Analytics and Data
Transforming Information Availability and Decision-Making

Benchmark Research Program

PROSPECTUS

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Research Overview

Organizations analyze the data they collect in a myriad of ways, providing insights and guiding decision-making through mathematics-based metrics. The resulting information can be distributed via traditional reports, visualized in a variety of displays, embedded in applications and increasingly is being used to drive artificial intelligence and machine learning algorithms. Today's world runs on data, so to succeed organizations must use analytics to understand, plan and improve their operations.

Analytics can be used across every department in an organization, across the lines of business and IT, and can guide workers at all levels to understand and act more effectively. Organizations use analytics to track costs, create staffing plans, assess employee and supplier performance, identify variances and plan corrective actions. Analytics also help employees to coordinate actions and business processes toward a common mission and specific objectives. Operating without analytics would be like flying a plane without an instrument panel.

Typically, organizations have deployed analytic software centrally and often also within departments, setting up and managing these systems on-premises and controlling user access through the IT department. But cloud-based options have grown as shifting budgets have put more power in the hands of line of business personnel and as organizations have demonstrated a preference for subscribing to software as a service.

One change that has influenced the development of modern analytic systems is the increasingly distributed nature of data sources. These days organizations need access to data from an array of sources beyond the company firewall to incorporate into their analytic processes and enterprise data models. Collecting this disparate and heterogeneous data that resides both on-premises and in the cloud can be complex. This research will investigate how organizations approach such challenges, as well as examining data and integration considerations, technology adoption trends and deployment styles and choices.

The research will evaluate how analytics is evolving to address issues posed by big data, the cloud, the intensification of business collaboration, the internet of things, mobile computing and location intelligence. It will examine the importance of various data sources in analytic processes, among them big data, unstructured data and external data. It will explore preferences for on-premises, cloud or hybrid deployments. Our research will assess the importance of mobile and collaborative analytics and will investigate how analytics are being embedded into applications as well as trends around artificial intelligence and machine learning.

This benchmark research is intended to produce insights that will illuminate approaches for applying analytics to data, producing information and enabling effective business decision-making. It will examine opportunities for and barriers to adoption of analytics software. It will explore data and integration issues and available choices of architectural foundations for data and analytics. It will examine the evolution of software and service purchasing criteria and deployment processes.

Research Background

Ventana Research has conducted market research in a range of related areas including data preparation, machine learning, data and analytics in the cloud, next-generation predictive analytics and big data analytics and integration. We have examined the expansion of analytics through the use of cloud computing, mobility and advanced analytics as well as how analytics products use collaboration capabilities, social media techniques and location-related analytics.

While analytics as a modern business tool dates back decades, the types of analytics performed today have expanded well beyond query, reporting, analysis and publishing. Capabilities today include accessing and integrating heterogeneous arrays of analytics-enabled planning and forecasting. Modern analytics engines also include dashboards that present analytics in a variety of visualizations. Conversational technologies enable voice-based searching of information and presentation of analytics.

Recently, artificial intelligence and machine learning have begun to extend analytics, enabling it to classify, predict and suggest behaviors that will help improve business operations. Interest in such advanced analytics continues to grow and their availability has become an increasingly important consideration in examining analytic platforms. 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.

Organizations today are working to get analytics as close to line of business personnel as possible to support their day-to-day operations and business processes. This research will assess priorities across lines of business such as marketing, sales, customer engagement and support, the supply chain, human resources and finance. It also will examine differences across vertical industry sectors such as manufacturing, services, finance, insurance, real estate and government.

Research Focus

This benchmark research will identify, explore and quantify the ways in which companies buy and use analytics software. The research will investigate what types of organizations are interested in purchasing analytics systems, why they are interested, what their needs are, who will make the purchase decision and what selection criteria they use. It will ask questions that explore the value of analytics systems, and it will assess the maturity of these tools in companies. In pursuing these aims, the research program will answer these key questions:

- How do companies use analytics and data in their organizations?
- How effective is analytics today?
- Where and to what degree has change occurred in analytics over the past several years? And what changes are organizations expecting in the near future?
- To what degree do analytics take advantage of collaboration, mobility, location intelligence, visual analysis, streaming data and other modern technologies?
- How challenging is it to access and integrate data for use in analytics?
- How easily are companies able to adapt their current analytics systems to more modern systems?
- How important is the use of collaborative and mobile technologies for analytics?
- What approaches do organizations take to analytics deployment?
- What technologies do companies use for analytics? How effectively do they use them?

