April 27, 2023

Dresner Advisory Services, LLC

2023 Edition

Self-Service Business Intelligence Market Study Excerpt

Wisdom of Crowds® Series

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Definitions

Business Intelligence Defined

Business Intelligence (BI) is "knowledge gained through the access and analysis of business information."

Business Intelligence tools and technologies include query and reporting, OLAP (online analytical processing), data mining and advanced analytics, end-user tools for ad hoc query and analysis, and dashboards for performance monitoring.

Howard Dresner, *The Performance Management Revolution: Business Results Through Insight and Action* (John Wiley & Sons, 2007)

Self-Service BI Defined

Self-service BI builds upon collaborative business intelligence and user governance to create an environment where users can easily create and share insights in a managed and consistent fashion.

Collaborative Business Intelligence is a process where two or more people or organizations work together to develop a common understanding, which they share and use to build consensus in support of organizational decision-making.

Guided Analytics®

Guided Analytics® improves time to insight and action by supporting the creation of connections between related and relevant information and directing and suggesting analytical story flow.

User governance enhances the collaborative BI environment with facilities for directing content creation and sharing, thus improving information consistency and accelerating group-based decision-making.

Natural Language Analytics (NLA) uses algorithmic and semantic technology to simplify BI problems—interpreting and converting human language into data manipulation language like SQL (NLQ) and creating associated user visualizations and analyses.

Introduction

In 2023, we mark the 16th anniversary of Dresner Advisory Services. We are thankful for the support and encouragement of our clients and related communities. This has allowed us to build a stellar analyst organization and create world-class market research focused exclusively upon data, analytics, business intelligence, performance management, and associated topics.

Last year, in support of our members, we published over 3,500 pages of independent and objective primary research across 20 different Flagship and thematic market reports, 50 Research Insights (thought leadership articles), and 55 Vendor Insights reports. As in previous years, we remain committed to creating the most in-depth and relevant research available for these domains.

Self-service remains an important topic for organizations seeking to better leverage both information resources and scarce human experts to drive improved group-based decision making in a governed fashion.

We thank our clients, colleagues, and community members for their support, which helps us to develop this important research. We look forward to hearing from you after you explore the study findings within.

We hope you enjoy this report!

Best,

Chief Research Officer
Dresner Advisory Services

About Howard Dresner and Dresner Advisory Services

The Dresner Advisory Services Self-Service 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:

Other research reports include:

- Wisdom of Crowds® Flagship BI Market Study
- Analytical Platforms
- Cloud Computing and BI
- Data Catalog
- Data Engineering
- Embedded BI
- Master Data Management (MDM)
- ModelOps
- 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 bronze and multiple Mid-Atlantic region gold 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.

Executive Summary

- End-user self-service ranks 11th of 59 technologies and initiatives strategic to business intelligence. Fifty-seven percent say self-service BI is *critical* or *very important.* Self-service success correlates to success with BI; only 25 percent are *very successful* delivering self-service BI. Industry importance sentiment is high, and feature support for independent users is broad and incomplete.
- The most popular collaboration method is *virtual meetings*.
- Collaborative BI is at a plateau of all-time-high sustained interest, consistently near a level of *very important.* Industry sentiment is at a sustained high level greater than *very important*.
- Multiple BI collaboration features are important to users. The top feature requirements are *search and navigation* and *share content and commentary*. Industry support for content co-creation and sharing is robust.
- Enterprise collaborative frameworks gather all-time-high importance. Top features include *ability to reference and search* and *extended sharing.* The top user frameworks are Microsoft Teams and SharePoint. Industry feature support is mixed; the most-supported frameworks are Slack, Microsoft Teams, and SharePoint.
- Governance of content creation and sharing is a sustained *very important* topic driving BI across functions, geographies, and industries. *Role/policy-based access control*, *defined levels of access to shared documents*, and *data and integration with access/identity management systems* are *critical or very important* to a majority of users. Industry importance of governance is very high, with robust support for user requirements.
- Guided Analytics is at least *important* to 72 percent of users across function, industry and geography, and gathers importance with organization size. The top authoring feature is *flexible, customizable authoring/content creation.* The top user features are *anomaly identification*, *user interaction with visual/analytical objects workflow*, and *search/navigate/recommend available guides*. Industry support is well ahead of current user requirements.
- Natural language analytics is at least *important* to 61 percent of users. Current NLA use is 26 percent. Importance and use increases with organization size. Industry support for NLA features and analytics is strong.
- Self-service vendors are rated.

Study Demographics

Study participants provide a cross-section of data across geographies, functions, organization sizes, and vertical industries. We believe that, unlike other industry research, this supports a more representative sample and better indicator of true market dynamics. We constructed cross-tab analyses using these demographics to identify and illustrate important industry trends.

Geography

In our 2023 study, North America, which includes the United States, Canada, and Puerto Rico, represents the largest group (53 percent) of respondents, followed by EMEA (24 percent). Asia Pacific and Latin America account for the balance of respondents (fig. 1).

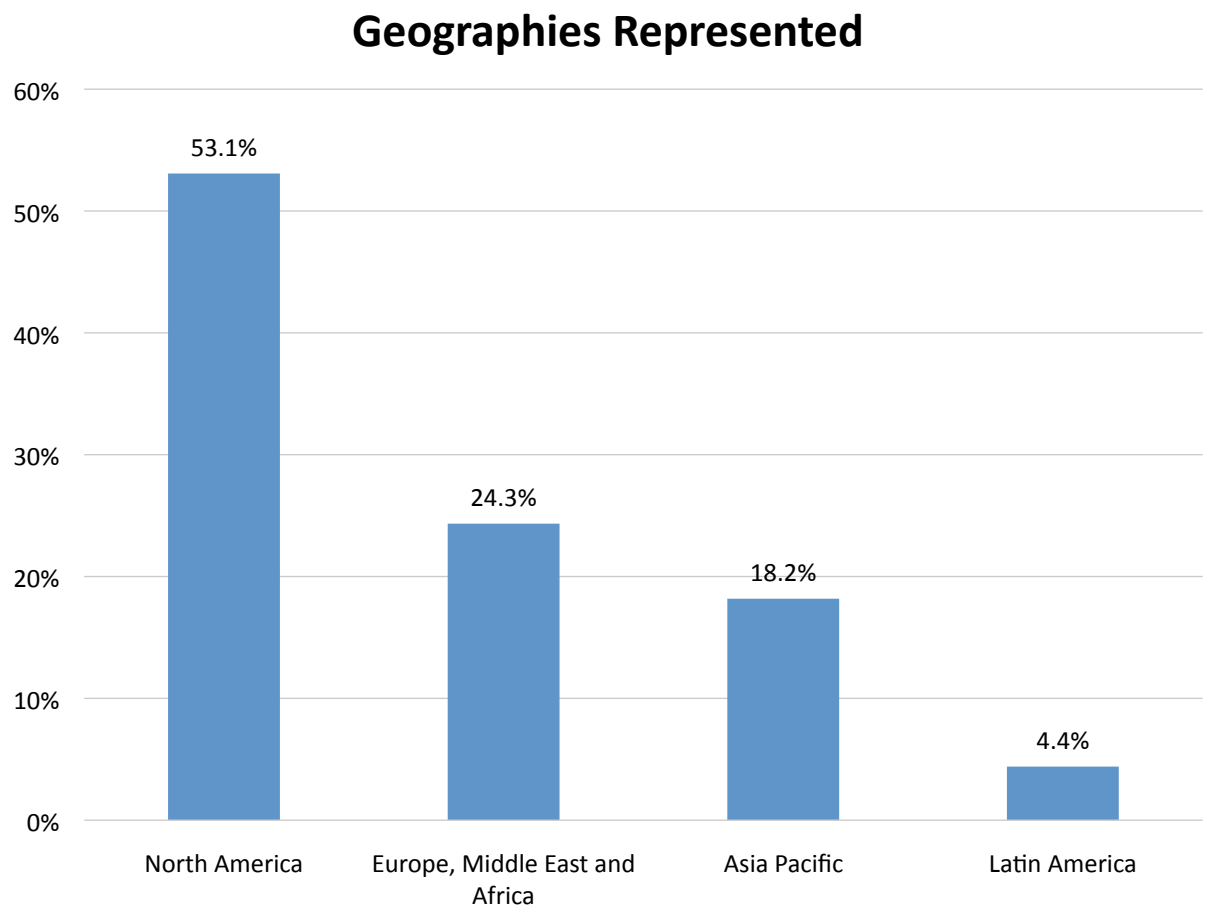

Figure 1 – Geographies represented

Functions

In 2023, *IT* respondents account for about 35 percent of our sample, followed by *executive management* (18 percent), and *finance* (17 percent) (fig. 2). Tabulating results across functions helps us develop analyses that reflect the differences and influence of different departments within organizations.

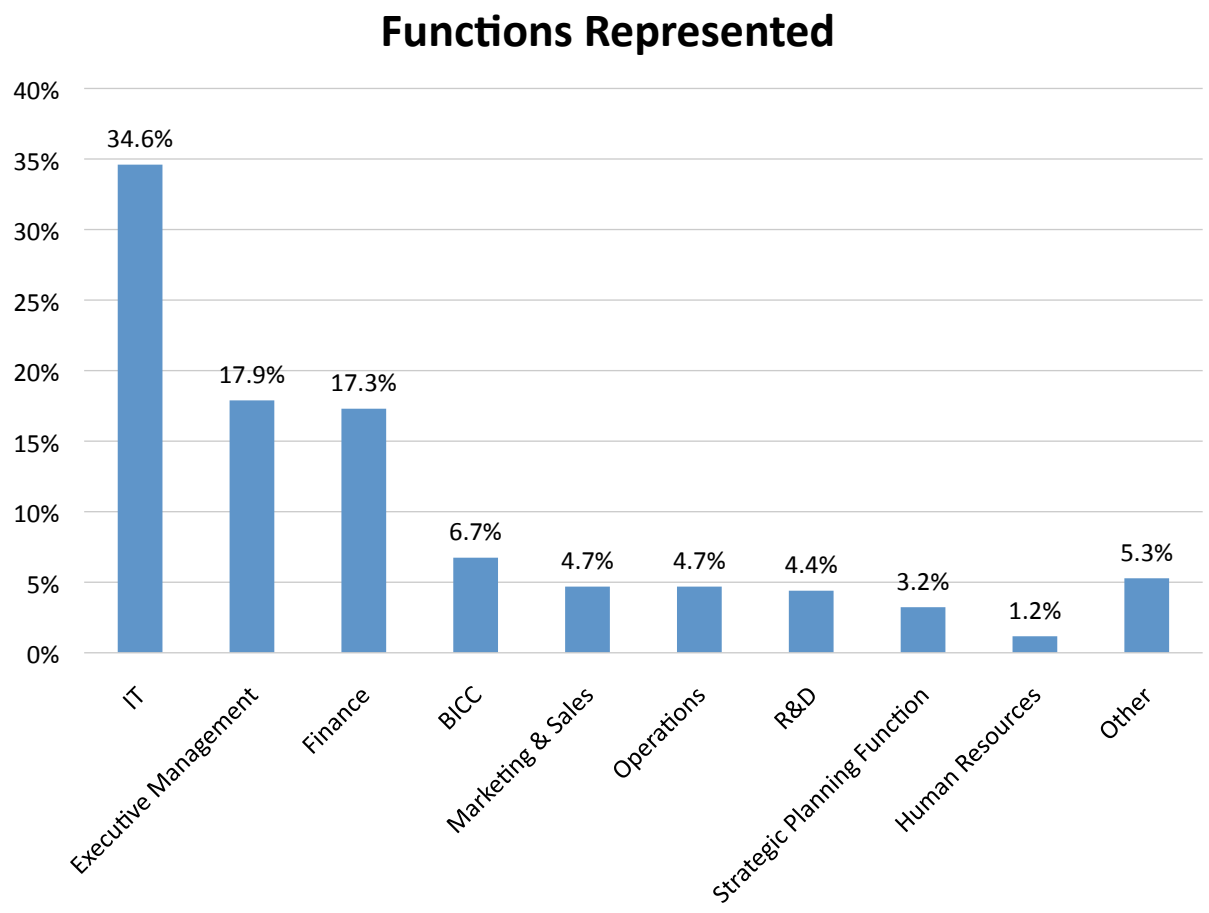

Figure 2 – Functions represented

Vertical Industries

In our 2023 study, *business services* leads vertical industry distribution (25 percent), followed by *technology* (16 percent), *manufacturing* (14 percent), and *financial services* (14 percent) (fig. 3). *Financial services, healthcare*, and *consumer services* are the next most represented.

