

  
**COMPETITOR FOCUS SERIES**

# Decision Matrix: Selecting a Business Intelligence Vendor (Competitor Focus)

Competitive dynamics in an evolving market

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## DATAMONITOR VIEW

### CATALYST

Due to demand from enterprises which want to invest in Business Intelligence (BI) solutions, Datamonitor has developed the Business Intelligence Decision Matrix. This report explores the competitive dynamics within the BI market and helps businesses select a vendor based on its technology strength, reputation among customers, and impact in the market. Datamonitor provides a complete view of vendor capabilities and advises on those you should explore, consider and, most importantly, shortlist.

### SUMMARY

Datamonitor concludes that the Business Intelligence competitive landscape is characterized by the following traits:

- SAS and Oracle lead the market by combining excellent technology with a dominant position on both user sentiment and market impact assessments;
- The primary challengers are Business Objects and Cognos, although a more ambitious BI strategy from IBM or SAP could have an even bigger impact;
- Microsoft's BI offering is developing rapidly but nevertheless lags behind, along with a series of specialist and pure-play vendors.

***METHODOLOGY***

<b>Financial analysis</b>	An analysis of vendors' financial performance.
<b>Customer survey</b>	A survey of around 700 IT managers and CIOs.
<b>Technology analysis</b>	Butler Group analysts' assessment of vendors' technology.

## MARKET DEVELOPMENTS

### *The BI market is driven by pervasiveness, consolidation and analytics*

In order to understand the BI market, the following vendors have been profiled:

- Actuate;
- Business Objects;
- Cognos;
- Hyperion Solutions;
- IBM;
- Information Builders;
- Microsoft;
- Microstrategy;
- Oracle;
- SAP;
- SAS;
- SPSS.

Although the BI market could be considered relatively mature, Datamonitor believes there is considerable scope for further growth. According to Datamonitor's Global IT Applications Model (IMTC0105), between 2007 and 2012 the BI market is set to expand by a compound average growth rate (CAGR) of 12% to 13%. This is significantly higher than the growth rate in most of the other enterprise application markets over the same period. The conclusion is reinforced further by the Technology Trends 2006 survey that indicates lower BI adoption rates and a larger volume of medium-term investment in the market compared to most of the other enterprise applications.

The reasons behind the market expansion are many, but there is a consensus that the primary motive is an attempt to capitalize on the investment in adjacent enterprise applications, such as ERP or CRM, and unlock the potential of the increasing volume of the data captured within an enterprise. This general trend manifests itself in three operational market drivers:

- **Pervasive BI** – As BI becomes more aligned with enterprise activities and integrated within core business processes, such as CRM or ERP, it will be utilized throughout the enterprise. This implies that BI will cease to be

a specialist tool, and will be transformed into a pervasive technology delivered to the operational frontline, be it on a manufacturing production line or by a call-center agent. It will be deployed as tactical decision support tool for mid-management and be used in high-level business alignment monitoring higher up the management structure.

- **Enterprise-wide consolidation** – Historically, the path to BI adoption was through department-level initiatives. With the increasing trend towards pervasive, enterprise-wide use of BI, enterprises are increasingly looking to consolidate their BI capability around a single vendor solution. The benefits are to be found in the economies of scale from procurement, integration and maintenance.

Although data-level integration is routine these days, a single BI platform offers additional advantages insofar as the information scattered within an organization can be used anywhere within the organization engendering active monitoring of business performance and strategic goal alignment throughout the enterprise.

- **Advanced analytics** – Although it could be said that analysis never goes out of style, its popularity does ebb and flow. Luckily for some vendors, it could be argued that we are entering a phase in which analytical BI is back in style. The current generation of management is, by and large, particularly comfortable with analytical procedures while the increased volume of corporate data lends itself for easier and more powerful analyses. Both of these trends drive the increasing demand for analytical tools.

Another trend is the in way that analytics is used; there is a change from analyses of past performance by power users to predictive analysis of the future by a wider user base. The analytical frontier may shift further still, into intelligence and decision-oriented analysis embedded directly into business processes.

- **M&A activity** – A steady stream of smaller specialist vendors continues to be acquired, as more established vendors are looking to boost their functionality, primarily in the areas of on-demand BI and advanced analytics. With the exception of Oracle's acquisition of Siebel in September 2005, Microsoft's acquisition of Proclarity in April 2006 and IBM's acquisition of Ascential in March 2005, there has been a relative lull recently in major M&A activity. At least until in March 2007 Oracle announced its intention to acquire Hyperion Solutions in a US\$ 3.3 bn deal. The two vendors have been treated separately in this report, since the announcement was made after the primary research for this report was completed, and the deal had not been finalized at the time of going to print. The proposed Oracle – Hyperion Solutions deal has re-ignited speculation of a further round of consolidation, perhaps driven by large conglomerates with a strong presence in adjacent markets, and almost all of the established pure-play vendors have been the focus of speculation.

**The Business Intelligence Decision Matrix**

In the Decision Matrix, Datamonitor provides a summary of BI vendors' capabilities based on a quantitative assessment of their market impact and end-user sentiment, as well as the technology features that they offer. Datamonitor also provides guidance for enterprises looking to deploy BI solutions and whether they should immediately shortlist, consider or explore deploying solutions from these vendors.

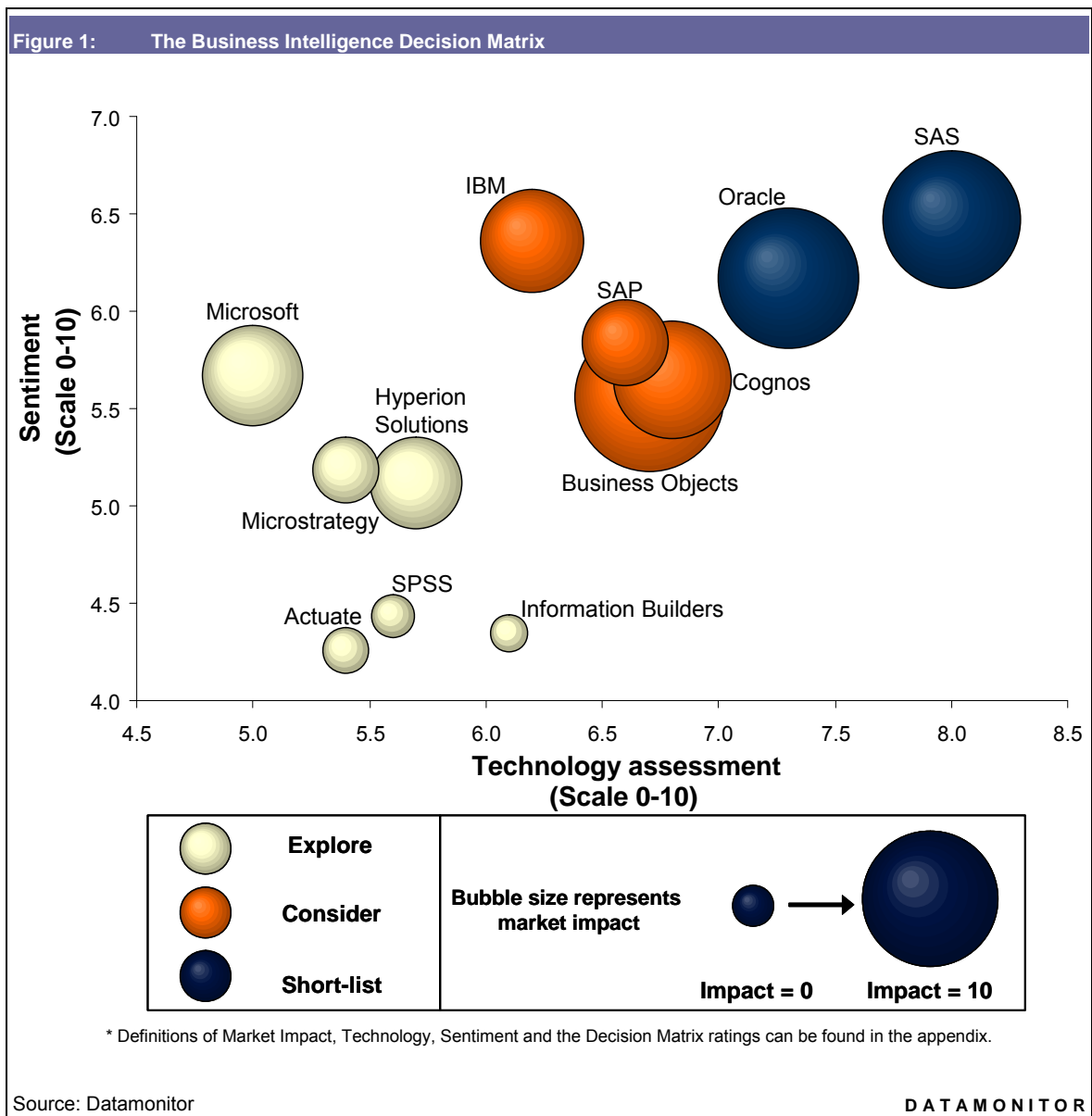


Table 1: The Business Intelligence Decision Matrix*		
Shortlist	Consider	Explore
Oracle SAS	Business Objects Cognos IBM SAP	Actuate Hyperion Solutions Information Builders Microsoft Microstrategy SPSS
* - vendors listed in alphabetical order		
Source: Datamonitor		<b>DATAMONITOR</b>

*Market leaders: SAS and Oracle*

SAS is the clear market leader as it leads technology assessment, dominates user sentiment and exerts considerable market impact. SAS offers a great portfolio of both basic and advanced functionality, backed up by a dependable support capability. Its stable financial footing, superb vision and lead in advanced analytics all imply that SAS is well placed to continue as the Business Intelligence market leader.

Oracle has successfully integrated its recently acquired BI expertise and, as a result, it has managed to exert itself within the BI market. If one considers its considerable user-base, commanding presence in the global applications market, and a comprehensive yet flexible BI solution, its position can not be considered as a surprise. Furthermore, Oracle’s dynamic outlook, exemplified by recent M&A activity, suggests that this vendor will not be complacent and will continue to enhance its standing in the BI market.

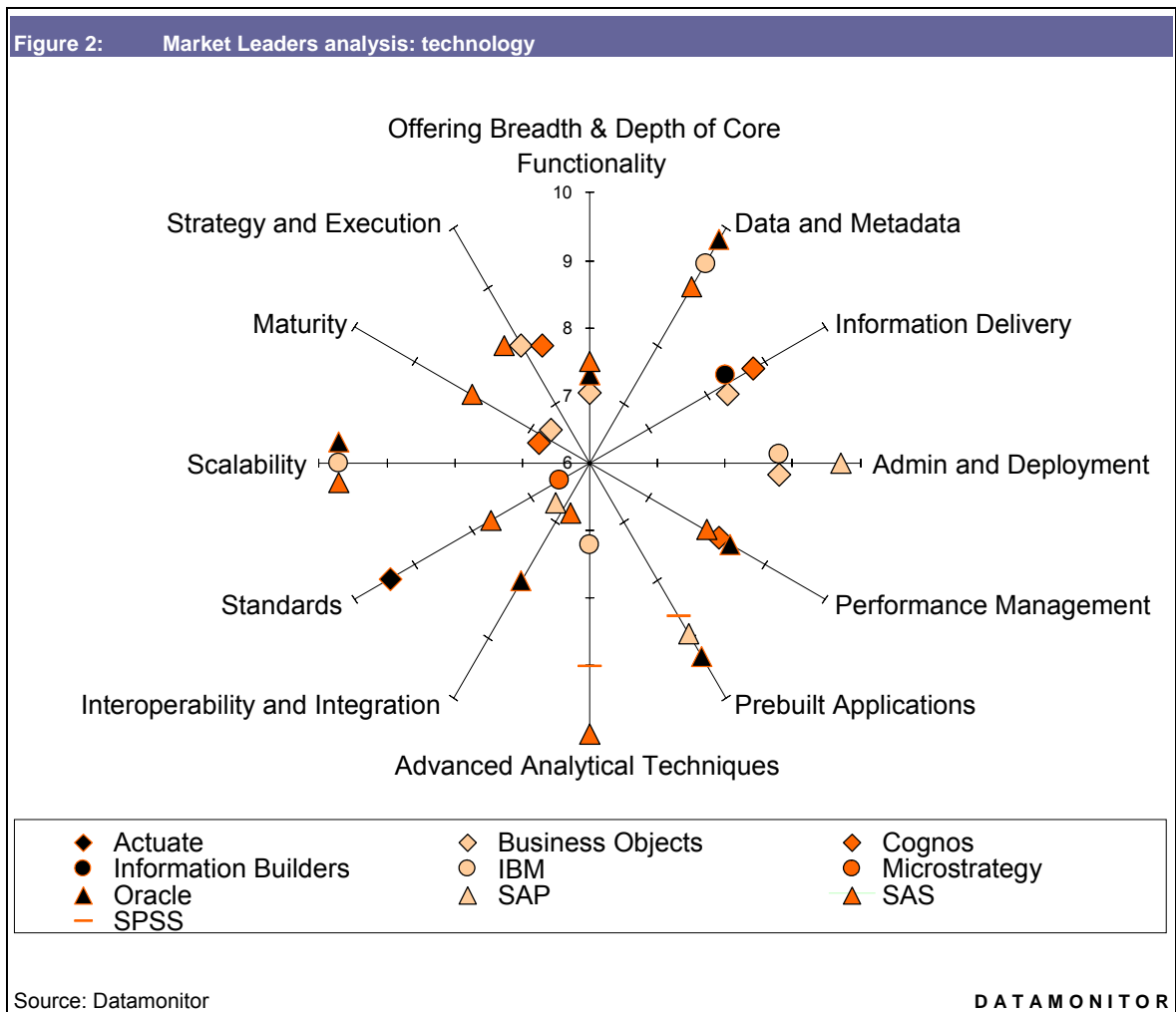
*The challengers: Business Objects, Cognos, IBM and SAP*

The vendors from the *Consider* category are all capable of challenging the SAS and Oracle duopoly, should market conditions change. Business Objects and Cognos are perhaps in the best position to improve, but both need to recover some of the momentum lost during platform reengineering. SAP provides a compelling and comprehensive solution, but it needs to capture a larger share of the non-SAP market if its position is to change, while IBM requires further addition of certain functional areas if it is to compete with the most successful BI vendors. Although Microsoft falls much further behind, Datamonitor believes that its BI strategy is still evolving and that it may be a much more important player in the medium to long term.

