

I D C T E C H N O L O G Y S P O T L I G H T

Everyone's a Genius: SaaS-Delivered Business Intelligence Tools Put Decision Making in the Hands of Decision Makers

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Simple business decisions, each of which impacts a company's performance and efficiency, are made every day, at every level of an organization, by workers in every department. But conventional business intelligence (BI) tools are often not available to most decision makers and are typically designed for use only by trained business analysts. Software as a service (SaaS)-based BI tools are designed to help the millions of people in non-IT "lines of business" (LOBs) who struggle every day with the task of mining Excel spreadsheets and other unstructured data sources when performing everyday tasks such as making sales forecasts, planning for resource utilization, or servicing customer accounts. Especially in this time of limited budgets and uncertain futures, inexpensive, easy-to-deploy SaaS BI can help companies put easy-to-use data mining and reporting tools for smart decision making into the hands of more employees and uncover the real "geniuses" of decision making hidden in every department.

This Technology Spotlight focuses on the following contentions:

- *SaaS-based analytics can help companies be more resourceful in a recession and provides a way to align the goals of the business unit and IT.*
- *SaaS-based BI tools can allow businesses to optimize how they access and apply business intelligence to help them make good decisions.*
- *The core activities of BI (retrieving, aggregating, and presenting data) can be done efficiently using SaaS-based hosting of the application.*
- *SaaS-based BI can help firms build good business outcomes.*
- *New SaaS-based BI solutions offer a way to extend existing BI investments and can work in concert with on-premises solutions.*

Reading this paper should result in a better understanding of how SaaS-based BI in effect democratizes information access and analysis by putting easy-to-use yet sophisticated tools in the hands of each department's "geniuses."

Definitions

Three elements require some definition for the purposes of our discussion:

- "Conventional software" refers to applications with a traditional perpetual license, deployed onsite at a user firm (on premises).

- "Business analytics software" is part of a market that is divided into several segments and subsegments, including business intelligence; financial performance and strategy management; CRM analytics; workforce analytics; supply chain analytics; and advanced analytics, including data mining and statistics. The intent of these tools is to aggregate data from various sources (typically "production" databases), mine data for patterns and trends, and provide reports that are typically either diagnostic (of an ongoing event or series of events that a business will want to be aware of, such as a seasonal spike in sales of a certain item) or prescriptive (building "what if" scenarios for planning, based on data on past trends).
- "Software as a service" is a model for software licensing and delivery where applications built specifically for network delivery are hosted by providers and accessed by users over the Internet. The price for SaaS applications is typically an "all-in" fee that rolls up the application, software maintenance, and related support costs (infrastructure and expenses associated with running, servicing, and provisioning the application) into a monthly per-user subscription fee.

Current Situation and Benefits of SaaS Business Intelligence Tools

In October 2008, IDC surveyed almost 400 businesses and more than 1,000 consumers to explore the impact of the financial crisis on short-term planning (general spending plans and specific IT investment). In general, the data supports a picture of a broad slowdown across IT sectors, with businesses increasingly bearish about their short-term ability to invest, whether for stability, growth, or cost savings down the road.

But there is a silver lining: The data also clearly supports the notion that this climate will actually accelerate the growth prospects for the SaaS model and for services that provide a near-term business benefit, either a business process improvement or a forecastable (hard) cost savings. In general, SaaS services have benefited from the perception that they are tactical pro tem fixes that allow for relatively easy expansion during hard times. As a result, across most application segments, SaaS vendors reported a general increase in demand among existing customers.

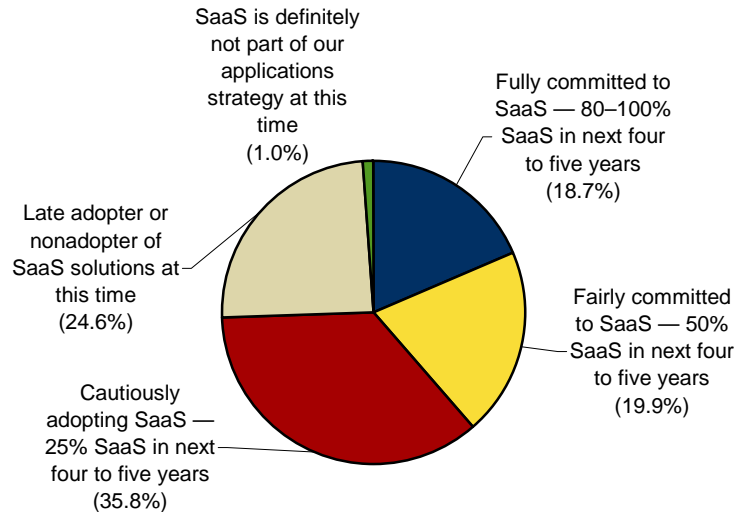
Demand for SaaS-Delivered Applications

Indeed, an IDC survey run in late October 2008 found among business respondents a high degree of understanding about the value of SaaS-delivered applications and a clear indication that they planned to shift some IT workloads to SaaS delivery (see Figure 1).

