

Power BI vs Tableau vs Qlik Sense: Which BI Tool is the Winner?



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Business Intelligence

34 comments

Business intelligence makes sense of **big data**, which grows increasingly complex and digitized every day. In your search for the right **BI tools**, you might be considering various products for your **BI requirements**. In this article, we compare Microsoft Power BI vs Tableau vs Qlik Sense for more than ten features that are on enterprises' wishlist.

Though all three products tie for a few attributes, Power BI ranks as the winner. Yet, the other two are close behind and may be a better fit your organization's needs. Read on to see why we ranked Power BI at the top of the this comparison and get an idea of which product might work best for you.

[Compare Power BI, Tableau and Qlik Sense Against Your Needs](#)

Selecthub Software Comparison



Power BI

VS



tableau

VS



Here's a ready reckoner for you to jump to the desired section.

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First, let's get to know these products better.

[Compare Power BI, Tableau and Qlik Sense Against Your Needs](#)

Power BI

Power BI is a [SaaS](#) service that Microsoft initially released as an add-on to Excel. It is now a reporting and analytics solution in its own right for enterprises of all sizes. Being from the Microsoft family, it seamlessly integrates with other products from the vendor, including Office 365.

Since it embeds easily, you can analyze your business assets seamlessly from within business applications. Its Power Query, Power Pivot and Power View modules enable efficient querying, modeling and visualization, respectively.

Tableau

Tableau's popularity stems from its free visualizations that you can view online and download. You have complete control over the data you share with a high degree of customization and configurable security options.

Adoption is easy through its user-friendly interface and intuitive drag-and-drop functionalities. While Tableau Desktop is the vendor's primary offering, it comes with a license for [Tableau Server](#) or [Tableau Online](#).

Qlik Sense (next-generation of QlikView)

QlikView was Qlik's classic BI solution that helped customers shift from large, IT-driven, SQL-centric technologies to agile insight discovery. Qlik has since introduced Qlik Sense, a modern analytics platform for self-service analysis. The vendor provides a seamless, cost-effective upgrade to Qlik Sense for QlikView users.

It supports a broad spectrum of analytical needs. Some of these are:

- Guided analytics apps and dashboards
- Embedded analytics
- [Conversational analytics](#)
- SaaS application automation
- Reporting
- Alerts
- Mobile analytics

Its Associative Engine indexes every possible relationship among datasets to tell you what you need to know. The software deploys on-premise, in the private and public cloud, and as a multi-cloud solution with multi-tenancy support. The vendor provides two versions – Business and Enterprise, offered on a per account annual subscription.

For more details, request our [free pricing guide](#).

Let's dive into the product comparison.

[Compare BI Pricing & Costs with our Pricing Guide](#)

Features Comparison

Here is a comparative study of the features these top three BI solutions offers:



Power BI vs. Tableau vs. Qlik Sense

Features	 Power BI	 + a b l e a u	 Qlik
Data Connectivity	ADVANTAGE 		
Data Management			
Dashboards and Data Visualization		ADVANTAGE 	
Reporting		ADVANTAGE 	
Data Querying		ADVANTAGE 	ADVANTAGE 
Data Security	ADVANTAGE 		ADVANTAGE 
Advanced Analytics			ADVANTAGE 
Augmented Analytics	ADVANTAGE 		
Embedded Analytics	ADVANTAGE 	ADVANTAGE 	
IoT Analytics			ADVANTAGE 
Geospatial Analytics		ADVANTAGE 	
Mobile App	ADVANTAGE 		ADVANTAGE 
OS Support	ADVANTAGE 	ADVANTAGE 	
Technical Support	ADVANTAGE 		

Source:  SelectHub

Data Connectivity

Power BI: It connects seamlessly to a wide range of existing analytics investments — on-premise and cloud-based — especially Microsoft technologies. Additionally, it supports Apache Hive, [Databricks Cloud](#), [Hortonworks](#), Pivotal HAWQ, [Google BigQuery](#) and more.