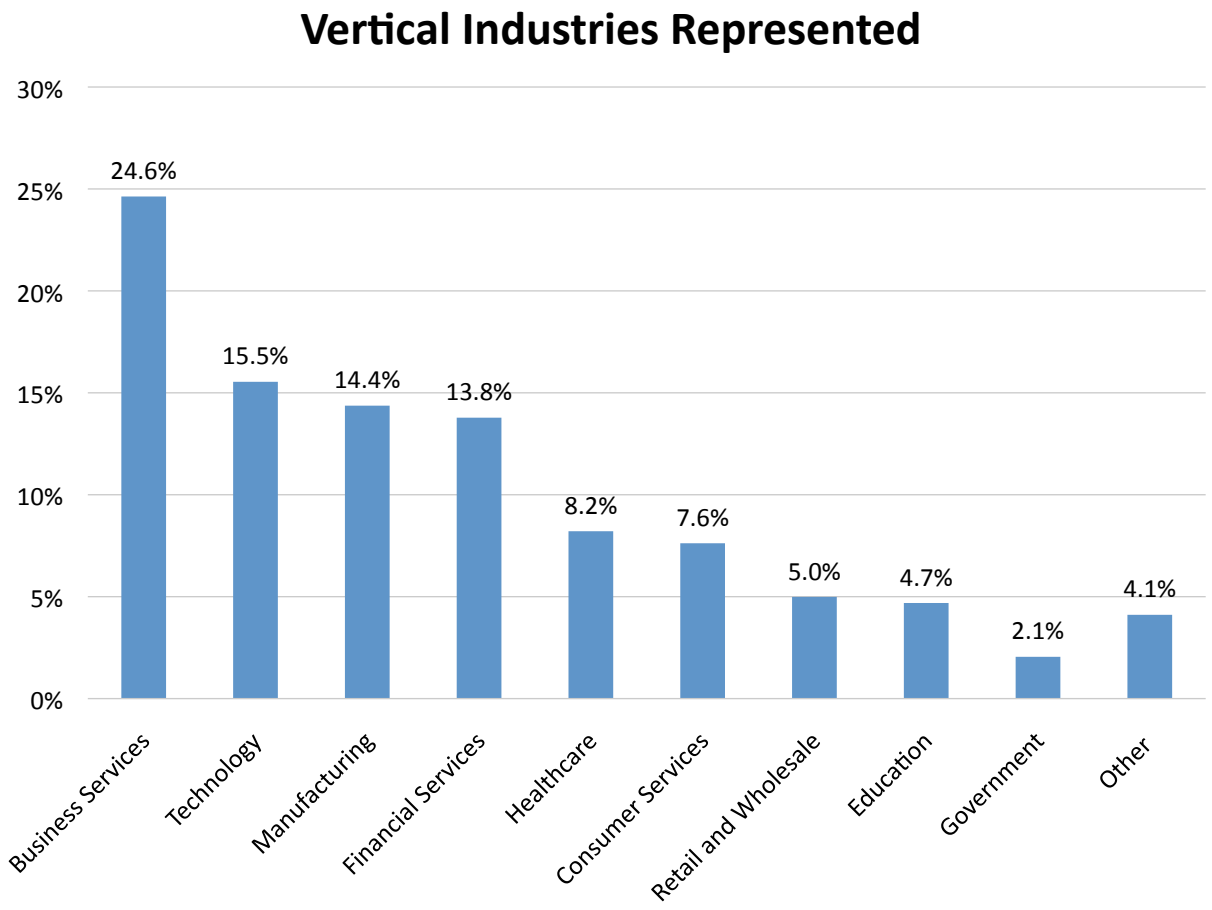

Figure 3 – Vertical industries represented

Organization Size

In 2023, our study base includes a balance of small organizations (1-100 employees), mid-sized organizations (101-1,000 employees), and large organizations (>1,000 employees) (fig. 4). This year, small organizations account for about 26 percent of our sample, mid-sized organizations account for 25 percent, and the remaining 49 percent or so of respondents are from large organizations.

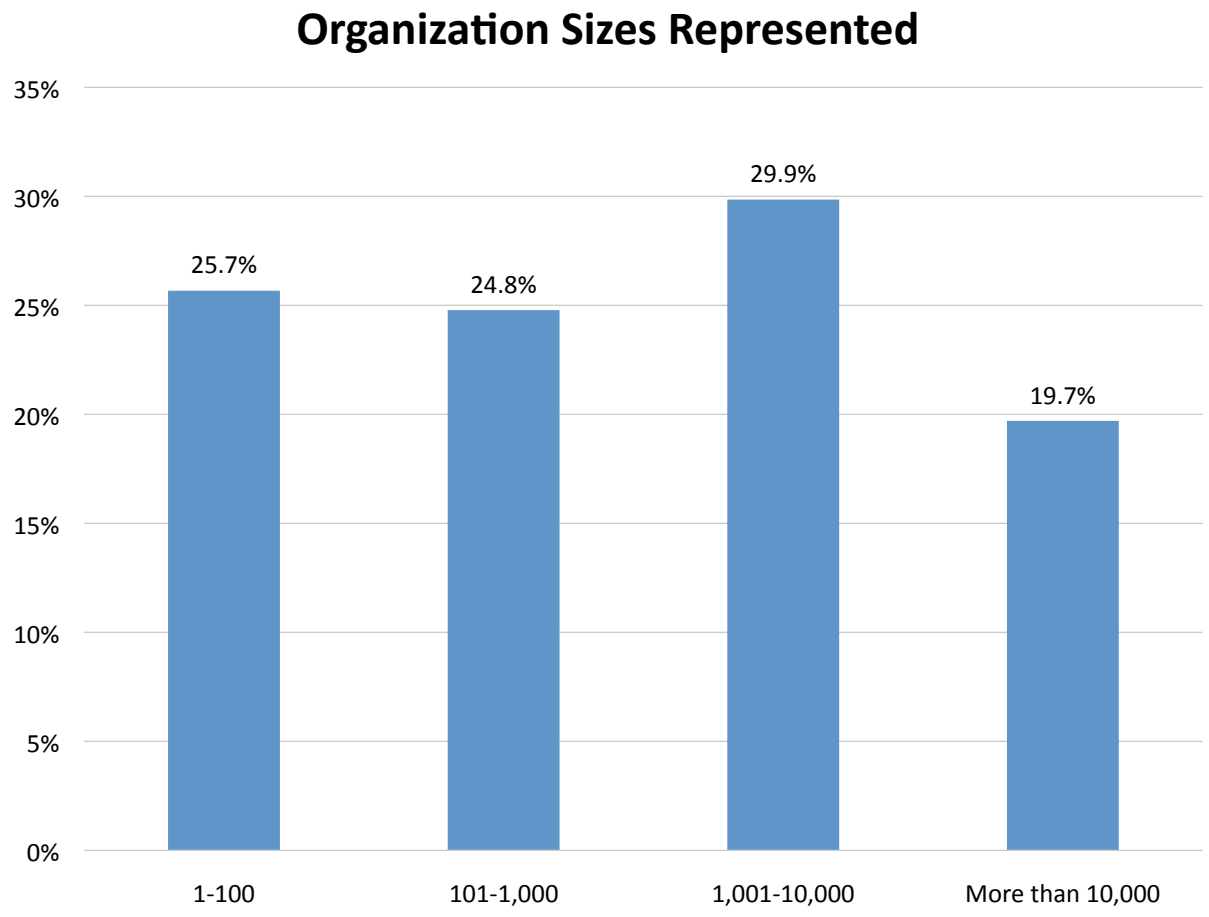

Figure 4 – Organization sizes represented

Importance of Self-Service Business Intelligence

End-user self-service ranks 11th of 59 technologies and initiatives strategic to business intelligence in our 2023 survey (fig. 5).

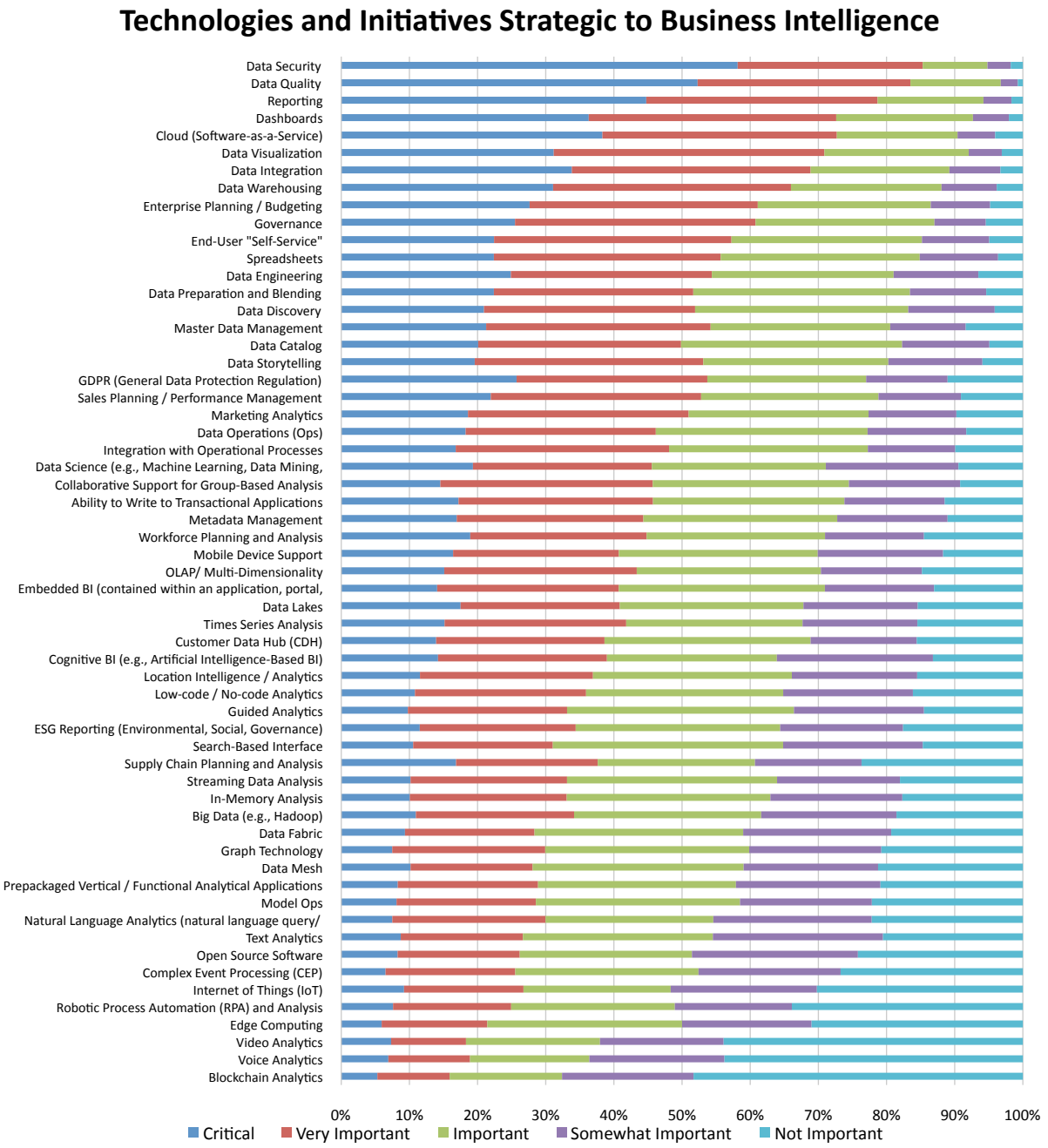

Figure 5 – Technologies and initiatives strategic to business intelligence

Self-Service BI Importance 2017-2022

We asked respondents, “How important is sharing business intelligence and analytical content in a group-based decision-making process?” In our 2023 study, 57 percent of the sample considers self-service BI *critical* or *very important* (fig. 6). This reflects a decrease from 62 percent in 2022. Weighted-mean importance dipped only slightly year over year from 3.7 to the 2023 3.6 measure (also seen in 2021). All measures by weighted mean from 2017-2022 fall into this narrow 3.6-3.7 range, a remarkably steady value well above *important* and approaching *very important*. During the last six years of our study going back to 2018, just 5 percent or fewer respondents say end-user self-service is *not important.*

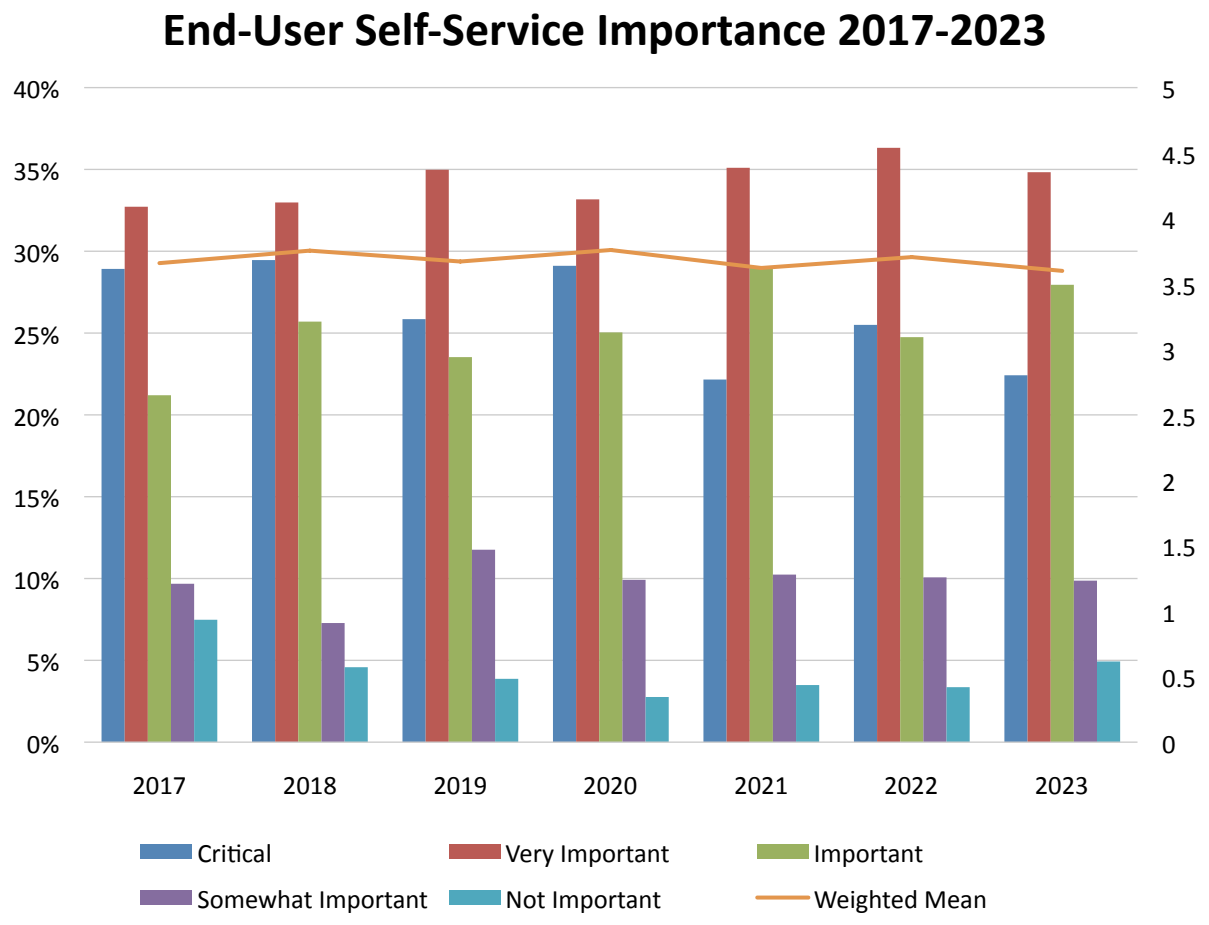

Figure 6 – End user self-service BI importance 2017-2023

The importance of end-user self-service gradually increases with organization size in 2023, a finding that seems predictable when "democratizing" scale and scope of user constituencies and communities (fig. 7). Self-service importance is highest (3.8, or near *very important*) in very large (>10,000 employees) and large (1,001-10,000 employees) organizations. Weighted-mean importance decreases to 3.5 (midway between *important* and *very important*) in midsized organizations (101-1,000 employees) and further to 3.4 in small organizations (1-100 employees). Though organization size influences importance, organizations of every size report that self-service is of greater than *important* value.