Figure 1

Level of Business Commitment to SaaS Applications

Q. *What is your organization's general strategy when considering SaaS implementations?*



n = 398

Note: The survey targeted respondents from firms with at least 500 employees.

Source: IDC's SaaS Multiclient Study, November 2008

This survey, which targeted respondents from firms with at least 500 employees, showed that nearly 19% of U.S. firms were "fully committed" to SaaS and planned to build 80–100% SaaS-based businesses in the forecast window. Less than 26% of these firms saw themselves as late adopters or nonadopters. *When respondents were asked about net-new SaaS projects, 79% said they would launch one to two new projects in the coming year, and 12% indicated that they planned to launch three to four new projects in the next year.* When respondents were asked about the importance of SaaS to their businesses, the most common responses were:

- **Reduced TCO** (no hardware/software to set up, very modest use of IT resources)
- **Faster "time to value"** (i.e., a shorter period between contract signing and putting the application to use)
- **Better performance and availability**

All three factors have been cited in survey after survey as core reasons why SaaS-delivered services provide immediate and impactful benefits.

Growth of Data Analysis Tools

The past five years have seen an explosion in the growth of BI tools used to analyze data sets, identify trends and correlated data events, and support good business decisions.

But, in some cases, conventional BI solutions can be overly IT centric and relatively expensive, and many are underutilized. They are typically licensed and geared for use by dedicated analysts who serve many business units across complex, multinational and multibrand organizations, and because of their expense and their ties to legacy data systems, they are centered around IT and not around business functions, such as sales, HR, marketing, and fulfillment. These LOBs are not only the providers of most of the production data that is being analyzed by BI tools but also the primary users of the reports. So for several reasons, while BI solutions undoubtedly provide tremendous value in business operations and planning, conventionally deployed solutions do not solve problems, or create new problems, related to inefficient architecture, high cost, inaccessibility, and complexity. Sometimes the problem is simply that they do not get into the hands of the LOB users whose work relies on the analysis and reporting of BI.

But rightsized BI solutions, delivered via SaaS, are easy to use and easy to integrate with SaaS-based solutions that are already serving these departmental users. These BI tools — and the superset of business analytics products — can then be focused on new streams of data by nonanalysts who have business domain specialties (e.g., sales executives) and who can look for hidden trends to support a decision, correct a forecast, or improve the performance of a product line.

Benefits of SaaS BI

BI offerings delivered via SaaS provide tremendous additional benefits of scale and efficiency, lower cost, and better consumption of SaaS-derived data sources, and they are changing the way businesses license, deploy, and utilize BI to support decisions at their companies. Some benefits of SaaS BI are as follows:

- **Business optimization for hard times.** SaaS-based analytics can help companies be more resourceful in difficult economic times by helping them identify cost savings, efficiencies, and opportunities for process improvement they may have otherwise "missed in the data."
- **Faster "time to value" for a quicker return on investment.** Implementations of SaaS BI solutions can be far faster and less expensive than implementations of conventional solutions. Consider that building a traditional BI solution with a data warehouse implementation, data normalization, and data marts for data staging by query systems typically requires between 6 and 18 months, sometimes longer. By contrast, SaaS BI deployments typically require 2 to 4 months, and SaaS vendors cannot book revenue until the implementation is complete — a situation in which both buyer and seller are equally incented to decrease what some vendors call "time to value."
- **Access by more employees to more data.** Key beneficiaries of the trend toward SaaS BI have been the millions of people in non-IT lines of business who struggle every day with the task of mining Excel spreadsheets and other unstructured data sources when performing everyday tasks such as making sales forecasts, planning for resource utilization, or servicing customer accounts. Users of LOB applications produce the production data that drives BI requirements, and the powerful BI reporting and analysis capabilities are especially impactful in the hands of the users who created the data, resulting in greater adoption and utilization. Every business can be more efficient by putting better reporting and analysis tools into the hands of the LOB and departmental employees who are the subject matter experts in their domains. SaaS BI can make their jobs easier by providing browser-based access to sophisticated but easy-to-use data mining and reporting tools and uncovering the "geniuses" of decision making hidden in every department.

