Gartner Magic Quadrant for Business Intelligence and Analytics Platforms

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Summary

The BI and analytics platform market’s multiyear shift from IT-led enterprise reporting to business-led self-service analytics has passed the tipping point. Most new buying is of modern, business-user-centric platforms forcing a new market perspective, significantly reordering the vendor landscape.

Strategic Planning Assumptions

By 2018, most business users and analysts in organizations will have access to self-service tools to prepare data for analysis as part of the shift to deploying modern BI platforms.

By 2018, most stand-alone self-service data preparation offerings will either have expanded into end-to-end analytical platforms or been integrated as features of existing analytics platforms.

By 2018, smart, governed, Hadoop-based, search-based and visual-based data discovery will converge in a single form of next-generation data discovery that will include self-service data preparation and natural-language generation.

Market Definition/Description

This document was revised on 8 February 2016. The document you are viewing is the corrected version. For more information, see the Corrections page on gartner.com.

During the past several years, the balance of power for business intelligence (BI) and analytics platform buying decisions has gradually shifted from IT to the business as the long-standing BI requirement for centrally provisioned, highly governed and scalable system-of-record reporting has been counterbalanced by the need for analytical agility and business user autonomy (see "How to Modernize Your Business Intelligence and Analytics Platform for Agility, Without Chaos" ). The evolution and sophistication of the self-service data preparation and data discovery capabilities available in the market has shifted the focus of buyers in the BI and analytics platform market — toward easy-to-use tools that support a full range of analytic workflow capabilities and do not require significant involvement from IT to predefine data models upfront as a prerequisite to analysis.

This significant shift has accelerated dramatically in recent years, and has finally reached a tipping point that requires a new perspective on the BI and analytics Magic Quadrant and the underlying BI platform definition — to better align with the rapidly evolving buyer and seller dynamics in this complex market. This Magic Quadrant focuses on products that meet the criteria of a modern BI and analytics platform (see "Technology Insight for Modern Business Intelligence and Analytics Platforms" ), which are driving the vast majority of net new purchases in the market today. Products that do not meet the modern criteria required for inclusion in the Magic Quadrant evaluation (because of the upfront requirements...
for IT to predefine data models, or because they are enterprise-reporting centric) will be covered in our new Market Guide for enterprise reporting-based platforms.

This change in the focus of the BI and analytics Magic Quadrant should not be interpreted by organizations as a recommendation to immediately replace all existing reporting-based system-of-record BI technology with a modern platform featured in the current Magic Quadrant. In many organizations, the existing enterprise reporting systems are integral to day-to-day business processes, and these processes would be exposed to unnecessary risk if disrupted by an attempt to re-create them in a modern platform. However, the problem that most organizations have encountered with lackluster BI adoption relative to the level of investment during the past 20 years stems from the fact that virtually all BI-related work in that time frame has, until recently, been treated as system of record from inception to development to delivery. This traditional approach to BI addresses Mode 1 of the bimodal delivery model, because it supports stability and accuracy, but does not address the need for speed and agility enabled through exploration and rapid prototyping that is essential to Mode 2 (see "How to Achieve Enterprise Agility With a Bimodal Capability").

The shift in the BI and analytics market and the corresponding opportunity that it has created for new and innovative approaches to BI has drawn considerable attention from a diverse range of vendors. The list spans from large technology players — both those new to the space as well as longtime players trying to reinvent themselves to regain relevance — to startups backed by enormous amounts of venture capital from private equity firms. A crowded market with many new entrants, rapid evolution and constant innovation creates a difficult environment for vendors to differentiate their offerings from the competition. However, these market conditions also create an opportunity for buyers to be at the leading edge of new technology innovations in BI and analytics and to invest in new products that are better suited for Mode 2 of a bimodal delivery model than their predecessors.

Gartner's position is that organizations should initiate new BI and analytics projects using a modern platform that supports a Mode 2 delivery model, in order to take advantage of market innovation and to foster collaboration between IT and the business through an agile and iterative approach to solution development. The vendors featured in this year's Magic Quadrant (and those highlighted in the Appendix) present modern approaches to promoting production-ready content from Mode 2 to Mode 1, offering far greater agility than traditional top-down, IT-led initiatives — and resulting in governed analytic content that is more widely adopted by business users that are active participants in the development process. As the ability to promote user-generated content to enterprise-ready governed content improves, so it is likely that, over time, many organizations will eventually reduce the size of their enterprise system-of-record reporting platforms in favor of those that offer greater agility and deeper analytical insight.

As described above, this market has experienced a significant multiyear shift that has reached an inflection point — requiring a change in how Gartner defines the 14 capabilities that comprise a modern BI and analytics platform across the four categories — infrastructure, data management, analysis and content creation and share findings — in support of five BI and analytics use cases (see Note 1 for details of how the capability definitions in this year's Magic Quadrant have been modified from last year to reflect our current view of the critical capabilities for BI and analytics platforms). In this increasingly competitive and crowded market, the updated evaluation criteria for this year establish a higher bar against which vendors are measured both for execution and vision. As a result of this change and the
resulting effect on the shape and composition of the BI and analytics Magic Quadrant, historical comparison with past years (to assess relative vendor movement) is irrelevant and therefore strongly discouraged.

