Select and Implement a Business Intelligence and Analytics Solution

Find the diamond in your data-rough using the right BI and analytics solution.

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INFO~TECH RESEARCH GROUP

VENDOR LANDSCAPE

Review Info-Tech's Vendor Landscape of the BI market to identify vendors that meet your requirements

Vendors Evaluated

Each vendor in this landscape was evaluated based on their **features, product considerations,** and **vendor considerations.** Each vendor was profiled using these evaluations and, based on their performance, qualified and placed in specific use-case scenarios.

Business intelligence market overview

How it got here

- **In the beginning was BI 1.0.** Business intelligence began as an **IT-driven centralized solution** that was highly governed. Business users were typically the consumers of reports and dashboards created by IT, an analytics-trained minority, upon request.
- In the last five to ten years, we have seen a fundamental shift in the business intelligence and analytics market, moving away from such large-scale, centralized IT-driven solutions focused on basic reporting and administration, **towards more advanced user-friendly data discovery and visualization platforms. This has come to be known as BI 2.0.**
- Many **incumbent market leaders were disrupted** by the demand for more user-friendly business intelligence solutions, allowing **"pure-play" BI** software vendors to not only carve out a niche, but also expand rapidly into more enterprise environments.
- **BI-on-the-cloud** has established itself as a solid alternative to in-house implementation and operation.

Where it's going

- **BI 3.0 is quickly approaching.** This involves the **democratization of data and analytics** and a predominantly **app-centric** approach to BI, identifiable by an anywhere, anytime, and device-or-platform-independent collaborative methodology. Social workgroups and self-guided content creation, delivery, analysis, and management is prominent.
- Where the need for reporting and dashboards remains, we're seeing **data discovery platforms** fulfilling the needs of non-technical business users by providing **easy-to-use interactive solutions, increasing adoption across enterprises.**
- With more end users demanding access to data and the tools to extract business insights, IT is looking to meet these needs while continuing to maintain governance and administration over a much larger base of users. The race for **governed data discovery** is heated and will be a market differentiator.

These vendors were included due to consideration of their market share, mind share, and platform coverage

For this Vendor Landscape, Info-Tech focused on those vendors that offer broad capabilities across multiple platforms and that have a strong market presence and/or reputational presence among mid- and large-sized enterprises.

Included in this Vendor Landscape:	
Alteryx	Self-proclaimed leader in self-service analytics, Alteryx is strong when it comes to handling large datasets.
BOARD	BOARD is a European company that offers a cloud-based, all-in-one BI, analytics, and performance management solution.
Domo	Domo is a rapidly growing company that offers over 1,000 customizable apps through its app store interface.
Dundas	The browser-based Dundas BI platform offers data preparation, dashboarding, and analytics.
GoodData	GoodData is a vendor that specializes in PaaS and the cloud, offering robust integration of internal and external data along with strong data visualization and discovery.
IBM	Being around for over 100 years has earned IBM a reputation for trust and reliability in the enterprise software space.
Microsoft	Leveraging licenses already owned by organizations, such as Microsoft Excel, Microsoft offers a BI product at no additional cost, making it a very affordable solution.
MicroStrategy	MicroStrategy is an enterprise software company that focuses on BI and offers a full portfolio of solution options.
Oracle	Oracle's BI suite combines legacy Oracle technology with valuable matured acquisitions.
Qlik	While specializing in data discovery and visualization, Qlik has made some recent acquisitions that promise exciting developments in the cloud and data-as-a-service environments.
SAP	SAP is well suited to large IT-managed organizations, as well as smaller, more emerging organizations.
SAS	SAS continues to promote its product's analytical strength, along with the vendor's sophisticated professional services.
Tableau	While being a pioneer is often short lived, Tableau has remained at the top of the data visualization and modern BI food chain.
TIBCO	TIBCO is bravely looking into the future and betting that organizations will be in need of more real-time end-to-end analytics.
Yellowfin	Yellowfin's extreme user-friendliness and extensive collaboration capabilities make it a strong contender in the mid and small enterprise space.

