Analytics and Data Value Index

2021 Vendor and Product Assessment

VENTANA RESEARCH

Prepared for:

Qlik

Bend, Oregon
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Ventana Research performed this research and analysis independently. Our goals were to determine the Value Index for Analytics and Data and to evaluate vendors and products in accordance with the Ventana Research methodology and blueprint. We charged no fees for this research and invited to participate all vendors that are delivering relevant applications to enable Analytics and Data. This report includes products generally available as of December 15, 2020.

Our purpose in conducting this research was to evaluate the maturity of software vendors and products and their value for enterprise use in Analytics and Data. Nothing in this report of our research is intended to imply that one vendor or product is the right choice for any particular organization. Rather, it provides a baseline of knowledge that organizations can use to evaluate vendors and products to manage and improve Analytics and Data. Unlike IT analyst firm reports that use subjective factors to rate vendors, our findings are drawn from thorough, research-based analysis of customer assurance and product categories that best represent how an organization should evaluate its technology supplier.

The complete Value Index report with detailed analysis is available for purchase. We can provide additional insights on this Value Index and advice on its relevance to an organization through the Ventana On-Demand research and advisory service. Assessment services based on this research also are available.

We certify that Ventana Research performed the research to the best of our ability, that the analysis is a faithful representation of our knowledge of vendors and products, and that the analysis and scoring are our own.

Ventana Research

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Analytics and Data

The processes and technology of the analytics and data software industry play an instrumental role in enabling an organization's business units and IT to optimally utilize data in both tactical and strategic ways. To accomplish this, organizations must provide technology that can access the data, generate and apply insights from analytics, communicate the results and support collaboration as needed.

Analytics utilizes mathematics to create measurements and metrics that enable data to be visualized in whatever form, in whatever tool or application is needed to provide insights and guide decision-making. In today's data-driven world, organizations must use analytics to understand and plan the details of their operations across every department, and across the lines of business and IT. Organizations also use analytics to track costs, create staffing plans, assess employee and supplier performance, identify variances and plan corrective actions. Analytics also helps inform employees and facilitates communication throughout the organization to coordinate actions toward a common mission and specific objectives. Operating without analytics would be like flying a plane without an instrument panel.

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While analytics as a modern business tool dates back some three decades, the elements of business intelligence (BI) today have expanded well beyond query, reporting, analysis and publishing. The tools now include the sourcing and integration of data and the use of analytics for planning and forecasting. They also include dashboards that present analytics in a variety of visualizations. Analytics today also enables presentations in the form of natural-language narratives. And the collaborative sharing of insights is helping to reduce the time to take action and make decisions. Artificial intelligence and machine learning extend analytics, enabling it to classify, predict and suggest behaviors that will help improve business operations.

Self-service analytics continues to be a goal for most organizations and those that can achieve it report greater satisfaction with their use of analytics. Nearly three-quarters (72%) of those who can access analytics without the assistance of IT said they are satisfied while slightly more than half (54%) of those who require the assistance of IT said the same.

Organizations seeking to provide self-service analytics also need to provide self-service data preparation. This is one of the areas where we have seen significant additional capabilities from multiple vendors in this evaluation. In many of our research studies, preparing data is reported as the most time-consuming part of the analytics process. Our research finds that fewer than one-half (42%) of organizations are comfortable allowing

business users to work with data that has not been integrated or prepared for them by IT. We expect self-service data preparation capabilities will reduce the often-necessary involvement of IT.

Advanced analytics, including AI and ML, has become a staple in analytic processes. Organizations that analyze their data using machine learning technology state that they gain a competitive advantage, improve customer experiences, increase sales and respond faster to opportunities. In light of these benefits, it is no surprise that nearly two-thirds (62%) of organizations report using machine learning today, and nearly three-quarters (72%) of organizations participating in our research said they plan to increase their use machine learning.

By 2022, more than one-half of line-of-business personnel will have immediate access to cross-functional analytics embedded in their activities and processes, helping to make operational decision-making more efficient and effective.

Collaboration in conjunction with analytics has finally become much more commonplace. Two-thirds of organizations report they are using or plan to use collaboration with analytics. Vendors now provide many ways to enable collaboration ranging from commenting on analyses to rating data sources. Others provide ways for organizations to assign tasks and track them to completion, helping to ensure that the value of analytics results in specific actions taken by the organization.