This research will explore in detail how companies can improve their performance in this area and thus overall. We expect this research to educate organizations and technology vendors on the potential of these technologies.

Research Objectives

This benchmark research by Ventana Research will provide a detailed picture of the current state and future direction of the software market for analytics. It will answer questions critical to the future of software for the analytics function. It also will provide predictive indicators to facilitate a deeper understanding of the planning for future software in this market. To do so, the research will explore the following issues:

- The current state of organizational direction on analytics
- Patterns of adoption of analytics including associated patterns related to information integration
- The current state and future direction of investments

- Using the Ventana Research Performance Index, the impact of organizations' use of this software on their performance
- Companies' approaches to the deployment of analytics (on premises and private, public, hybrid and managed cloud-based options)
- Current evaluation and purchase criteria for analytics
- The relationships that exist between analytics and collaboration and mobile devices
- The use of conversational computing in analytics processes
- The relationship between analytics and artificial intelligence and machine learning
- Reasons why organizations are examining cloud computing including reliability, scalability, costs and resources.

Scope and Methodology

This primary benchmark research will be led by David Menninger, SVP and research director of data and analytics for Ventana Research. Our objective is to have qualified research input from employees at at least 200 companies with more than 100 employees or annual revenues of more than US$100 million at the levels of responsibility that are pertinent to this topic across IT and related business domains. The survey will be conducted in English. The sample will be qualified through the reach of our media and association partnerships, the Ventana Research research panel and specific groups that best represent the focus on analytics and in the enterprise across management and operations organizations. All qualified participants will receive a report of research findings in return for their participation (US$995 value). Respondents also will have the opportunity to win additional incentives ranging from US$5 to US$500 in value.

We anticipate presentation of final results will occur two months from the end of the polling process. The current target is to begin research in the fourth quarter of 2019.

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](#).

The leadership team behind this benchmark research includes:

David Menninger, SVP & Director of Analytics and Data Research

David is responsible for the overall research direction of data, information and analytics technologies at Ventana Research covering major areas including Analytics, Big Data, Business Intelligence and Information Management along with the additional specific research categories including Information Applications, IT Performance Management, Location Intelligence, Operational Intelligence and IoT, and Data Science. David is also responsible for examining the role of cloud computing, collaboration and mobile technologies as they affect these areas. David brings to Ventana Research over twenty-five years of experience, through which he has marketed and brought to market some of the leading-edge technologies for helping organizations analyze data to support a range of action-taking and decision-making processes. Prior to joining Ventana Research, David was the Head of Business Development & Strategy at Pivotal a division of EMC, VP of Marketing and Product Management at Vertica Systems, VP of Marketing and Product

Management at Oracle, Applix, InforSense and IRI Software. David earned his MS in Business from Bentley University and a BS in Economics from University of Pennsylvania.

Mark Smith, CEO & Chief Research Officer

Mark is responsible for the overall business and research direction of Ventana Research and drives the global research agenda covering both business and technology areas. He defined the blueprint and methodology for improving business by using benchmark research to provide guidance across people, processes, information and technology. Mark is an expert in enterprise software and business technology innovations including: business analytics, big data, cloud computing, business collaboration, mobile technology and social media. Mark has held CMO, research and product development roles at research and software companies. Mark started Ventana Research more than a decade ago; he has worked in the software industry for 25 years leading innovations in research and technology. Mark was rated the 2011 software industry analyst of the year by The Institute of Industry Analyst Relations (IIAR). Mark is also ranked as one of the top ten technology influencers in 2012 by Human Resources Executive magazine. Mark can be found on Twitter at @marksmithvr, on LinkedIn and can be reached via email at mark.smith@ventanaresearch.com. Read his blog at http://marksmith.ventanaresearch.com.