## MARKET LEADERS

### Market Leaders: Technology

Ten out of twelve vendors appear on the market leader graph showing the three leading vendors in each of the technology assessment categories. This could be considered as indicative of the maturity and breadth of BI technology and implies that vendors can excel in specific areas of the market. In this respect, it may be worth highlighting Actuate and SPSS. These two vendors may not be able to achieve a commanding market impact or dominate user-perceptions, but this does not mean they cannot lead in certain areas.



Out of the twelve vendors, SAS emerges as a clear leader. SAS is absent from the podium in only three out of twelve categories, and has proven capable of building a significant lead over its competitors. As it would be expected, Oracle performs very well. Although Oracle appears in slightly fewer categories, it tends to lead those.

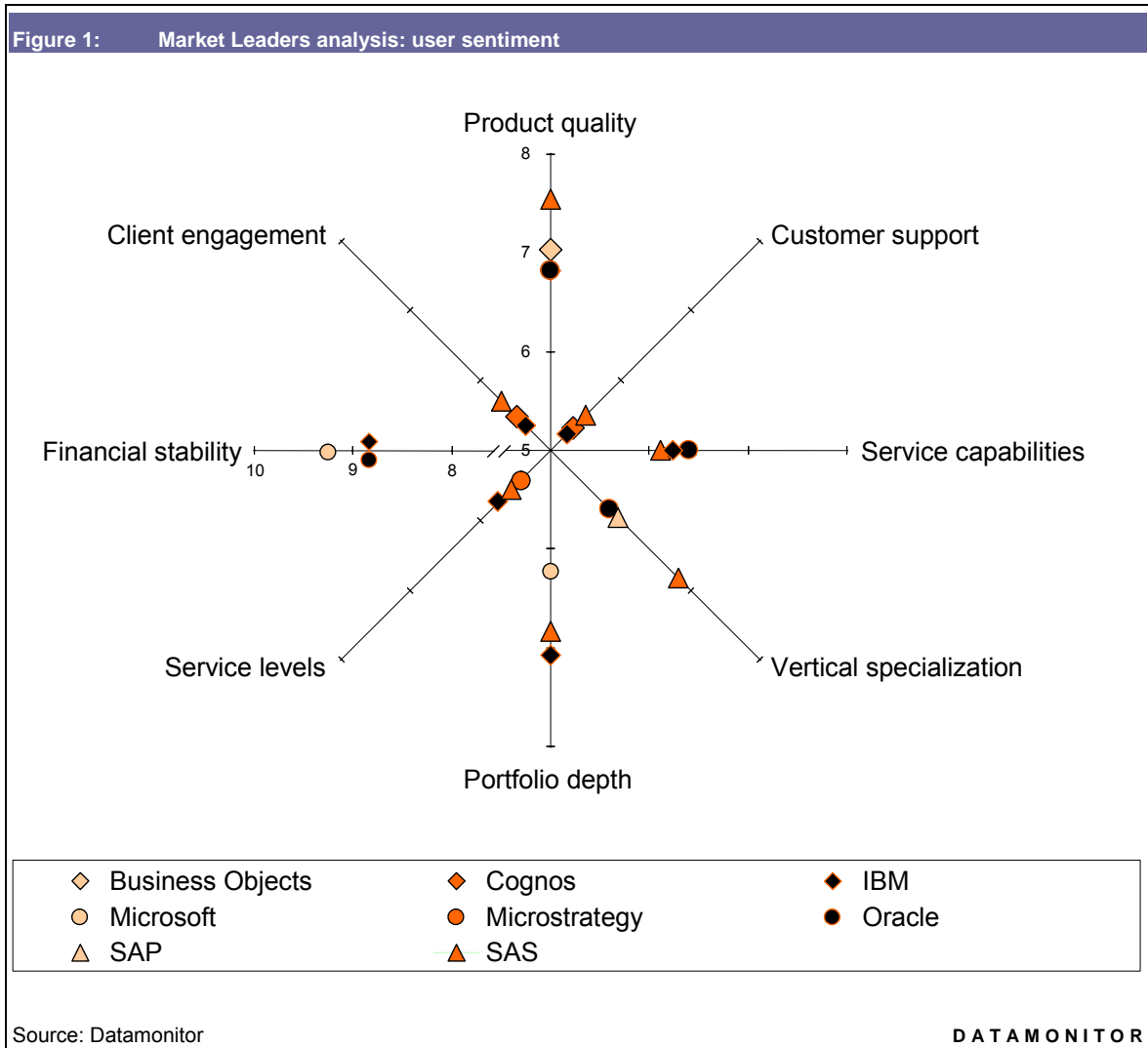
Business Objects' and Cognos' performance is similar. The pair should be particularly encouraged by sharing a lead with SAS in the important strategy and execution category. Microsoft, on the other hand, is conspicuous by its absence among the top three vendors in any of the technical assessment categories. Although a good overall score is predicated on consistent performance in each of the assessment categories not the number of appearances among the category leaders, Microsoft's current showing certainly does not match its ambition and potential.

### ***Market Leaders: User Sentiment***

The market leaders in user sentiment demonstrate a clear pattern revealing that user sentiment scores seem to relate to vendor market impact. Smaller and specialized vendors consistently receive comparatively lower user sentiment ratings, and consequently do not appear among the leaders.

Although the effect could be related to the user sentiment sample sizes, since the respondents cannot rate the vendors they have not engaged with, Datamonitor believes this is not the case and that we are witnessing a different effect. Namely, that user sentiment is difficult to capture and only the largest and the best-established vendors have resources, experience and expertise to build higher levels of positive user sentiment. This would certainly account for the fact that among the eight vendors appearing in the user sentiment market leaders, four vendors are diversified enterprise application giants and next three are large pure-play BI vendors. The remaining vendor, Microstrategy, appears only on service level assessment. Microstrategy captures a third place, demonstrating that all vendors can implement positive customer initiatives capable of gaining end-user recognition. One should also consider the impact of user perception, and it could well be the case that, generally speaking, users tend to be more responsive to larger vendors' marketing messages.

In terms of vendor ranking, SAS leads the overall score once again, appearing among the market leaders in all eight criteria, most importantly on product quality assessment. Its closest rival is IBM, traditionally a vendor held in high regard by the market, with a particularly good showing in client engagement, support and services criteria. Oracle is also in the leading pack, and users are positive regarding its service capabilities, product quality, vertical specialization and financial stability.



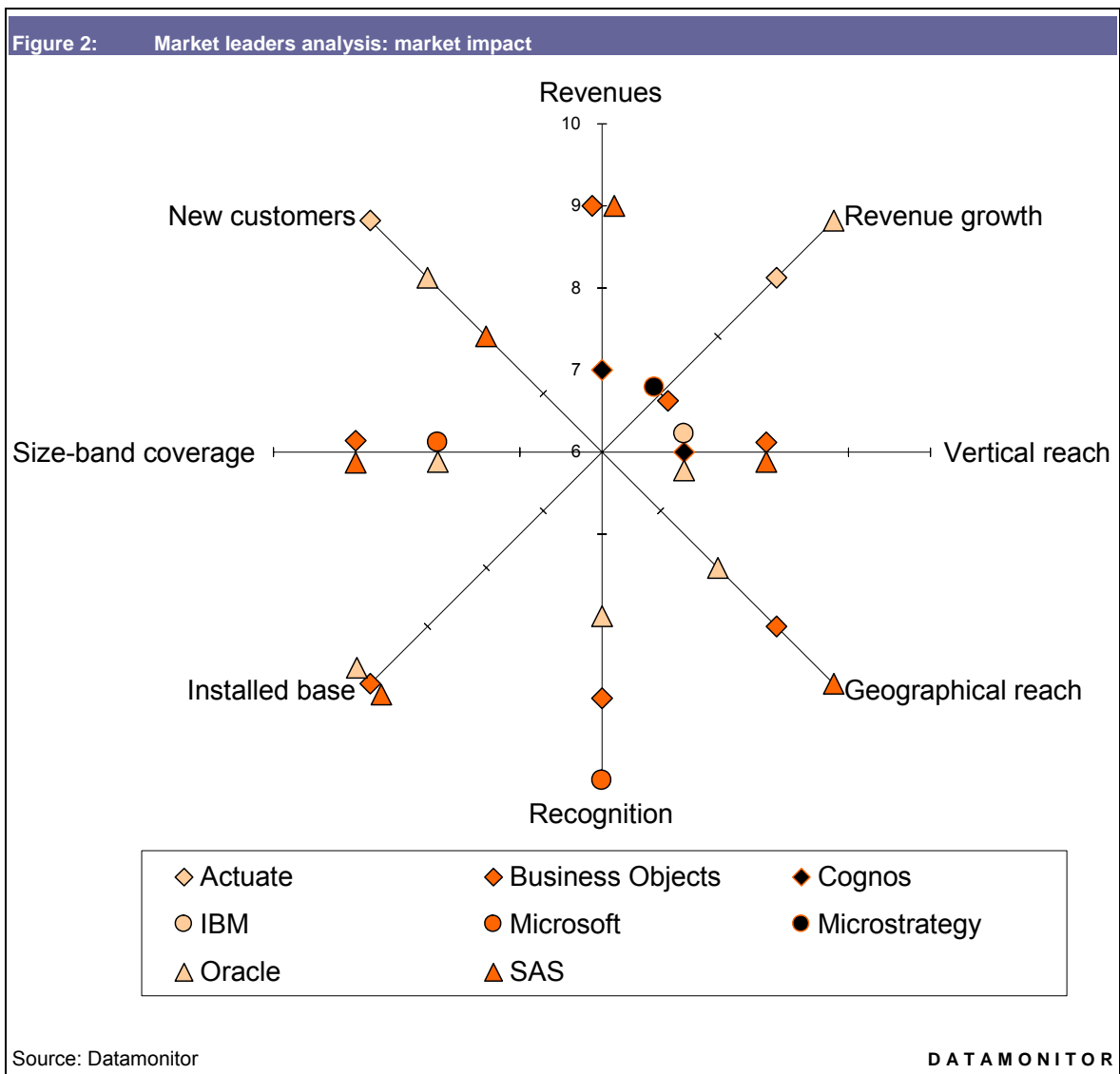
In contrast to these vendors, Microsoft records a significantly lower overall score. Microsoft's overall score can be considered to be somewhat inflated by a predictably high assessment of its financial stability and solid portfolio depth that masks much lower scores on customer support and service levels.

### Market Leaders: Impact

It can be no surprise that three vendors share the top position in terms of installed base: Business Objects, Oracle and SAS, all contest its market impact leadership. Overall, Business Objects emerges as the leader, particularly on the strength of its installed base and revenue. In fact, the gap between the Business Objects and the chasing pack would be higher still had it not been for a clipped rate of new customer acquisition due to its platform upgrade life-cycle.

Among the principal challengers, SAS gives another excellent all-around performance, whilst Oracle is particularly strong in categories relating to market share growth, indicating that this vendor is expanding aggressively within the BI market. With its prospective acquisition of Hyperion Systems, Oracle's market impact will increase further, certainly enough to seriously challenge Business Objects' lead.