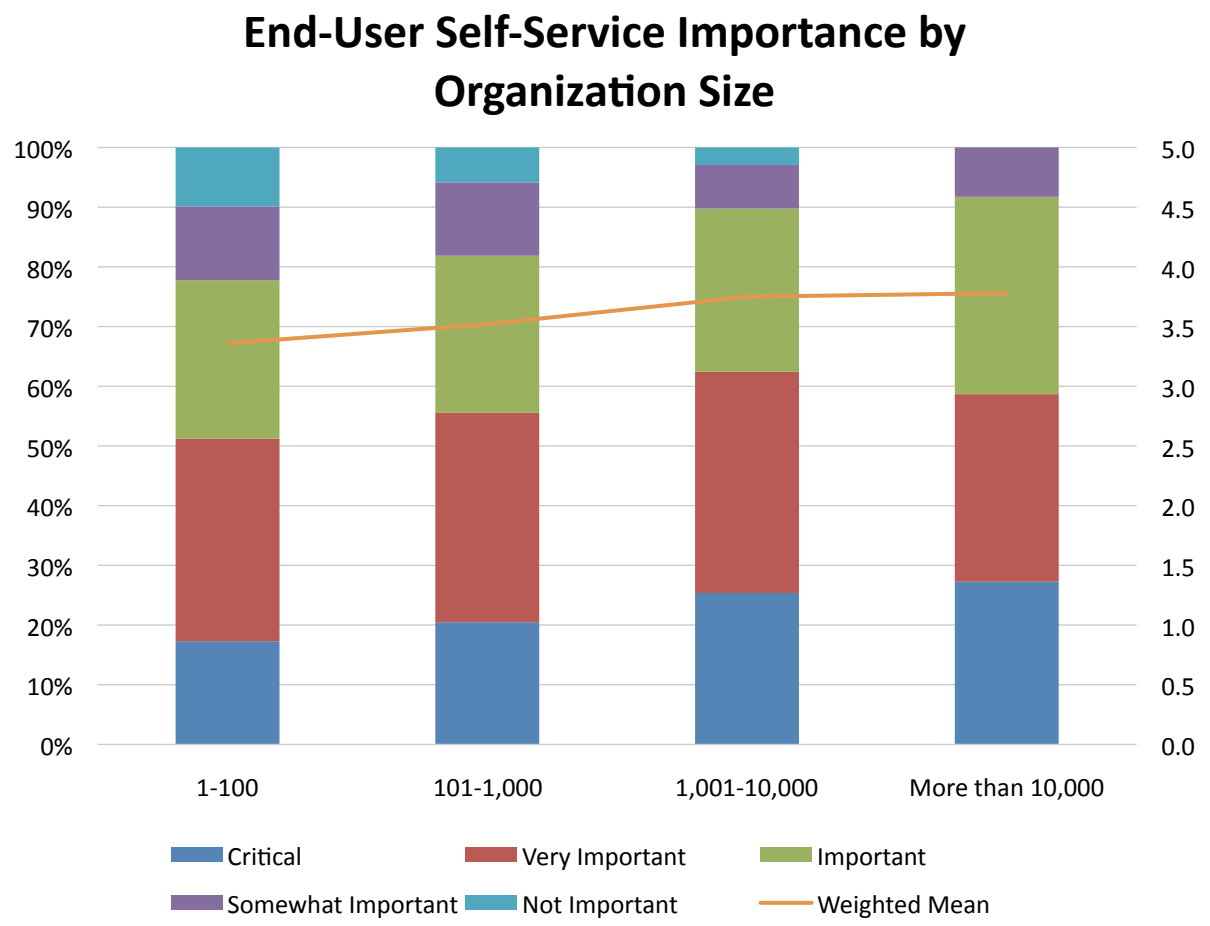

Figure 7 – End user self-service importance by organization size

The perceived importance of end-user self-service correlates directly and positively to success with BI in 2023 (fig. 8). Organizations that are *completely successful* with BI are 75 percent likely to say self-service is *critical* or *very important*, compared to 56 percent in *somewhat successful* and 48 percent in *somewhat unsuccessful* and *unsuccessful* organizations. A quarter of *somewhat unsuccessful* and *unsuccessful* organizations report that end-user self-service is only *somewhat important* or *not important*.

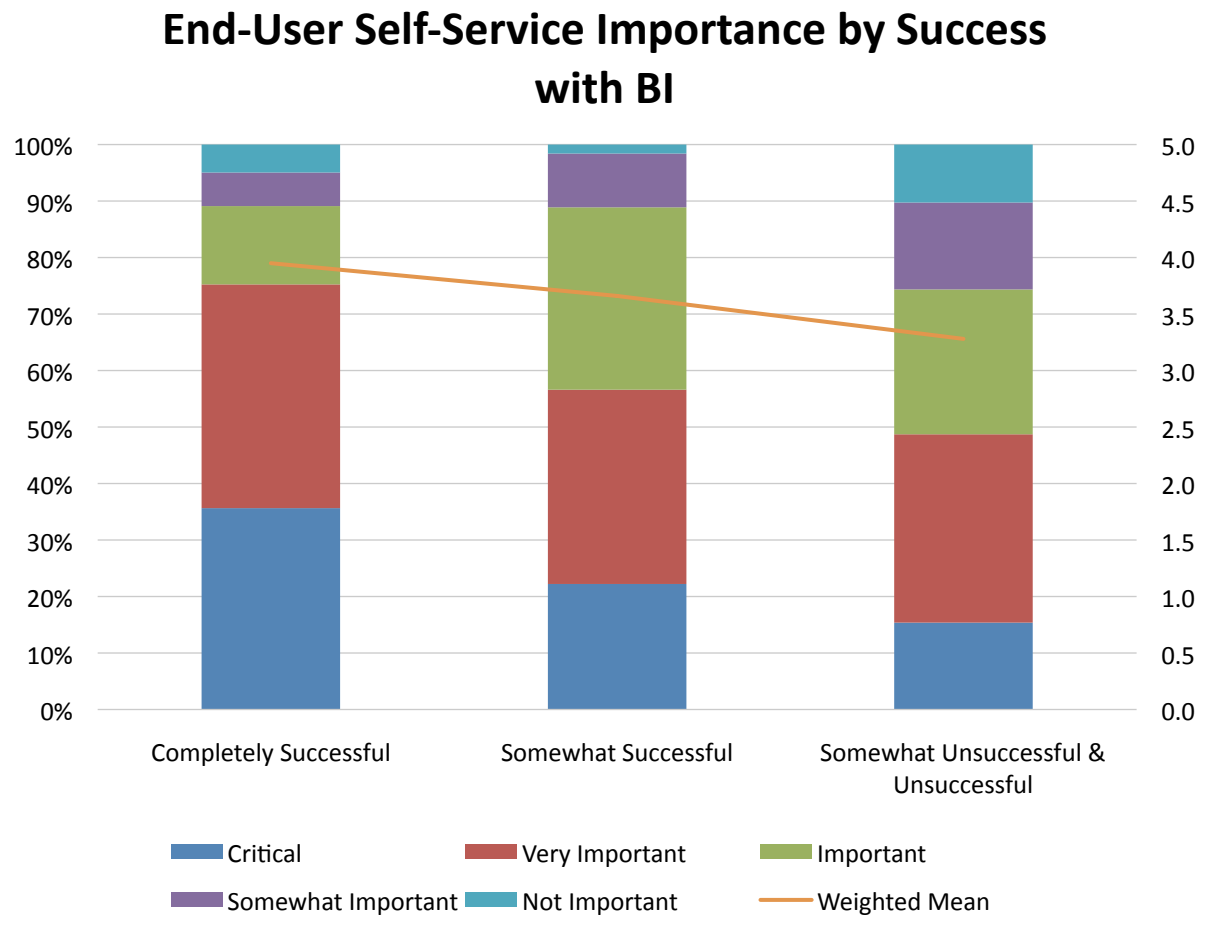

Figure 8 – End user self-service BI importance by success with BI

Success in Delivering Self-Service BI

New for 2023, we asked respondents, “Have you delivered self-service business intelligence (BI) in your organizations?” Twenty-five percent report they have been *very successful*, compared to 54 percent who say *moderately successful*, and 5 percent who say *unsuccessful* (fig. 9). The remaining 16 percent either have *future plans* or *no plans* for end-user self-service BI. Thus, while more than 90 percent have or will deploy self-service BI in their organization, just one-quarter say they are *very successful* with the endeavor.

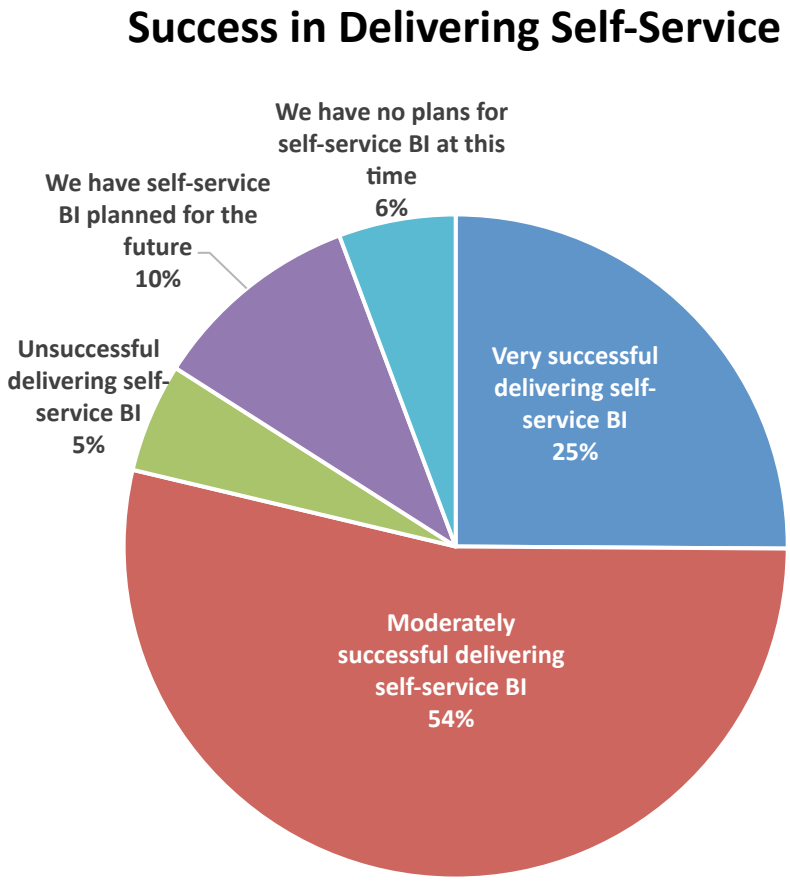

Figure 9 – Success in delivering self-service BI

In 2023, success in delivering self-service BI correlates positively to increasing organization size (fig. 10). This finding would appear to be another reflection of the benefits of scale we reported in the importance of end-user self-service (fig. 7, p. 21). Most significantly, 92 percent of very large organizations (> 10,000 employees) report that they are *very successful* or *moderately successful* delivering self-service BI. This same metric recurs in 78 percent of large (1,001-10,000 employees), 81 percent of midsized (101-1,000 employees), and 68 percent of small (1-100 employees) organizations.