For analytics to be effective, they need to be available to line-of-business personnel as needed in their normal course of conducting business, which today means providing rich mobile access to analytics to support a mobile workforce seeking to conduct business in any location at any time. Workers today expect these mobile capabilities, so organizations must make choices to provide analytics and data platforms that can deliver.

Many organizations want analytics embedded into their operational systems, which typically requires custom development. Embedded analytics make it easier for line-of-business workers to access the information they need without having to access a different system, reducing the need for additional training. Vendors continue to build out rich APIs that provide access to nearly all the functionality of their products. Ventana Research projects that by 2022, more than one-half of line-of-business personnel will have immediate access to cross-functional analytics embedded in their activities and processes, helping to make operational decision-making more efficient and effective.

Analytics must also be timely. Organizations often operate 24/7. Information streams into business operations from a rapidly growing number of devices and sources. Without the ability to analyze this information as it occurs, organizations risk missing the opportunity to respond in the moment. Our research shows that nearly one-half of organizations (47%) consider it essential to process streaming data and event information in seconds or milliseconds.

Many vendors are using natural language processing to make it easier to access and find information via search and to understood information through narratives explaining the analyses.

Several technologies are enhancing the use of these products, not just the analyses they can perform. Many vendors are using natural language processing to make it easier to access and find information via search and to understand information through narratives explaining the analyses. Vendors have also begun using ML to analyze product usage data to enhance and streamline interactions, anticipating the best next step in the analytical process and then performing or recommending that step.

As organizations expand the spectrum of their analytic requirements, vendors have responded with additional capabilities. In some cases, those vendors have invested in developing additional capabilities themselves. In other cases, vendors have acquired software vendors that offer complementary capabilities to their existing portfolio. Despite this expansion, there are still few vendors that attempt to provide the entire spectrum of capabilities we evaluate in this assessment. You will likely need more than one vendor to meet all your analytic needs.

This report evaluates the following vendors that offer products that deliver analytics and BI as we define it: Amazon.com Inc., Board International, Domo, Infor, Information Builders Inc., IBM, Google LLC, Microsoft Corporation, MicroStrategy, Oracle Corporation, QlikTech, SAP, SAS, Sisense, Tableau Software, ThoughtSpot, Tibco and Yellowfin International.

Value Index Overview

For almost two decades, Ventana Research has conducted market research in a spectrum of related areas including business planning, data preparation, machine learning, data and analytics in the cloud, natural language processing, and big data analytics and integration. We have also examined the expansion of analytics through the use of cloud computing, mobile and advanced analytics as well as how analytics and data products use collaboration capabilities, social media techniques and location-related analytics. The findings of these research undertakings contribute to our comprehensive approach.

This report on the Analytics and Data Value Index is the distillation of a year of market and product research efforts by Ventana Research. It is an assessment of how well vendors' offerings will address buyers' requirements for analytics and data software. The index is structured to replicate an RFI/RFP process by incorporating all criteria needed to evaluate, select, utilize and maintain technology, and maintain relationships with vendors.

In this Value Index, Ventana Research evaluates the software in seven key categories that are weighted to reflect buyers' needs based on our expertise and research. Five are product-experience related: Usability, Manageability, Reliability, Capability and Adaptability. In addition, we consider two customer-experience categories: Vendor Validation, and Total Cost of Ownership and Return on Investment (TCO/ROI). To assess functionality, one of the components of capability, we applied the Ventana Research Value Index methodology and blueprint, which links the personas and processes for Analytics and Data to an organization's requirements.

Ventana Research has designed the Value Index to provide a balanced perspective of vendors and products that is rooted in an understanding of business drivers and needs.

Unlike many IT analyst firms that rank vendors from an IT-only perspective or consider futures or vision over what is available in the products today, Ventana Research has designed the Value Index to provide a balanced perspective of vendors and products that is rooted in an understanding of business drivers and needs. This approach not only reduces cost and time but also minimizes the risk of making a decision that is bad for the business. Using the Value Index will enable your organization to achieve the levels of efficiency and effectiveness needed to use Analytics and Data.

We use our research-based analytics and methodology to generate the Value Index ratings. We then build them into a set of indicators that we

present in both analytic and graphic form, each depicting the value of a specific vendor's offering in terms of what it can deliver relevant to your Analytics and Data needs.

The Value Index is not an abstraction; we use a carefully crafted best practices-based methodology to represent how organizations assess vendors and products. We have designed the Value Index to ensure that it provides objective research and guidance to organizations looking to assess and evaluate their applications for business and IT needs.

