2023 Edition

Cloud Computing and Business Intelligence Market Study Excerpt

Wisdom of Crowds Series

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Executive Summary

- Access/availability, reliability and scalability are the biggest advantages of cloud BI. Cost/ROI and customization are the greatest disadvantages, and no attribute is a disadvantage to more than 21 percent.
- Cloud and software as a service rank 6th among 59 topics under study. Sixtyeight percent say cloud BI is either *critical* or *very important* in 2023. Industry
 cloud BI importance/criticality is slightly below an all-time high and trending
 higher.
- The number or organizations currently using cloud BI is near an all-time high with 58 percent current use. Plans to use increase with organization size. Eighty-two percent of vendors support SaaS.
- There is a long trending increase in *current use* of *public* cloud BI, and a trending decrease in the number of organizations with *no plans*. Current use of *public* cloud BI (41 percent) is significantly higher than *private cloud* use (33 percent). *BICC* reports the highest *public* cloud use.
- Public cloud budgets are more likely to increase while private and hybrid cloud budgets will more likely decline or remain unchanged. The strongest sentiment among organizations increasing cloud BI investment in 2023 favors public over other cloud BI models.
- The top three cloud BI features are data visualization, data quality and ad hoc query. A second tier of importance includes data preparation, data governance and data exploration. Industry feature support favors cloud over on-premises. Feature/admin support has largely migrated to SaaS/cloud.
- Relational database support, automatic upgrades and connectors to on-premises applications are the most important cloud BI architectural requirements. Industry support is more than adequate for all features.
- Respondents most often require security standards *HIPAA*, *SOC 2*, and *ISO 27001* with industry support increasing to meet user needs.
- Top prioritized cloud application data connectors are *Microsoft Teams, Google Analytics* and *Microsoft OneDrive*. Industry support is immature and aligning with user needs.
- Organizations maintain a wide inclusive list of multiple acceptable models for cloud BI licensing with the industry leading a shift to *subscription* over other licensing types.
- Bl/analytics proprietary hosting is preferred over third-party services or no preference.
- Amazon AWS and Microsoft Azure are the top cloud provider choices.

Cloud Business Intelligence Vendor Ratings

In rating the vendors, we considered cloud BI features, cloud architecture, cloud security, and web data connectors, as reported by suppliers and weighted by user priority of capabilities (fig. 1). Vendors have at least 50% of specified functionality to be included in ratings.

Cloud Business Intelligence Vendor Ratings

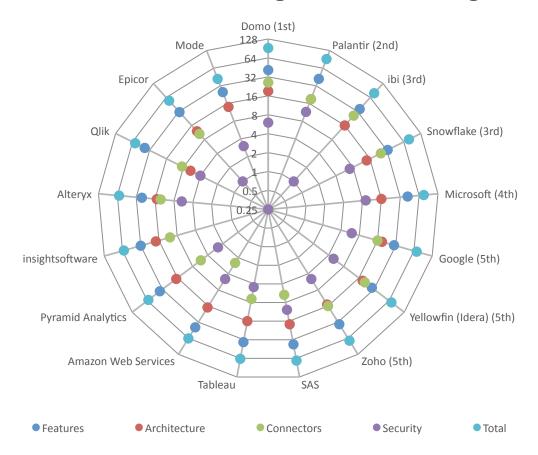


Figure 1 – Cloud business intelligence vendor ratings

For each of the last 11 years we asked our industry community of respondents to describe the importance of cloud BI (fig. 2). In 2023, measures of *critical* importance stand at 68 percent, in line with *critical* scores of 62-72 percent seen 2014-2021. This year is also a return to mean from a strikingly high *critical* score of 83 percent in 2022, and is also reflected in the upward trend line (which follows only *critical* scores) over time). This year's fall back in critical scores is partially offset by increasing 2023 scores of *very important* (21 percent, a 50 percent increase year over year), and an even greater percentage gain in scores of *somewhat important*. For a third year, no participant in the industry survey says cloud BI is *not important*.