Table Stakes represent the minimum standard; without these, a product doesn't even get reviewed

The Table Stakes

Feature:	What it is:
Administration	Centralized console to manage BI portal administration. Management metrics or reports provide insight into usage, resource utilization, security, and activities.
Dashboard	Create a user-friendly, intuitive, and interactive interface that makes use of rich visualizations to organize and present information to end users.
Mobile	Allow information users to access BI content on mobile devices in real time or on the go, allowing native interactions. Ability to leverage your mobile interface, including device-specific navigation and interactions.
Multi-Tenant	Multi-tenancy architecture can be supported in which a single BI instance manages the tenant content independently.
Report Bursting	Reports can be run once to provide results for distribution to other recipients.
Security	Leverage a security model that is based on authorization, authentication, and role-based security; able to integrate with popular directory services.
Varied Data Sources	The ability to input multiple types of data.
Visualization	Presents data in an easily digestible format, graphs, charts, etc.

What does this mean?

The products assessed in this Vendor Landscape meet, at the very least, the requirements outlined as Table Stakes.

Many of the vendors go above and beyond the outlined Table Stakes, some even do so in multiple categories. This section aims to highlight the products' capabilities **in excess** of the criteria listed here.

If Table Stakes are all you need from your BI solution, the only true differentiator for the organization is price. Otherwise, dig deeper to find the best price to value for your needs.

Vendor scoring focused on overall product attributes and vendor performance in the market

Scoring Methodology

Info-Tech Research Group scored each vendor's overall product attributes, capabilities, and market performance.

Features are scored individually as mentioned in the previous slide. The scores are then modified by the individual scores of the vendor across the product and vendor performance features.

Usability, overall affordability of the product, and the technical features of the product are considered, and scored on a five-point scale. The score for each vendor will fall between worst and best in class.

The vendor's performance in the market is evaluated across four dimensions on a five-point scale. Where the vendor places on the scale is determined by factual information, industry position, and information provided by customer references and/or available from public sources.

Product Evaluation Features	
Usability	The end-user and administrative interfaces are intuitive and offer streamlined workflow.
Affordability	Implementing and operating the solution is affordable given the technology.
Architecture	Multiple deployment options, platform support, and integration capabilities are available.

Vendor Evaluation Features	
Viability	Vendor is profitable, knowledgeable, and will be around for the long term.
Focus	Vendor is committed to the space and has a future product and portfolio roadmap.
Reach	Vendor offers global coverage and is able to sell and provide post-sales support.
Sales	Vendor channel partnering, sales strategies, and process allow for flexible product acquisition.

Advanced Features are the capabilities that allow for granular differentiation of market players and use-case performance

Scoring Methodology

Info-Tech scored each vendor's features on a cumulative four-point scale. Zero points are awarded to features that are deemed absent or unsatisfactory, one point is assigned to features that are partially present, two points are assigned to features that require an extra purchase in the vendor's product portfolio or through a third party, three points are assigned to features that are fully present and native to the solution, and four points are assigned to the best-of-breed native feature.

Feature:	What we looked for:
Alerts and Notifications	Notifications and alerts to users when predefined conditions are met.
Cloud Offering	Ability to connect with cloud-based services; cloud compatibility (software and infrastructure).
Collaboration	Allowing users to collaborate via social media integration, notifications, discussion threads, comments, and workflow.
Connections to Big Data	Ability to connect to popular big data sources (Hadoop, HANA, etc.).
Data Mashup	Ability to mash up or integrate data sources at the semantic layer.
Data Warehouse Automation	Enabling data warehouse, data mart, or data vault to be created automatically to accelerate the preparation for analytics.
Embeddable BI	Ability to embed BI content as an object to other enterprise applications.
Forecast and Statistical Analysis	The ability to create scenarios or statistical models to predict future outcomes.

Continued on next slide

For an explanation of how Advanced Features are determined, see Information Presentation – Feature Ranks (Stoplights) in the Appendix.