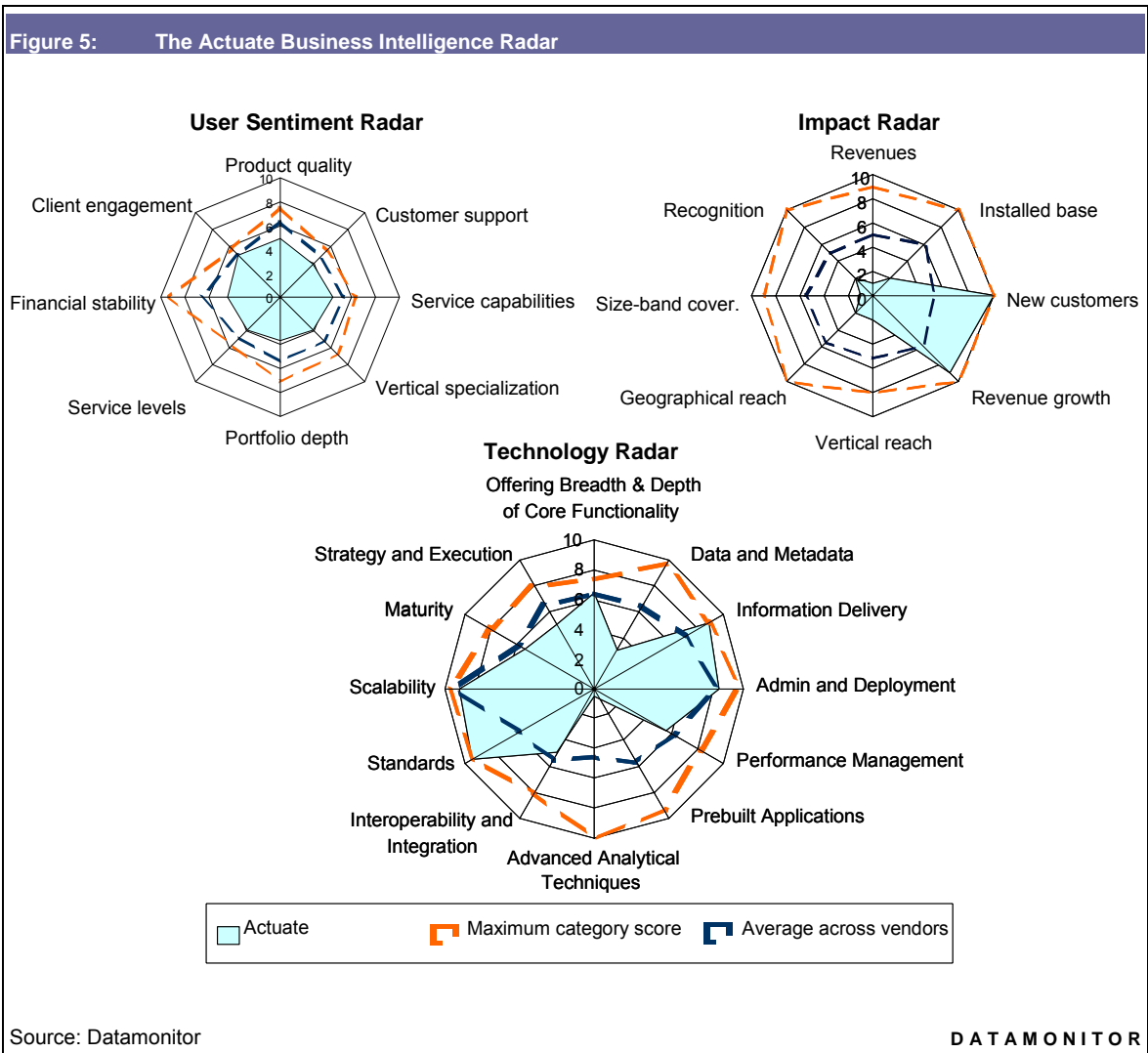
When discussing other vendors' market impact, it is worth mentioning Actuate. This vendor's overall market impact is small, but its rate of growth places it among the market leaders in two growth categories. While these two categories are good indicators of market expansion, it should not be forgotten that a vendor's performance in the growth-related categories depends on its corporate development life-cycle. As a result, any direct comparisons between the vendors along those axes should be qualified by vendors' maturity, market position and revenue size.



VENDOR ANALYSIS

*Actuate: Business Intelligence Radars*

Actuate is a specialist vendor focusing on enterprise reporting and enterprise information integration. Despite the fact that Actuate does not offer a complete BI platform, or even a suite, the vendor is still able to excel in specific areas of expertise, increase revenue and find a place in the competitive BI market. This was achieved by providing scaleable reporting solutions, particularly for Financial Services and Public Sector clients.



Actuate is the only vendor included in the study that supports a BI solution built around open source software technology. Its open source strategy can be considered as a market-building exercise, driven by an attempt to expand the BI market through supporting a viable open source solution.

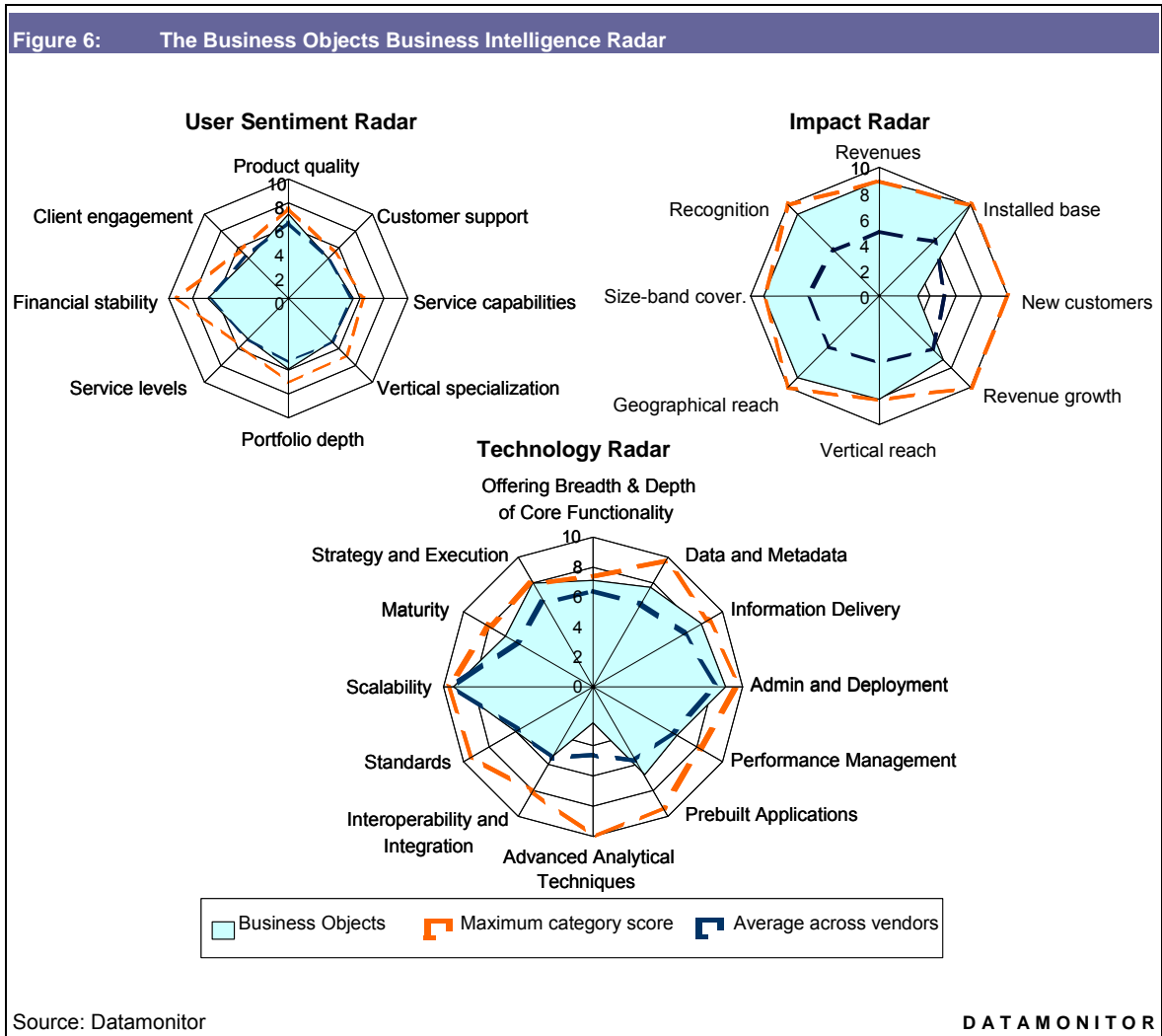
As one of the cornerstones of Actuate's offering consists of reporting capabilities served through Microsoft Excel, the vendor is sometimes considered vulnerable to the expansion of Excel 2007 capabilities. Datamonitor believes that Actuate possesses expertise and capabilities to add value. Together with its open source strategy, this renders Actuate less vulnerable to the anticipated market changes.

*Recommendation: Explore*

Due to its focus on reporting and, to a lesser extent, on OSS solutions, Actuate scores well on standards, information delivery and scalability. Unfortunately, lack of a pervasive platform accounts for its relatively low overall score, while Actuate's low profile depresses both end-user sentiment and market impact ratings further. Nevertheless, Actuate's BI offering may be a viable option for customers requiring scaleable solutions to high-volume reporting needs, particularly within its target industry verticals, or to organizations looking to boost the reporting capabilities of the incumbent BI solution.

**Business Objects: Business Intelligence Radars**

Business Objects has a commanding market impact lead, which could be increased further should new license revenues, somewhat depressed during the last calendar year on account of the life-cycle of the latest Business Objects Release XI offering, recover as expected.



The latest release is technically very complete and well-rounded, combining Crystal Enterprise and Business Objects features to great effects. The user base agrees with this assessment, returning a very high product quality scores in the end-user sentiment survey. Business Objects' strength stems from excellent data connectivity and ETL features that draw on a variety of data sources which are then manipulated further in a strong, enterprise-grade, BI platform. This means that Business Objects is well poised to reap rewards from the trend towards replacing departmental BI solutions with a single,

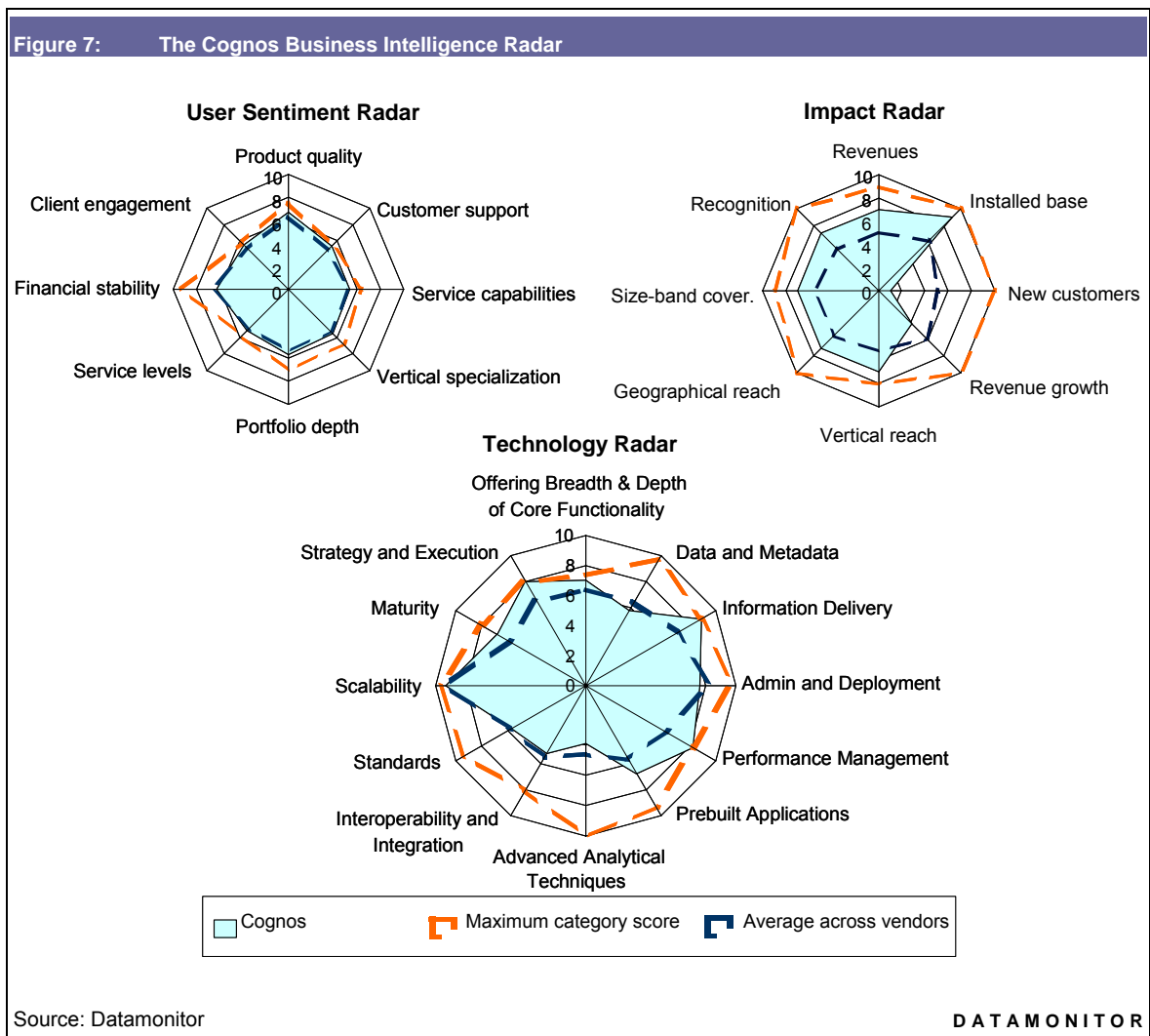
enterprise-wide BI solution. Having been at the forefront of the BI market for a while, Business Objects product range is mature and well administered, with strong product strategy and execution.