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The structure of the Value Index reflects our understanding that the effective evaluation of vendors and products involves far more than just examining product features, potential revenue or customers generated from marketing and sales. We believe it is important to take this comprehensive research-based approach, since making the wrong choice of an Analytics and Data technology can raise the total cost of ownership, lower the return on investment and hamper an organization's ability to reach its performance potential. In addition, this approach can reduce the project's development and deployment time, and eliminate the risk of relying on a short list of vendors that does not represent a best fit for your organization.

To ensure the accuracy of the information we collected, we asked participating vendors to provide product and company information across the seven categories that taken together reflect the concerns of a well-crafted RFP. Ventana Research then validated the information, first independently through our database of product information and extensive web-based research, and then in consultation with the vendors. Most selected vendors also participated in one-on-one consultative sessions, after which we requested them to provide additional documentation to support any new input.

Ventana Research believes that an objective review of specific vendors and products is critical to the establishment of Analytics and Data software and applications. An organization's review should include a thorough analysis of both what is possible and what is relevant. We urge organizations to do a thorough job of evaluating Analytics and Data systems and tools and offer this Value Index as both the results of our in-depth analysis of these vendors and as an evaluation methodology.

How To Use This Value Index

Evaluating Vendors: The Process

In our view, business improvement efforts should be based on best practices that research indicates deliver value quickly. Our Value Index evaluates Analytics and Data business systems and tools in accordance with that belief.

We advocate using the Value Index as part of a structured approach that begins by incorporating these steps into a program document that will both summarize and detail your initiative or project. Then consult the Value Index to ensure you make choices that will yield the results you want.

The steps listed below provide a framework for a technology-driven business improvement project.

1. Define the business case and goals.
   Develop the business case for investment. Define the mission of the business project: What is the purpose, why is it important, what outcome do you want to achieve and how will you measure the project's success? The goals should be grounded in your organization's strategy and plans and should make clear the expected outcomes.

2. Specify the project's business requirements.
   What must be done to achieve these goals? Defining the business requirements helps identify what specific capabilities are required with respect to people, processes, information and technology.

3. Assess the required roles and responsibilities.
   Identify the individuals required for the project at every level of the organization from executives to front line workers, and determine what each will contribute.

4. Outline the project's critical path.
   What needs to be done, in what order and who will do it? This outline should make clear the prior dependencies at each step of the project plan.

5. Develop the technology approach.
   Determine the technology approach that most closely aligns to your organization's requirements. Then develop a comprehensive list of potential vendors and products that best fit your needs.

6. Establish technology evaluation criteria.
   Define the business and technology criteria that you will use to evaluate vendors. We recommend using the criteria we have developed based on our Benchmark Research

and use to build the Value Index: usability, manageability, reliability, functionality, adaptability, validation, and TCO and ROI. This step will provide the tools necessary to move from a long list to a short list of vendors and products that you will then evaluate for final selection.

7. Evaluate and select the technology properly.
   Weight the seven categories of technology evaluation criteria to reflect the organization's priorities. Then evaluate the short list of vendors and products based on your business case, requirements and the technology evaluation criteria for your project.

8. Establish the business initiative team to start the project.
   Identify who will lead the project and the members of the team needed to plan and execute it. Have them begin by establishing a timeline and allocating resources.

In addition to evaluating existing suppliers, the Value Index can be used to provide evaluation criteria for new projects. Applying our research can shorten the cycle time when creating an RFP.

Products Evaluated

Vendor	Product Names	Version	Release Year
Amazon	QuickSight	December 6, 2020	2020
Board	Board	11.3	2020
Domo	Domo	October 2020	2020
IBM	Cognos Analytics	11.1	2020
Information Builders	WebFocus	8.2.0.7	2020
Infor	Birst	7.6	2020
Google	Looker	7.20	2020
Microsoft	Power BI	November 2020 Update	2020
MicroStrategy	MicroStrategy	2020 Update 3	2020
Oracle	Analytics Cloud	5.8	2020
Qlik	Sense Enterprise	November 2020	2020
SAP	Analytics Cloud	2020.21	2020
SAS	Viya Visual Analytics	2020.1 2020.1	2020 2020
Sisense	Sisense	V8.2	2020
Tableau	Tableau	2020.4	2020
ThoughtSpot	ThoughtSpot Software ThoughtSpot Cloud	6.3 SaaS	2020 2020
Tibco	Spotfire	11.0	2020
Yellowfin	Yellowfin	9.4	2020

The Findings

All of the products we evaluated are feature-rich, but not all the capabilities they offer are equally valuable to users or support everything needed across the entire lifecycle of use. Moreover, the existence of too many capabilities may be a negative factor for an organization if it introduces unnecessary complexity. Nonetheless, you may decide that a larger number of functions is a plus, especially if some of them match your organization's established practices or better support a new initiative that is driving the purchase of new software.