Advanced Features are the capabilities that allow for granular differentiation of market players and use-case performance

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Feature:	What we looked for:
Geospatial Analysis	Empower users to perform geospatial analysis such as thematic mapping, clustering, radius search, etc.
Integration with Microsoft Office and Other Productivity Tools	BI-Microsoft Office integration that allows BI content and functionalities to be incorporated in Excel and other Office applications for further manipulation.
Object Search	Search BI objects and artifacts with a search box.
Performance Enhancement	Enhance BI platform performance via in-memory, columnar, or other acceleration technologies.
Self-Service	Selected user groups are able to interact with BI data, slice and dice, and find answers on their own.
Storytelling	The ability to reorganize BI content in a guided sequence to tell a story about the findings.
Text Analytics	Perform text analytics, e.g. sentiment analysis and semantic extraction.

For an explanation of how Advanced Features are determined, see Information Presentation – Feature Ranks (Stoplights) in the Appendix.

Balance individual strengths to find the best fit for your enterprise

	Product				Vendor				
	Overall	Usability	Afford.	Arch.	Overall	Viability	Focus	Reach	Sales
Alteryx	◑	◕	◑	◑	◕	◕	◕	●	◕
BOARD	◕	●	◕	●	◕	●	◑	◕	◕
Domo	◑	◕	◑	◑	◕	◑	●	◑	◕
Dundas	◕	◕	◕	●	◕	●	◑	◕	◕
GoodData	◕	◕	◕	◑	◕	◕	◕	◕	◕
IBM	◕	◕	◑	●	◕	◕	◑	◕	●
Microsoft	◕	◕	◕	◕	◕	◕	◑	◕	●
MicroStrategy	◕	●	◑	●	◕	◕	◕	◕	◕
Oracle	◕	◕	◑	◕	◕	◕	◑	◕	◕
Qlik	◕	◕	◑	●	◕	●	◕	◕	◕
SAP	◕	◕	◑	●	◕	◕	◕	◕	◕
SAS	◕	◕	◕	●	◕	◕	◕	◕	◕
Tableau	◕	●	◕	●	◕	●	◕	◕	●
TIBCO	◑	◕	◕	◑	◕	◕	◕	◕	●
Yellowfin	◕	◕	◕	●	●	●	◕	●	●

Legend ● = Exemplary ◕ = Good ◑ = Adequate ◔ = Inadequate ○ = Poor

For an explanation of how the Info-Tech Harvey Balls are calculated, see Information Presentation – Criteria Scores (Harvey Balls) in the Appendix.

Balance individual strengths to find the best fit for your enterprise

Evaluated Features

	Alerts and Notifications	Cloud Offering	Collaboration	Connections to Big Data	Data Mashup	Data Warehouse Automation	Embeddable BI	Forecast and Statistical Analysis	Geospatial Analysis	Office Integration	Object Search	Performance Enhancement	Self-Service	Storytelling	Text Analytics
Alteryx	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
BOARD	★	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Domo	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Dundas	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
GoodData	●	★	●	●	●	●	●	●	●	●	●	●	●	●	●
IBM	●	●	●	●	●	●	●	●	●	●	●	★	●	●	●
Microsoft	●	●	●	●	●	●	●	●	●	★	●	●	●	●	●
MicroStrategy	●	●	●	★	●	●	●	●	●	●	●	●	●	●	●
Oracle	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Qlik	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SAP	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SAS	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Tableau	●	●	●	●	●	●	●	●	●	●	●	●	★	★	●
TIBCO	●	●	●	●	●	●	●	●	●	●	●	●	●	●	★
Yellowfin	●	●	★	●	●	●	●	●	●	●	●	●	●	●	●

For an explanation of how Advanced Features are determined, see Information Presentation – Feature Ranks (Stoplights) in the Appendix.