*Recommendation: Consider*

Much like other leading pure-player vendors, Business Objects has an extremely strong BI offering. Nevertheless, Business Objects lacks the end-user sentiment comparable to that of its diversified vendor competitors and its overall technical assessment suffers somewhat due to the absence of the integration of specialist advanced analytics tools at the forefront of the offering. Having said that, its products and strategy are sound and Business Objects does provide one of the most comprehensive BI platforms on the market. This renders Business Objects a compelling solution for enterprise-wide BI consolidation. With an impressive market impact, Business Objects is in a position to boost its profile and end-user sentiment, while improving its platform forward as well.

**Cognos: Business Intelligence Radars**

The challenging task of re-engineering Cognos’s BI solution resulted in a single platform built around a services-oriented architecture and labeled Cognos 8. Although its subsequent acquisitions do not discard a possibility of further integration efforts ahead, the platform is not just the sign of the vendor’s technical competency or a welcome indicator of platform consistency. Most importantly, it belays the coherence and strength of Cognos’ vision. The vision is exemplified by strategic positioning in order to capitalize on the rising opportunities both within BI, such as the innovative information delivery, and adjacent markets such as Business Process Management. The unified solution platform puts Cognos on a good footing for competing in the BI enterprise consolidation market. In that respect, the addition of performance management, placed among the market leaders in this category, and elements of Business Process Management could be considered as great assets.



Judging from the user sentiment survey responses, the new platform seems to be received well. However, re-engineering did have an adverse influence on the market impact scores, as the clipped pace of gathering new customers and revenue growth could be attributed to the anticipation of the new platform.

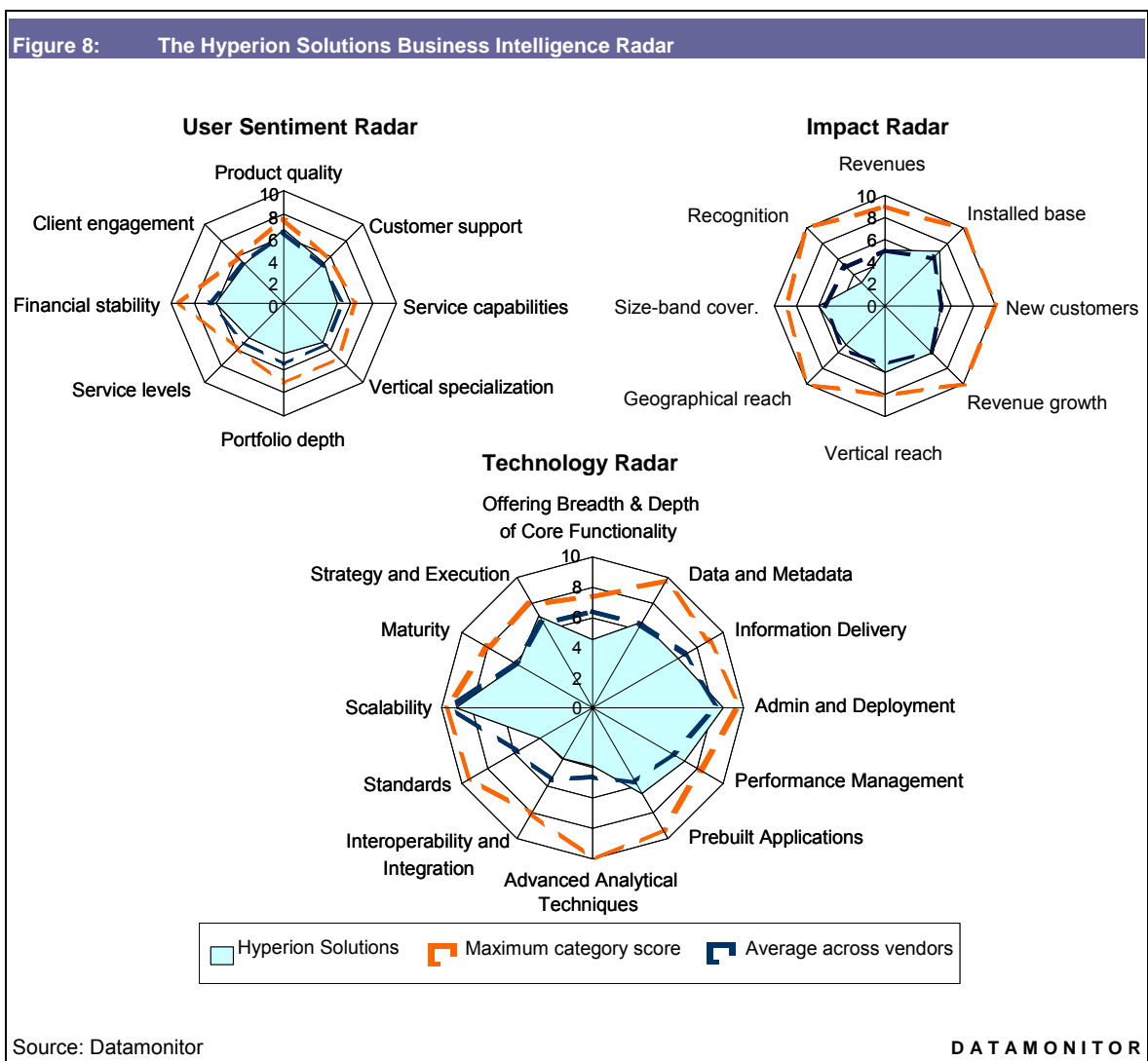
*Recommendation: Consider*

Cognos' latest platform is deemed to be very comprehensive and consistent, and particularly strong in information delivery, performance management and strategy and execution. Its market impact is sound, and could well improve as the new platform gains traction. End-user sentiment is essentially positive, particularly on support-related issues.

In Datamonitor's opinion the key to further development, at least in the medium-term, lies in improving the vendor's market strength, and elevating customer perceptions to match the user perception levels of the market leaders. In the meantime, Cognos will continue to offer a very good solution for organizations, particularly those in the expanding range of key industry sectors for which Cognos provides prebuilt applications, seeking value in a pervasive BI platform with outstanding information delivery methods.

**Hyperion Solutions: Business Intelligence Radars**

Although Hyperion Solutions is frequently cast in the role of BPM specialist whose constituency falls squarely within a CFO office, its appeal is much broader. Hyperion Solutions' Hyperion 9 release offers a panoply of the traditional BI functionality including analytics, enterprise reporting, querying and dashboards. Hyperion Solutions' main point of differentiation is not so much the Master Data Management providing a common metadata layer, but its subsequent ability to synchronize operational and financial data, that usually resides in disparate data silos across an organization, into a single data stream tracking performance across the organization.

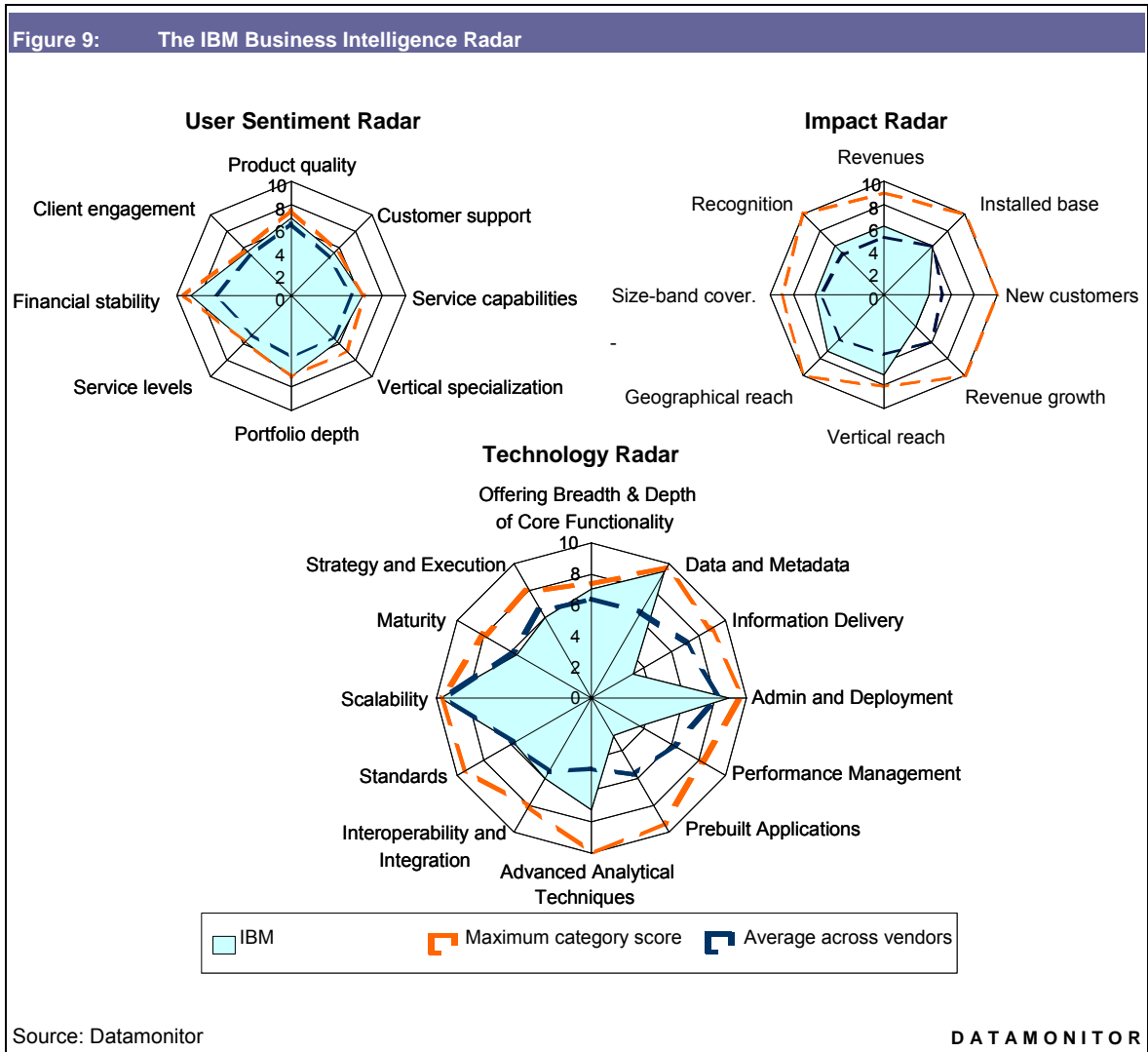


*Recommendation: Explore*

Hyperion Solutions performs well in the technical assessment, without excelling in any of the categories. On balance, the vendor can deliver a decent solution, particularly geared towards larger organizations and slanted towards BPM. In the meantime, Hyperion Solutions finds itself between its larger pure-player competitors who are in position to offer more mature and rounded packages in a conventional BI sale, and the enterprise application suites or Excel-based solutions, it comes up against in finance-oriented sales. Nevertheless, Hyperion Solutions does provide a good BI solution and decent revenue growth rates underline that. To escape its current predicament, the vendor would have to provide more prebuilt modules and continue competing both in the conventional BI market and in the emerging BPM arena.

**IBM: Business Intelligence Radars**

IBM enters the BI market from a strong data management and data warehouse background. Currently, the vendor offers mature BI applications and it would be unfair to treat IBM purely as a data-house. Having said that, the emphasis is still firmly on data handling, with BI functionality based around, or embedded into, its DB2 product.