It mines information from Google Analytics, MySQL, Oracle, [Salesforce](#), [MailChimp](#), Facebook, [Zendesk](#) and many more. But, it doesn't connect to SAS out of the box.

Tableau: It has built-in connectors for [Amazon Redshift](#), [Cloudera](#), Google Analytics, Microsoft Excel, MySQL and more, or you can create your own. In the Power BI vs Tableau comparison, the latter lags in third-party integrations. It doesn't connect to [project management](#), payment processing, enterprise messaging and [eCommerce platforms](#) out of the box, only through partner integrations.

Qlik Sense: Looking at Qlik vs Tableau, Qlik Sense also comes equipped with native connectors. You can download any that aren't available natively from the Qlik website. The vendor continues to expand support for newer sources, the latest ones being the Databricks ODBC and the Azure Synapse connector. It lacks support for accounting, eCommerce and payment processing platforms.

The Winner: Though lack of connectivity to SAS does lose Power BI a few points, it still ranks ahead of Tableau and Qlik Sense because of a more significant number of source and third-party integrations.

Data Management

When comparing Power BI, Tableau and Qlik Sense, all the tools provide blending, exploration, modeling, data prep and multidimensional data analysis.

Power BI: It provides blending and [data profiling](#) with the Query Editor. Businesses can define custom metrics through reusable models. Microsoft SQL Server Analysis Services (SSAS) enables online analytical processing (OLAP) with real-time connectivity.

Tableau Prep: It's the vendor's exclusive offering for data management. Its two modules — Prep Builder and Prep Conductor — enable building, scheduling and monitoring workflows like filter, group and replace, clean, rename a field, duplicate a field, edit a value and change the data type.

The Tableau vs Power BI comparison sees both coming through for OLAP. Tableau connects seamlessly to [Oracle Essbase](#), Teradata OLAP, Microsoft Analysis Services, SAP NetWeaver Business Warehouse, and Microsoft PowerPivot.

Qlik Sense: As for the Tableau vs Qlik Sense comparison, the latter helps you combine, transform and load information from multiple sources. You can uncover correlations through AI suggestions, concatenation and link tables.

Intelligent profiling provides descriptive statistics by automatically processing various information types. The Qlik Cognitive Engine automates smart asset prep and workflow authoring with linking recommendations and visualization suggestions.

The Winner: In the Microsoft BI vs Tableau vs Qlik Sense comparison of information management capabilities, all three products are at the top.

[Compare Power BI, Tableau and Qlik Sense Against Your Needs](#)

Dashboards and Data Visualization

In the Power BI, Tableau and Qlik Sense comparison, all three products provide visual snapshots of business metrics through interactive visualizations. You can drill through assets for in-depth insights with periodic auto-refresh giving you the latest metrics.



A Visualization in Tableau Shows the Valuation of Some Companies That Have Gone Public in 2021.

Power BI: Its visualized metrics serve as an entry point into underlying reports and datasets. Pin tiles from any report to your dashboard and customize it from the toolbar for look and feel. You can set specific dashboards as your favorites and monitor critical metrics by configuring alerts.

Dashboard templates aren't built-in, but you can get them through template apps. Power BI supports animations but only with end-user customization.

Tableau: When comparing Tableau vs Power BI, Tableau's Dashboard Starters make life easier for you by automatically creating dashboards after connecting to popular sources. Build your own visualizations or utilize those made by other users in its online community, available for easy download.