Factors beyond features and functions or vendor assessments may become a deciding factor. For example, an organization may face budget constraints such that the TCO evaluation can tip the balance to one vendor or another. This is where the Value Index methodology and the appropriate category weighting can be applied to determine the best fit of vendors and products to your specific needs.

Overall Scoring of Vendors Across Categories

The Value Index for Analytics and Data in 2021 finds IBM first on the list with MicroStrategy in second place and Information Builders in third. Companies that place in the top three in any category earn the designation Value Index Leader. Qlik has done so in four of the seven categories; IBM and MicroStrategy have done so in three of the seven categories; Board, Information Builders, Oracle, SAP and Yellowfin are Value Index Leaders in two categories, and Tableau in one category.

Ventana Research Value Index

Analytics and Data: Overall

Vendors		Performance
IBM	1	75.9%
MicroStrategy	2	73.8%
Information Builders	3	73.1%
Qlik	4	72.8%
Oracle	5	71.2%
Domo	6	71.0%
Yellowfin	7	70.9%
Board	8	70.3%
SAP	9	69.9%
SAS	10	69.5%
Tableau	11	67.1%
Microsoft	12	66.2%
Infor	13	62.0%
Sisense	14	59.5%
Tibco	15	58.2%
ThoughtSpot	16	54.6%
Looker	17	53.9%
Amazon	18	47.7%

Source: Ventana Research Value Index
Analytics and Data
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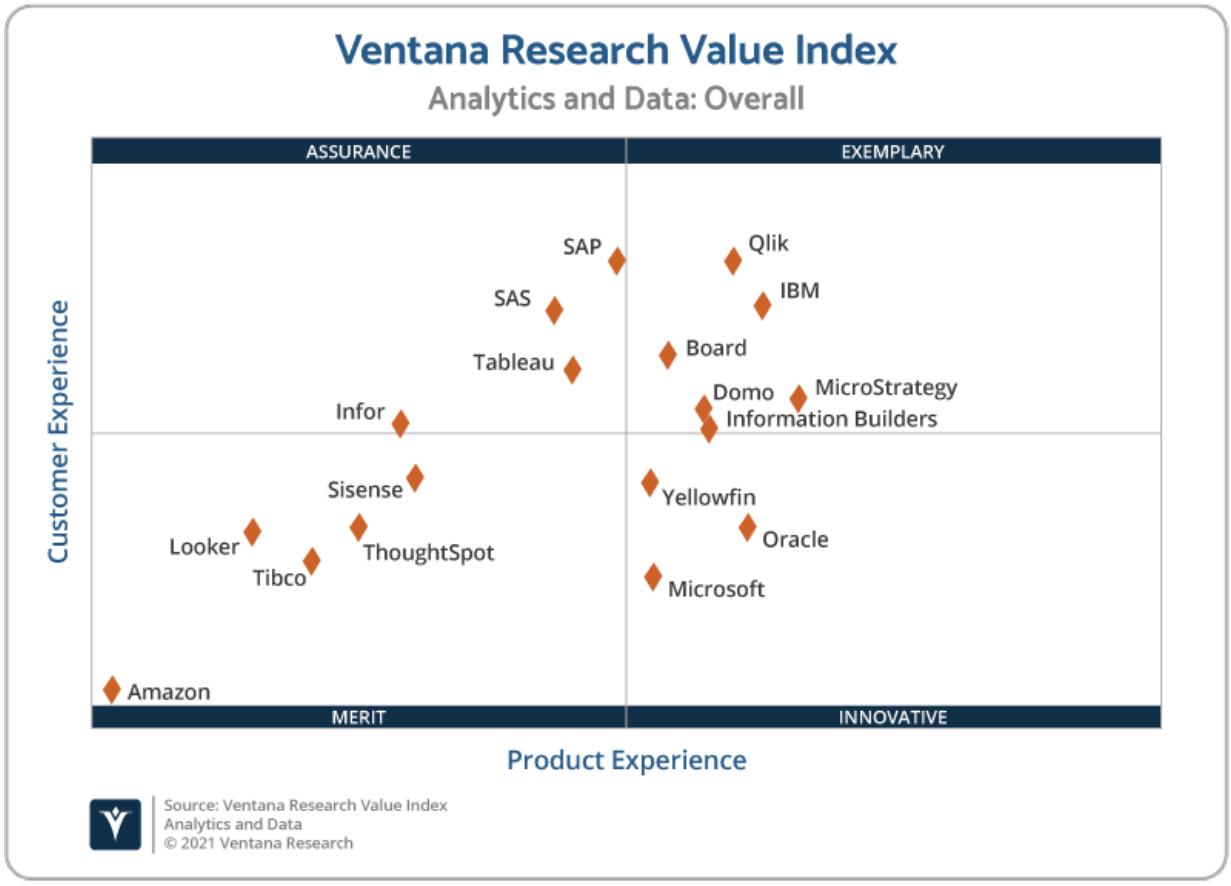
The overall representation of the Value Index below places the rating of the product experience and customer experience on the X and Y axes respectively to provide a visual representation and classification of the vendors. Those vendors whose Product Experience have a higher weighted performance to the axis in aggregate of the five product categories place farther to the right, while the performance and weighting for the two Customer Experience categories determines their placement on the vertical axis. In short, vendors that place closer to the upper-right on this chart performed higher than those closer to the lower-left.