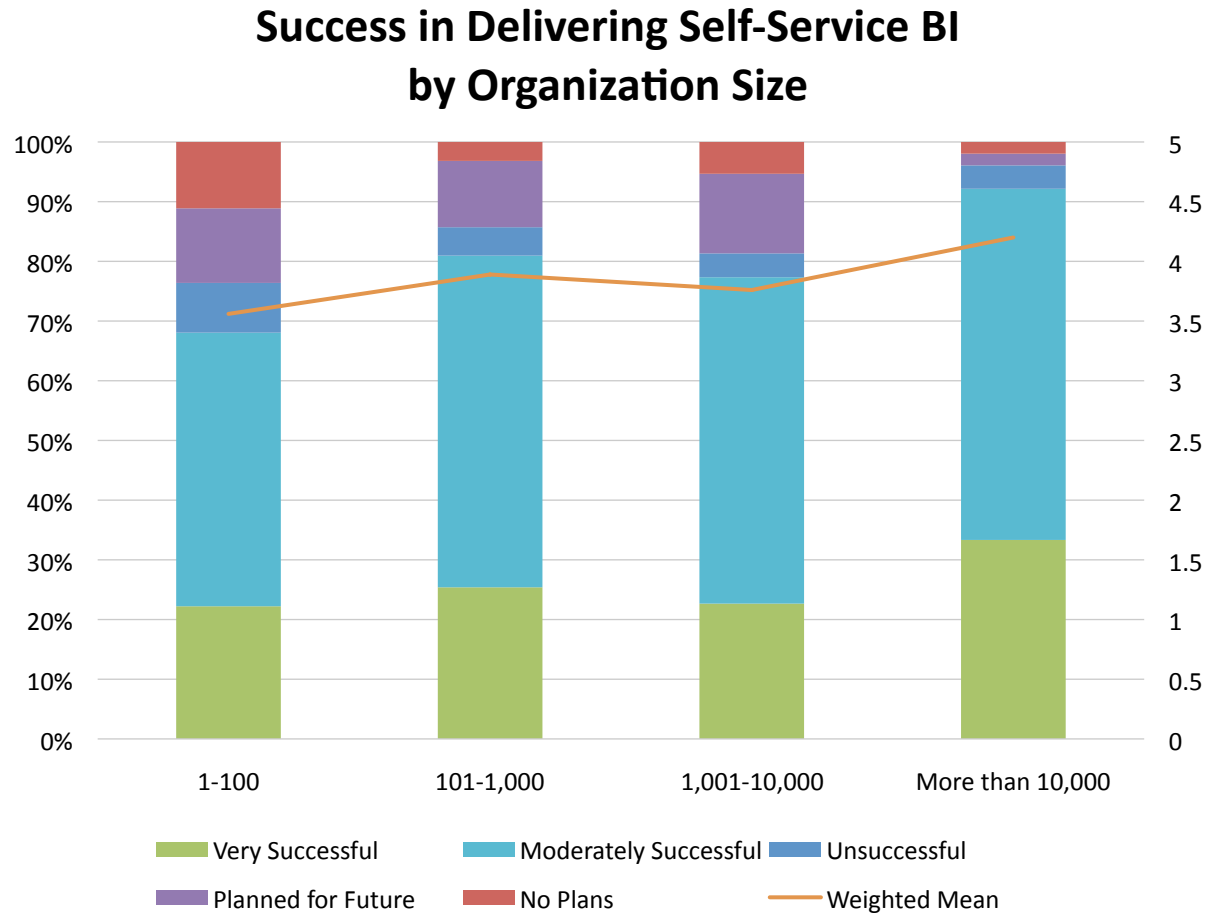

Figure 10 – Success in delivering self-service BI by organization size

Success in delivering self-service BI correlates very powerfully with success with BI in 2023 (fig. 11). Organizations that are *completely successful* with BI are 50 percent likely to say they are *very successful* with delivering self-service BI. This same critical metric is found in just 15 percent of *somewhat successful* BI organizations, and in just 5 percent of *somewhat unsuccessful* and *unsuccessful* BI organizations. About 45 percent of *somewhat unsuccessful* and *unsuccessful* BI organizations have been *unsuccessful with self-service,* have *future plans* or *no plans* for end-user self-service, which is a far higher incidence than in more successful BI organizations (12-21 percent).

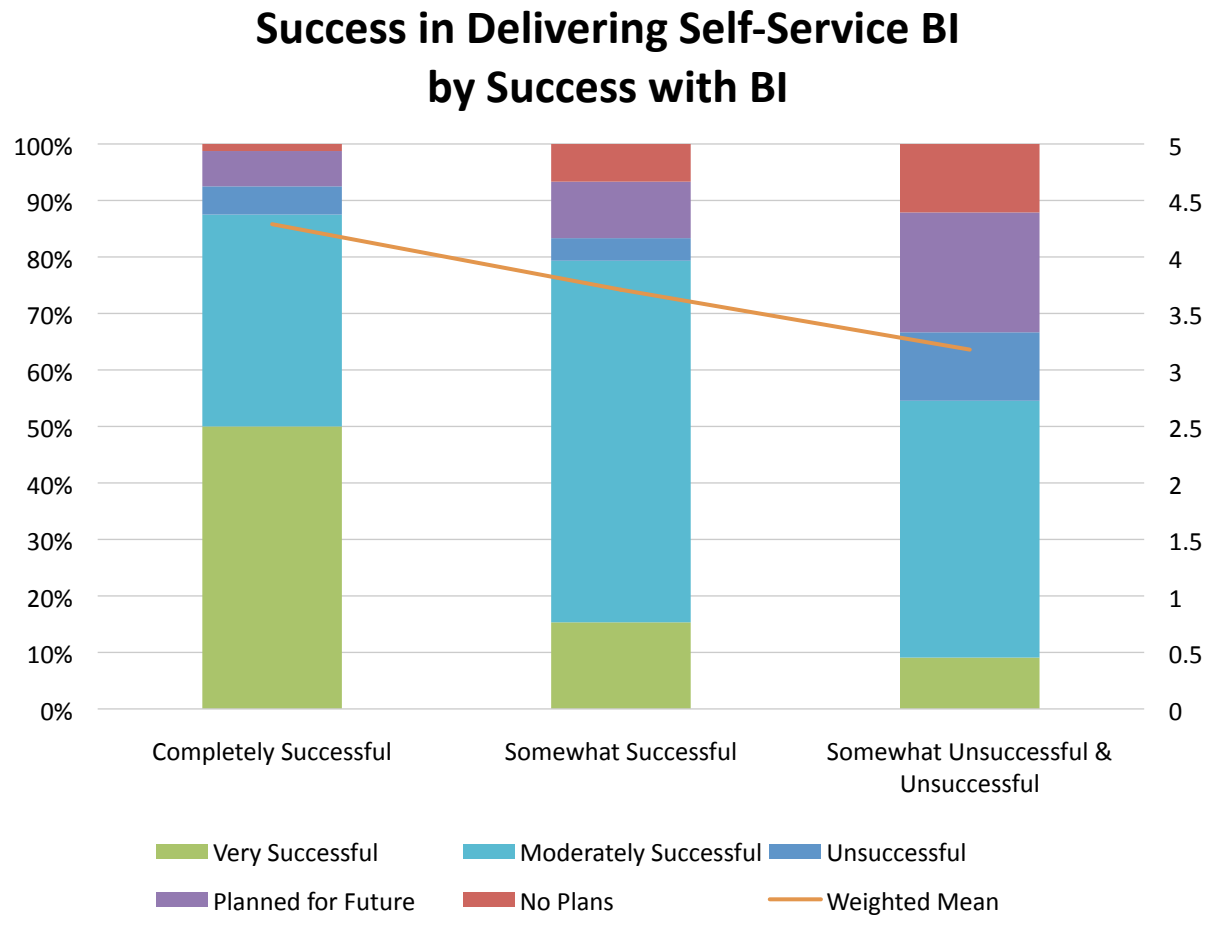

Figure 11 – Success in delivering self-service BI by success with BI

Importance of Collaborative BI

Collaborative BI reached a plateau of high and sustained interest, particularly during the last five years (2019-2023) of our study (fig. 12). We saw a notable upward spike in this trend in 2016, and steady high importance in the years since makes collaborative BI a consistently relevant topic. Collaborative BI importance stands at a weighted-mean value of 3.9 in 2023, a value signifying close to *very important* and matching the previous high in 2019. Combined scores of *critical* and *very important* also narrowly mark an all-time high of 73 percent in 2023; fewer than 10 percent say collaborative BI is only *somewhat important* or *not important*.

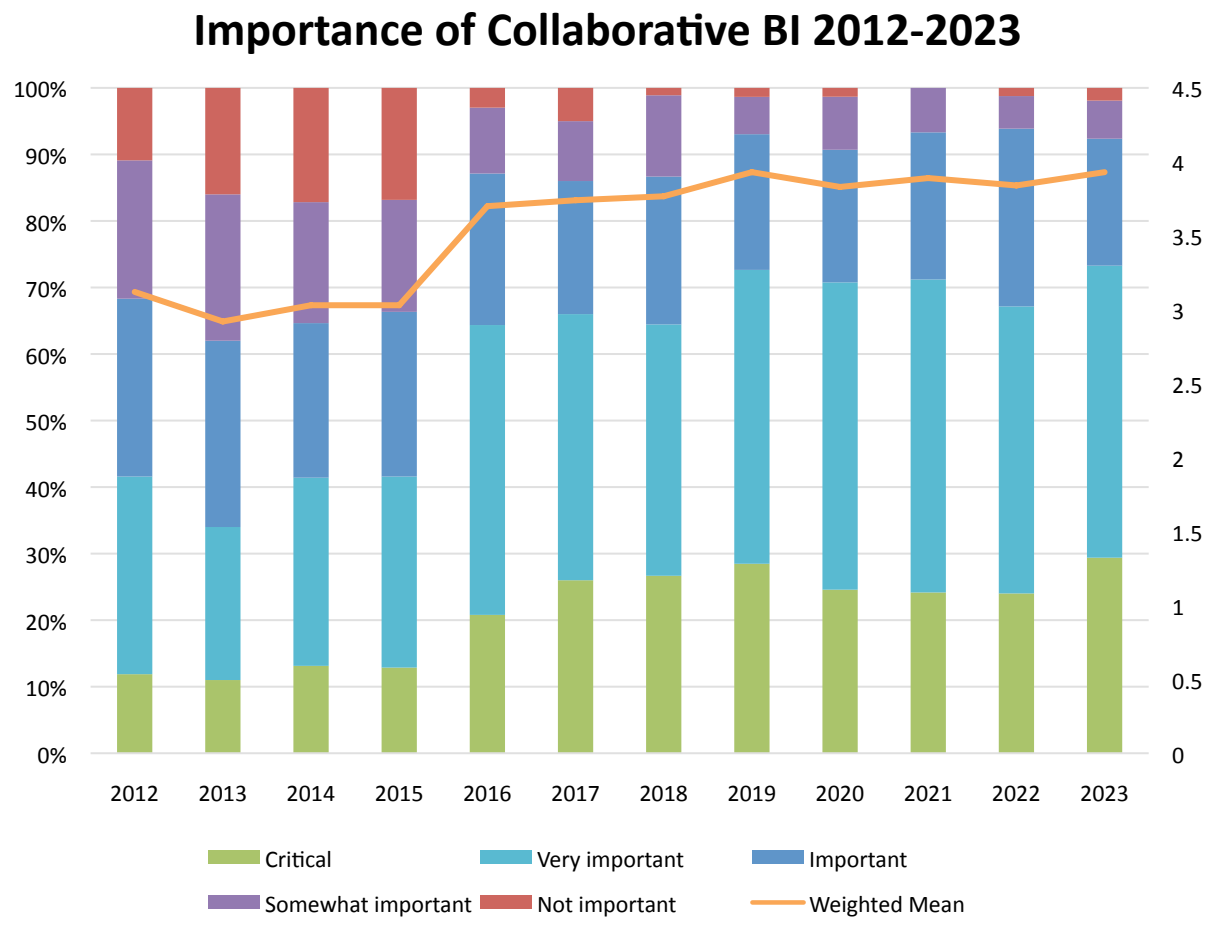

Figure 12 – Importance of collaborative BI 2012-2023

Governing BI Content Creation and Sharing

In 2023 and for an eighth consecutive year, governance of content creation and sharing is a *very important* topic driving BI in the self-service landscape (fig. 13). Criticality increased slightly this year, from a weighted mean of 4.0 in 2022 to 4.1 in 2023. This rather steady range of importance applies consistently to every year since 2017, with no annual score below the 4.0 *very important* level. In all the last seven years, no more than 7 percent of respondents say that governance of content creation is only *somewhat important* or *not important*.

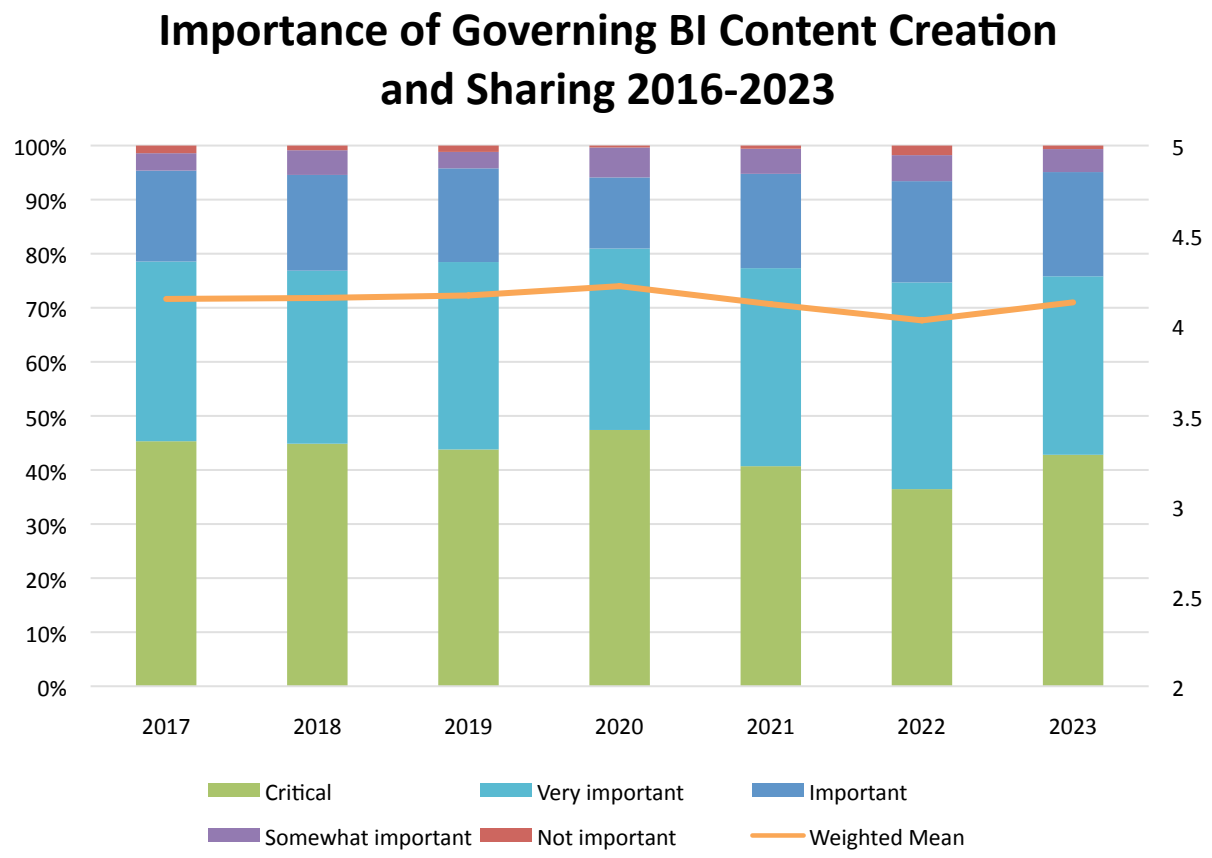

Figure 12 – Importance of governing BI content creation and sharing 2016-2023

Respondents in 2023 broadly identify with the high importance of governing BI content creation across all organizational roles and functions (fig. 14). The highest number of *critical* scores comes from respondents in the *BICC* (67 percent), followed by *IT* (49 percent). *Finance, executive management, operations*, and *marketing and sales* all report about 40 percent *critical* scores, ahead of *operations* (38 percent), *R&D* (29 percent), and *strategic planning* (20 percent). *Marketing and sales* again reports a compartmentalized interest in the importance of governing BI content, with robust critical scores, but also reports a below-average weighted mean sentiment.