Legend

★ = Feature is best in its class

● = Feature is fully present in its native solution

● = Feature is partially present or available at additional cost

● = Feature is partially present

● = Feature is absent

Identify the Info-Tech use-case scenario that applies to your business

BI can be used in different ways to support the needs of your organization. Info-Tech has identified three BI use cases that can help you understand your usage to facilitate the BI selection process. Each use case evaluates the vendors differently and the goal is to find the top vendors for your specific use case.

Use Case	Description
Enterprise Business Intelligence	This is for organizations with 250 or more unique BI users. These BI implementations need to support multiple lines of business or business units, as well as different levels of hierarchy. Enterprises typically use BI for reporting, dashboarding, and some self-services capabilities to make sense of the ongoing and historical business processes.
Mid-Market Business Intelligence	Mid-market business intelligence organizations are firms with less than 250 BI users, a small IT department with IT professionals covering multiple roles, and a strong interest in low initial investment, scalability, and rapid implementation. This use case typically covers BI usage such as reporting, dashboarding, and some self-services capabilities to make sense of the activities of the ongoing and historical business processes.
Business Analytics	Enterprises in this use case typically use business analytics for traditional BI purposes, as well as performing data discovery, big data analytics, predictive analytics, social network analytics, or text analytics to proactively leverage data to predict and plan for the future.

Understand the differentiators between use cases

Mid-Market Business **Intelligence**

IDEAL FOR

- Firms with less than 250 BI users, and a small IT department with IT staff covering multiple roles.
- A strong interest in low initial investment, scalability, and rapid implementation.
- Want to analyze how the organization is doing at the moment.

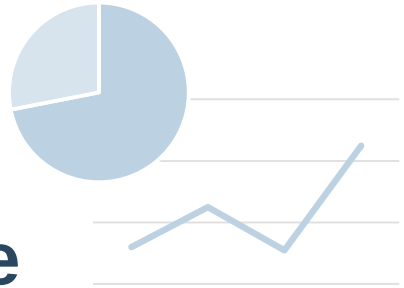
FOCUS

- Scalable; cloud, open source, and subscription based.
- Reporting, dashboards, and some self-service BI.

USAGE

- Develop an **operational scorecard** to summarize goal achievement.
- Create **alerts** for higher than normal customer activity to notify the marketing department to offer discount.
- Integrate with **Excel** so that BI data can be manipulated in Excel for some Excel users.

Enterprise Business **Intelligence**



IDEAL FOR

- Firms with 250 or more unique BI users.
- Need to support multiple lines of business with different levels of hierarchy.
- Want to analyze how the organization is doing at the moment.

FOCUS

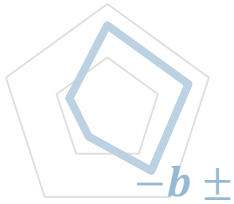
- Support a large user base; be able to scale up.
- Reporting, dashboards, and some self-service BI.

USAGE

- Creation of a **daily sales report** and burst the report to different regional managers according to the content.
- Develop an executive dashboard to provide visual representation of business activities in a summarized fashion with some drill-down functionalities.

Understand the differentiators between use cases (continued)

Business **Analytics**



$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

IDEAL FOR

- Firms that want to understand the root causes and predict the future.

FOCUS

- Support a power-user community; be able to scale up.
- Big data and predictive analytics.
- Social network and text analytics.

USAGE

- Perform data discovery via mashing up different data sources and data manipulation.
- Analyze big data sources.
- Perform statistical analysis to identify associations between profit and contributing factors.

USE CASE 2

2.1.2b Mid-Market Business Intelligence

Mid-market business intelligence organizations are firms with less than 250 BI users, a small IT department with IT professionals covering multiple roles, and a strong interest in low initial investment, scalability, and rapid implementation. This use case typically covers BI usage such as reporting, dashboarding, and some self-services capabilities to make sense of the activities of the ongoing and historical business processes.