Industry Importance of Cloud BI 2013 - 2023

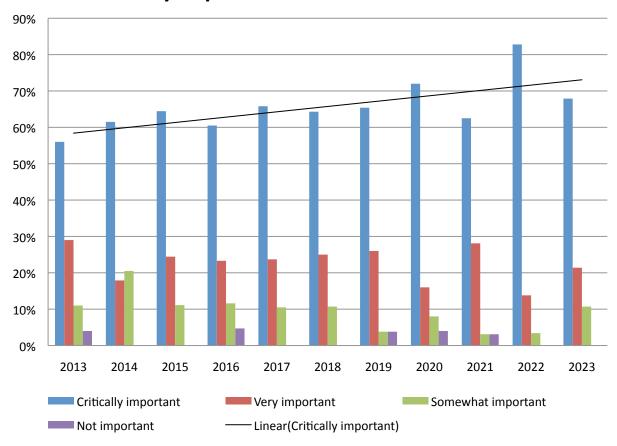


Figure 2 – Industry importance of cloud BI 2013-2023

Cloud BI importance correlates positively to success with BI in 2023 (fig. 3). This year, organizations that are *completely successful* with BI are 50 percent likely to say cloud BI is of *critical* importance, compared to 34 percent at *somewhat successful*, and 38 percent of *somewhat unsuccessful* or *unsuccessful* organizations. Organizations that are *somewhat unsuccessful* & *unsuccessful* with BI are most likely to report that cloud BI is *not important* (13 percent).

Cloud BI Importance by Success with BI 100% 4.5 90% 80% 70% 60% 3.5 50% 3 40% 30% 20% 2.5 10% 0% 2 Completely Successful Somewhat Successful Somewhat unsuccessful & Unsuccessful Critical Very Important Important Somewhat Important Not Important Weighted Mean

Figure 3 – Cloud BI importance by success with BI

Cloud Business Intelligence Feature Requirements

We asked respondents to describe the importance of 34 cloud BI feature requirements (fig. 4). This year, the top three features, *data visualization*, *data quality*, and *ad-hoc query* are *critical* to 36-39 percent of respondents, and all are at least *important* to about 90 percent or more of those surveyed. The next three most important features are *data preparation*, *data governance*, and *data exploration*. All but two features, *voice analytics and video analytics*, are, at minimum, *important* to half or more respondents.

Cloud BI Feature Requirements

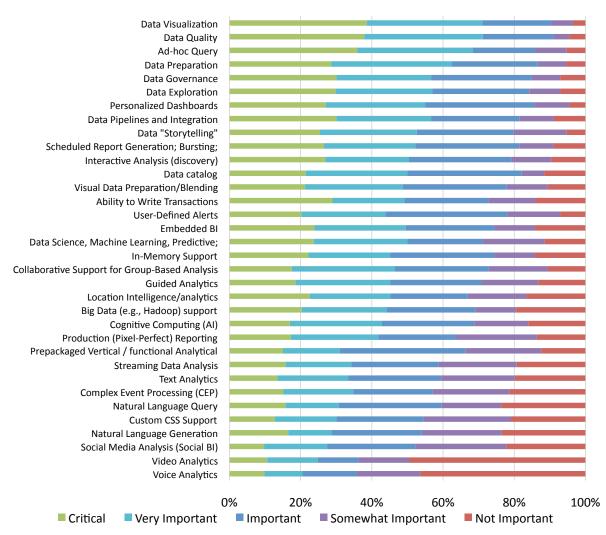


Figure 4 - Cloud BI feature requirements

Cloud BI Hosting Preferences

Cloud hosting attitudes have shifted during the last seven years of our study (fig. 5). In 2023, we observe a notable preference for *Bl/analytics software vendor proprietary hosting*, which reaches an all-time high of 46 percent. In comparison, the preference for *third-party cloud service provider* hosting has been declining since 2019 and has fallen below 20 percent for the first time in the last eight years of our study. Despite this wide gulf and trending sentiment, when combined with *no preference* scores, either hosting option can be considered viable and relevant to our user sample. (Also see cloud BI hosting preferences by geography, fig 60, p. 74)