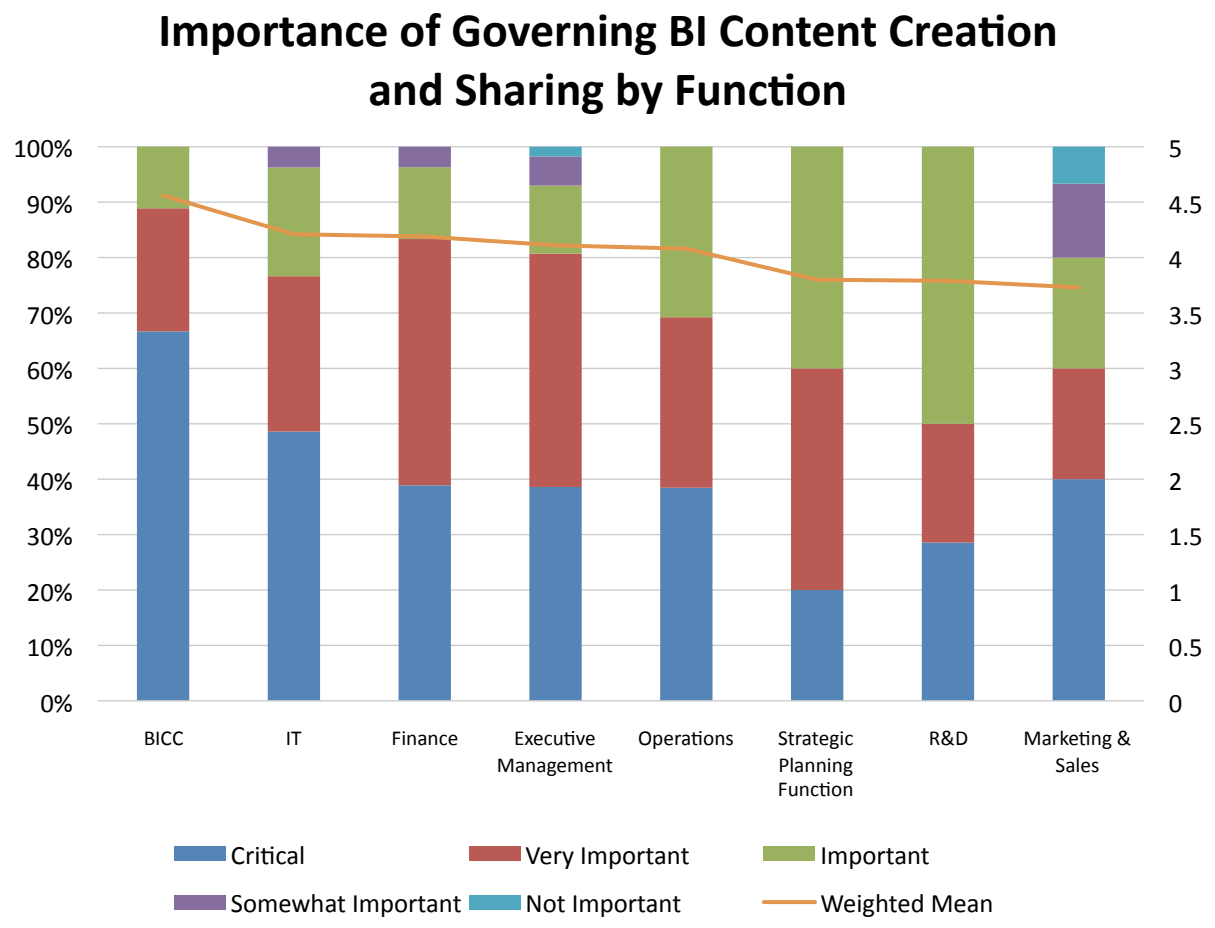

Figure 14 – Importance of governing BI content creation and sharing by function

The perceived importance of governing BI content creation is equal to *very important* or greater across organizations of different sizes in 2023 (weighted mean 4.2-4.3) and increases slightly with increasing global headcount (fig. 15). This year, organization scale and scope likely play a role in the perceived importance of BI content governance. Small organizations (1-100 employees) are least likely (38 percent) to say governance of content creation and sharing is *critical*, compared to about 43-47 percent at larger peer groups. Large organizations (1,001-10,000 employees) and very large organizations (more than 10,000 employees) are most likely (96 percent) to say content creation governance is at least *important*.

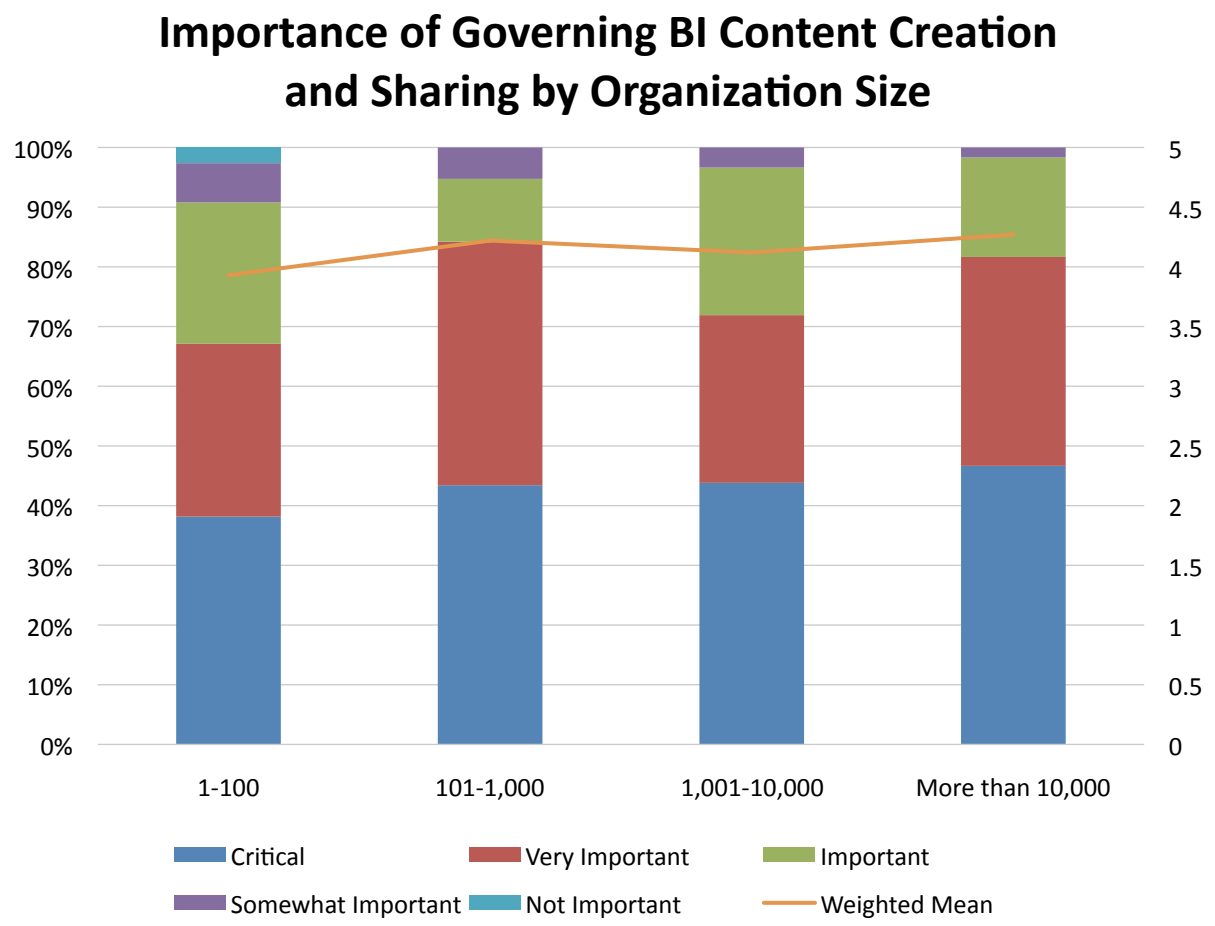

Figure 13 – Importance of governing BI content creation and sharing by organization size

The perceived weighted-mean importance of governing BI content creation is highest in *financial services*, *retail and wholesale*, and *government* (4.3-4.4, or well greater than *very important*) (fig. 16). Interest thereafter declines only slightly to 4.0-4.2 in all industries except *education* (3.9). Critical interest is highest in *retail and wholesale* (64 percent), followed by *government* (57 percent) and *financial services* (53 percent). In total, the criticality of content creation governance in 2023 is undeniably high, in the range of *very important* or greater across all industries.

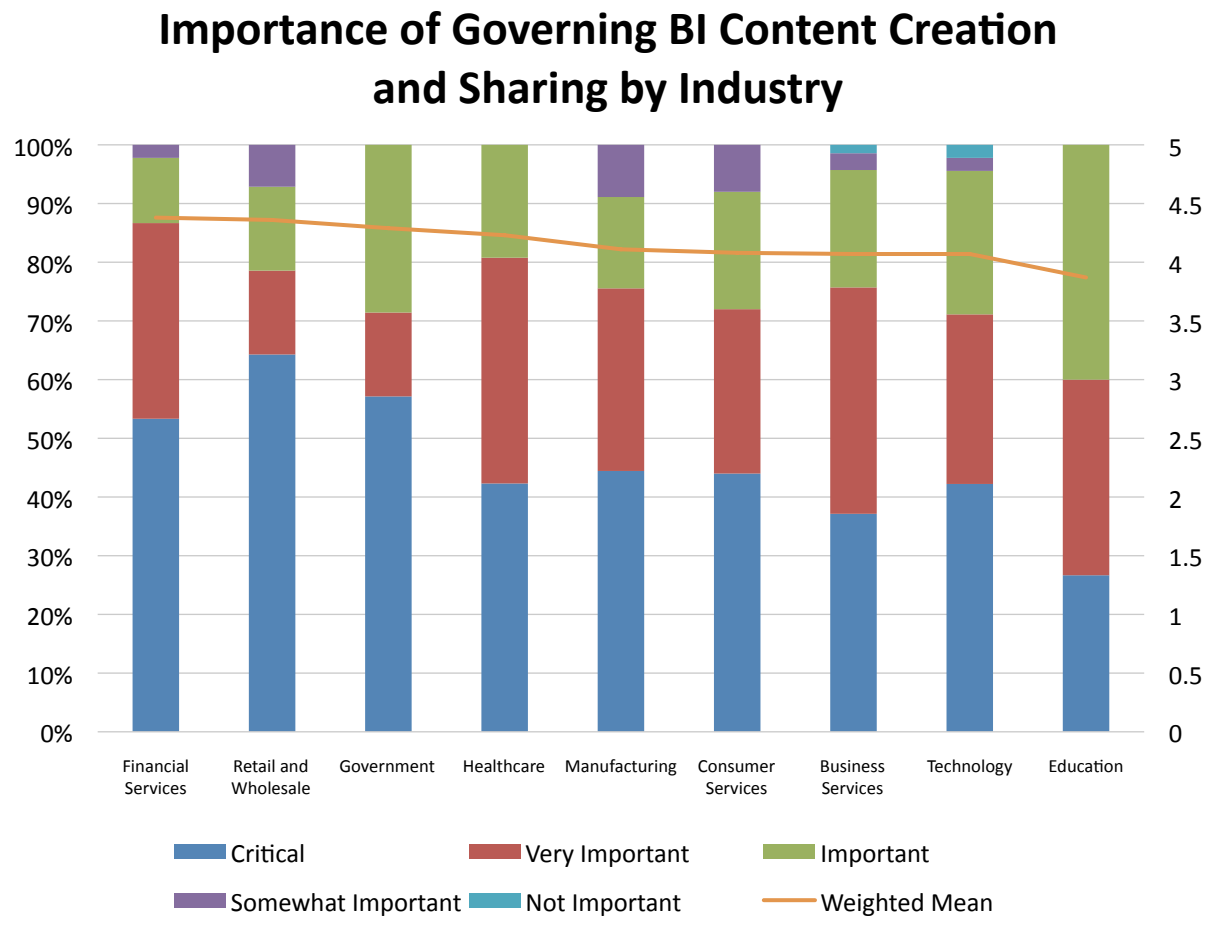

Figure 16 – Importance of governing BI content creation and sharing by industry

The importance of content creation governance stands in a rather steady weighted-mean range of 4.0-4.2 (*very important*) across geographies (fig. 17). This year, overall sentiment by measure of combined *critical* and *very important* scores in North America (79 percent) and Asia Pacific (75 percent) is slightly higher than in EMEA (72 percent) and Latin America (67 percent). Even so, *critical* sentiment in Latin America stands at a sector high 50 percent, an example of the compartmentalized interest in content governance within regions and unique organizations.