Data handling also forms a mainstay of IBM's market strategy. While IBM does offer a BI platform of sorts, it is not a platform in the sense of comprehensive feature coverage. Although this does not mean that IBM lacks many of the operational aspects of BI. For instance, it is one of the three market leaders in advanced analytics. Instead, IBM provides a

platform in a sense of facilitating BI capability by creating compact basic infrastructure and industry-specific data models that can then be complimented further with third-party functional tools or vertical-specific applications.

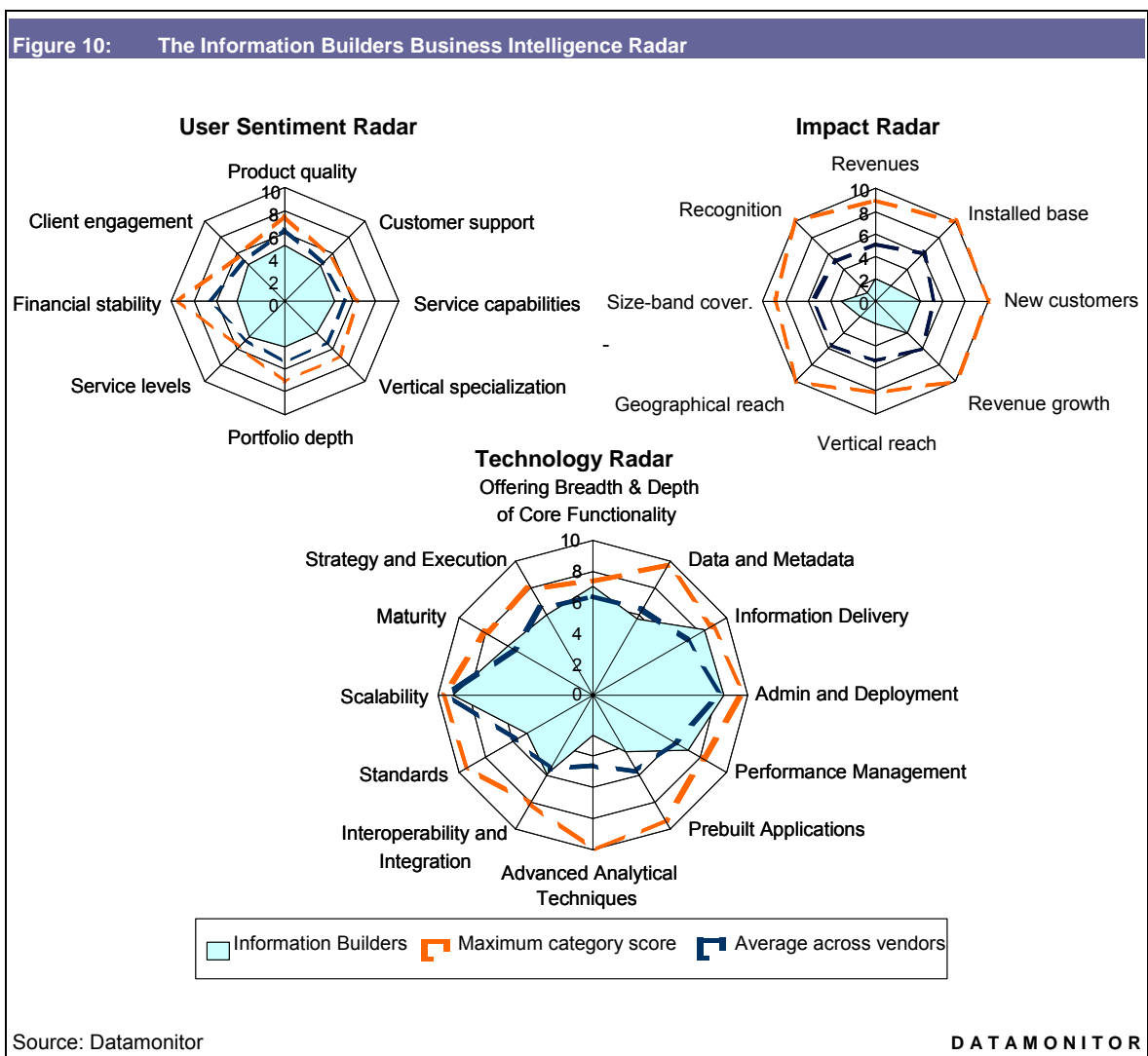
The strategy works very well, as it enables customers, systems integrators and OEM partners to build their own offerings on the platform, while IBM focuses on its core strengths and boosts the market position of its DB2 database. Given IBM's global presence, partnerships and reseller channel this means that IBM's impact on the BI market is considerable. Although there is perennial talk of IBM acquiring an established pure-play vendor, Datamonitor does not believe this is imminent, or certainly not a pressing issue within IBM.

*Recommendation: Consider*

IBM will continue to provide a solid horizontal BI offering suitable for predominantly larger enterprises hoping to consolidate on their data warehouse investment while keeping enough flexibility to address specific BI needs through in-house expertise, third-party developers or IBM's key business partner solutions. Judging from the end-user sentiment survey, the installed base is large and very positive towards IBM, especially its support capabilities. Nevertheless, its technology assessment suffers from not providing a pervasive platform, and certain core functionality does not compare favorably with other leading vendors. Should it acquire another vendor providing a conventional BI platform, its position within the BI Decision Matrix would certainly shift towards a market leadership position.

**Information Builders: Business Intelligence Radars**

Information Builders exemplifies a position of a smaller pure-play vendor whose technical assessment by far outweighs user recognition, user sentiment and market impact. Its WebFocus BI product is mature and well engineered. It provides a good coverage of most of the BI functionality including data delivery, OLAP and reporting and it has a proven track record of innovation, namely in the area of data delivery through Web technologies. While it could be argued that Information Builders does not provide certain data mining and predictive analysis capacity, some of these could be sourced through its well-established technology partnerships.



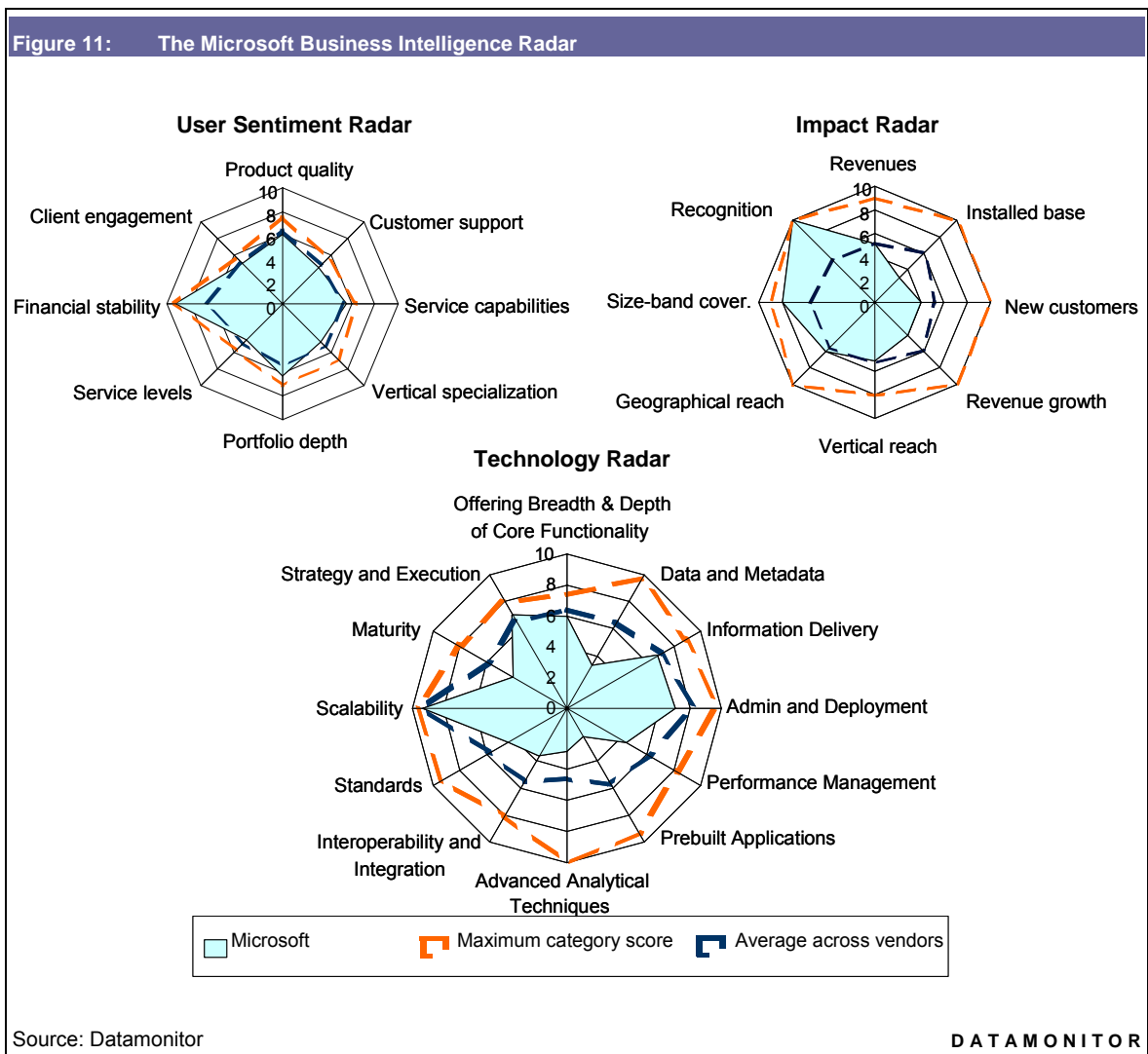
Its modest ability to impact the market relates primarily to the fact that the vendor remains focused firmly on the North American market, its lack of developed prebuilt applications and its relative low profile among the user base.

*Recommendation: Explore*

Information Builders has the highest technology assessment score in the *Explore* group of vendors, predicated on a solid showing in most of the assessment categories. Datamonitor suggests that its score might be even higher if its partnership program was to be considered. Although its ability to impact the market is not enormous, it is steady. It would certainly be improved further by more aggressive expansion outside the vendor's traditional base in North America. For the time being, Information Builders can be considered as a credible BI option, particularly in the North American market and for those organizations that are seeking a mature and dependable solution whilst not being afraid of extending the capability through Information Builders partners or complementary specialist applications.

**Microsoft: Business Intelligence Radars**

Considering the spectrum of its global application portfolio the extension of Microsoft’s BI range made perfect sense. BI fits very well into Microsoft’ successful database product strategy and the dominance of its office productivity suite affords Microsoft a completely new set of opportunities. Microsoft’s strategy for BI is predicated on the incorporation of BI capacity, both acquired and internally developed, into its existing product lines. As a result, many BI features are bundled with standard server offerings.



Microsoft’s list of product features has been steadily expanding, with recent releases containing more data mining capability and Business Scorecard Management added to already boosted reporting and ETL. This means that Microsoft now has an

end-to-end platform, and with integration of BI into MS SQL 2005, SharePoint 2007 and Office 2007, it is in position to make BI truly pervasive.

Both user sentiment and market impact assessments indicate that Microsoft's BI market presence and its reputation is expanding, although predicated on its reputation for financial stability and portfolio depth. Although there is a consensus that Microsoft made great strides in expanding into BI and that it understands the challenges ahead, the platform appears to be broader rather than deeper, especially when compared to leading pure-play vendors.

There is a feeling that the fundamental functionality is good, but Microsoft's focus on horizontal technology results in a lack of pre-built applications, performance management is developed further and data mining should be extended to include predictive modeling. The main problem remains to be the solution maturity and feeling that Microsoft is still developing its BI functionality. Although Microsoft is in a unique position to provide truly pervasive BI, there is a question as to whether the forthcoming releases will provide enough added value to match other vendors' innovative efforts in information delivery.

