only 6% view business analytics as primarily an IT function.



Do you view business analytics as primarily an IT function, a business function or both?

Familiarity with business analytics software product category

When provided with the following definition of the business analytics software product category, less than one-third of respondents (32%) said they are extremely or very familiar with business analytics, and only 10% rated themselves as extremely familiar. While more than four out of 10 respondents (44%) are somewhat familiar with the business analytics software product category, 24% rated themselves as not very or not at all familiar.

Definition: For the purposes of the remainder of this survey, we are defining business analytics software as PM tools and applications and DW platform software used to access, transform, store, analyze, model, deliver and track information to enable fact-based decision-making and extend accountability by providing all decision-makers with the right information, at the right time, using the right technology.

Based on this definition, how familiar are you with the





Key benefits derived from business analytics software

Top benefits that respondents derived or expect to derive from business analytics software included improving the decision-making process (75%), speeding up the decision-making process (60%), better alignment of resources with strategies (56%), realizing cost efficiencies (55%) and responding to user needs for availability of data on a timely basis (54%).





Note: Multiple responses allowed.





Key challenges in implementing business analytics software

When asked what key technology or business challenges organizations have faced or expect to face in implementing business analytics software, respondents most frequently cited data integration with multiple source systems (59%), data quality (56%), integration with the rest of their enterprise applications (44%), ability to handle complex queries (39%), and administration and security (38%).



What are the key technology or business challenges your organization has faced or expects to face in implementing business analytics software?

Note: Multiple responses allowed.





Conclusion

The majority of respondents referred to BI when thinking about business analytics, with PM also in the back of their minds. Business analytics may be the next logical step in the evolution of BI, with business analytics being more comprehensive, providing a software taxonomy that incorporates other disciplines such as PM and predictive analytics. However, the true indication of evolution may be that business analytics requires us to think beyond the confines of technology. Successful organizations that invest in business analytics software will also take into account the culture, processes and performance strategies.

Business analytics is broad enough to include capabilities and solutions that benefit a variety of disciplines. Interestingly, most respondents feel that business analytics is not just primarily an IT or business function, but is a function of both IT and business. With this approach, there is an increased need for collaboration across organizations on issues relating to business analytics, as well as the need for cross departmental management teams for oversight.

The top software tools that respondents consider part of business analytics span across various areas, including analytics, data integration, query/reporting and PM. Given that business analytics is designed to enable fact-based decision-making by all decision-makers, it is not surprising that nearly three-quarters of respondents viewed business analytics as a function of both IT and business.

Respondents said the key benefits currently derived or expect to be derived from using business analytics software encompass various areas of business analytics, with the top two benefits related to improving and speeding up the decision-making process. Other key benefits included:

- aligning resources with strategies
- realizing cost efficiencies
- responding to user needs for availability of data on a timely basis
- improving the organization's competitiveness
- producing a single, unified view of enterprisewide information
- synchronizing financial and operational strategies
- increasing revenues

Given the current state of the worldwide economy, it is not surprising to see realizing cost efficiencies, improving the organization's competitiveness and increasing revenues as key benefits.

Within every organization, there are always obstacles to realizing those benefits. Respondents named top challenges as data integration with multiple source systems, data quality and integration with other enterprise applications. Data integration components provide organizations with enterprise data access and processing across systems and platforms, as well as integrated data quality, which is critical to providing accurate and consistent information.

Investment in business analytics would provide organizations with the right information at the right time in order to empower fact-based decisions at every level of the enterprise, to achieve key objectives and to gain maximum return from information assets. Business analytics is generally both historical and predictive, resulting in the need to embrace a shift to a more proactive, fact-based decision-making environment. With business analytics, decision-makers should constantly ask, "What is the best that can happen?"

With the importance of the improvement of the decision-making process, organizations should turn to a provider that can offer a range of techniques and processes for the collection, classification, analysis and interpretation of data to reveal patterns, anomalies, key variables and relationships, leading ultimately to new insights and better answers faster. That provider should also bring the strategic advice and services required to address the cultural, process and performance issues inherent in business analytics.