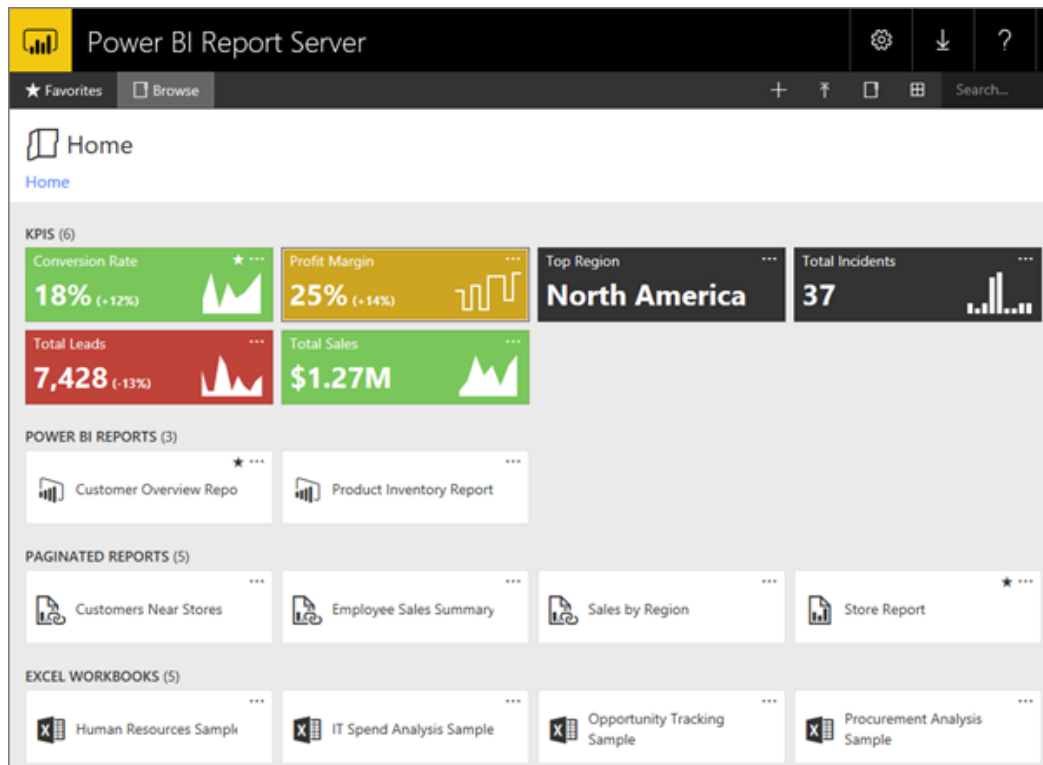
Out-of-the-box (OOTB) animations enhance the visual presentation by showing changes across periods.

Qlik Sense: It shows your key metrics' performance with various visualizations and charts. Its video player visualization lets you embed YouTube videos directly into Qlik Sense apps. But in the Qlik vs Tableau competition, Qlik Sense lags as it doesn't offer dashboard and report templates, though it provides animations OOTB.

The Winner: When comparing Microsoft Power BI vs Tableau vs Qlik Sense for visualization, Tableau wins because of built-in animations and dashboard templates.

Reporting

Comparing the BI offering from Microsoft, Tableau and Qlik Sense, all three products let you deep-dive into business assets with canned and [ad hoc reporting](#). While Qlik Sense provides you master item lists within custom apps, Tableau needs you to do the groundwork first by publishing sample workbooks on its server before you can build reports.



Power BI users can create, customize and publish interactive reports to the cloud for quick, easy and secure distribution.

Power BI: Its Report Server enables report-sharing even behind a firewall with robust governance protocols. Permissions management and role-based information access are available, though the tool doesn't support versioning. You can subscribe for scheduled automatic report delivery, set to happen after the latest refresh.

It supports intelligent narratives by integrating with Narrative Science Quill, a third-party solution.

Tableau: Its Ask Data module facilitates faster analysis and reporting with natural language querying. Versioning is available, so you can see what has changed from last time. You can subscribe to get reports via email in image or PDF format.

Qlik Sense: Automatic report delivery isn't built-in; you need an additional module, Qlik NPrinting, to do the job. Or, you can access reports directly from the Qlik Sense Hub. The tool supports versioning but with third-party integrations.

Its Insight Advisor module supports natural language searches.

The Winner: In the Microsoft BI vs Tableau vs Qlik Sense comparison for reporting, Tableau emerges as the winner, with built-in versioning and subscription-based report delivery.