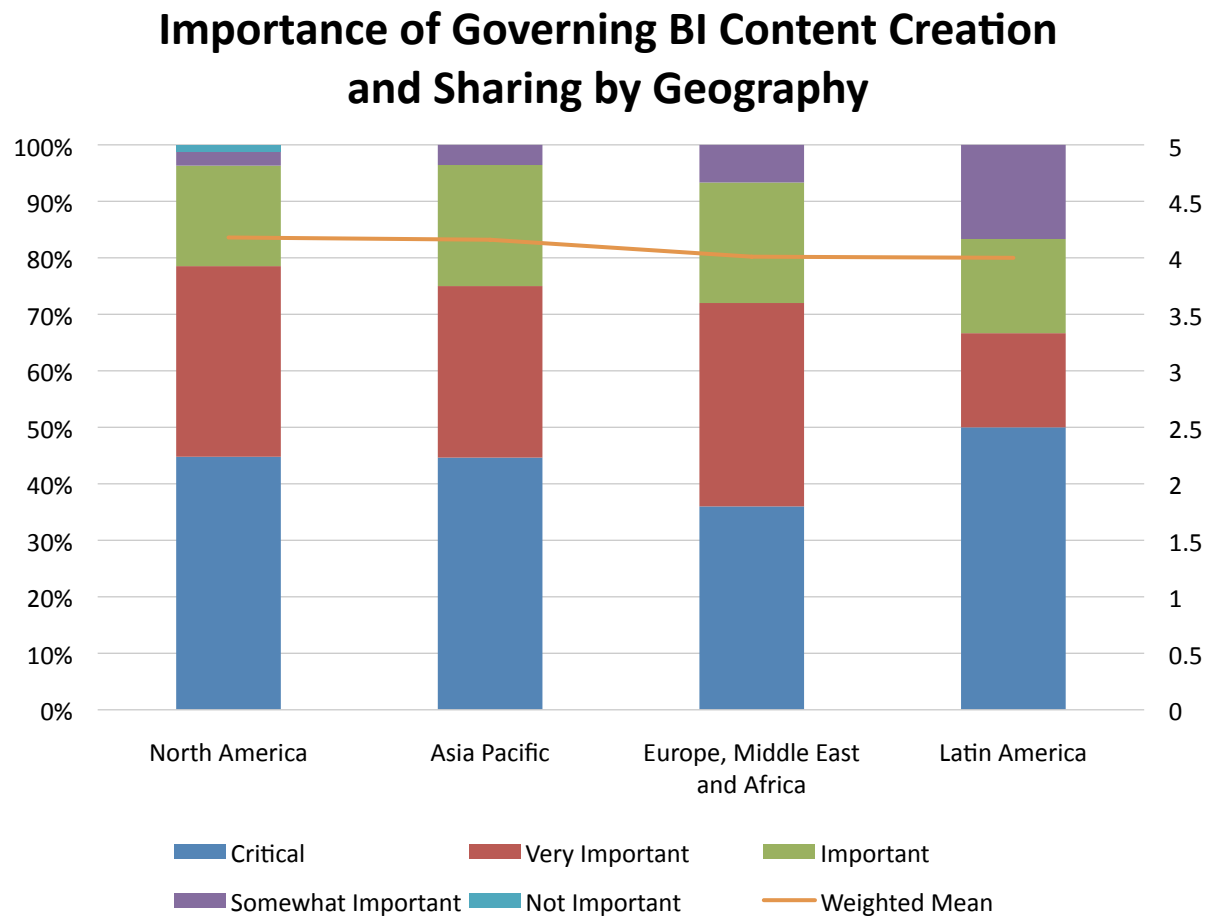

Figure 14 – Importance of governing BI content creation and sharing by geography

Governance Features

We asked respondents to describe the importance of 10 different BI content governance features and found broad appeal in our 2023 sample (fig. 18). As befits control of content creation specifically, the top three features, *role-based and policy-based access control*, *define levels of access to shared documents, data etc.*, and *integration with access/identity management systems*, are either *critical* or *very important* to about 57-61 percent of respondents. *Administrative oversight of user-defined groups*, *support for lineage and impact analysis*, *ability to certify official versions*, and *APIs available* are the next most important. All but one feature, *content check in/out*, are *critical* or *very important* to close to or more than half of respondents, and all 10 features are at least *important* to about 80 percent or far more respondents.

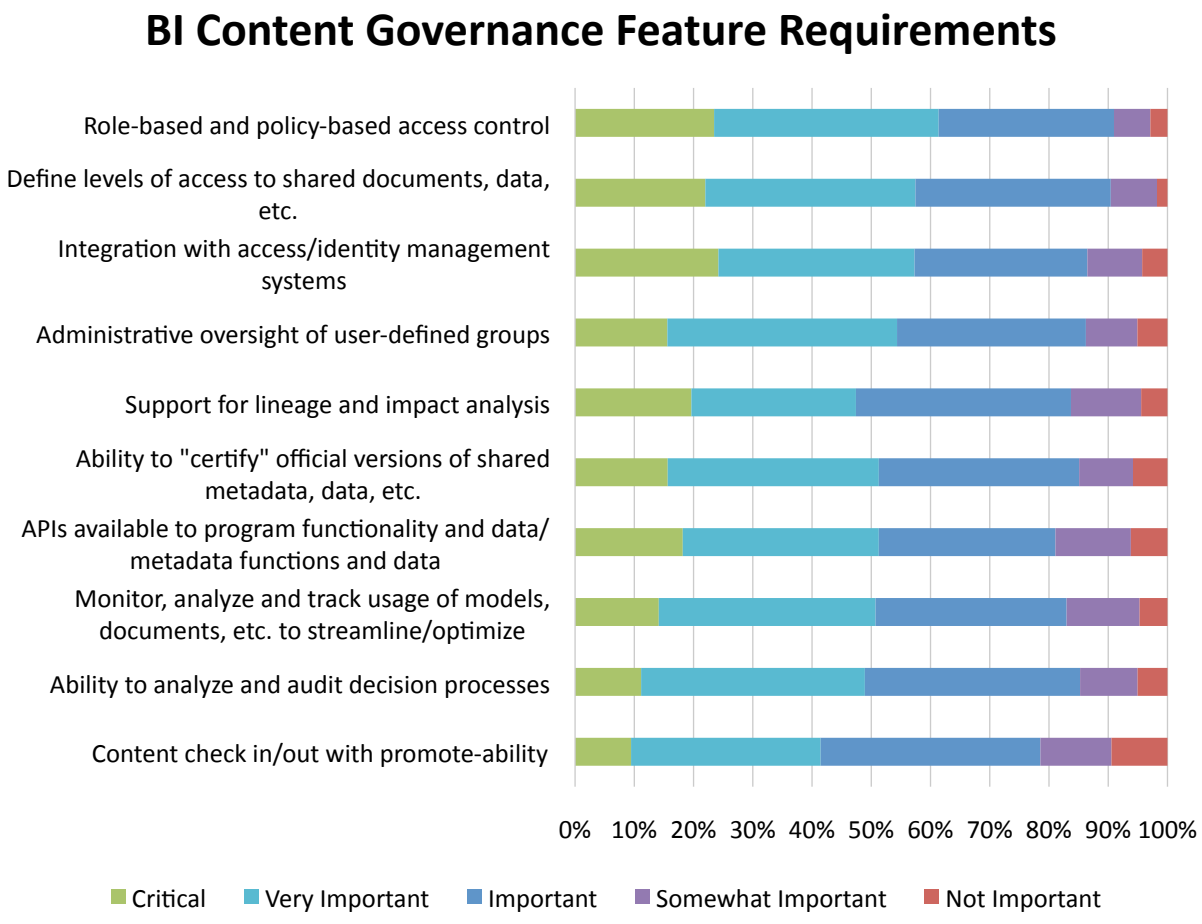

Figure 18 – BI content governance feature requirements

Multiple BI content governance feature requirements remain consistently important, and nearly all gather some importance in our latest 2023 study (fig. 19). The top two features, *role-based and policy-based access control*, and *define levels of access*, are most clustered and consistently important across the last five years. Several features are at or near all-time high importance in 2023, including *define levels of access to shared documents*, *integration with access/identity management systems*, *ability to certify official versions*, *support for lineage and impact analysis*, and *ability to analyze and audit decision processes*.

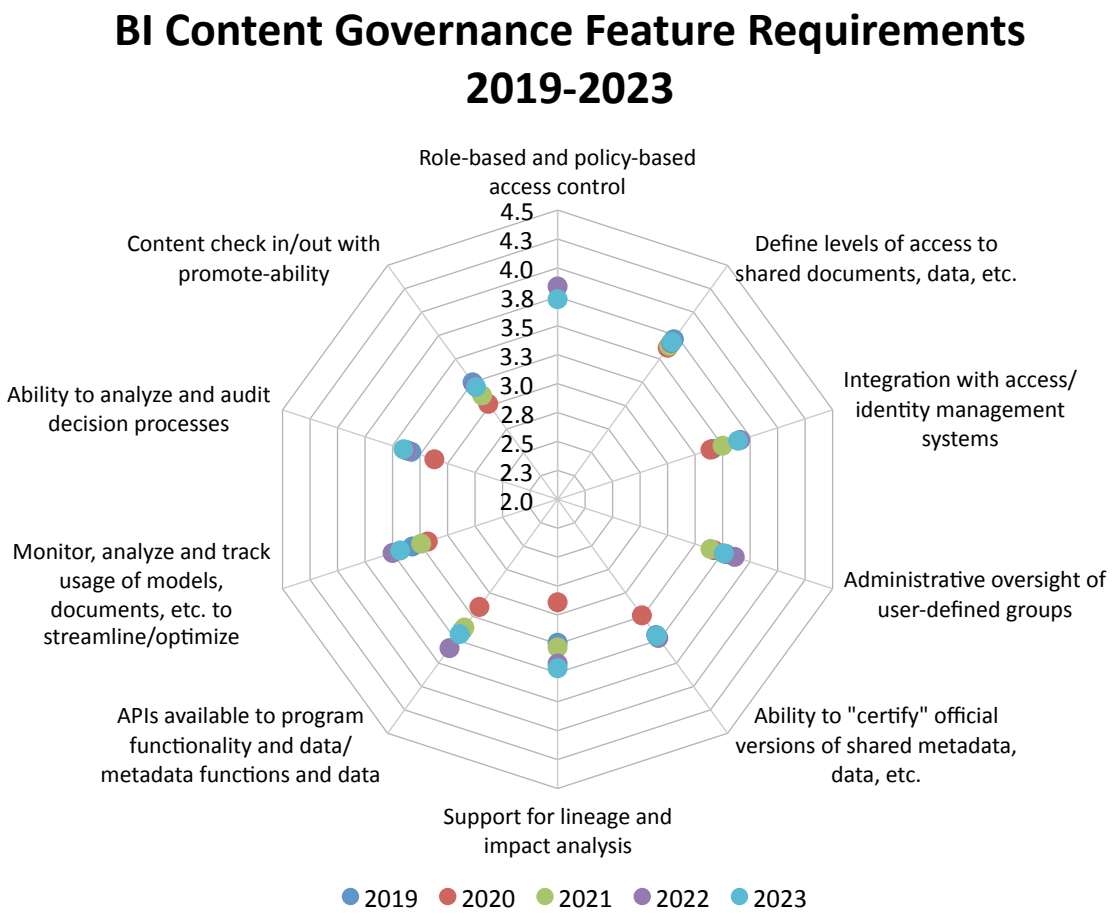

Figure 19 – BI content governance feature requirements 2019-2023

The importance of BI content governance feature requirements reveals pockets of interest by function, and overall interest that is often highest or nearly highest among respondents in the *BICC* (fig. 20). This year, for example, *BICC* respondents report the top or second-highest interest in all feature requirements with the exception of *support for lineage* and *impact analysis*, areas where *strategic planning, IT*, and *R&D* assign higher scores. *BICC* interest in the top feature, *role-based and policy-based access control*, is well above the *very important* 4.0 level, and thus well higher than the average overall sample importance. Among some other pockets of high interest, *IT* respondents give top scores to *integration with access/identity management* and *APIs available to program functionality*. *Finance* respondents give top scores to *define levels of access to shared documents*; and *operations* is most interested in *ability to certify official versions of shared metadata, data, etc.*

