Ovum Decision Matrix: Selecting a Business Intelligence Solution, 2014–15
Summary

Catalyst

To survive and thrive in today's dynamic business climate, enterprises must treat data as an organizational asset. Enterprises increasingly need to shift the basis of differentiation to focus on smarter and more efficient use of data, thereby improving decision-making and creating a sustainable competitive advantage. Hence, the ability to extract, integrate, analyze, and interpret data related to the business in a timely, proactive way makes business intelligence (BI) an increasingly important priority for organizations. But deciding on a platform in an evolving BI market is no mean feat, often resulting in a long and complex selection process of BI vendors and tools. To aid enterprises in the selection process, Ovum has surveyed the market and has published this Ovum Decision Matrix report to help enterprises select the most appropriate BI solution from among the 10 leading vendors.

Ovum view

Business intelligence continues to be a growing and highly competitive market. Most vendors featured in this Decision Matrix reported double-digit growth figures, with rapidly growing vendor Tableau reporting greater than 80% year-on-year revenue growth. However, it was encouraging to see that new license revenues, rather than maintenance and services, drove growth in most cases.

In Ovum's opinion, the uptake of visual data discovery solutions, such as Tableau, Tibco Spotfire, and QlikView has been the most noteworthy development in the BI market during the last couple of years. The adoption of such tools can be attributed to the ease with which users can source, mash up, analyze, and visualize well-defined data with intuitive and visually driven solutions, often with little to no help from IT. Tableau and Qlik have also been able to grow their revenue at a rapid pace; in 2013, Tableau grew revenue 83% year over year, while Qlik grew revenue 21% year over year. This success has not gone unnoticed by traditional BI vendors that are scurrying to offer their own self-service, visual data discovery offerings. MicroStrategy (Analytics Desktop), SAS (Visual Analytics), and SAP (Lumira) are addressing this market with similar products to that of Tableau, Spotfire, and QlikView (point-and-click visual querying and dashboard development), while vendors such as IBM (Watson Analytics) and Oracle (Endeca) are trying to differentiate themselves with products where natural language search and querying are front and center, allowing users to ask questions such as "Why are my sales down in Eastern Europe?" in a Google-like interface. Information Builders is the only vendor Ovum evaluated that does not offer its own data discovery tool meant for the nontechnical business user. However, as this is now a "must-have" for a modern BI vendor, it is something Ovum expects Information Builders to address with a new self-service product in 2014.

However, while new types of self-service tools are drawing a lot of attention, enterprises need to remember that data discovery is only a subset of a complete enterprise BI platform. The core customers for BI are still users who rely on reoccurring reports and dashboards coming out of the traditional enterprise data warehouse (EDW), and Ovum does not see this changing within the next few years. Therefore, the ability to provide scheduled reporting; robust and automated query and analysis across large, complex sets of data; and sound governance, metadata, and administration functionality continue to be highly important evaluation criteria for BI platform technology, areas where vendors such as IBM, SAS, SAP, and Oracle tend to shine.
Analytics is an integral part of enterprise BI

The divide between BI and analytics is rapidly shrinking, and the ability for knowledge workers to integrate more advanced analytics methods to form a deeper understanding of the business yesterday, today, and tomorrow is becoming a "must have," rather than a "nice to have" for an enterprise BI platform.

Ovum believes that nearly half of BI and analytic applications built and run in 2014 will integrate, to some degree, text and data analysis and modeling, complex business rules, and predictive analytics. These additional capabilities will help enterprises crunch more data and run more sophisticated analytics, driving a demand for more processing power to maintain acceptable response times.

Vendors such as Tibco, SAS, and IBM already offer advanced analytic capability, while vendors such as Oracle, SAP, and Tableau are aiming to expand their portfolios with such capability natively or via better integration with the open source R language.

Big Data integration important to improve analysis

The exponential growth of Big Data offers both opportunities and challenges for traditional BI systems that are grounded in a curated set of well-structured and managed data. Tapping into Hadoop and nonrelational data and processing frameworks will play an important role in unleashing a new generation of analytics not possible before, due to data scale or performance considerations. The net result is analytic benefits that cut across two dimensions: breadth (new and varied data, including unstructured data) and depth of analysis.