Feature weightings for the mid-market business intelligence use-case scenario

2.1.2b

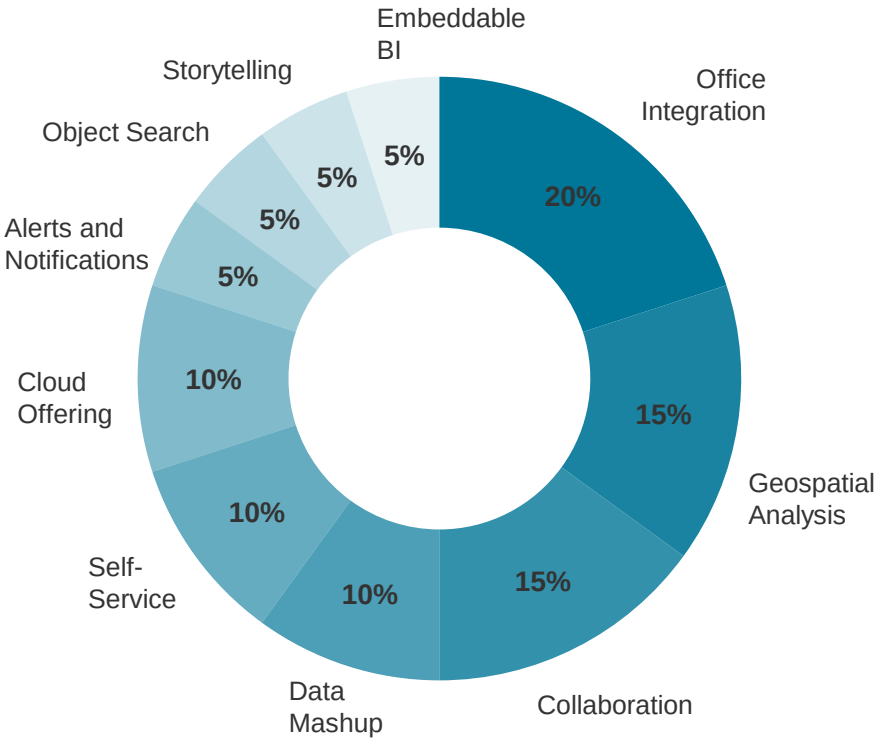
Core Features

Office Integration	Many of the business processes in mid-market BI firms are still Excel driven. The BI tool needs to integrate with Excel to make sure existing Excel-driven processes can be reused.
Geospatial Analysis	Mid-market BI may have existing reports and dashboards; what they are missing is the geographic insight. Geospatial analytics help to make sense of the geographic component of the data, delivering valuable insight to small organizations looking for an edge.
Collaboration	Mid-market BI organizations have smaller workforce resources, with end users wearing multiple hats at the same time. Collaboration helps those employees to proactively share questions and comments productively.
Data Mashup	Data mashup functionalities allow mid-market BI organizations to mash up or integrate data sources at the semantic layer.

Additional Features

Self-Service Storytelling Alerts and Notifications Object Search	Cloud Offering Embeddable BI

Feature Weightings



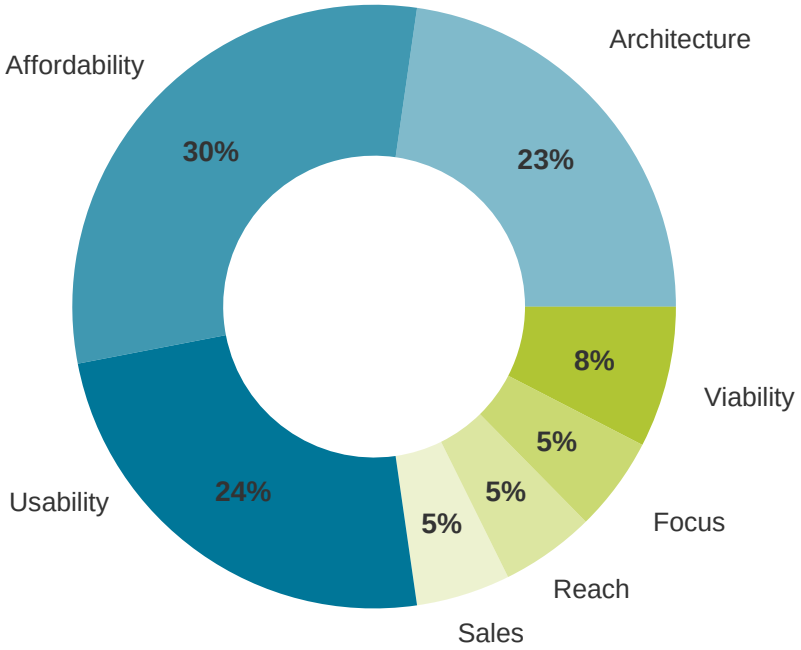
Vendor considerations for the mid-market business intelligence use-case scenario