The results from our research have placed vendors into one of four overall categories: Assurance, Exemplary, Merit or Innovative. The vendors that did well in both Product and Customer Experience were placed as Exemplary. Those vendors that perform quite well in Customer Experience such as SAP, SAS and Tableau are those providing Assurance, but they did not perform as well in Product Experience. The opposite is for those vendors with good performance in Product Experience including Oracle, Yellowfin and Microsoft that did not perform as well in Customer Experience but are Innovative. This representation of the Value Index helps organizations better classify vendors to how they could use them in the organization.



Exemplary: The categorization and placement of vendors in Exemplary or upper right represent those that performed the best in meeting the overall Product and Customer Experience requirements. The vendors awarded Exemplary are: Board, Domo, IBM, Information Builders, Qlik, MicroStrategy.

Innovative: The categorization and placement of vendors in Innovative or lower right represent those that performed the best in meeting the overall Product Experience requirements while not meeting the highest level of requirements in Customer Experience. The vendors awarded Innovative are: Yellowfin, Oracle and Microsoft.

Assurance: The categorization and placement of vendors in Assurance or upper left represent those that performed the best in meeting the overall Customer Experience requirements while not meeting the highest level of requirements in Product Experience. The vendors awarded Assurance are: SAP, SAS, Tableau and Infor.

Merit: The categorization for vendors in Merit or in lower left represent those that did not surpass the median of performance in Customer or Product Experience did not surpass the threshold for other three categories. The vendors awarded Merit are: Sisense, ThoughtSpot, Looker, Tibco and Amazon.

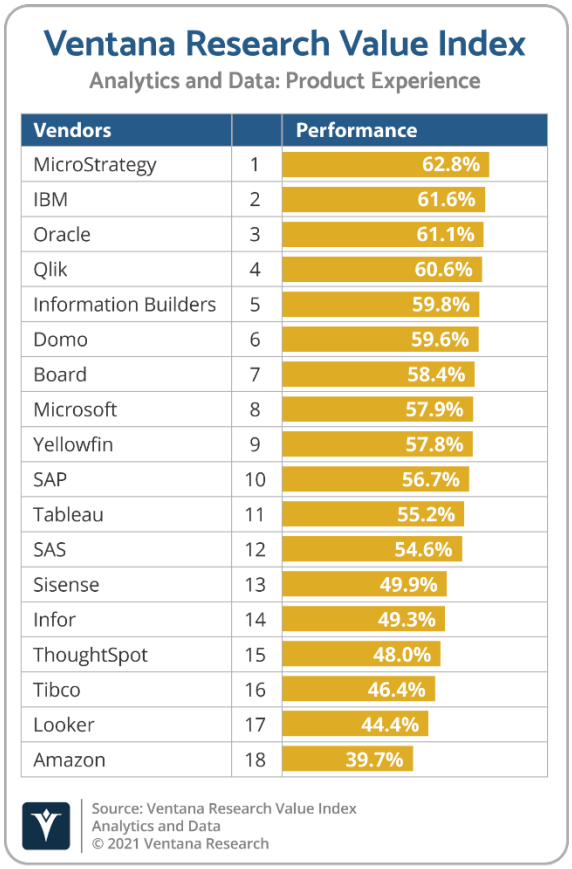
We warn that close vendor placement should not be taken to imply that the packages evaluated are functionally identical or equally well suited for use by every organization or for a specific process. Although there is a high degree of commonality in how organizations handle Analytics and Data, there are many idiosyncrasies and differences in how they do these functions that can make one vendor's offering a better fit than another's for a particular organization's needs.