The vendors profiled in this Decision Matrix are consistently improving connections and integration through partnerships with a new generation of Hadoop-based and other nonrelational database vendors, such as Cloudera, Hortonworks, and MongoDB.

Key findings

- IBM, Oracle, SAP, and SAS are market leaders in the 2014–15 Ovum Decision Matrix for BI.
- Microsoft, MicroStrategy, Qlik, and Tableau are strong challengers that have the potential to break into the leaders category within the next year or two.
- Information Builders and Tibco sit on the cusp of the challengers category, as market followers.
- All vendors covered offer a wide variety of options for mobility, advanced analytics, and deployment and customization; as a rule, however, smaller vendors prioritize intuitiveness/ease of use, and larger vendors focus more on complex use cases and customizability.
- Support for reporting, monitoring, and data management varies within the group, with mega-vendors being the most aggressive in supporting enterprise-grade reporting and data management/data quality management functionality, while smaller vendors lean towards ad hoc integration with the help of third-party tools.
- There is varying support for visual discovery and self-service automation, with mature vendors sometimes struggling to match the functionality offered by smaller, younger vendors.
Vendor solution selection

Inclusion criteria

Ovum's inclusion criteria for this year's BI Decision Matrix are as follows:

- The vendor should offer a "platform" for BI, where all modules, such as query and reporting, data visualization, OLAP, dashboarding, data mining, mobile BI, and statistical analysis, are well integrated.
- The vendor should have more than 500 active enterprise customers with live production systems.
- The vendor must have more than $250m in BI-related revenue (including licenses).
- The vendor should show significant traction in the BI market – high brand awareness and a significant presence in all major regions (EMEA, North America, and Asia-Pacific) across enterprises, covering a range of verticals.
- The solution must be currently available and have at least 10 new client wins in the current calendar year.
- Ovum should have experienced enterprise client demand for information relating to that particular solution.

Exclusion criteria

Ovum's exclusion criteria for this year's BI Decision Matrix are as follows:

- The vendor should not offer only a point solution – such as only OLAP, query and reporting, data visualization, dashboarding, data mining, mobile BI, or statistical analysis.
- A significant portion of the solution's functionality must not be delivered through integration and OEMing of third-party products.
- The vendor should not have a limited number of customer references.
- The vendor must not be predominantly dependent on maintenance revenue related to BI.

Methodology

Technology/service assessment

In this assessment dimension Ovum analysts develop a series of features and functionality that provide differentiation between the leading solutions in the marketplace. The criteria groups identified for BI are as follows:

- **Visual discovery and self-service automation**: How intuitive and visually driven (i.e. drag-and-drop versus scripting) is the product?
- **Reporting and monitoring**: How well does the suite support distribution of deliverables such as pixel-perfect reports, dashboards, scorecards, KPIs, and strategy maps?
- **Mobility**: How well does the suite allow customers to deliver BI to mobile devices, such as smartphones and tablet computers?
• Query and analysis: How well does the suite support users to query and analyze data in databases, EDWs, and OLAP cubes/multidimensional stores?

• Advanced analytics and data mining: How well does the suite support an organization’s advanced analytics (predictive and prescriptive) and data-mining needs?

• Data sourcing and integration: How well can the suite source and integrate data from traditional relational stores, newer Big Data stores, and streaming, real-time data?

• Administration and system management: How easy is it for IT to monitor and manage its BI implementation (user management, query management, upgrade management, system monitoring, and so forth)?

• Customization and development: How well does the suite support developers, partners, and ISVs who want to create their own customized BI applications?

• Packaged BI applications: What range of prebuilt BI applications for specific roles and verticals does the vendor offer?

• Deployment: What level of platform, web, and application support does the vendor offer?

Execution

In this dimension, Ovum analysts review the capability of the solution around the following key areas:

• Maturity: The stage that the product/service is currently at in the maturity lifecycle is assessed here, relating to the maturity of the overall technology/service area.

• Interoperability: In this element we assess how easily the solution/service can be integrated into the organization's operations, relative to the demand for integration for the project.

• Innovation: Innovation can be a key differentiator in the value that an enterprise achieves from a software or services implementation, and this is assessed in this criterion.

• Deployment: Referring to a combination of assessed criteria and points of information, Ovum analysts provide detail on various deployment issues, including time, industries, services, and support.

• Scalability: Points of information are provided to show the scalability of the solution across different scenarios.

