Qlik Sense

Product Profile and Evaluation

**By Wayne W. Eckerson**

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About the Author

Wayne Eckerson has been a thought leader in the business intelligence and analytics field since the early 1990s. He is a sought-after consultant, noted speaker and expert educator who thinks critically, writes clearly and presents persuasively about complex topics. Eckerson has conducted many groundbreaking research studies, chaired numerous conferences, and written two widely read books on performance dashboards and analytics.

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About Eckerson Group

Eckerson Group is a research and consulting firm that helps business and analytics leaders use data and technology to drive better insights and actions. Through its reports and advisory services, the firm helps companies maximize their investment in data and analytics. Its researchers and consultants each have more than 20 years of experience in the field and are uniquely qualified to help business and technical leaders succeed with business intelligence, analytics, data management, data governance, performance management, and data science.
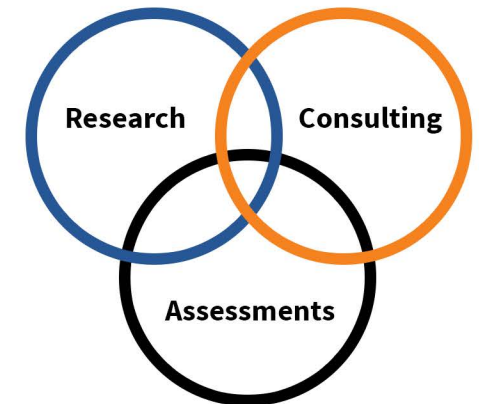
About This Research

This product profile is part of a larger research study titled, **"Governed Data Discovery: Balancing Flexibility and Standards."** The report classifies business intelligence products by the way they govern self-service environments and maps product categories to user requirements. The report also provides criteria for evaluating governed self-service capabilities and supplies key questions to ask vendors. Vendors profiled in this series are Looker, Qlik, IBM, and ThoughtSpot.

Product in Brief

Qlik Sense is the new flagship product of Qlik Technologies, Inc., a high-flying BI vendor whose novel analytical interface and blinding fast query performance have made it a mainstay at 37,000 customers around the world. Initially targeting departmental business heads in mid-size companies, Qlik products are now found in companies of all sizes and in all industries.

As a modern BI platform built from the ground up for the Web and mobile deployments, Qlik Sense leapfrogs past QlikView, the Swedish-born company's primary product for the past twenty years. Both products now run on the Qlik Indexing Engine (QIX) , a data processing engine with management, security and other services wrapped in a rich set of APIs, which make it ideal for building custom analytic applications or embedding Qlik functionality within existing applications.

Company Profile

Company Name	
Founded	1993
Headquarters	Radnor PA
Ownership	Public "qlik"
Revenues	$612.7M (2015)
Employees	2,500+
Customers	38,000
Partners	1,700+ in 100 countries
Top Competitors	Tableau, Microsoft, SAP

Qlik. was founded in Lund, Sweden in 1993 by Bjorn Berg & Staffan Gestrelius, whose vision was to create a user-friendly and intuitive analysis tool that mimics the way the human brain works. The early team created a unique color-coding interface that graphically filters on-screen values in response to user clicks and visually displays relationships among all data points. The company also decided to run the product entirely in memory, a radical idea in 1993.

In 2003, Qlik's board brought in a new management team, which decided to focus the company on the business intelligence (BI) market. It then raised $12.5 million in venture money to execute the strategy and relocated its headquarters to Radnor, Pennsylvania in 2006. That investment, along with a new, scalable, server-based product, transformed Qlik, which went public in 2010, raising $112 million.

Today, the company has more than 38,000 customers located in 100 countries around the world. Supporting its customers are more than 2,500 employees in 30+ offices and more than 1,700 partners. In 2015, Qlik generated $612.7 million in revenue, with $327 million from licenses and $229.5 million from maintenance. Qlik competes most directly with Tableau Software as well as Microsoft and SAP.

Customer Profile

With 37,000+ customers, Qlik has broad reach into companies of all sizes, in all industries, in all parts of the world. To fuel its rapid growth, Qlik used a land-and-expand strategy, selling its visually appealing product to departmental business managers at mid-size firms, starting in Scandanavia, then Europe, the United States and the rest of the world. Today, Qlik is commonly used to manage sales, supply chain, and operations functions for companies in retail, manufacturing, healthcare, and financial services industries – but is used in other industries as well.

Qlik uses a named account strategy to manage enterprise deals and an inside sales force to pursue small companies, while giving partners the right to sell and manage mid-market accounts. Since its partner network has been key to its growth, Qlik is carefully executing the rollout of a new cloud strategy to complement, not undermine, its channel partners.

Use Cases. Qlik says most of its customers have been frustrated by traditional BI tools and select Qlik to build interactive dashboards and analytic applications that enable business users to visually analyze data from multiple sources.