Data Querying

Comparing Power BI, Tableau and Qlik Sense, all products support ad hoc and scheduled queries at high speed through [in-memory analysis](#).

Power BI: Its Live Connection capability lets you create reports from shared datasets and models and save them to your individual workspaces. The Query Editor enables more than 350 asset transformation actions, including renaming tables and columns, removing rows, setting the first row as headers and more.

Batch update functionality is not built-in, but you can do it through bulk operations.

Tableau: It lets you query business assets intuitively through its proprietary visual query language, VizQL. Or, if you know SQL, you can append, combine and aggregate specific datasets for analysis. Create custom live connections and share them on the Tableau server for use by others.

Qlik Sense: When comparing Qlik vs Power BI, Qlik provides Direct Discovery to establish live connections with various sources. Built-in scheduled and on-demand batch updates are available. The Qlik Data Integration Platform reloads assets incrementally from streaming and other fast-changing live sources.

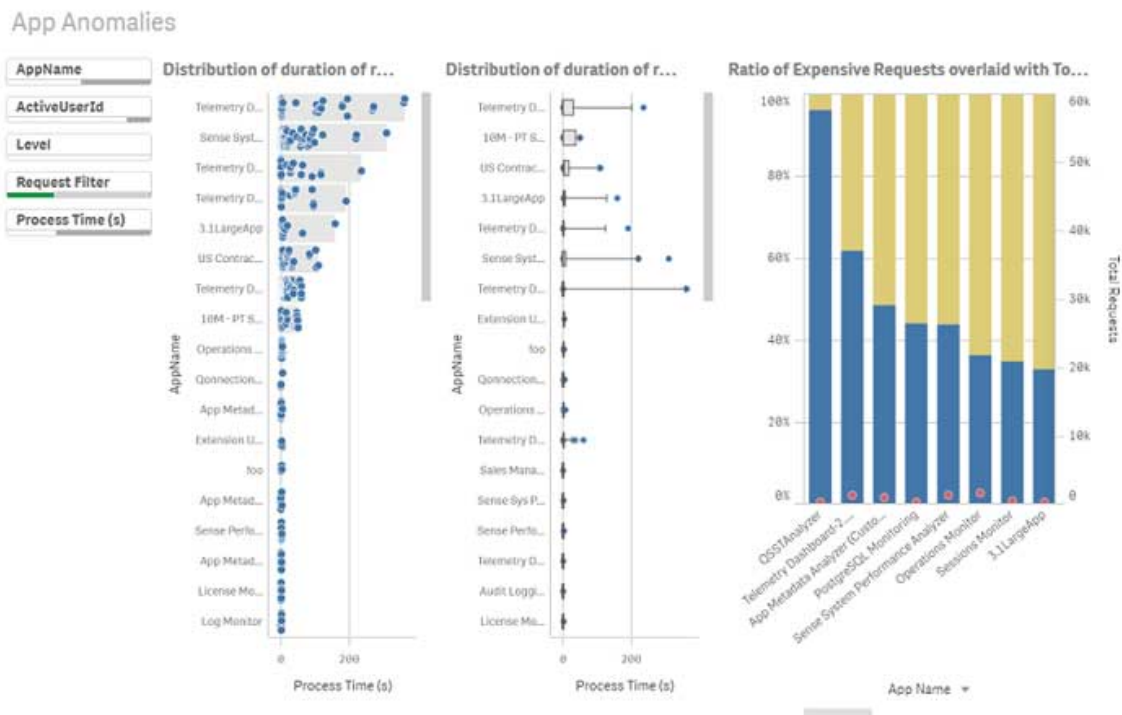
You can analyze live and in-memory information together, but this approach has certain limitations. Developers can build custom apps to analyze information by leveraging Qlik's in-memory caching functionality.

The Winner: Tableau and Qlik Sense tie for the top spot for this category because of built-in batch updates and powerful visual querying.

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Data Security

Power BI: Besides an activity log, the vendor provides an audit log with Office 365 that tracks events from Sharepoint Online, Exchange Online, Dynamics 365 and other services. Row, column and object-level security are available, and the platform encrypts business assets at rest and during processing.