• Enterprise fit: The alignment of the solution with an enterprise's needs is assessed in this dimension, and the potential ROI period identified.

Market impact

The global market impact of a solution is assessed in this dimension. Market impact is measured across five categories, each of which has a maximum score of 10.

• Revenues: Each solution's BI revenues are calculated as a percentage of the market leader's. This percentage is then used to rank a vendor compared to others. Overall global revenue carries the highest weighting in the market impact dimension.

• Revenue growth: Each solution's revenue growth estimate for the next 12 months is calculated as a percentage of the growth rate of the fastest-growing solution in the market. This percentage is then used to rank a vendor compared to others.

• Size-band coverage: Ovum determines each solution's revenues in three company size bands: large enterprises (more than 5,000 employees), medium-sized enterprises (1,000–
4,999 employees), and small enterprises (fewer than 1,000 employees). These revenues are calculated as a percentage of the revenues of the market leader in each region. The vendor's overall company size-band score is the average of these three values. This average is then used to rank a vendor compared to others.

- **Vertical penetration:** Ovum determines each solution's revenues in the following verticals: energy and utilities; financial services; healthcare; life sciences; manufacturing; media and entertainment; professional services; public sector; retail; wholesale and distribution; telecommunications; and travel, transportation, logistics, and hospitality. These revenues are calculated as a percentage of the market leader's revenues in each vertical. The solution's overall vertical penetration score is the average of these three values. This average is then used to rank a vendor compared to others.

- **Geographical penetration:** Ovum determines each solution's revenues in three regions: the Americas; Europe, the Middle East, and Africa (EMEA); and Asia-Pacific. These revenues are calculated as a percentage of the market-leading solution's revenues in each region. The solution's overall geographical reach score is the average of these three values. This average is then used to rank a vendor compared to others.

**Ovum ratings**

- **Market leader:** This category represents the leading solutions that we believe are worthy of a place on most technology-selection shortlists. The vendor has established a commanding market position with a product that is widely accepted as best of breed.

- **Market challenger:** The solutions in this category have a good market positioning and are sold and marketed well. The products offer competitive functionality and a good price-performance proposition, and should be considered as part of the technology selection.

- **Market follower:** Solutions in this category are typically aimed at meeting the requirements of a particular kind of customer. As tier-one offerings, they should be explored as part of the technology selection.

**Ovum Interactive Decision Matrix**

To access the Interactive Decision Matrix for business intelligence – an online interactive tool that provides the technology features that Ovum believes are crucial differentiators for leading solutions in this area – please download the Ovum Interactive Decision Matrix tool from the Ovum Knowledge Center.

**Market and solution analysis**

**Ovum Decision Matrix: Business Intelligence, 2014–15**

The BI market is crowded at the top, which points to a high level of maturity in solutions currently offered in the market. In general, large vendors with sizeable market impact tend to also score well on both the technology and execution axes.
Market leaders: IBM, Oracle, SAP, and SAS

IBM, Oracle, SAP, and SAS lead the market with comprehensive BI portfolios that do not just deliver on a wide variety of enterprise needs, but also command significant market share.

IBM scored the highest in both our technology and execution evaluation out of all vendors assessed in the report, which is no mean feat in a highly competitive and active BI market. IBM's high scores lend credence to the technical maturity of its broad portfolio, which includes comprehensive BI, analytics, and industry-specific technology and professional services. With IBM's continued investment (R&D and acquisitions) in BI and several adjoining areas, such as Big Data, mobile, cloud, and user
experience (UX) design, Ovum believes IBM is well positioned to retain its leadership position in the BI market over the next couple of years.

Oracle offers customers a wide range of prebuilt BI applications. The vendor’s key differentiation comes from its sophisticated BI/analytics platform, which integrates tightly with its data warehousing and Exa-everything backbone, which includes Oracle Exadata Database Machine, Oracle Exalytics In-Memory Machine, and Oracle Big Data Appliance. The vendor continues to be appealing to enterprises that have some existing Oracle footprint and plan to use integrated analytics infrastructure across the enterprise, regardless of the size, form, or structure of data. Its Endeca product combined with its mobile and planned BI cloud offering brings Oracle ample opportunity to attract more business users in addition to its current customer base of mostly BI developers and IT users.