Qlik supports the following use cases:

1. **Guided analytics (QlikView and Qlik Sense)** - Pre-built, interactive dashboards for knowledge workers.

2. **Self-service data discovery (Qlik Sense)** - Ad hoc exploration and report creation within a governance framework.

3. **Embedded analytics (Qlik Analytics Platform and Qlik Sense)** - APIs and SDKs for developers to embedded Qlik platform functionality in Web and .NET applications.

4. **Custom analytics applications (Qlik Sense)** - Custom-built analytics applications for internal and external use.

5. **Reporting and collaboration (QlikView and Qlik Sense)** - The creation and distribution of pixel-perfect reports to users across an enterprise.

Customer Quotes

We chose Qlik Sense over any other BI tool because it takes data intelligence away from the IT department and allows us to place it directly in the hands of our leadership teams."
Perry Willis, Head of Information Technology EMEA at Colliers International.

"Qlik Sense excels in rapidly visualizing data and that's important to our reporting customers because it displays their data at a glance and provides an engaging, easy-to-use interface for understanding their logistics processes."
Paul van der Burg, managing director, International Distribution Systems

"Qlik not only gives us visibility on performance internally, but it also allows us to evaluate our sales strategy and client priorities."
Mike Gibbons, Chief Information Officer, Aggregate Industries Europe.

Product Profile

Product Name	Qlik Sense
Initial Launch	2014
Deployment Model	On premise, mobile, and cloud
Clients	Web browser or a Microsoft Windows client using embedded browser technology
Servers	Microsoft Windows
Data sources	100+ data sources
Transformations	Qlik scripting language and wizard-driven loading tool.
Local Data Store	In-memory column store and cache
Pricing	Currently $1500 per token with 20% annual maintenance for basic support, 23% for enterprise support.
Editions	Qlik Sense Enterprise
	Qlik Sense Desktop (free)
	Qlik Sense Cloud Basic (free up to 5 users)
	Qlik Sense Cloud Plus (offers more storage and unlimited sharing)

In late 2014, Qlik shipped the much-anticipated Qlik Sense product to compete in the fast-growing data discovery market. But more than an adjunct to QlikView, its flagship product for more than 20 years, Qlik Sense is a bold redesign of the company's architecture and approach to BI. Qlik is now betting its future on Qlik Sense, and pitches it, rather than QlikView, to new customers. Existing customers can upgrade to Qlik Sense and bring their data models with them. Qlik plans to support QlikView well into the future.

Qlik Sense is a modern BI product designed from the ground up to run on mobile devices and the cloud. Its responsive design dynamically and gracefully resizes dashboards, visualizations, and applications to fit the display of any device. Its browser-based client makes it Web and cloud compatible, eliminating the need for users, authors and administrators to download and maintain desktop software. (Note: Qlik offers Qlik Sense Desktop, a free tool that individuals can download from the Web to analyze local data. However, Qlik Sense Desktop does not come with a server, which limits data sharing and collaboration.)

In building Qlik Sense, Qlik borrowed key architectural features from QlikView, particularly its Qlik Indexing Engine (QIX), as well as security, management, and charting services to create a new analytic platform that underlies both QlikView and Qlik Sense. It then wrapped this platform in application programming interfaces to give developers a rich set of calls to create custom applications and embed Qlik functionality into existing applications. It also published software development kits for customizing Qlik objects, such as charts and data connectors.

Qlik now packages up the QIX engine and APIs as the Qlik Analytic Platform (QAP), which is used by developers to embed analytics in any website or application. QAP is a key differentiator from its rivals, especially Tableau, which is still heavily invested in selling desktop tools (although Tableau Online is growing fast.) Ironically, many experts for years described QlikView and Tableau as competing visualization products, even though they are, in fact, complementary. QlikView is a platform for building user-friendly, interactive dashboards geared to business managers, while Tableau is a data discovery tool targeted at business analysts. With Qlik Sense, Qlik now competes directly with Tableau in the data discovery market, while using the Qlik Analytic Platform and QlikView as competitive differentiators.

Differentiators

Qlik Sense offers numerous capabilities that set it apart from competitors

1   **Associative Visual Interface.** Qlik's most distinctive product feature is its associative interface, which visually displays relationships among all data elements in response to user filters without excluding any of them. This many-to-many graphical display contrasts with the linear or "drill down" views employed by most BI tools.

2   **Set and Comparative Analysis.** Qlik's associative models makes it well suited for complex, multi-pass queries, such as, "What are sales for customers this year for Product A who purchased Product B but not Product C last year?" These types of analyses are the bread and butter of most business queries, giving Qlik an analytical advantage over most BI tools.