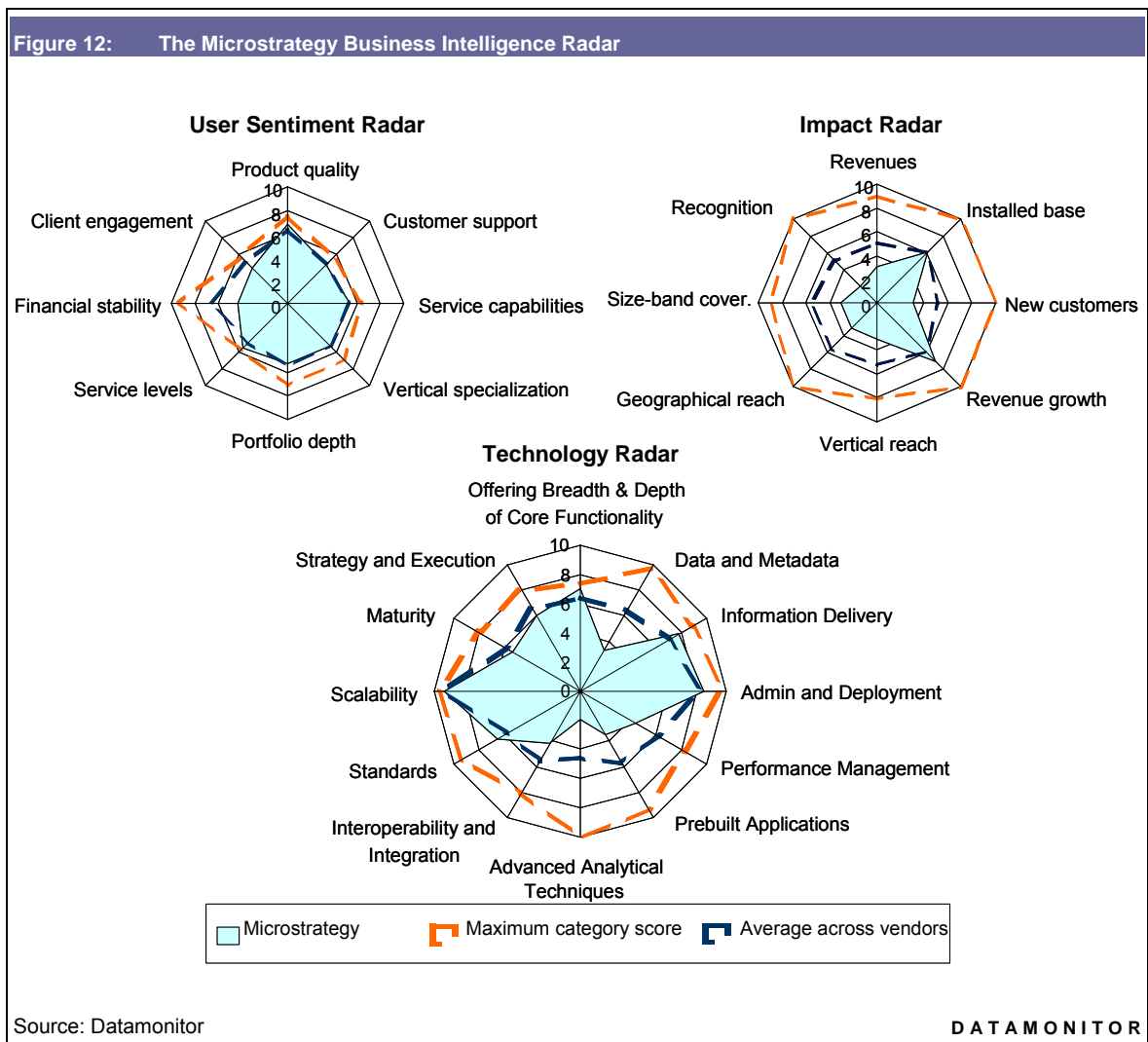
*Recommendation: Explore*

At this point of time, Microsoft is firmly in the explore category. A great deal of BI functionality is embedded into its standard server range and this alone means that Microsoft BI can be an option for those with strong Microsoft business infrastructure. For other market segments, especially those requiring just a standard set of BI capabilities, Microsoft could be a viable option, although more based on price than on a compelling technology.

There is enormous potential for Microsoft expansion within BI, but it will take more investment, development and consolidation of the currently assembled platform. There is no reason to believe that in the future Microsoft could not align its BI range with its potential market impact and user sentiment.

**Microstrategy: Business Intelligence Radars**

Microstrategy provides a solidly administered BI platform that offers good fundamentals in terms of functionality such as querying, report and OLAP fundamentals. The drawback is that Microstrategy’s platform is not comprehensive. The fact that Microstrategy’s ETL / Data Warehouse capabilities or performance management are not robust certainly poses more of a problem than a lack of advanced analytics on which it partners with specialized vendors.



Given its focus on the higher end of the market, and aggressive go-to-market approach, it is questionable whether it will be able to sustain its current market orientation without expanding into the BPM, boosting data mining and improving the data and metadata handling.

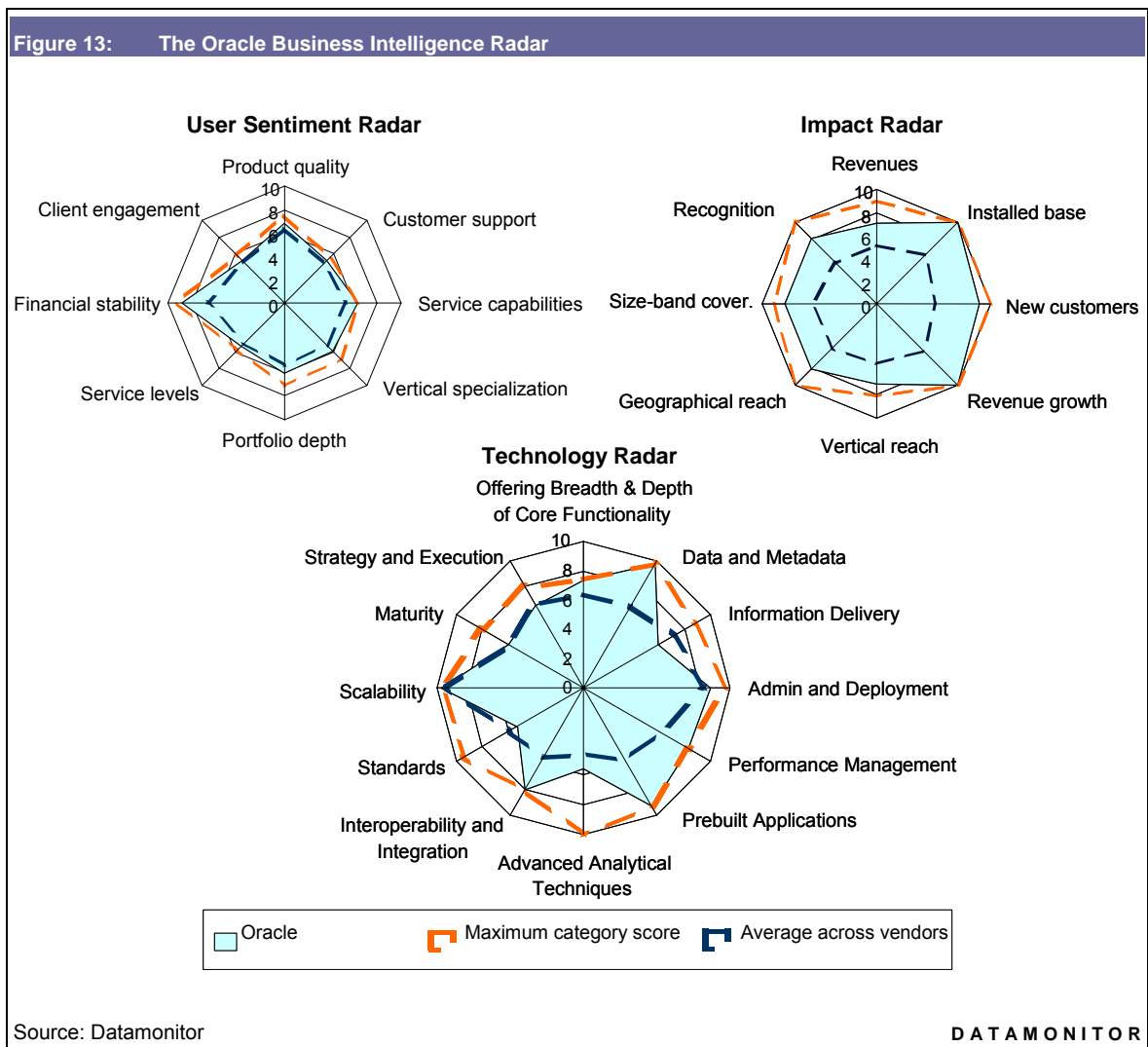
Compared to its market impact and technology, user perception responses could be considered as positive. Particularly encouraging for its prospective clients can be the fact that Microstrategy has built a reputation for good service levels and service capabilities.

*Recommendation: Explore*

There is no reason not to explore Microstrategy solutions, particularly if a customer requires a solid set of standard functionality, or if a customer is prepared to combine Microstrategy's offering with another vendor's solution. Its lack of market might and the relative incompleteness of its BI platform leaves Microstrategy vulnerable to acquisition, probably by a larger vendor seeking to expand into the BI market looking to acquire a solid set of core BI functionality.

**Oracle: Business Intelligence Radars**

Following its expansion into the application arena and its aggressive round of acquisitions, Oracle has boosted its BI offering and placed itself in a commanding position in the BI market. Subsequent to the successful integration of BI products into its well-known database stack, the acquisition of Siebel enabled Oracle to boost its BI capacity further, by consolidating all of its BI capabilities into the Oracle Business Intelligence Enterprise Edition (EE) product.



More importantly, Oracle's expansion into enterprise applications has created a great environment for BI to thrive in. The vendor offers a variety of enterprise solutions into which BI can integrate easily. If one considers Oracle's large user-base, massive market clout and its high quality solution, then its position in the Decision Matrix is not surprising.

Potentially more worrying for its competitors is that Oracle has a means to maintain a sustained push in BI market either through further acquisitions to address the gaps in its functionality, continuous support in the area of data connectivity or simply by using its large salesforce and market presence to its strategic advantage.

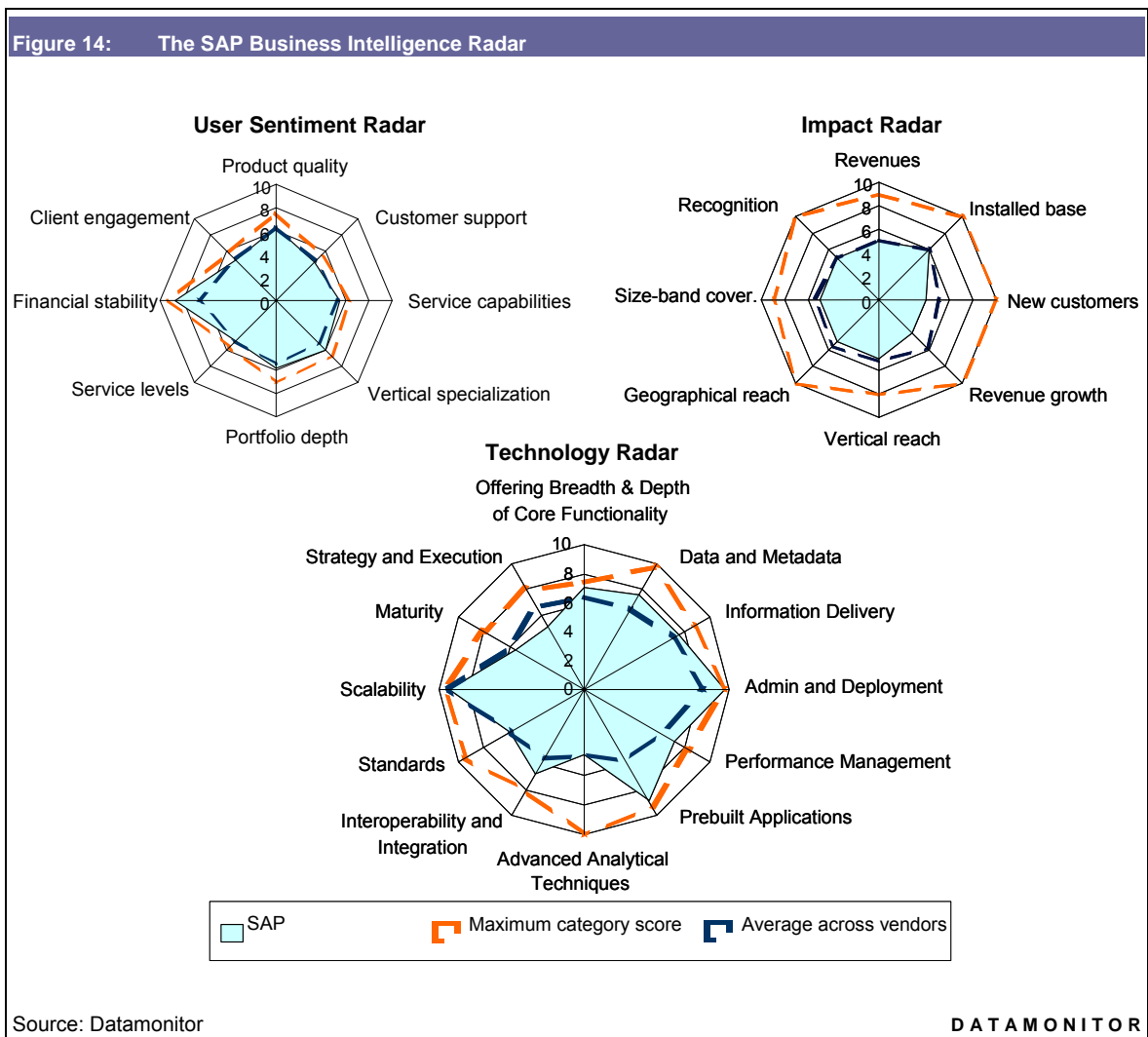
The only aspects Oracle should address relate to advanced analytical techniques and information delivery. This is not to say that Oracle's current analytical capacity is inferior to most of the other vendors. Nevertheless, if any vendor may be in a position to tackle the challenge of advanced analytics either through consolidation or through improving its current solutions, then it is Oracle.