SAP continues to have the largest footprint in the BI market. The popularity of SAP’s BI proposition can be accredited to a robust suite of vertical-specific products that are tightly integrated with SAP’s ERP applications. A sharpened focus on new areas of BI, such as data discovery (SAP Lumira), mobile (SAP MoBI), in-memory analytics (SAP HANA), and predictive analytics (SAP InfiniteInsight) positions SAP well to continue to be the largest BI vendor in the market.

SAS scored second highest on Ovum’s technology evaluation by offering a robust suite of BI products and functionality. Advanced analytics continues to be a differentiator for SAS, an area that is becoming more relevant to enterprises that base strategy and decisions on forward-looking analysis. Recent investments in in-memory computing (SAS LASR) and an overall goal to simplify the UX for its BI portfolio, led by SAS Visual Analytics, bring lots of promise for the future.

Market challengers: Microsoft, MicroStrategy, Qlik, and Tableau

Market challengers can be divided into two groups: well-established BI platform vendors (MicroStrategy and Microsoft) and rapidly rising data discovery vendors (Qlik and Tableau). All of these vendors offer customers unique value while challenging leading BI vendors with highly competitive products. Ovum believes that neither side has a definitive answer to the future direction of BI. MicroStrategy and Microsoft would arguably benefit from mimicking some of Qlik and Tableau’s visual, self-service nature, while Qlik and Tableau would benefit from adding robust governance and reporting capability found in MicroStrategy and Microsoft’s BI platforms. To that end, Ovum does not rule out the possibility of further acquisition and partnerships in the market.

Microsoft continues to be a major player in the BI market. The company is unique among the big BI vendors because it does not focus on providing its BI technology as a standalone, separately licensable solution. Instead, Microsoft’s BI capabilities are designed primarily to serve its installed base in Microsoft Office, Microsoft SharePoint Server products, and the Microsoft SQL Server platform. Lately, Excel 2013 has become the center point for Microsoft’s BI end-user strategy, and it is positioned as a single environment for query, analysis, data exploration, and data-visualization needs, which places Microsoft well to turn Excel users into paying BI customers. For Microsoft to become a leader, Ovum would still like to see Microsoft offering a more cohesive BI solution and message to help customers, partners, and also Microsoft's own marketing and sales efforts.

Impressively, MicroStrategy posted the third highest technology evaluation score in this year’s Decision Matrix, outscoring BI heavyweights such as SAP and Oracle. The independent BI vendor offers robust functionality across its organically developed platform, which includes a best-of-breed mobile BI offering. The vendor is well positioned to become a leader over the next couple of years;
however, for this to happen Ovum would like to see a less complex, streamlined suite of products that is quicker and easier to use, implement, and buy.

Qlik continues to post high revenue growth at 21% year over year in 2013. This is an astounding accomplishment 20 years after its inception. Its differentiating "associative engine" continues to attract a loyal user base that values its ability to easily find relationships and new insights in large and varied sets of data "on the fly." The company is trying to reposition itself as a more enterprise-ready platform with a re-architected platform, called Qlik.Next. The ability for Qlik to land more large enterprise deals with its new platform will be vital for the company to gain on the current leaders in the BI market.

Tableau is the runaway leader in terms of revenue growth, with impressive 83% year-over-year growth reported for 2013, albeit off of a much smaller base. Much of its success is due to its ability to innovate and execute in a highly competitive market, which also led the vendor to score the third highest on the execution axis. In particular, Tableau is thriving because of its ability to win over business users with a visually driven data discovery product that is easy to use, yet effective in finding insights in large, complex sets of data. Tableau's success has also played a major part in evolving the BI market, where visual data discovery tools are increasingly becoming a must-have rather than a nice-to-have feature for enterprise BI installations. To become a leader in the BI market Tableau will need to offer better enterprise-ready functionality, such as alerting, governance, and reporting; otherwise it will continue to augment, rather than replace, larger vendor's BI installations.

Market followers: Information Builders and Tibco

The two vendors in Ovum's followers category, Tibco and Information Builders, actually outscored three vendors in the challenger category on the technology axis and should not be overlooked by enterprises relying on vendors with portfolios with broad functionality. The placement of both vendors in the follower category is mainly due to their lower execution and market impact scores.