Product Evaluation Features

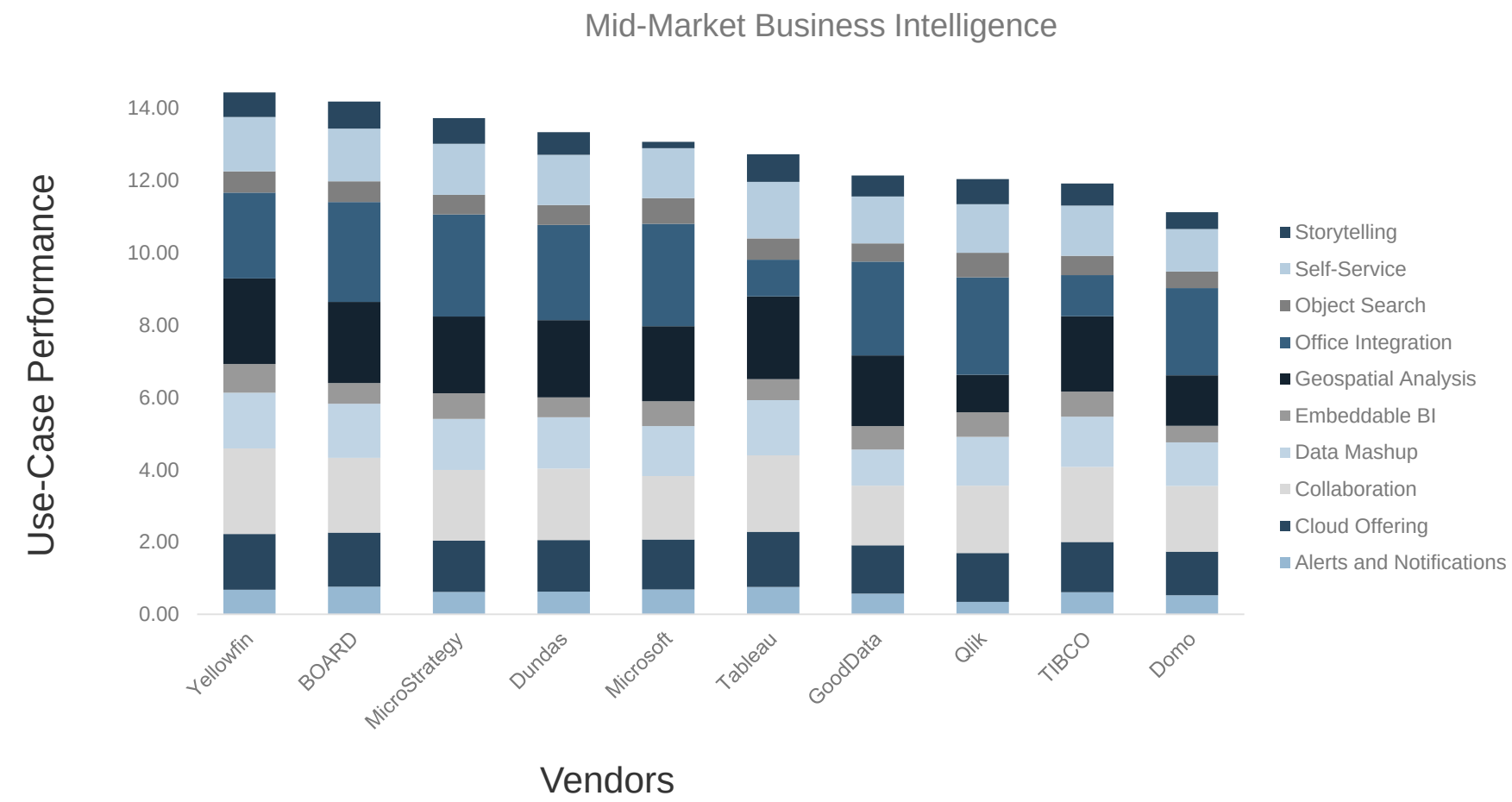
Usability	Mid-market organizations likely have less technical staff and more business users interacting directly with the software, increasing the need for an intuitive user interface.
Affordability	Small organizations with limited resources will place high priority on an affordable BI solution.
Architecture	Software architecture is always a concern when investing, and especially so when it comes to the initial time investment for a small mid-market organization.