- **Broad reach across the firewall.** Further, because SaaS applications are deployed outside the firewall, users can easily share data, integrate from other data sources, and combine data from corporate databases in different parts of the world, from other internal business units, and also from suppliers and partners in any company's extended value chain. This is especially important for any firm with multiple sites in different physical locations.
- **Streamlined architecture, with zero infrastructure.** Unlike on-premises BI systems, SaaS-based BI is hosted by a vendor, such as SAP. Users access the various modules (e.g., analysis, reporting) securely via any Web browser. Where many conventional BI applications utilize a physical data warehouse that pulls data in batches in the extract/transform/load (ETL) process, SaaS BI typically relies instead on a real-time feed of data to a virtualized data store, located on the SaaS server. From a systems architecture standpoint, this method is optimal because it does not impose an ongoing computing burden on back-office production systems, and because the application is hosted by the SaaS provider, users do not need to maintain an onsite data warehouse. Users conduct their secure sessions via a Web browser, so there is no client software to install, and users are always assured of running the most recent, optimized version of the application code because SaaS applications are not "rolled out" like conventional applications; they are simply upgraded and optimized on an ongoing basis.
- **Lower implementation costs.** A conventional on-premises BI deployment also often requires a long-term professional services component to help build a physical data warehouse, normalize production data from various sources, build frequently used reports, and perform other tasks. But IDC has found that when a SaaS application is being configured for first use, even for complex BI systems that are mapped to on-premises production systems (such as Oracle or SQL databases for marketing, sales, finance, etc.), third-party integration and professional services firms are used in only about 10% of these engagements, significantly lowering the cost.
- **Lower ongoing costs.** SaaS BI solution vendors charge a "subscription" fee, which provides an "all-in" cost for the right to use the application service, maintenance (upgrade path), and support. This subscription is typically based on the number of users who will interact with the system (per seat), in addition to a support plan. Most SaaS vendors bundle core support (connectivity, basic user-level support) into the basic subscription and offer one or two tiers of support above the basic level, with more stringent service levels, 24x7 support, training, etc. In general, for most organizations, the cost to deploy a SaaS BI solution based on subscription licensing will be far lower than the cost of buying a conventional on-premises solution.
- **Ability to tap operation expense (opex) budgets versus capital expense (capex) budgets.** Because SaaS solutions are licensed as subscriptions, their license cost is a monthly, predictable expense and does not require a one-time up-front payment for licenses as conventional software. Further, the ongoing support costs to run associated hardware, management, and integration tools and middleware and hire and train staff members to support on-premises applications is substantial, and nonmaintenance support costs are typically booked as capex. Because these budgets will be flat in 2009–2010, SaaS solutions give users a chance to get access to BI and focuses analytics tools much faster, using opex funds that might reside in their LOB budgets.
- **Better alignment of business goals.** Business units consuming IT resources sometimes feel discordance between the technology they know they need to have to produce good business outcomes and the tools their IT staff has the skills and bandwidth to deploy. But IT is typically a cost center, and its priorities don't always align with LOB requirements. SaaS-delivered BI helps business units get business done and helps align the goals of the business unit with its technology tools.