Instead of putting its BI products front and center, Tibco has focused extensively on its middleware business and selling large enterprise deals where BI is included in a package. Tibco seems to be realigning its strategy and reinventing its portfolio to find and win more deals in the BI and analytics space. The centerpiece of these initiatives is Spotfire, a leading, visually driven data discovery product Tibco acquired in 2007. While Spotfire was originally for complex analytics against relatively small data sets, it has now raised the bar. New direct SQL and MDX data access and query functionality coupled with the introduction of an in-memory engine and event-driven architecture allow it to process larger data sets more quickly. And with a recent round of acquisitions – Maporama (geospatial analytics), Extendable Results (mobile BI), and Jaspersoft (production reporting) – Tibco now has an enviable portfolio of BI and analytics products. But technology is just one part of the puzzle for Tibco. To become a serious contender in the BI space the company needs to focus more of its marketing and sales efforts on the front-end use cases for BI, and less on its traditional back-end, middleware business.

Information Builders’ revenues have stagnated around the $300m mark for several years, while other BI vendors’ revenues have grown at much faster rates. Nevertheless, it continues to hold on to its loyal user base with WebFocus, a mature operational enterprise BI platform that handles large, diverse user bases and data sets. Information Builders does not believe in a one-size-fits-all approach. Rather it emphasizes custom builds – reflective of its Focus 4GL roots. WebFocus's sweet spot is in supporting highly parameterized, operational BI reporting and dashboarding applications.
("InfoApps") created via a business-user–focused interface (InfoAssist). However, it also offers more advanced capabilities around predictive analytics, search, and interactive discovery – albeit somewhat programmatically via Focus 4GL. The programmatic approach lends itself well to custom BI requirements. The big gap in Information Builders’ current portfolio is the lack of its own self-service, data discovery tool, which would enable it to reach a bigger user base beyond dashboarding and reporting use cases. With an otherwise robust BI portfolio, the vendor is well placed to move up in the BI hierarchy if it fills this gap during the next 12–18 months.

**Emerging vendors**

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Source: Ovum

The BI market continues to be an attractive space for software vendors and start-ups. Beyond the 10 leading BI vendors discussed in this report, a healthy number of BI vendors didn’t meet Ovum's rigorous inclusion criteria, but are still worth consideration – in particular if a buyer’s requirements are specific to cloud, mobile, Big Data, development, data visualization, collaboration, web, or industry needs. These vendors include:

- **Actuate BIRT** – Open source vendor that offers developers and ISVs a highly customizable BI and analytics platform.
- **Birst** – Hosted, SaaS solution that offers query, analysis and reporting, dashboarding, data integration, and data warehousing tools.
- **Board International** – Solution with a sharp focus on the integration of BI and EPM, and the extended collaboration functionality.
- **GoodData** – SaaS solution that allows users to develop BI applications, dashboards, and visualization on top of its BI platform in the cloud.
- **Logi Analytics** – BI vendor that is best suited for quick development of dashboards and embedding analytics into websites.
- **Looker** – Web-first BI start-up, whose straightforward expressive language LookML allows users to create, reuse, and extend SQL queries and models consistently across reports, dashboards, and queries.
- **Panorama Software** – BI vendor with sharp focus on collaborative data discovery driven by a visually intuitive user experience.
- **Pentaho** – Solution with highly configurable, open source BI with an impressive visually driven data integration and ETL tool powering front-end visualizations, reports, and dashboards.
- **SiSense** – BI start-up that offers an intuitive drag-and-drop front end and optimized in-chip technology to run analytics at a low cost on a single machine rather than in a cluster, like many other solutions.

- **Targit** – BI player that specializes in self-service and natural language search functionality and is often coupled with Microsoft ERP applications.

- **Yellowfin** – Offers mobility and web as a core design principle, allowing enterprise users to factor in 24x7 connectivity and location sensitivity to enable more nimble decision-making.

**Market leaders**

**Market leader comparison**

BI vendors included in the Decision Matrix vary in focus and strengths. This section looks at the underlying patterns in the market by showcasing the top three vendors in each of the major criteria that comprise the technology, execution, and market impact ratings. Enterprises are advised to consider the context and comment behind the scores to determine the product that best suits their specific needs. We typically present three leading vendors for each underlying category. However, if multiple vendors receive the same score, then all vendors sharing the same score are displayed.