The Five Use Cases and 14 Critical Capabilities of a BI and Analytics Platform

Vendors are assessed for their support of five main use cases:

Agile Centralized BI Provisioning. Supports an agile IT-enabled workflow — from data to centrally delivered and managed content — using the self-contained data management capabilities of the platform.

Decentralized Analytics. Supports a workflow from data to self-service analytics.

Governed Data Discovery. Supports a workflow from data to self-service analytics, to systems-of-record, IT-managed content with governance, reusability and promotability.

Embedded BI. Supports a workflow from data to embedded BI content in a process or application.

Extranet Deployment. Supports a workflow similar to agile centralized BI provisioning for the external customer or, in the public sector, citizen access to analytic content.

Vendors are also assessed according to the following 14 critical capabilities. Subcriteria for each are listed in Note 2 and detailed functionality requirements are included in a published RFP document (see "Toolkit: BI and Analytics Platform RFP"). How well the platforms of our Magic Quadrant vendors support these critical capabilities is explored in greater detail in the forthcoming "Critical Capabilities for BI and Analytics Platforms" (to be published in 2Q16).

Infrastructure

BI Platform Administration. Capabilities that enable scaling the platform, optimizing performance and ensuring high availability and disaster recovery.

Cloud BI. Platform-as-a-service and analytic-application-as-a-service capabilities for building, deploying and managing analytics and analytic applications in the cloud, based on data both in the cloud and on-premises.

Security and User Administration. Capabilities that enable platform security, administering users, and auditing platform access and utilization.

Data Source Connectivity. Capabilities that allow users to connect to the structured and unstructured data contained within various types of storage platforms, both on-premises and in the cloud.

Data Management

Governance and Metadata Management. Tools for enabling users to share the same systems-of-record semantic model and metadata. These should provide a robust and centralized way for administrators to search, capture, store, reuse and publish metadata objects, such as dimensions, hierarchies, measures, performance metrics/key performance indicators (KPIs) and report layout objects, parameters and so on. Administrators should have the ability to promote a business-user-defined data model to a system-of-record metadata object.
Self-Contained Extraction, Transformation and Loading (ETL) and Data Storage. Platform capabilities for accessing, integrating, transforming and loading data into a self-contained storage layer, with the ability to index data and manage data loads and refresh scheduling.

Self-Service Data Preparation. The drag-and-drop, user-driven data combination of different sources, and the creation of analytic models such as user-defined measures, sets, groups and hierarchies. Advanced capabilities include semantic autodiscovery, intelligent joins, intelligent profiling, hierarchy generation, data lineage and data blending on varied data sources, including multistructured data.

Analysis and Content Creation

Embedded Advanced Analytics. Enables users to easily access advanced analytics capabilities that are self-contained within the platform itself or available through the import and integration of externally developed models.

Analytic Dashboards. The ability to create highly interactive dashboards and content, with visual exploration and embedded advanced and geospatial analytics, to be consumed by others.

Interactive Visual Exploration. Enables the exploration of data via the manipulation of chart images, with the color, brightness, size, shape and motion of visual objects representing aspects of the dataset being analyzed. This includes an array of visualization options that go beyond those of pie, bar and line charts, to include heat and tree maps, geographic maps, scatter plots and other special-purpose visuals. These tools enable users to analyze the data by interacting directly with a visual representation of it.

Mobile Exploration and Authoring. Enables organizations to develop and deliver content to mobile devices in a publishing and/or interactive mode, and takes advantage of mobile devices' native capabilities, such as touchscreen, camera, location awareness and natural-language query.

Sharing of Findings

Embedding Analytic Content. Capabilities including a software developer's kit with APIs and support for open standards for creating and modifying analytic content, visualizations and applications, embedding them into a business process, and/or an application or portal. These capabilities can reside outside the application (reusing the analytic infrastructure), but must be easily and seamlessly accessible from inside the application without forcing users to switch between systems. The capabilities for integrating BI and analytics with the application architecture will enable users to choose where in the business process the analytics should be embedded.

Publishing Analytic Content. Capabilities that allow users to publish, deploy and operationalize analytic content through various output types and distribution methods, with support for content search, storytelling, scheduling and alerts.