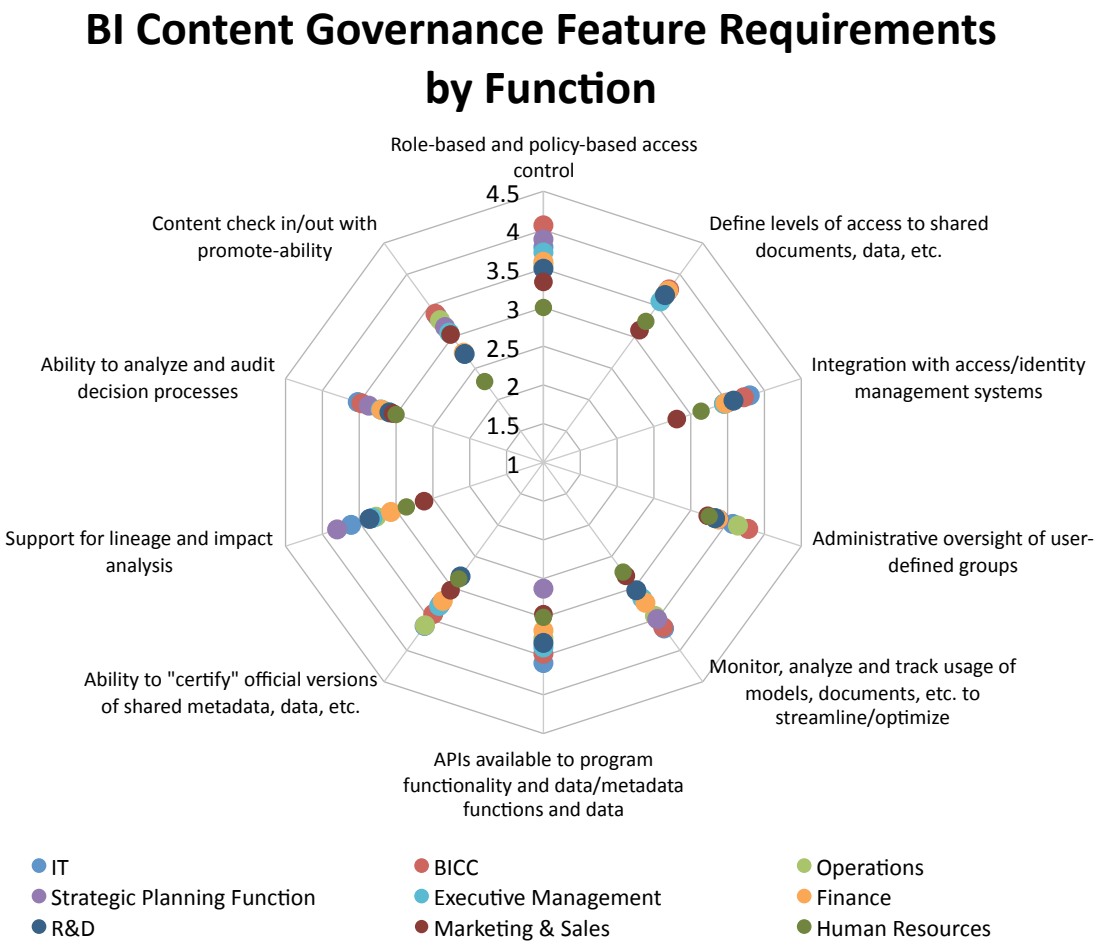

Figure 20 – BI content governance feature requirements by function

The importance of BI content governance feature requirements correlates positively with increasing global headcount (fig. 21). This year, every governance feature we sampled is most important in very large organizations (> 10,000 employees), followed by large organizations (1,001-10,000 employees). The third and fourth highest interest varies between respondents in small (1-100 employees) and midsized (101-1,000 employees) organizations. The top three governance features, *role-based and policy-based access control*, *define levels of access to shared documents*, and *integration with access/identity management systems*, are at or near levels of *very important* (3.9-4.0) within very large organizations. All but the top feature (*role-based and policy-based access control*), show noticeable declines in sentiment with decreasing headcount. Other areas of distributed sentiment include *administrative oversight of user-defined groups*, *ability to "certify" official versions*, and *support for lineage and impact analysis*.

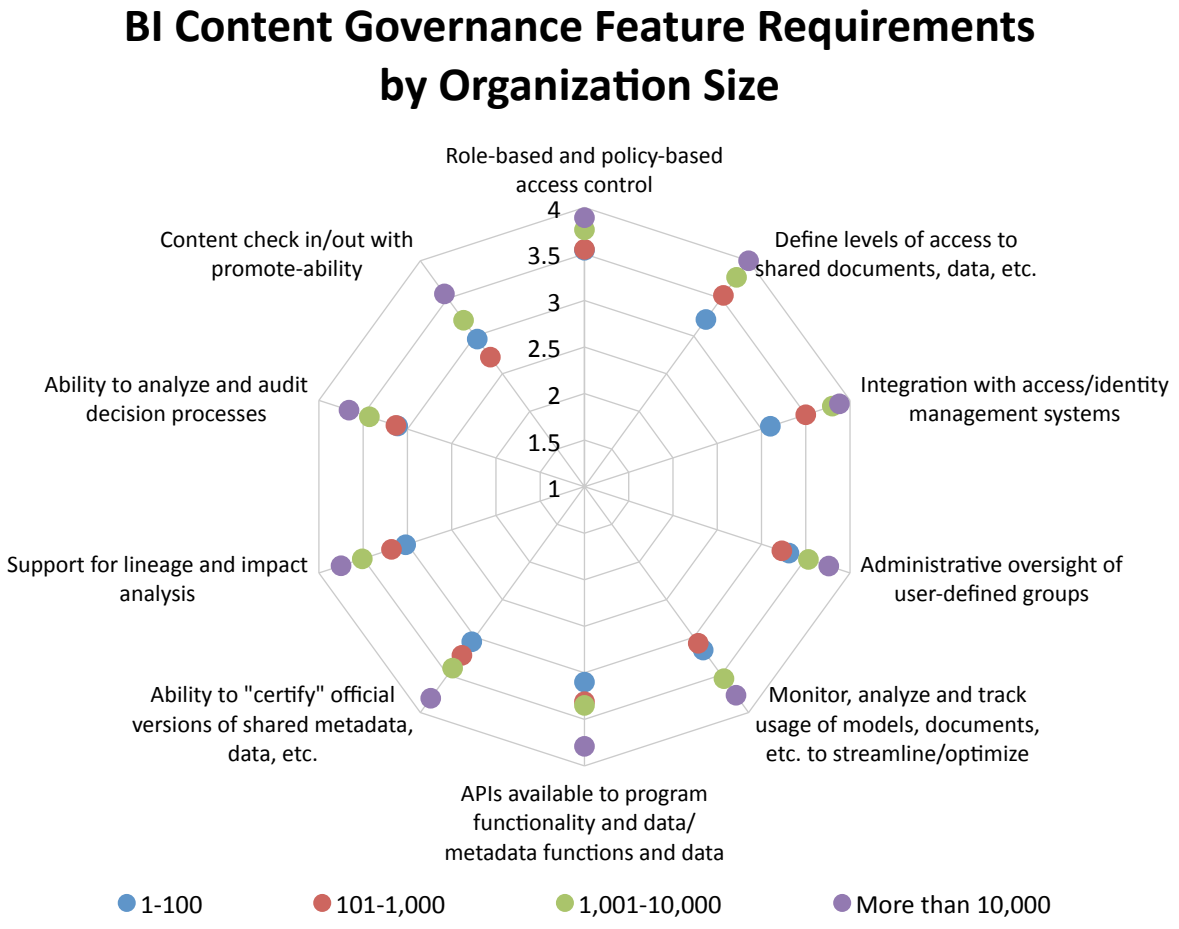

Figure 21 – BI content governance feature requirements by organization size

Respondent preferences for BI user content governance features vary by industry in 2023, often led by respondents in *financial services*, *healthcare*, and *retail and wholesale* (fig. 22). This year, all three of these verticals score all 10 features near 3.3 or far higher, a consistent level that is well above *important*. Among pockets of interest, *healthcare* respondents give the lone score above *very important* to *role-based and policy-based access control. Financial services* give top scores to at least five features including *define levels of access to shared documents*, *integration with access/identity management systems*, *APIs available*, *support for lineage and impact analysis*, *ability to analyze and audit decision process*, and *content check in/out.* Respondents in *education* and *manufacturing* are usually least interested in BI content governance features.

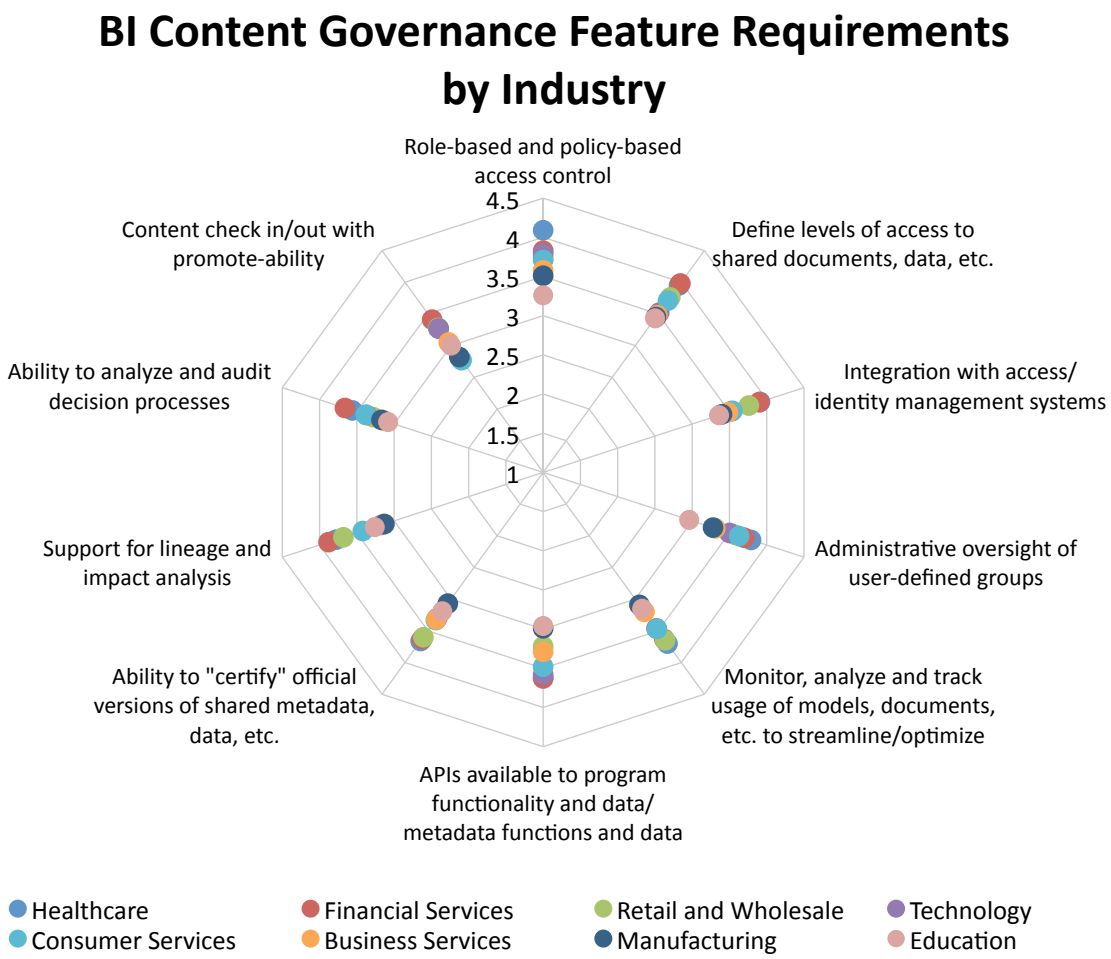

Figure 22 – BI content governance feature requirements by industry

Respondent preference for BI user content governance features varies by geography, with overall interest that is almost always highest in Asia Pacific followed by Latin America (fig. 23). This year, the top feature, *role-based and policy-based access control*, receives a sample high 3.9 score (near very important), from respondents in Asia Pacific. Interest is most clustered (similarly important to all regions) for *define levels of access to shared documents, data, etc.* Apart from globally important *define levels of access*, North America and EMEA interest is consistently lower than that in other regions, though all 10 features receive scores of at least *important* from respondents in all four regions.

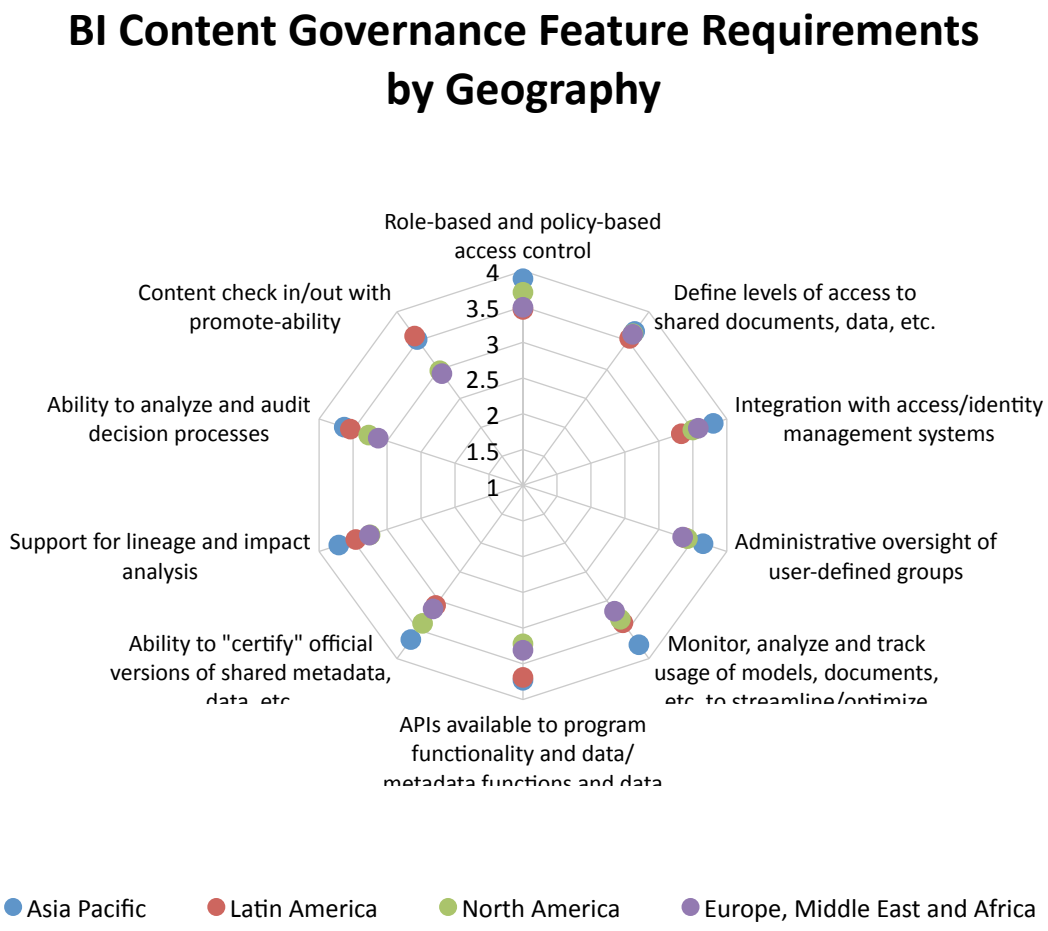

Figure 23 – BI content governance feature requirements by geography

Guided Analytics®

In our 2023 study, we included questions to sample the importance of Guided Analytics®, an outgrowth of our earlier research of data storytelling and related topics. Guided Analytics improves time to insight and action by supporting the creation of connections between related and relevant information and directing and suggesting analytical story flow.