**Market leaders: technology**

The market leaders diagram (Figure 2) depicts the leading vendors in each of Ovum's technology assessment categories.
For this year’s assessment, we chose ten different groups of functionality to evaluate the state of technology evolution and maturity in the business intelligence market. The results show that several vendors have advanced and broad sets of technology, but no single vendor offers best-of-breed technology across the board. Overall, IBM, SAS, and MicroStrategy have the highest average scores for technology, closely followed by SAP and Oracle. All five leading vendors have invested heavily in internal development as well as in acquisitions to offer customers comprehensive portfolios that will meet a variety of enterprises use cases and technological needs.

The category that has the highest variance in vendor scores is "reporting and monitoring." This is largely due to the lack of traditional reporting functionality in data discovery solutions such as Tibco Spotfire, QlikView, and Tableau. This is a functionality gap that becomes particularly critical when comparing these vendors to Microsoft, IBM, MicroStrategy, and Information Builders. At the other end of the spectrum, we find the "query and analysis" category to be highly commoditized, with little variance between vendor offerings. The category with the lowest overall score is "mobility," which is not surprising because this is still a fairly new area for BI vendors and many are still finding their bearings. The exception is MicroStrategy, which offers a robust mobile BI platform already.

It is also noteworthy that Tableau scored the highest in the "visual discovery and self-service automation" category, an area which has become a very important evaluation criterion for enterprises that want to involve more nontechnical users in the BI process.
Market leaders: execution

Figure 3 depicts market leaders in each of Ovum's execution criteria, which highlight a vendor's ability to provide a strategy, innovation, and roadmap that aligns well with market trends, but also an ability to help customers and partners find the most value through a streamlined integration of solution and services with an organization's operations.

![Figure 3: Ovum Decision Matrix: business intelligence, 2014–15 – Market leaders – execution](source)

Overall, IBM, SAS, and Tableau lead the way in the execution category. IBM and SAS have very strong global sales teams that are supplemented by local resellers and vertical specialists, who help in customizing the solution to verticals and geographies. Tableau, on the other hand, has aligned its strategy and innovation to meet a need for data visualization, fast deployments, and self-service access to data – which has resulted in rapid growth in the market, often at the expense of larger, less nimble vendors. Tableau is also very well positioned to maintain its momentum with growing brand recognition globally and its ability to generate customers at greenfield sites, where a large installation of BI has either been too expensive, complex, and cumbersome to implement or the use of BI isn't well known.
In terms of portfolio maturity, IBM, MicroStrategy, and SAS score the highest, with many years of experience in the market. It is no coincidence that these three vendors also score the highest on our technology axis.

Several of the vendors score high on interoperability, but Oracle, IBM, MicroStrategy, Information Builders, and Tibco are standouts, with solid integration to third-party solutions.

Innovation is an important category for vendors to remain relevant to changing customer needs, and here Tableau and Qlik pull ahead of the pack. Both vendors offer groundbreaking data discovery functionality and have continued investments in R&D.

For deployment, SAS and Tableau get high scores not just for offering shorter implementation periods for small to large enterprises, but also for solid migration and update support.

Lastly, SAP, Microsoft, and Information Builders shine when it comes to scalability, while SAS, Oracle, SAP, IBM, and Microsoft have the best enterprise fit.

**Market leaders: market impact**

Market impact reflects how effectively each vendor has penetrated different geographical areas and various vertical markets, but also heavily weighs a vendor's current market share and potential for growth.

**Figure 4: Ovum Decision Matrix: business intelligence, 2014–15 – Market leaders – market impact**

SAP has the largest footprint in the market in terms of revenue, closely followed by other mega-vendors IBM and Oracle. All three vendors, in Ovum estimation, also have the most vertical, geographic, and size-band penetration. Microsoft, Tableau, and Qlik have larger penetration at small
to midsize businesses than the aforementioned vendors, but are often absent in larger deals where IBM, SAP, Oracle as well as SAS and MicroStrategy compete. In terms of growth, Tableau blows all other vendors out of the water with over 80% growth year over year, which is impressive in such a competitive market. However, it is a lot easier to grow at such rates when your revenue is in the low hundred millions, rather than in the billions.