3   **Governed Data Discovery.** Qlik Sense balances data discovery and governance, allowing authorized business analysts to create custom application or revise existing ones and share them with colleagues within a prescribed governance framework that minimizes the proliferation of data silos. These analysts can create new metrics, dimensions, and charts and, if permitted, add new data, without corrupting corporate data models.

4   **In-Memory Column Store.** Qlik uses an in-memory architecture to compress data, speed processing, and deliver fast user response times. It relies on CPUs to calculate aggregates and other functions on the fly to avoid hitting disk. To optimize processing, most customers run Qlik products on 64-bit operating systems with large amounts of RAM and fast multi-core chipsets, giving users an intuitive "speed of thought" analytical experience.

5   **Smart Search.** Qlik was one of the first BI vendors to offer smart search, which lets customers perform keyword searches with type-ahead functionality against any data or metadata in user-authorized applications. Smart Search lets users quickly filter thousands of objects and returns live charts so users don't have to switch applications to access data.

6   **Data Enrichment.** Through a recent acquisition, Qlik offers demographic, weather, currency, economic, socioeconomic and industry data sets that customers can easily integrate with their Qlik applications. With Qlik DataMarket, customers can subscribe to various data packages, including both free and fee-based data sets.

7   **Proactive Support.** Qlik provides proactive monitoring services using real-time anomaly detection, machine log diagnostics, and health check reports based on customer and benchmark data. This enables Qlik to proactively alert customers about problems and issues and optimize data processing to ensure high levels of performance and availability.

8   **Large Partner Network.** Qlik has 1,700+ partners in its network, which have fueled its growth and enabled it to support 37,000 customers. For many customers, Qlik partners assume the role of an IT department, helping to install, configure, deploy, tune, and manage QlikView, and now Qlik Sense, environments.

9   **Analytics Platform.** Qlik Sense and QlikView run on a common analytics platform -- the QIX Engine, which and supports common charting, security, and governance services. QAP, which is a packaging of the QIX Engine with robust APIs and SDKs, lets developers create custom Web and .NET applications and components and embed Qlik functionality into applications.

10   **Responsive Design.** Qlik Sense not only adjusts the screen to the device size, but also automatically adjusts the objects themselves, allowing applications to be developed once and deployed anywhere.

Should You Buy Qlik Sense?

Yes, Buy if You:

1. Want a governed self-service environment that gives analysts the ability to modify or extend any Qlik application or data model within a security framework that prevents the creation of spreadmarts and conflicting reports.

2. An intuitive analytical experience geared to regular business users. Business managers love Qlik's associative interface because it's easy to use and surfaces key patterns and relationships within and across business domains without much effort.

3. Fast queries and responsive dashboards that enable users to analyze data at the "speed of thought". Qlik's in-memory columnar database turns sluggish dashboards into agents of organizational change.

4. A future-proof BI architecture. Qlik Sense was built from the ground up for cloud and mobile environments. The new design frees users from desktop machines and software and allows developers to build applications that can be deployed anywhere without modification.

5. A rich BI development environment. Besides offering a rich, drag-and-drop, Web-based authoring environment geared to business analysts, Qlik Sense also comes with a rich set of APIs and SDKs for building custom applications and embedding Qlik functionality into existing applications.

6. Are a small or medium-sized business that wants an enterprise-caliber BI environment and will work with a local systems integrator (i.e., Qlik partner) to install, build, and manage the BI environment. (Of course, large companies can deploy Qlik Sense on their own.)

7. Are a large enterprise or independent software vendor that wants to embed Qlik functionality into an existing application or create an entirely custom application using Qlik APIs.

No, Don't Buy if You:

1. Want an IT-driven environment only. With Qlik Sense, business analysts can load data and create reports. However, in an enterprise deployment, it's best if IT developers set up data connections and global models that analysts then modify or extend for personal and departmental use.

2. Don't want to use in-memory column store resources for BI and query processing. Although blinding fast, in-memory technology forces customers to carefully manage scalability and performance since both concurrent users and application data consume memory.

3. Want a visual transformation or ETL tool. Although Qlik purchased an ETL tool several years ago (i.e., Expressor) and folded the technology and talent into its existing products, most Qlik developers use Qlik's scripting language to create and combine data files to support end-user applications.

4. End-user metadata. Although Qlik offers a tool that scans .QVD and .QVW files to create a master list of data elements, these tools are only available to power users via the Qlik Management Console. Nor do the tools support data lineage and impact analysis.

5. Niche functionality. Qlik Sense doesn't support pixel-perfect reporting or high-volume bursting (only QlikView). It integrates with predictive analytics tools, but doesn't offer its own capability. Its data discovery functionality is still catching up with market leaders.

6. Enterprise cloud BI services. To protect its large partner channel, Qlik is moving slowly into the cloud. It currently offers a free service for up to five users and a paid service for unlimited users with 10GB of storage. It plans to ship more offerings in 2016. Stay tuned!

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