Product Experience

The Value Index for Analytics and Data, in common with all our Value Index research, uses the Ventana Research Value Index methodology, a framework that evaluates vendors and their products in seven categories. Five categories are product-related, while two assess customer experience. The product categories are Capability, Usability, Adaptability, Manageability and Reliability; when we examine performance in these five product experience categories together, the vendors ranking highest are Value Index Leaders MicroStrategy, IBM and Oracle.

The focus on products for any organization's requirement needs to be comprehensive and not just evaluate features but the entirety of the product. The Value Index methodology evaluates five categories: Adaptability, Capability, Manageability, Reliability and Usability. This comprehensive approach ensures the products are evaluated in alignment with an organization's lifecycle of onboarding, configuration, operations, usage and maintenance. Too often vendors are not evaluated for the entirety of the products that represent how they are actually utilized. Evaluations based on vendor's market execution and vision of the future are flawed since they do not represent an organization's requirements but by how the vendor operates. As more vendors establish a Chief Products Officer role, it is essential for them to be more engaged in the product experience that they and their organization represent.

The Analytics and Data Value Index based on the methodology of expertise and research identified the weighting of Product Experience to 80% or four-fifths of the total evaluation. Importance was placed on the categories of Usability (25%), Capability (20%) and Reliability (15%), while Adaptability (10%) and Manageability (10%) were weighted with lower percentages. The importance of such weighting impacted vendors rankings in Product Experience and resulting overall ranking in this Value Index. The ranking of the vendors with MicroStrategy, IBM and Oracle being Value Index Leaders is a result of their decades-long commitment to technology for analytics and data. Additionally, vendor rankings for Qlik, Information Builders, Domo and Board show how they also continue to meet a broader range of enterprise requirements. The research found that vendors' commitment to Usability matters significantly with Qlik and Microsoft having higher placement through continued focused on broader needs across the enterprise. Vendors such as Yellowfin, with a significantly higher placement in Capability and Manageability, continue to advance an array of functionality designed to make analytics more functional for a broader set of organizations.



Vendors		Performance
MicroStrategy	1	62.8%
IBM	2	61.6%
Oracle	3	61.1%
Qlik	4	60.6%
Information Builders	5	59.8%
Domo	6	59.6%
Board	7	58.4%
Microsoft	8	57.9%
Yellowfin	9	57.8%
SAP	10	56.7%
Tableau	11	55.2%
SAS	12	54.6%
Sisense	13	49.9%
Infor	14	49.3%
ThoughtSpot	15	48.0%
Tibco	16	46.4%
Looker	17	44.4%
Amazon	18	39.7%

Customer Experience

The importance of a customer relationship with a vendor is essential to the actual success of the products and technology. The advancement of the Customer Experience (CX) and the entirety of the journey an organization has with its vendor is critical for ensuring inevitable satisfaction in working with a vendor. Thus, a vendor's offering is not just about technology and should be evaluated using a lens that ensures the proper assessment and selection of a vendor. Technology providers that have Chief Customer Officers are most likely to have greater investments in the customer relationship and the focus to their success. These leaders also need to take responsibility for ensuring the marketing of their commitment is made abundantly clear throughout the buying process and customer journey. Our Value Index methodology examines Customer Experience to represent the framework of commitment to the relationship and the value that can be derived from it. The two evaluation categories are Validation (10%) and TCO/ROI (10%) and are weighted to represent their importance to the overall Value Index balanced with the Product Experience.

The vendors that rank the highest overall in the aggregated and weighted Customer Experience categories are Value Index Leaders SAP, Qlik and IBM. The category leaders in customer experience provided an impressive level of information to communicate their commitment to Analytics and Data. Vendors such as SAP, Qlik, SAS and Board that were not Overall or Product Experience Leaders demonstrated their commitment to Customer Experience. At the same time, there were many vendors that have not made this a priority and provide little to no information through their website, presentations and evaluation information. All of which makes it increasingly difficult for organizations to evaluate them on the merits of their commitment to customer success. Many of the Leaders in Product Experience, including MicroStrategy, Information Builders and Oracle did not rank as well with their lack of availability and communication for Customer Experience though it does not mean that they are not performing some of the necessary requirements but have not made the commitment to its overall importance.