Vendor analysis

SAS (Ovum recommendation: Leader)

**Strengths**

*Advanced analytics and data mining*

SAS's advanced analytics functionality continues to be a differentiator in the BI market. The SAS BI suite offers users more native pre-built statistical methods and analytical functions than any other BI
vendor Ovum assessed in this Decision Matrix. Large organizations, such as insurers, banks, and retail chains that consider analytics to be mission-critical are extremely fond of SAS solutions and continue to be loyal customers.

**Ample Big Data preparation, query, and analysis functionality**

The SAS Enterprise BI suite offers customers some of the best data preparation, query, and analysis functionality in the market. Users can source data from a multitude of data stores via SQL, MDX, or XQuery. Visual Analytics users can also leverage SAS LASR Analytic Server, which is an in-memory NoSQL analytical platform optimized for handling analysis of large and complex workloads. It can be embedded inside Hadoop nodes and works directly against data from HDFS for processing on low-cost commodity hardware.

**Strong vertical focus**

SAS offers customers a wide array of pre-packaged vertical BI applications in industries such as banking, retail, manufacturing, and utilities, eliminating the need for large customization, development, and implementation jobs for common use cases.

**Weaknesses**

**Ease of use**

The SAS user base is still made up mostly of advanced, technically and analytically savvy power users, as its products have traditionally required a significant amount of training and knowledge to be able to operate. During the past couple of years SAS has made an effort to reach more nontechnical, business users with a more intuitive user experience, led by its data discovery product Visual Analytics.

**Complex, nontransparent pricing hindering bottom-up implementations**

SAS does not publish pricing for Visual Analytics and Visual Statistics. While enterprise IT and BI vendors rarely (if ever) publish a rack price list, Visual Statistics and Visual Analytics are aimed at a different kind of enterprise user – one that is likely used to consumer technologies and BYOX. To that end, SAS could be losing out on capturing mindshare in this market by not publishing its price list or making efforts to simplify its licensing. This might lead certain business users to pick another visual data discovery tool where the price tag is known, in particular since listing prices is becoming the norm for data discovery products.

**Opportunities**

**Offer advanced analytics functionality that goes beyond other visual discovery tools**

SAS has stated that its Visual Analytics data discovery solution will be the centerpiece of its BI platform. From a consolidation perspective, this will effectively bring together disparate reporting and dashboard functionality under one umbrella. But there is also a great opportunity for SAS to tie its Visual Analytics environment to advanced analytics and data-mining functionality to differentiate itself from similar data discovery products. SAS has taken great strides to do so with the integration of its new product Visual Statistics, allowing more advanced users to visually and programmatically apply statistical and analytic models to the data. This is something that is not found in other data discovery products, such as Tableau and QlikView.
Continue its integration with Hadoop to support complex analytic workloads

SAS LASR Analytic Server was a great first step for SAS to be able to compute natively inside Hadoop. LASR adds scale that allows BI and analytics users a more comprehensive approach to address familiar, complex, and large analytics problems that SAS customers typically run, such as refining customer targeting, identifying fraud, conducting genomic analysis, and evaluating financial markets. SAS can expand on this to use, for example, its sophisticated text analytics capabilities to find relationships within specific events or outcomes to dissect social media sentiment.

Threats

Visual discovery solutions making inroads

In the last few years, a growing number of intuitive, visual discovery vendors have entered the BI market, sometimes gaining customers at the expense of larger, more complex BI platforms, such as SAS. SAS is arguably addressing this threat with products such as Visual Analytics. Key for the company will be to provide similar data visualization functionality, but provide users with more sound analytic, data management, and governance functionality than up-and-coming point solutions can provide.

Open source R

BI vendors are increasingly integrating the open source language R to provide customers with a wider array of analytic capability. R's open source nature (i.e. no licensing fee) has also made it a popular statistical language to teach at universities that operate on tight budgets, often at the cost of students learning SAS or SPSS. SAS is trying to address this by offering products like SAS University Edition for free to students, with the hope that students will continue to learn SAS in school and eventually bring that knowledge (and need for SAS products) when they enter the workforce.

Appendix

Further reading

Checklist: Business Intelligence Vendor Selection, IT014-002942 (May 2014)

Business Intelligence and Analytics Fundamentals, IT014-002869 (January 2014)

2014 Trends to Watch: Business Intelligence, IT014-002810 (October 2013)

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