View of a Telemetry log in Qlik Sense.

Tableau: Vendor-built open-source tools, LogShark and TabMon, analyze Tableau Server's usage and performance. Protect your live assets by hiding published dashboards behind logins. Tableau offers security at the row and object level but not at the column level.

Qlik Sense: Qlik lets you capture CPU and RAM usage and activity metrics through Telemetry Logging. It prevents [injection attacks](#) and [Cross-Site Scripting \(XSS\)](#) through the [Content Security Policy \(CSP\)](#) Level 2. [Multi-Factor Authentication \(MFA\)](#) and API-based key configuration give an added layer of security.

The tool enables row and column-level security through a session access login and encryption only at rest.

The Winner: In the Microsoft BI vs Tableau vs Qlik Sense comparison for information security, Qlik Sense and Power BI tie for the winner.

Advanced Analytics

All three tools allow you to perform segmentation and [cohort analysis](#). Simple and advanced functions are available for statistical analysis and scenario simulation.

Power BI: It uses expectation-maximization (EM) algorithms and [K-means for clustering analysis](#). Though the solution only supports simple [linear regression](#), forecasting is possible using [predictive modeling](#). But, Power BI doesn't support [PMML \(Predictive Modeling Markup Language\)](#) for the import/export of predictive models.

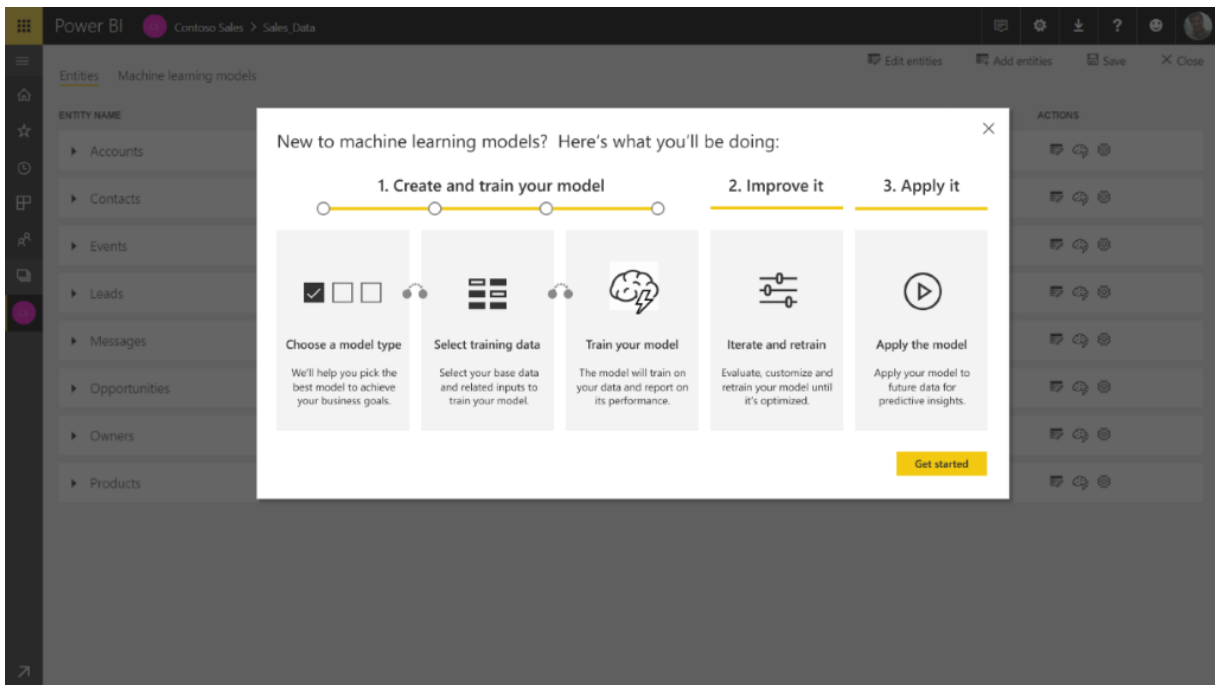
Tableau: It also supports predictive analytics and can work with [MATLAB](#), R and Python for regression analysis. The tool provides built-in date/time functions for comparisons like year-over-year growth and [moving averages](#). Tableau also doesn't support PMML.