Ventana Research Value Index

Analytics and Data: Customer Experience

Vendors		Performance
SAP	1	16.5%
Qlik	2	16.5%
IBM	3	15.6%
SAS	4	15.5%
Board	5	14.6%
Tableau	6	14.3%
MicroStrategy	7	13.7%
Domo	8	13.5%
Infor	9	13.2%
Information Builders	10	13.1%
Sisense	11	12.1%
Yellowfin	12	12.0%
Oracle	13	11.1%
Thoughtspot	14	11.1%
Google	15	11.0%
Tibco	16	10.4%
Microsoft	17	10.1%
Amazon	18	7.8%

Source: Ventana Research Value Index
Analytics and Data

Qlik

Company and Product Profile

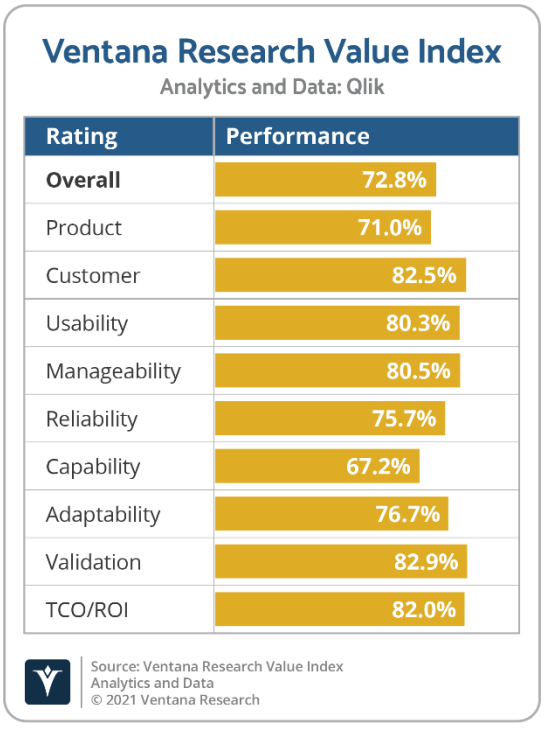
"Qlik's vision is a data-literate world, where everyone can use data and analytics to improve decision-making and solve their most challenging problems. A private SaaS company, Qlik provides an end-to-end, real-time data integration and analytics cloud platform to close the gaps between data, insights and action. By transforming data into Active Intelligence, businesses can drive better decisions, improve revenue and profitability, and optimize customer relationships."

"Qlik Sense is a complete data analytics platform that sets the benchmark for a new generation of analytics. With its one-of-a-kind associative analytics engine, sophisticated AI, and high-performance cloud platform, you can empower everyone in your organization to make better decisions daily, creating a truly data-driven enterprise. Qlik Sense Enterprise is the full version of Qlik Sense, supporting a full spectrum of analytics use cases on a multi-cloud platform. This includes self-service data visualization to empower users to explore data, guided analytics to align users to a standard business process or workflow, embedded analytics to enhance websites and applications, and custom analytic applications to support specific business processes or use cases."

Ventana Research Evaluation

Qlik is a large, independent provider of BI software. It was categorized as an Exemplary Vendor, ranking fourth overall in this Value Index evaluation. Qlik was a Value Index Leader in Manageability and Usability, and in Customer Experience and within TCO/ROI and Validation.

Qlik Sense is available as a cloud-based offering or on-premises. Qlik has bolstered the data-related aspects of analytics with several acquisitions that improved it rating from prior years. Data is generally loaded into Qlik Sense's in-memory associative index engine for high performance, but the company has also created a Direct Discovery option to access data on demand. Qlik Sense is highly customizable but also easy to use.



Qlik would perform better in Adaptability with better business process integration. In the Capability section, more collaborative capabilities and predictive analytics would help improve its rating.

Appendix: Vendor Inclusion

All vendors that offer relevant Analytics and Data products and meet the inclusion requirements were invited to actively participate in the Value Index evaluation process at no cost to them. If a vendor did not respond to or declined the invitation, a determination was made whether to include it in our analysis based on our inclusion criteria. These criteria are designed to ensure we include all vendors with geographic operations, customer base and revenue, as well as all relevant aspects of the products' fit for the particular category being evaluated.