*Recommendation: Shortlist*

Oracle's power in the market, combined with a very good offering which receives good customer feedback makes for a compelling technical and business case. Its strengths in the database technology and the enterprise applications suite feeding the BI systems, combined with the wide range of high-quality BI tools, means that whereas lot of vendors talk about comprehensive BI solutions, Oracle is in the position to deliver them. Even more impressive is the fact that Oracle has not been complacent in tying its BI solutions to a single platform, but it provides extremely wide connectivity to other data sources. The combination of Oracle's powerful impact on the market, its expansive outlook and a good end-user product quality perception makes Oracle BI EE a logical shortlist choice. Particularly if a customer is in one of a growing number of industry sectors for which Oracle has a prebuilt offering.

**SAP: Business Intelligence Radars**

SAP's BI solution benefits a great deal from tight integration with the NetWeaver platform. SAP's BI is built around SAP Business Warehouse at the core, with additional pre-configured data models available. On top of the data infrastructure a feature-rich platform is built, matching the breadth and depth of functionality offered by pure-play vendors. Although the product can be deployed as a standalone BI solution, SAP's BI tends to be used primarily by existing SAP customers. This is certainly underlined by a decent, but perhaps for a vendor of its size, underwhelming BI market impact.



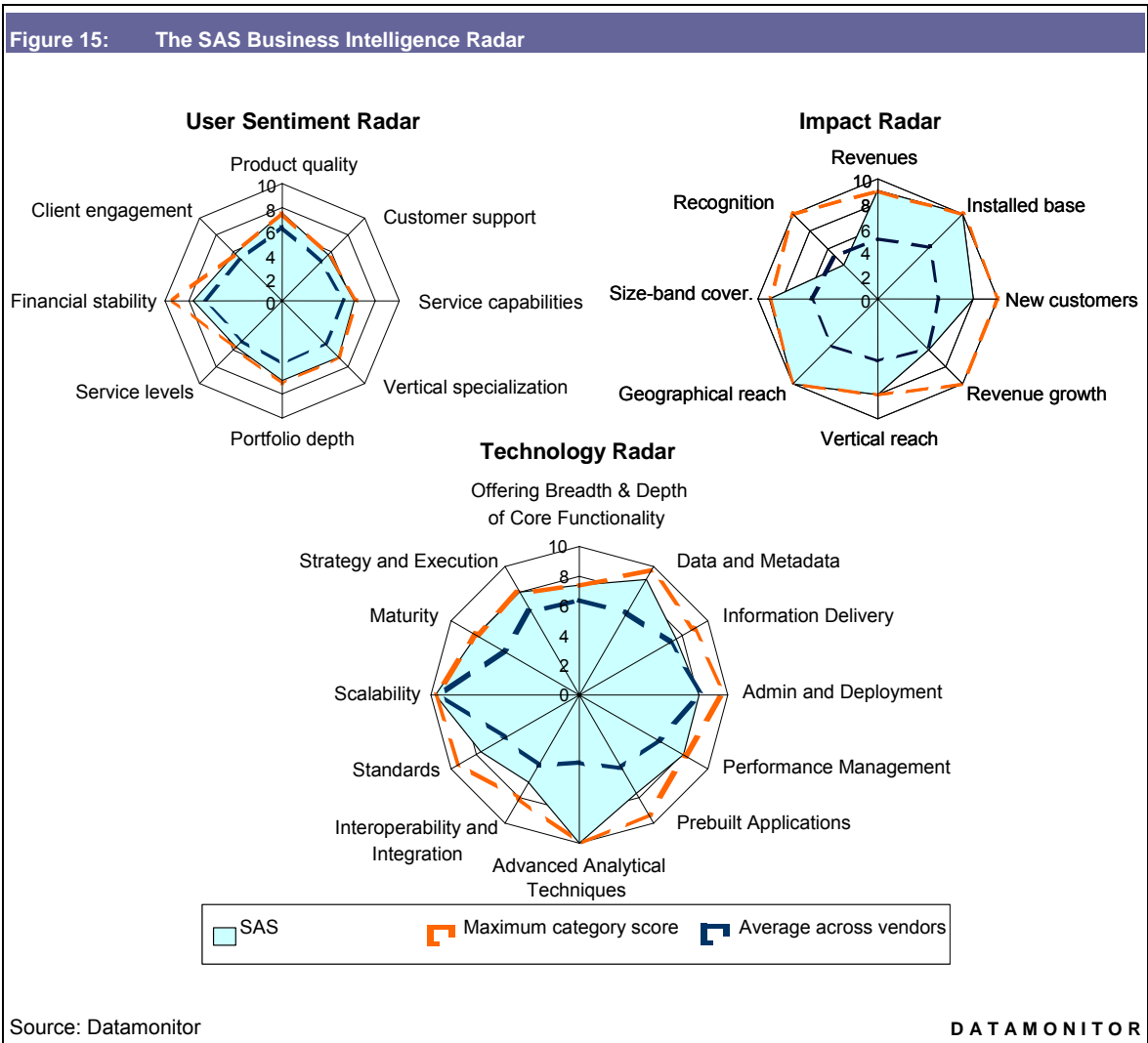
To emerge as a true challenger to the top tier of vendors, SAP's BI solution requires improvements in marketing and deployment outside the SAP customer base, more robust advanced analytics and better standards and interoperability.

*Recommendation: Consider*

This solution would be a logical choice for anyone running on SAP suite already, and nobody opting for the solution would find it inadequate. It is organically grown and therefore presents a truly pervasive end-to-end platform that is internally consistent and interoperable with other SAP offerings to boot. Should SAP choose to capitalize on its strengths in BI, and expand it beyond its traditional consistency, SAP's BI product range does have a potential to become much more ubiquitous than it is at the moment.

**SAS: Business Intelligence Radars**

SAS is a unique vendor with a clear vision. Although its market impact recognition scores are not as high, those users that have engaged with SAS, register excellent opinion about the vendor in the user sentiment survey. More importantly, these positive scores are then reflected in excellent revenues, putting SAS in an excellent position in the market.



Although it does not have an enterprise-wide focus of enterprise application providers such as Oracle, SAP or Microsoft, and despite often being considered exclusively as an advanced analytics specialist, SAS' BI platform is extremely strong. SAS is among the market leaders in all but one of the end-user sentiment survey categories and 9 out of 12 technology

assessment categories. The scope for improvement is always there, perhaps in terms of interoperability, administration and deployment.

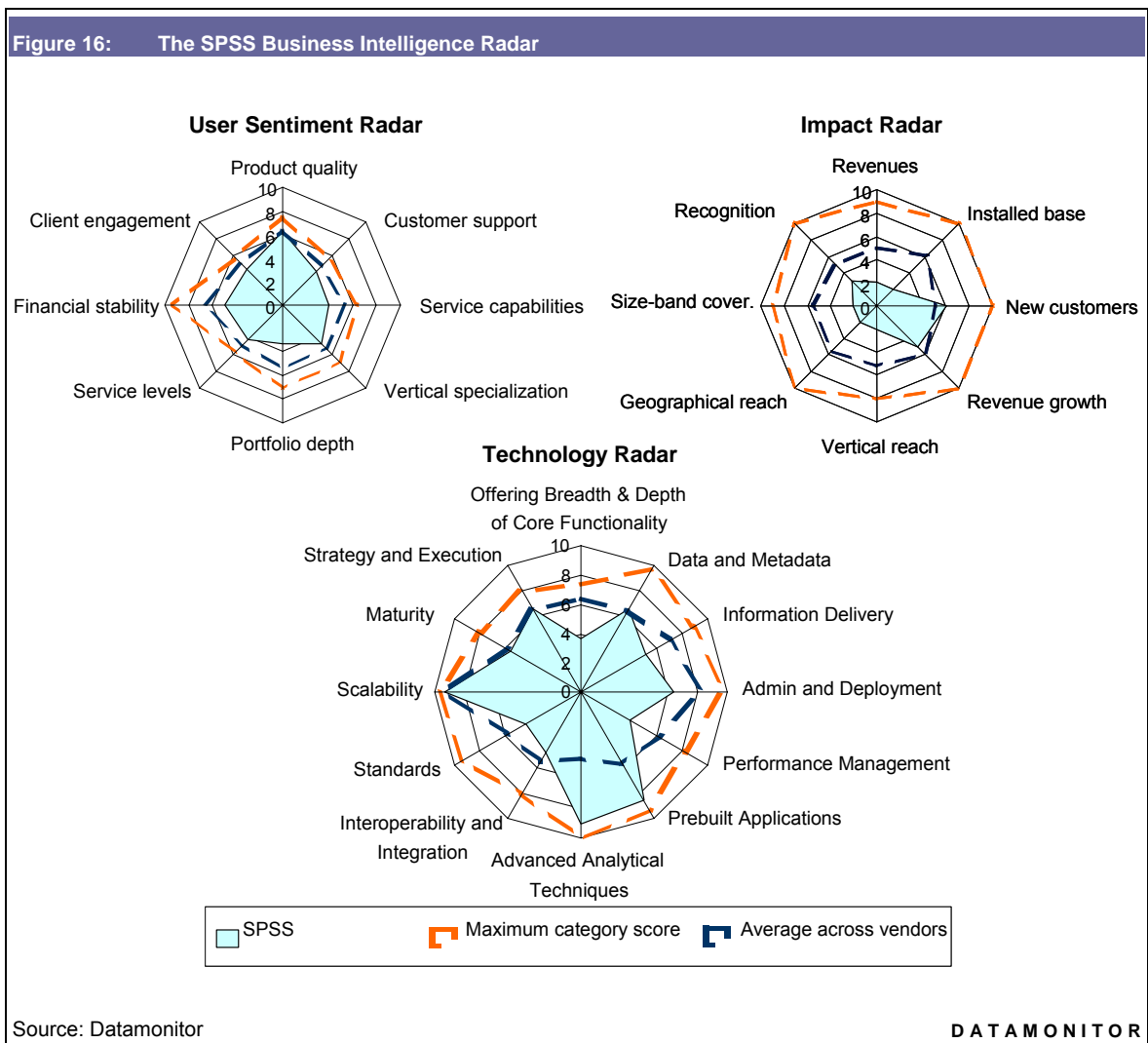
Overall, SAS has an extremely strong BI platform, which scales and manages data very well. SAS is not just at the forefront in terms of advanced analytics, but it also has a bold vision of how to evolve this functionality further and inject it into the business processes. Therefore, neither customers nor competitors should view it only as an advanced analytics vendor. Conversely, SAS should continue to strive for wider recognition, explore enterprise-wide BI consolidation opportunities further and maintain its lead over the enterprise application vendors extending aggressively into BI.

*Recommendation: Shortlist*

Consistently high scores in all assessment segments make SAS a clear Business Intelligence market leader. SAS provides an excellent platform that is very well received and its vision of BI is consistently transmitted throughout the organization. Its advanced analytics have a lot to offer, but to its credit, the vendor realizes that its success, and its client success, is predicated upon providing outstanding BI fundamental functionality on top of which the visionary advanced features could be implemented. Perhaps SAS may not be in a position to offer native single vendor integration of back-office / front-office functionality, but for any enterprise, and particularly those with a bold vision, SAS should be a sure shortlist choice for any BI solution.

**SPSS: Business Intelligence Radars**

SPSS has a strong background in data analysis and its primary focus remains firmly within Predictive Analytics, not strictly BI. Within the BI market, its ambition is to be strategically placed to offer best-of-breed solutions whenever customers may benefit from the predictive insight. The role of facilitator is conducted through providing both analytical modeling tools and analytical asset management.



In this respect SPSS should be regarded as a very successful vendor. However, SPSS does not provide a comprehensive BI platform, at least not on the all OS platforms. Although such an approach penalizes SPSS in terms of its market impact assessment, as it simply does not have the BI-related revenues to reach a consistently high score, this does not imply that SPSS is not performing well or executing on its strategy. Its product strategy and execution is essentially sound, and it

scores well in the areas of its technical expertise. Although user sentiment is certainly far higher than its market impact, more could be done to bring SPSS' marketing message to its potential end-user base.