Vendor Evaluation Features

Viability	Viability is important, but a vendor's strategy to support the market is more important.
Focus	Vendor is committed to the market segment and product improvements, and listens to customers' requests for new features.
Reach	Smaller organizations tend to be more localized, but still need support from their vendor.
Sales	The sales process for the mid-market needs to be flexible and adaptable to meet the budgetary constraints of these organizations.



Vendor performance for the mid-market business intelligence use-case scenario



Value Index for the mid-market business intelligence scenario

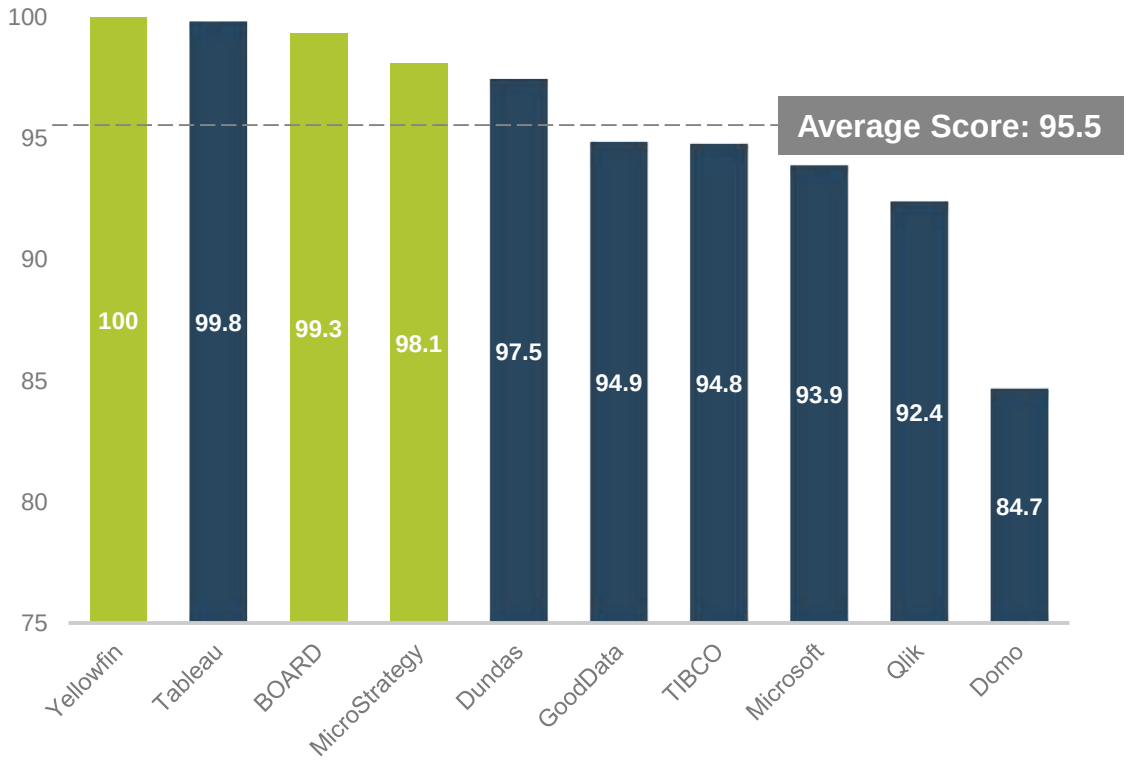
On a relative basis, Yellowfin maintained the highest Info-Tech **Value Score**TM of the vendor group for this use-case scenario. Vendors were indexed against Yellowfin's performance to provide a complete, relative view of their product offerings.