Qlik Sense: The solution gains an edge over the other two with its support for PMML by integrating with the KNIME Analytics Platform. The tool supports bi-variate linear analysis and forecasting through its R plugin. Additionally, a third-party extension, the Vizlib Line Chart, helps you predict trends and opportunities from historical and near-real-time information.

The Winner: Compared to Microsoft Power BI and Tableau, Qlik Sense leads the pack with its support for PMML and easy integration with third-party tools.

Augmented Analytics

[Machine learning](#) drives natural language querying to provide insights in a conversational format, building incrementally on previous user searches and queries.



In Power BI, users can create and train machine learning models that they can then apply to other datasets to generate insights.

Power BI: Its AutoML (automated machine learning) module lets you train models through automatic algorithm selection. The Quick Insights module identifies basic insights, correlations and potential outliers. But, the platform doesn't support automated anomaly alerting.

Tableau: Its Insight Advisor provides context-aware suggestions, automation and natural language processing. Ask questions in natural language and view the responses as visualizations with Ask Data. Hovering over particular points shows related explanations; that's its Explain Data feature at work.

But, Tableau doesn't support automatic algorithm selection, [model tuning](#), feature generation, descriptive insights and anomaly alerting.

Qlik Sense: The Qlik Cognitive Engine speeds up preparation and authoring functions with associative recommendations. Its Insight Advisor provides context-aware suggestions, automation and natural language processing. Smart Search lets you search across the entire data set out of the box.

But, Qlik Sense doesn't support automatic algorithm selection and feature generation.

The Winner: Power BI leads the pack in the Microsoft Power BI vs Tableau vs Qlik Sense comparison for augmented analytics.

Compare BI Pricing & Costs with our Pricing Guide

Embedded Analytics

For developers looking to add analytics to their software or service without building an in-house tool, BI tools with embedded capabilities provide a nifty solution.

Power BI: It lets you view insights directly by embedding dashboards, interactive reports and tiles within an application. Additionally, it supports [multi-tenancy](#) with exclusive workspaces for separate clients. If you are looking for a more robust solution, you might want to go in for Power BI Embedded that includes white labeling, customization and Q&A support.

Tableau: You can embed Tableau views and dashboards into business applications and white label them to establish your brand. Customize the views and manage users, content and displays with site admin controls backed by [REST APIs](#). The vendor ensures that user information is secure even in a multi-tenant setup with stringent security protocols.

Qlik Sense: You can give report viewers access to a single client sheet by embedding it as-is into a website. Developers can create web solutions from the Qlik Sense tech stack to embed multiple visualizations. For greater backend control, it's possible to build custom analytics solutions using [nebula.js](#). The solution should work invisibly in the background to feed data into the embedding application; Qlik Sense only offers moderate out-of-the-box-support for this functionality.

The Winner: Tableau and Power BI take the winner's spot together for embedded analytics.

IoT Analytics

Power BI: It integrates with Azure Stream Analytics, a real-time event processing engine. Connecting to Azure IoT Hub, the tool gathers your business's live information from devices, sensors, social media feeds, [clickstreams](#), applications and log files. You can automatically feed information to a reporting tool by creating event-based triggers and storing the transformed assets for later use.

Tableau: Usage and performance metrics from internet-connected sensors and devices like heavy machinery help minimize defects and monitor field assets in real time. You can prolong the life of your

hardware by preempting breakdowns and staying on schedule with preventive maintenance.

Companies can align their product offerings with consumer preferences by gleaning customer insights from chatbots, POS (point-of-sale) processes and other streaming workflows. Edge analytics isn't supported.