For inclusion in the Ventana Research Analytics and Data Value Index for 2021, a vendor must be in good standing financially and ethically, have at least $25 million in annual or projected revenue, more than 50 employees, sell products and provide support on at least two continents, and have at least 25 customers. The principal source of the relevant business unit's revenue must be software-related and there must have been at least one major software release in the last 18 months. The product must be capable of accessing data from a variety of sources, modeling the data for analysis, analyzing the data using a variety of techniques, communicating the results in a variety of ways and supporting the data and analytics processes within an organization.

If a vendor is actively marketing, selling and developing a product as reflected on its website that is within the scope of the Value Index, it is automatically evaluated for inclusion. We have adopted this approach because we view it as our responsibility to assess all relevant vendors whether or not they choose to actively participate.

Ten of the 18 suppliers responded positively to our requests for information and provided completed questionnaires and demonstrations to help in our analysis of their Analytics and Data products. The following vendors declined to fully participate or did not respond to our invitation: Amazon, Google, Information Builders, Microsoft, Sisense, Tableau, Tibco and ThoughtSpot. To organizations evaluating these vendors, we recommend extra scrutiny as part of the software assessment because they did not make their technology or complete information available for the evaluation process. Online material that was generally available was used for the analysis, along with briefings and any information the vendor did provide.

We did not include vendors that did not satisfy the criteria that our methodology for this research requires.

About Ventana Research

Ventana Research is the most authoritative and respected benchmark business technology research and advisory services firm. We provide insight and expert guidance on mainstream and disruptive technologies through a unique set of research-based offerings including Benchmark Research and technology evaluation assessments, education workshops and our research and advisory services, Ventana On-Demand. Our unparalleled understanding of the role of technology in optimizing business processes and performance and our best practices guidance are rooted in our rigorous research-based benchmarking of people, processes, information and technology across business and IT functions in every industry. This Benchmark Research plus our market coverage and in-depth knowledge of hundreds of technology providers means we can deliver education and expertise to our clients to increase the value they derive from technology investments while reducing time, cost and risk.

Ventana Research provides the most comprehensive analyst and research coverage in the industry; business and IT professionals worldwide are members of our community and benefit from Ventana Research's insights, as do highly regarded media and association partners around the globe. Our views and analyses are distributed daily through blogs and social media channels including Twitter, Facebook and LinkedIn.

To learn how Ventana Research advances the maturity of organizations' use of information and technology through Benchmark Research, education and advisory services, visit www.ventanaresearch.com.

What We Offer

Ventana Research provides a variety of customizable services to meet your specific needs including workshops, assessments and advisory services. Our education service, led by analysts with more than 20 years of experience, provides a great starting point to learn about important business and technology topics from compliance to BI to building a strategy and driving adoption of best practices. We also offer tailored Value Index Assessment Services to help you define your strategy, build a business case and connect the business and technology phases of your project. And we provide Ventana On-Demand (VOD) access to our analysts on an as-needed basis to help you keep up with market trends, technologies and best practices.

Everything at Ventana Research begins with our focused research, of which this Value Index is a part. We work with thousands of organizations worldwide, conducting research and analyzing market trends, best practices and technologies to help our clients improve the efficiency and effectiveness of their organizations. Through the Ventana Research community we also provide opportunities for professionals to share challenges, best practices and methodologies. Sign up for Individual membership at https://www.ventanaresearch.com/ to gain access to our weekly insights and learn about upcoming educational and collaboration events, including webinars, conferences and opportunities for social collaboration on the Internet.

We offer the following membership levels for business and IT professionals:

Individual membership: For business and IT professionals interested in full access to our website and analysts for themselves. The membership includes access to our library of hundreds of white papers and research notes, briefings, and telephone or email consulting sessions to provide input and feedback.

Team membership: For business and IT professionals interested in full access to our website and analysts for a five-member team. The membership includes access to our library of hundreds of white papers and research notes, briefings, telephone or email consulting sessions to provide input and feedback, and use of Ventana Research materials for business purposes.

Business membership: For business and IT professionals interested in full access to our website and analysts for their larger team or small business unit. The membership includes access to our library of hundreds of white papers and research notes, briefings, telephone or email consulting sessions to provide input and feedback, use of Ventana Research materials for business purposes, and additional analyst availability.

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