What is a Value Score?

The Value Score indexes each vendor's product offering and business strength **relative to its price point.** It **does not** indicate vendor ranking.

Vendors that score high offer more **bang-for-the-buck** (e.g. features, usability, stability) than the average vendor, while the inverse is true for those that score lower.

Price-conscious enterprises may wish to give the Value Score more consideration than those who are more focused on specific vendor/product attributes.



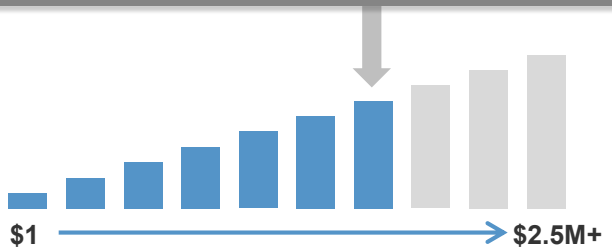
For an explanation of how Price is determined, see Information Presentation – Price Evaluation in the Appendix.

For an explanation of how the Info-Tech Value Index is calculated, see Information Presentation – Value Index in the Appendix.

Yellowfin

Product	Yellowfin 7.2
Employees	200
Headquarters	Melbourne, Australia
Website	yellowfinbi.com
Founded	2003
Presence	Privately held

3 year TCO for this solution falls into pricing tier 7, between $250,000 and $500,000*



Pricing provided by vendor

OVERVIEW

Yellowfin is an exciting company from Australia that has made a name for itself in a crowded data visualization market. Pairing an easy-to-use interface and stunning visuals with competent administration tools, Yellowfin's pervasive approach is very attractive to SMEs. However, large enterprises are noticing the potential as well. In fact, Yellowfin supports large implementations with over 100,000 users.

STRENGTHS

- Yellowfin is a data visualization specialist with an intuitive user interface and a strong feature set that includes geospatial analysis and storytelling.
- Collaboration features are a particular strength, taking advantage of alerts & notifications and social analytics.
- Although Yellowfin is primarily a data visualization tool, it also has strong administration features.

CHALLENGES

- Yellowfin does not currently offer text analytics.
- For organizations who continue to rely heavily on Office products, Yellowfin's lack of advanced Microsoft integration capabilities represents an area of weakness.

Yellowfin

Product				Vendor				
Overall	Usability	Afford.	Arch.	Overall	Viability	Focus	Reach	Sales

Info-Tech Recommends

Yellowfin offers a full range of capabilities that most people need. The combination of user-friendly interface, functionalities, and architecture make it a strong overall contender.

Use

Enterprise Business Intelligence	Mid-Market Business Intelligence	Business Analytics

Scenario Performance

Enterprise Business Intelligence	Mid-Market Business Intelligence	Business Analytics
VENDOR LANDSCAPE AWARD – LEADER – INFO-TECH	VENDOR LANDSCAPE AWARD – CHAMPION – INFO-TECH	5 out of 13

Value Index

Enterprise Business Intelligence	Mid-Market Business Intelligence	Business Analytics
7 out of 13	1 out of 10	3 out of 13

Features

Alerts and Notifications	Cloud Offering	Collaboration	Connections to Big Data	Data Mashup	Data Warehouse Automation	Embeddable BI	Forecast and Statistical Analysis	Geospatial Analysis	Office Integration	Object Search	Performance Enhancement	Self-Service	Storytelling	Text Analytics
●	●	★	●	●	●	●	●	●	●	●	●	●	●	●