Qlik Sense: It provides a [data replication](#) module to accelerate asset ingestion. Working with the Qlik Data Integration Platform, it pulls assets from databases, mainframes and SAP systems and delivers them to streaming systems, [data warehouses](#) and data lakes.

The Winner: Qlik Sense is the winner in this category.

Geospatial Analytics

Power BI: It integrates with Bing Maps, ArcGIS Maps and Google Maps to provide location visualizations that you can pin to dashboards. Or create visuals based on TopoJSON maps. Geospatial functions and calculations are available through Power Query or DAX (Data Analysis Expressions).

Tableau: It offers forward and [reverse geocoding](#) out of the box. You can add spatial information to your analysis by integrating Mapbox, Google Maps and Bing Maps. The solution supports a variety of maps like [proportional symbols](#), [choropleth](#), point distribution, [heatmaps](#), [flow maps](#) and more. Search and find continents, countries, states, provinces, counties, cities and even postal codes.

Perform advanced [spatial analysis](#) in Tableau by combining geodata files with text files and spreadsheets. Its spatial connector connects to and joins ESRI Shapefiles, [KML](#), GeoJSON files, MapInfo tables and other forms of geospatial information.

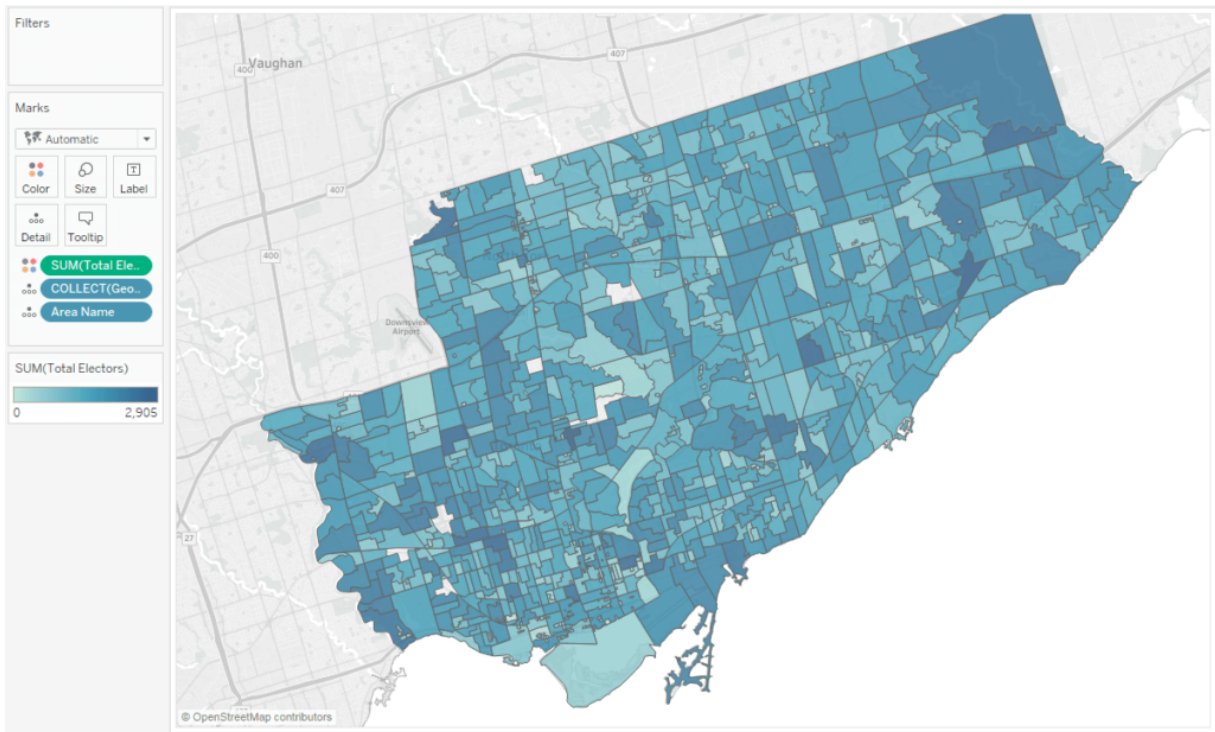


Tableau uses geospatial analytics to help users add the “where” to their “why.”