*Recommendation: Explore*

SPSS solutions will be useful to BI users requiring advanced analytical and predictive capabilities but without possessing expertise in advanced data mining. Business users will find it easy to build analysis models and the visual workflow provides an effective means of working with sophisticated models. Its solutions are particularly suitable for analysis of the data generated by the human interaction in sectors such as finance, retail, insurance and telecommunication, for which SPSS provides excellent pre-configured vertical solutions.

Therefore, SPSS should be considered whenever advanced predictive analytics and data mining are required. Nevertheless, SPSS' lack of the ability to impact the BI market and the absence of a comprehensive platform implies that SPSS will continue to play a role of specialized vendor providing advanced analytical capability.

**Summary: The BI market will be dominated by strong platforms**

In the near future success in the BI market will depend on a vendor's ability to provide a comprehensive set of features in all of the functional areas of the expanding market. Although data connectivity to heterogeneous sources is now considered as a given, there is a growing need to integrate BI suites with enterprise application portfolios while providing a broad platform including pervasive information delivery and strong analytical capacity. Vendors deemed capable of doing so, namely SAS and Oracle, occupy the top of the Datamonitor BI Decision Matrix. Nevertheless, a successful BI strategy can not be predicated on serving a single enterprise application community alone, as even a giant of SAP's stature is not able to exert influence on the BI market purely catering for native SAP demand.

If there are alternative strategies for success in the BI market it could be summarized as playing to one's strengths. In the case of IBM, its strength is in data management and its powerful partner channel, while SPSS and Actuate are carving out a niche by providing a best-of-breed functionality agile enough to be compatible to other vendor's solutions.

Vendors in a precarious position are those caught in between by providing neither comprehensive BI platforms nor focused best-of-breed applications. These are mainly second-tier pure-play vendors with less compelling functionality, incomplete platforms or lacking market muscle. Datamonitor identifies these as primary targets for further acquisitions, and following Hyperion Solutions, the others may be potential targets.

Microsoft cannot be considered to be in the same position. Apart from still catching up in terms of developing functionality, Datamonitor believes that if Microsoft's strategy of pervasive BI on its established office productivity product lines does not take off soon and if its server platform does not improve further, there is real risk that BI may remain an afterthought for this prominent vendor.

## APPENDIX

### Definitions

- **Business Intelligence (BI)** – is a broad category of application programs and technologies for gathering, storing, analyzing, and providing access to data to help enterprise users make better business decisions..
- **Business Performance Management (BPM)** – Business performance management (BPM) is a set of processes that help organizations optimize business performance. BPM is focused on business processes such as planning and forecasting. It helps businesses discover efficient use of their business units, financial, human, and material resources.
- **Business Process Management** – The term Business Process Management (in order to avoid confusion with Business Performance Management the term will not be abbreviated in this report) refers to a set of activities which organizations can perform to either optimize their business processes or adapt them to new organizational needs. As these activities are usually aided by software tools, BPM is synonymously used to refer to the software tools themselves.
- **Customer Relations Management (CRM)** - software solutions that help enterprises manage customer relationships in an organized way, whether it be sales or service related.
- **Enterprise Resource Planning (ERP)** – is an industry term for the broad set of activities supported by multi-module application software that helps a business manage the important parts of its operations, including product planning, parts purchasing, maintaining inventories, interacting with suppliers, providing customer service, and tracking orders.
- **Extraction, Transformation and Loading (ETL)** - Three database functions that are combined into one tool to pull data out of source databases and place it into target databases. ETL is used to migrate data from databases to others, to form data marts and data warehouses and also to convert databases from one format or type to another.
- **Predictive Analytics** –Predictive analytics is an area of statistical analysis that deals with extracting information from data and using it to predict future trends and behavior patterns. The core of predictive analytics relies on capturing relationships between explanatory variables and the predicted variables from past occurrences, and exploiting it to predict future outcomes.
- **Service-Oriented Architecture (SOA)** - Service-Oriented Architecture is a design for linking business and computational resources (principally organizations, applications and data) on demand to achieve the desired results for service consumers (which can be end users or other services).

## *Datamonitor Ratings*

- **Shortlist** – 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.
- **Consider** – The vendors in this category have good market positioning and are selling and marketing the product well. The products offer competitive functionality and good price/performance, and should be considered as part of the technology selection.
- **Explore** – Solutions in this category have less broad applicability, and may have limitations in terms of the product's functionality, or the vendor's execution capability. However, they will still be suitable to meet specific requirements, and may be worth exploring as part of the technology selection.

## *Extended methodology*

Datamonitor assesses business intelligence vendors based on three core criteria, each of which consists of between 8 and 12 specific criteria.

### *Technology*

Butler Group analysts assign vendors scores out of 10 based on 12 groupings of technical criteria. The first six of these are generic, while the second six are specific to the market being assessed. The 12 areas used for the business intelligence market are:

- **Interoperability and integration** - The ease and extent with which a technology offering can exist, interface, combine, and work with the products, services, and solutions from other vendors. Within the BI sector, interoperability and integration are very important factors, as information workers seek to access, assimilate, analyze, reuse, publish, and act upon information from a variety of data-sources.
- **Support and use of industry standards** - The extent to which a vendor's offering utilizes generally accepted protocols, methods, data structures, business principles, and programmatic interfaces. Within the BI arena, support and use of industry standards considers native data and application connectivity, and also highlights commitment to common industry standards and support for popular technology platforms.
- **Offering maturity** - The extent to which an offering has developed in comparison to similar offerings on the market. BI vendors generally offer a range of discrete products it is also important to consider the maturity of the whole as well as the parts.
- **Offering breadth and depth** - The extent to which an offering meets business requirements across a range of industry sectors and market verticals. This category includes:

- **Reporting Services** - Looks at rich-client and web-based reporting facilities, and covers a wide range of specific areas, including the availability of drillable/interactive reports, filter results, report design Wizards, the use of templates, drag-and-drop construction, version control, and publish-and-subscribe facilities.
- **Query Services** - Looks at rich-client and web-based query issues. It covers items such as: the use of Wizards, drag-and-drop functionality, support for natural language queries, the ability to view/edit, SQL functionality, the use of multiple queries, caching of query results, and other key areas.
- **Data Warehousing** - Looks primarily at the Online Analytical Processing (OLAP) capabilities of the BI offering, and assesses how the solution can provide the answers to complex analytical queries. Relational OLAP is suited to the handling of complex data containing a large number of dimensions and attributes, and so is assessed in this category.
- **Analysis** – Among other issues focuses on the use of OLAP tools in the rich-client and Web areas. It considers elements such as drill down and drill through capabilities, filters (metrics and attributes), support for Relational On-line Analytical Processing (ROLAP), Hybrid On-line Analytical Processing (HOLAP), and Multidimensional On-line Analytical Processing (MOLAP) architectures, caching issues, and integration with third-party Extract, Transform, and Load (ETL) tools.
- **Offering scalability** - The ability of an offering to meet the demands of the business. Scalability can have many dimensions: transaction rates, computational throughput, concurrent user load, process sophistication, etc.
- **Strategy and execution** – In this category the many aspects of a vendor’s BI strategy are assessed, as well as considers their ability to execute against it. Vendor capability features, including financial stability, training options, support policies and maintenance options, as well as deployment services and implementation partners are all taken into account.
- **Data and Metadata** - Looks at out-of-the box data quality and ETL tools. It also assesses support for third-party data quality and ETL tools.
- **Information Delivery** - Considers how well the BI solution supports the notion of ‘information at your fingertips’. Many organizations excel at data collection, but it is through BI’s information delivery capabilities that this data becomes transformed into actionable information. This category also evaluates collaborative BI capabilities.
- **Performance Management** - Looks at the specific set of BI applications that help organizations optimize business performance, and is focused on business processes such as planning and forecasting.
- **Administration and Deployment** - Covers a number of areas, including security, metadata management, centralized administration and support facilities, Web-based administration facilities, audit trails, and log file tracking, plus a number of other key areas. Here we also consider platforms supported, and the use made of application server-centric architecture.

- **Advanced Analytical Techniques** - Identifies those solutions catering for advanced use of BI technology. This category is becoming increasingly important for early adopters wishing to build upon their initial BI investments.
- **Pre-built Applications** - Business Activity Monitoring, fraud detection, risk assessment, and sales analysis are just some of the pre-built applications being offered by BI vendors. This category takes note of specific industry BI solutions as well as those solutions addressing general business functions.

The final technology assessment score for each vendor takes into account individual category scores. However, some categories, such as *Offering breadth and depth*, are given slightly higher weighting, in order to represent their significance to the overall BI solution.

#### *User Sentiment*

As part of each technical assessment, Datamonitor has surveyed over 700 users of business intelligence technology across North America and Western Europe. These end-users are asked to rate the technology vendors that they work with, and Datamonitor provides an average rating in each of the following categories:

- **Product quality** – the enterprise's perception of the quality of the vendor's products.
- **Customer support** – the quality of the vendor's business/technical support offerings.
- **Service capabilities** – the quality of a vendor's particular services offerings (consulting, integration, maintenance, management)
- **Vertical specialization** – the extent to which the vendor offers industry-specific solutions and expertise.
- **Portfolio depth** – the enterprise's perception of the depth of the vendor's product portfolio.
- **Service levels** – the quality of a vendor's service level agreements (SLAs) and its ability to meet them.
- **Financial stability** – how financially stable the enterprise believes the vendor is.
- **Client engagement** – the effectiveness of the vendor's sales-force and the enterprise's perception of its channel to market.

#### *Market Impact*

Datamonitor analysts use data collected through primary and secondary research to determine a vendor's global market impact. Market impact is measured across 8 categories, each of which has a maximum score of 10:

- **Revenues** – Each vendor's global BI revenues are calculated as a percentage of the market leader. This percentage is then multiplied by a market maturity value and rounded up to the nearest integer. The market maturity value is determined in inverse proportion to the rate of global market growth.

- **Revenue growth** – Each vendor’s revenue growth rate over the last 12 months is calculated as a percentage of the fastest growing company in the market. The percentage is then multiplied by 10 and rounded up to the nearest integer.
- **Vertical reach** – Datamonitor determines each vendor’s revenue in 11 vertical markets (Energy and Utilities; Financial Services; Healthcare; Life Sciences; Manufacturing; Media and Entertainment; Professional Services; Public Sector; Retail, Wholesale and Distribution; Telecommunications; Travel, Transportation, Logistics and Hospitality). These revenues are calculated as a percentage of the market leader in each vertical market, multiplied by 10 and then rounded to the nearest integer. The vendor’s overall vertical reach score is the average of these 11 values.
- **Geographical reach** – Datamonitor determines each vendor’s revenue in three regions: The Americas; Europe, Middle East and Africa (EMEA); and Asia Pacific (APAC). These revenues are calculated as a percentage of the market leader in each region, multiplied by 10 and then rounded to the nearest integer. The vendor’s overall geographical reach score is the average of these three values.
- **Recognition** – As part of the survey of over 700 end-users, respondents are asked to state their association with each vendor. The percentage of respondents claiming to have evaluated or deployed a product from a given vendor is taken to represent vendor recognition. The percentage of the vendor recognition is then divided by the highest percentage of the vendor recognition, multiplied by 10 and rounded up to the nearest integer.
- **Size-band coverage** – Datamonitor determines each vendor’s revenue in three company sizebands: large enterprises, medium-sized enterprises and small enterprises. These revenues are calculated as a percentage of the market leader in each region, multiplied by 10 and then rounded up to the nearest integer. The vendor’s overall company sizeband score is the average of these three values.
- **New customers** – Each vendor’s license revenue growth rate over the last 12 months is calculated as a percentage of the fastest growing company in the market. This percentage is then multiplied by 10 and rounded up to the nearest integer.
- **Installed base** - the size of a vendor's installed base is derived from the maintenance revenue the vendor is able to extract from its customer base. While the maintenance revenues may not be identical between vendors, depending on their licensing model, Datamonitor does consider it as a good indicator of the overall size of the installed base. Maintenance revenues are calculated as a percentage of the market leader, multiplied by 10 and then rounded up to the nearest integer.

### *Further reading*

Enterprise Business Intelligence: global market forecast model (Interactive Model) – IMTC0135

Understanding Enterprises' Technology Priorities (Customer Focus) – BFTC1452

Business Intelligence: a Strategic Approach to Extending and Standardising the Use of BI – Butler Group Technology Evaluation and Comparison Report

Business intelligence investment in small enterprises H1 2006 (Databook) – DMTC1723

Business intelligence investment in medium-sized enterprises H1 2006 (Databook) - DMTC1724

Business intelligence investment in large enterprises H1 2006 (Databook) - DMTC1725

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