Collaboration and Social BI. Enables users to share and discuss information, analysis, analytic content and decisions via discussion threads, chat and annotations.
Magic Quadrant

Figure 1. Magic Quadrant for Business Intelligence and Analytics Platforms

Source: Gartner (February 2016)
Vendor Strengths and Cautions

Microsoft

Microsoft offers a broad range of BI and analytics capabilities, both on-premises and in the Microsoft Azure cloud. Microsoft Power BI is the focus for this Magic Quadrant and is on its second major release, offering cloud-based BI with a new desktop interface — Power BI Desktop. Microsoft SQL Server Reporting Services and Analysis Services are not included in the Magic Quadrant evaluation, but are covered in our new Market Guide for enterprise-reporting-based platforms. Power BI offers data preparation, data discovery and interactive dashboards via a single design tool. Microsoft continues to support the original Excel-based add-ins that made up the first Power BI release: Power Query, Power Pivot, Power View and Power Map. The Excel-based add-ins are positioned primarily for customers who need an on-premises deployment (and become native in Office 2016). Power BI 2.x offers both desktop-based authoring and browser-based authoring, with applications shared in the cloud. New in this release is hybrid connectivity to on-premises data sources; meaning that not all data must first be pushed and loaded into the Microsoft Azure cloud.

Microsoft has substantially lowered the price of Power BI — from its original $39.95 per user per month to $9.95 per user per month — making it one of the lowest-priced solutions on the market today, particularly from larger vendors. The lower price point, in addition to substantial product improvements, explains the strong uptake by 90,000 organizations (according to Microsoft).

Microsoft is positioned in the Leaders quadrant, with strong uptake of the latest release, major product improvements, an increase in sales and marketing awareness efforts, new leadership and a clearer, more visionary product roadmap. Microsoft’s vision to provide natural-language query and generation via its Cortana personal digital assistant, together with its strong partner network and its strategy to provide prebuilt solutions, positions it furthest to the right on the Completeness of Vision axis.

Strengths

Microsoft's cloud-based delivery model and low per-user pricing offers a low TCO — one of the top three reasons why customers selected it, in addition to ease of use for business users and the availability of skilled resources. While Microsoft has long offered low per-user pricing, customers are advised to consider the TCO, which includes hardware costs, development and support costs. Previously, Microsoft had a high cost of ownership in its on-premises deployment model (despite low licensing costs), because of the complexity of implementing multiple servers. The new Power BI addresses this issue with both a streamlined workflow for content authors and because the hardware and server architecture is in the Microsoft Azure cloud.

Microsoft ranks in the top quartile for achievement of business benefits, with high scores in its use for monetizing data, improving customer service and increasing revenue, as well as delivering better insights to more users. As customers move to business-user-led deployments, an emphasis on the achievement of business benefits at a lower cost has driven much of the net new BI and analytics buying — in lieu of centrally provisioned, IT-authored reporting platforms.
Microsoft was ranked in the top quartile of Magic Quadrant vendors for user enablement (only Tableau ranked slightly higher), with high scores for online tutorials, community support, conferences and documentation. The high enablement scores also contributed to Microsoft's ranking in the top quartile for product success.

Microsoft has continued to expand the number and variety of data sources it supports natively and has also improved its partner network to build out connectors and content that includes prebuilt reports and dashboards. For example, Microsoft now has prebuilt connectors (and content) to Facebook, Salesforce, Dynamics CRM, Google Analytics, Zendesk and Marketo, to name a few.

Cautions

Microsoft Power BI 2.x was released in July 2015. The newness of the product and its cloud-only delivery model may contribute to Microsoft's ranking in the bottom third for deployment size, with an average of 192 users. Eleven percent of surveyed customers cited the inability to support a large number of users as a limitation to broader deployment. (Note that Power BI 1.0 customers, where deployment sizes may be higher based on both product maturity and on-premises deployment, were not included in the survey.) Microsoft has published a statement of direction — intending to harmonize its on-premises and cloud products — but the strategy is unclear. The current Excel-based add-ins with publishing to on-premises SharePoint is one option. Alternatively, customers may author in Power BI Desktop and then publish to an on-premises partner product such as Pyramid Analytics or Panorama Necto.

Microsoft scores low on product capabilities for advanced analytics within Power BI. Even simple forecasting must be done externally within Excel. The vendor's newly introduced Cortana Analytics Suite — which brings together key modules including: Power BI, Azure Machine Learning, Cortana Personal Digital Assistant, Business Scenarios, and others — may partly address this limitation. Also, with the acquisition of Revolution Analytics, Microsoft now includes a preinstall of a local R instance with Power BI Desktop.

Microsoft was rated in the bottom quartile for breadth of use, which looks at the percentage of users that use the product for a range of BI styles from viewing reports, creating personalized dashboards and doing simple ad hoc analysis, to performing complex queries, data preparation and using predictive models. Microsoft Power BI is mainly being used for parameterized reports and dashboards, but this limited breadth of use may improve as the deployments mature.

Microsoft was ranked in the bottom quartile for sales experience by survey references. This can be partly attributed to its frequent changes in pricing and packaging, as well the lack of a BI and analytics-focused sales force. For example, Office 365 is no longer a prerequisite; Power BI can be purchased as a separate SKU, or via Cortana Analytics Suite or Office 365 Enterprise E5.