Qlik Sense: It doesn't provide geocoding, WMS integration, geospatial functions and spatial file support natively. Instead, it leverages Qlik's GeoAnalytics connector, the GeoAnalytics Server and other extensions. Qlik Geocoding is another value-added product that augments the tool's geolocation capabilities.

The Winner: For this category, Tableau takes the lead with geospatial integrations in various formats, interactive visualizations and its powerful map search function.

[Compare BI Pricing & Costs with our Pricing Guide](#)

Native Mobile App

Power BI: Its mobile version gives you secure access to real-time reports and dashboards when out of the office, irrespective of business assets housed in the cloud or on-premise. Create and share reports on your

mobile device, ask natural language queries and set up alerts for when the metrics change. Collaborate with others through touch-enabled annotation, comments and @mentions.



Power BI's responsive mobile application features push notifications, a personalized feed, collaboration and more.

Tableau: Its mobile app allows you to browse, search for and scroll through dashboards on your mobile devices. You can preview and interact with your visualizations and workbooks when offline. Collaboration isn't available – you can't add comments or share the annotated mobile screen with others.

Also, it doesn't work with Tableau Public; you'll need a Tableau Server or Online account to get the mobile app.

Qlik Sense: You can access Qlik Sense apps and mashups on mobile with all the features – visualization, creation, analysis, collaboration and administration. Add context to analytics with compelling narratives and create active discussions around business assets through collaboration.

In the QlikView vs Tableau comparison, mobile users can connect to Qlik Sense environments, download apps, and explore them interactively even when the internet isn't available.

The Winner: Qlik Sense and Power BI win the top spot in this category.

OS Support

Power BI: Works on Windows, Mac and Linux.

Tableau: Works on Windows, Mac and Linux.

Qlik Sense: Works only on Windows.

The Winner: Tableau and Power BI come out ahead of Qlik Sense for the winner's position in this category.

Technical Support

All three products have active user communities that answer your queries and help resolve issues.

Power BI: Phone and email support are available. The vendor provides SLAs with help desk support via live chat and instant messaging.

Qlik Sense: Phone and email support are available. The vendor provides SLAs with help desk support.

Tableau: Not available. You can create a support request through the vendor-provided webform or via the customer portal.

The Winner: Power BI takes the lead in this category.

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Which BI Tool Wins?

In the Qlik vs Power BI vs Tableau comparison, Power BI scores for connectivity, data management, security, augmented analytics, embedded analytics, mobile BI capabilities, OS support and technical support. Tableau takes the top spot for data management, visualization, reporting, querying, embedded analytics, geospatial analytics and OS support.

Qlik Sense is the winner for data management, querying, security, advanced analytics, IoT Analytics and mobile analytics.

Though Power BI ties with the other two products for quite a few features, it comes out ahead for 8 out of the 14 key requirements, with Tableau acing it in 7 categories and Qlik Sense winning in 6.

But when all's said and done, the winning solution still may not be the winner for you. One of them, both of them or neither of them may suit your company's needs; you are the best judge. Your budget is key in choosing software, but pricing for all three solutions will likely vary. For a complete product cost comparison, check out our free [pricing guide](#).

What did you think of our Power BI vs Tableau vs Qlik Sense comparison? Which features are on your must-have list? Share with us in the comments below!

Top Competitors



Tableau Server

Starting at \$35 per user per month



Dundas BI

Starting at \$6 per user per month



Oracle Analytics Cloud

Starting at \$350 per named user



SAP Business Objects

Starting at \$21 per user per month



SAS Visual Analytics

Starting at \$1,365 per month with limited user capacity



Domo

Starting at \$2,100 per user per year



MicroStrategy

Starting at \$5000 per named user per year



Sisense

Starting at \$21,000 per year for 5 users