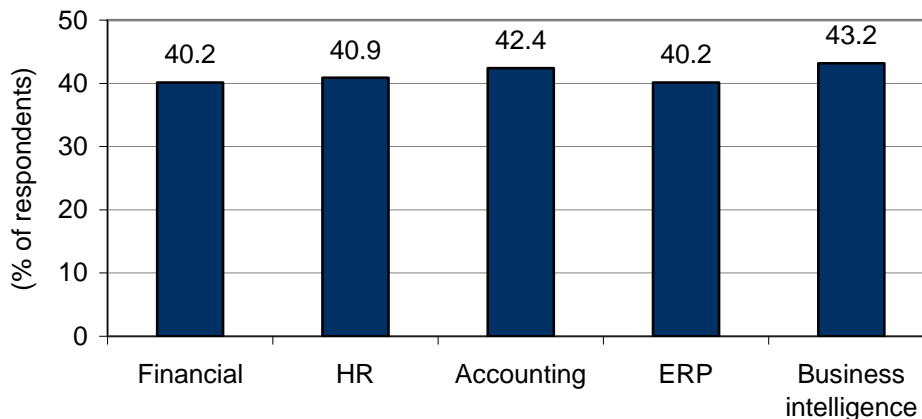
Trends in the Market for SaaS BI

- The overall increase in LOB and corporate executive influence over buying decisions will drive more BI purchases, and business decision makers are showing growing awareness about the potential benefits of BI technology. This trend signals the beginning of a broader shift in decision-making power for BI technology purchases from IT centered to business centered. *IDC expects this trend to accelerate.*
- SaaS applications in core business areas such as HR, CRM, supply chain, and marketing frequently have some organic data analysis and reporting capability, but analytic applications as part of BI typically provide deeper statistical analysis and a more comprehensive set of reporting formats, and applications such as crystalreports.com are a natural complement to the core SaaS applications, as opposed to being a generic and often not fully functional part of a larger solution. For example, SaaS HR systems are ideal for maintaining employee pay records, managing staffing and recruiting, and monitoring employee travel and expense, but native BI tools are best suited to analyzing the vast pool of information derived from these activities, identifying trends in the data, and understanding the real messages behind the numbers. *IDC expects customers to rely on a mix of both core and native BI applications to produce the best business outcomes.*
- In the IDC survey run in late October 2008, respondents were asked to identify workloads most suitable to SaaS delivery; 43.2% of respondents, the highest number among 11 technologies we asked about, found BI to be the best suited for SaaS delivery (see Figure 2). *IDC expects this view of the value of SaaS to be reflected in buyer decisions in the BI market.*

Figure 2

Applications/Workloads That Are Most Suitable to SaaS Delivery

Q. What applications, services, and functions would your organization feel are best with SaaS?



n = 199 (line-of-business vice president or director)

Note: Multiple responses were allowed.

Source: IDC's SaaS Multiclient Study, November 2008

- Products in the BI market segment and the analytics tools segment are predicted to be strong sellers in 2009, but while the smaller advanced analytics segment has greater potential, one factor limiting the market has been the lack of professional analytical and statistician skills normally required to use conventional BI applications. Easy-to-use applications such as the crystalreports.com application and SAP® BusinessObjects™ BI OnDemand solution automate some of the statistical analysis required to get the full benefit of data analysis and put it in the hands of a group of decision makers with more "generalist" analytical skills.

Analytic and Reporting Tools from SAP

SAP BusinessObjects OnDemand offerings bring business intelligence to customers via SaaS. The applications are run online, so there is no need to purchase software, hardware, and maintenance — it's all included in a monthly user fee. SAP BusinessObjects BI OnDemand and crystalreports.com provide advanced reporting, real-time dashboards, and powerful ad hoc analysis tools for maximizing the value of data. Users can access multiple data sources, whether from the cloud or on-premises applications.

SAP BusinessObjects BI OnDemand and crystalreports.com allow companies to maximize the value of their data, closing the loop between business strategy and execution, no matter the size of the company.

Challenges

- The recession has forced organizations to delay spending on many goods and services, and organizations are delaying spending on new licenses for BI tools at a greater rate than previously expected. It is now expected that uncertainty and cost control policies will extend throughout 2009, and this has caused IDC to reduce its BI tools software forecast for the year, with some recovery expected in 2010 before adoption levels return to previously expected run rates.
- Notwithstanding the powerful economic benefit and other advantages to sourcing software as a service, the amount of worldwide software spending dedicated to this mode of delivery is still less than 4% of all software spending. Buyers will need to feel they are contracting with reputable firms that can survive tough financial times, delivering service-level agreements at least equal to those they could guarantee with on-premises IT resources, and continually refreshing software to provide the latest functionality, or users will not adopt SaaS as quickly as predicted.
- Open source software is moving up the stack to the applications layer, with new vendors offering support and services based on open source applications. Open source BI tools will continue to be embedded in a variety of applications that need query and reporting components. With more mature features available and lower entry pricing, this software should experience increased demand in 2009. The rise of multiple options of open source will encourage buyers with sophisticated IT skills to build some content management, data warehousing, and analytic tools in-house, competing with sellers of both conventional and SaaS BI tools.

Conclusion

IDC believes that SaaS delivery of BI applications will continue to be an important factor in data analysis and successful decision making in the LOBs of companies. To the extent to which SaaS-based BI and reporting products such as SAP BusinessObjects BI OnDemand and crystalreports.com can continue to provide the business value and benefits customers are coming to expect from SaaS-based BI, firms such as SAP will do well in this area.

Conventional BI systems are designed to be used by business analysts who run data analysis on behalf of decision makers. But putting these same tools in the hands of LOB users democratizes the information and gives them the power to make impactful business decisions at all levels of the organization. SaaS makes this possible by providing a low-cost way to give Web-based access to significantly more users, using a streamlined architecture. The result is better alignment of business goals between lines of business and IT organizations, better decision-making power in the hands of users, and the discovery that there can be geniuses in every branch, in every department, in every company, just waiting for their chance to "run the numbers" with SaaS-based BI tools.

A B O U T T H I S P U B L I C A T I O N

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