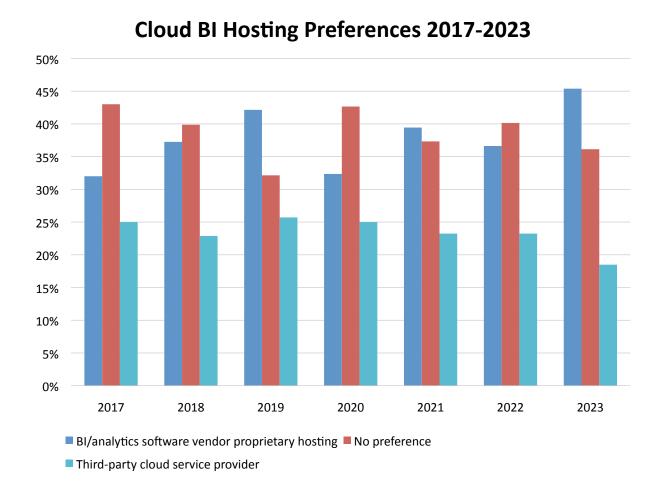


Figure 5 - Cloud BI hosting preferences 2017-2023

About Howard Dresner and Dresner Advisory Services

The Dresner Advisory Services Cloud Computing and Business Intelligence Market Study was conceived, designed, and executed by Dresner Advisory Services, LLC—an independent advisory firm—and Howard Dresner, its President, Founder and Chief Research Officer.

Howard Dresner is one of the foremost thought leaders in business intelligence and performance management, having coined the term "Business Intelligence" in 1989. He

has published two books on the subject, *The Performance Management Revolution – Business Results through Insight and Action* (John Wiley & Sons, Nov. 2007) and *Profiles in Performance – Business Intelligence Journeys and the Roadmap for Change* (John Wiley & Sons, Nov. 2009). He lectures at forums around the world and is often cited by the business and trade press.

Prior to Dresner Advisory Services, Howard served as chief strategy officer at Hyperion Solutions and was a research fellow at Gartner, where he led its business intelligence research practice for 13 years.

Howard has conducted and directed numerous in-depth primary research studies over the past two decades and is an expert in analyzing these markets.

Through the Wisdom of Crowds[®] Business Intelligence market research reports, we engage with a global community to redefine how research is created and shared.

Other research reports include:

- Wisdom of Crowds® Flagship BI Market Study
- Analytical Platforms
- Data Catalog
- Data Engineering
- Data Science and Machine Learning
- Guided Analytics
- Master Data Management (MDM)
- ModelOps
- Self-Service BI
- Workforce Planning and Analysis

You can find more information about Dresner Advisory Services at www.dresneradvisory.com.

About Jim Ericson

Jim Ericson is a Research Director with Dresner Advisory Services.

Jim has served as a consultant and journalist who studies end-user management practices and industry trending in the data and information management fields.

From 2004 to 2013 he was the editorial director at *Information Management* magazine



(formerly *DM Review*), where he created architectures for user and industry coverage for hundreds of contributors across the breadth of the data and information management industry.

As lead writer, he interviewed and profiled more than 100 CIOs, CTOs, and program directors in a program called "25 Top Information Managers." His related feature articles earned ASBPE national and regional and silver awards for Technical Article and for Case History feature writing.

A panelist, interviewer, blogger, community liaison, conference co-chair, and speaker in the data-management community, he also sponsored and co-hosted a weekly podcast in continuous production for more than five years.

Jim's earlier background as senior morning news producer at NBC/Mutual Radio Networks and as managing editor of MSNBC's first Washington, D.C. online news bureau cemented his understanding of fact-finding, topical reporting, and serving broad audiences.