Guided Analytics is at least *important* to 72 percent of respondents in 2023, down very slightly from 74 percent in 2022 (fig. 27). We also observe an increase in *critical* responses (13 percent versus 9 percent in 2022). Year-over-year weighted-mean importance increases slightly from 3.13 to 3.16.

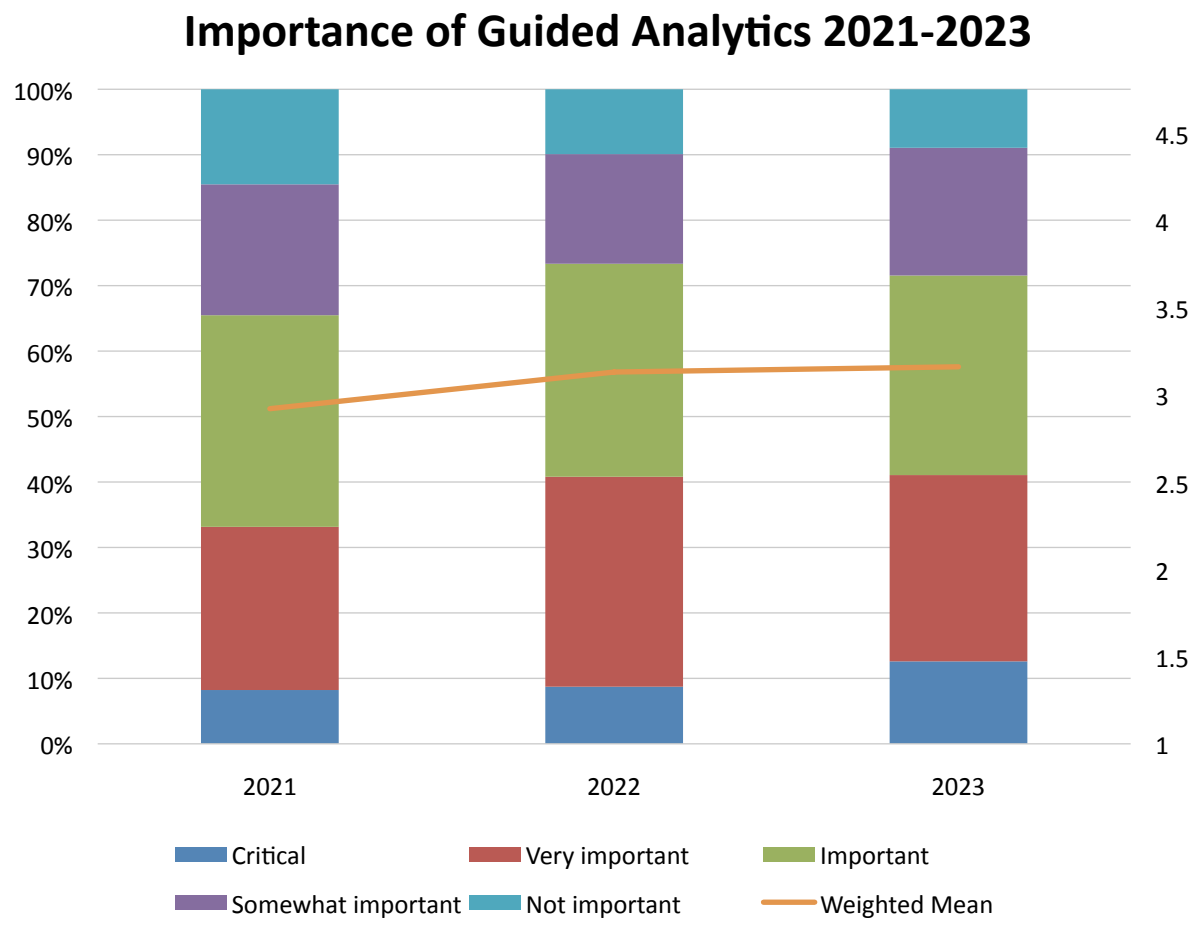

Figure 27 – Importance of Guided Analytics 2021-2023

In 2023, the perceived importance of Guided Analytics varies by function and is highest in the *BICC (*weighted mean = 3.9, close to *very important),* where 94 percent report scores of at least *important* (fig. 28). A second tier of respondents in *operations*, *strategic planning*, *marketing and sales*, *IT*, and *R&D* report similar weighted-mean perceived importance (3.3-3.5, well above *important)*. *IT* respondents assign the highest *critical* score (20 percent) followed by *BICC* (19 percent). Respondents in *executive management* and *finance* are least interested by weighted mean and assign the lowest combined *critical* and *very important* scores (26-27 percent).

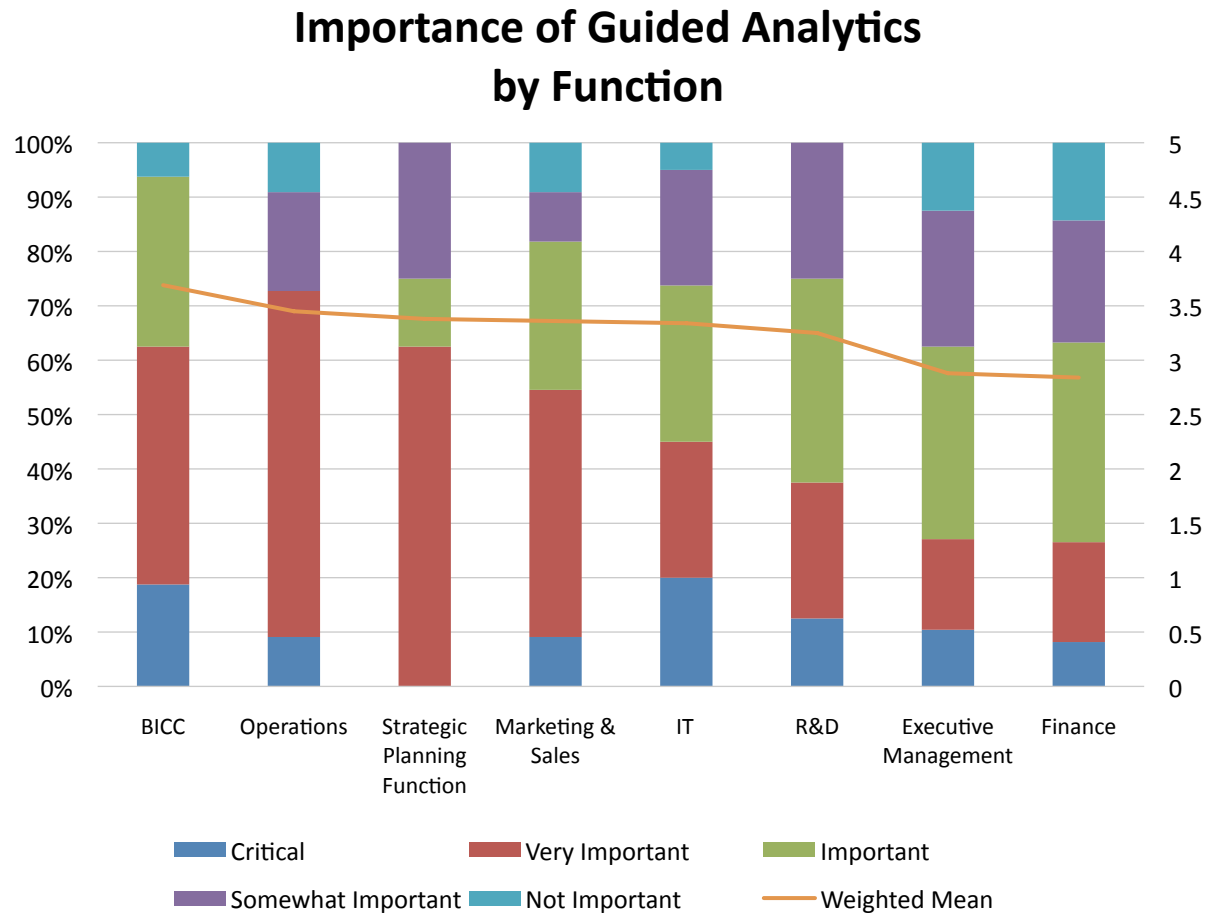

Figure 28 – Importance of Guided Analytics by function

In 2023, the perceived importance of Guided Analytics increases incrementally in organizations with more than 100 employees (fig. 29). By weighted mean, very large organizations (>10,000 employees) rank Guided Analytics highest (3.6), followed by large (1,001-10,000 employees) organizations (3.1) and mid-sized (101-1,000 employees) organizations (2.9). Small organizations of 1-100 employees are the exception to the rule of scale and assign the second-highest overall weighted mean (3.2) and the highest critical scores (22 percent).

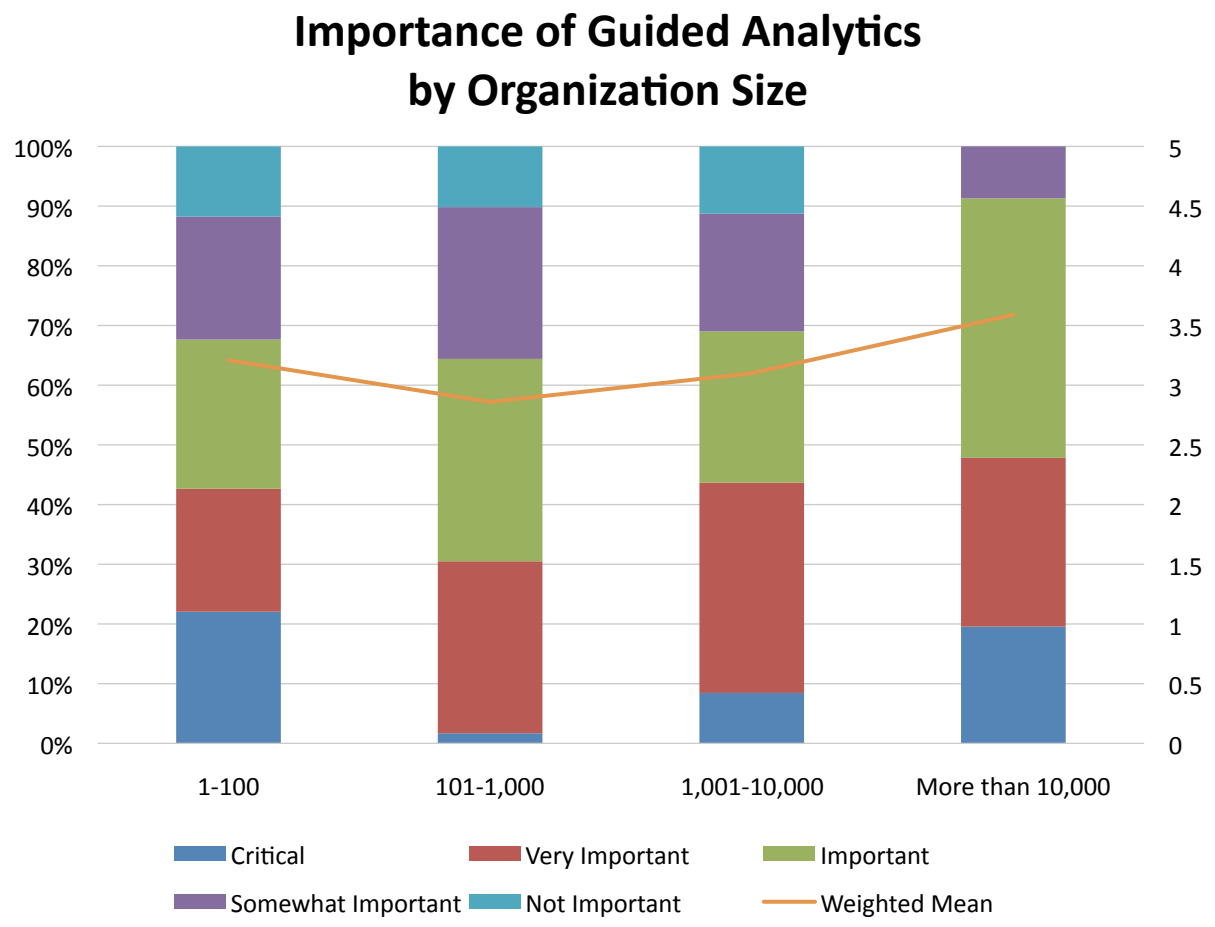

Figure 29 – Importance of Guided Analytics by organization size

In 2023, Guided Analytics is perceived as at least *important* by a majority of respondents across all industries (fig. 30). *Consumer services* and *healthcare* respondents have the highest weighted-mean interest (3.5) overall. H*ealthcare* respondents are most likely to perceive Guided Analytics as *critically* important (23 percent). All industries except *retail and wholesale* (2.9) report a weighted mean perceived interest greater than 3. *Business services* is among a few industries most likely to say Guided Analytics is only *somewhat important* or *not important* (37 percent).

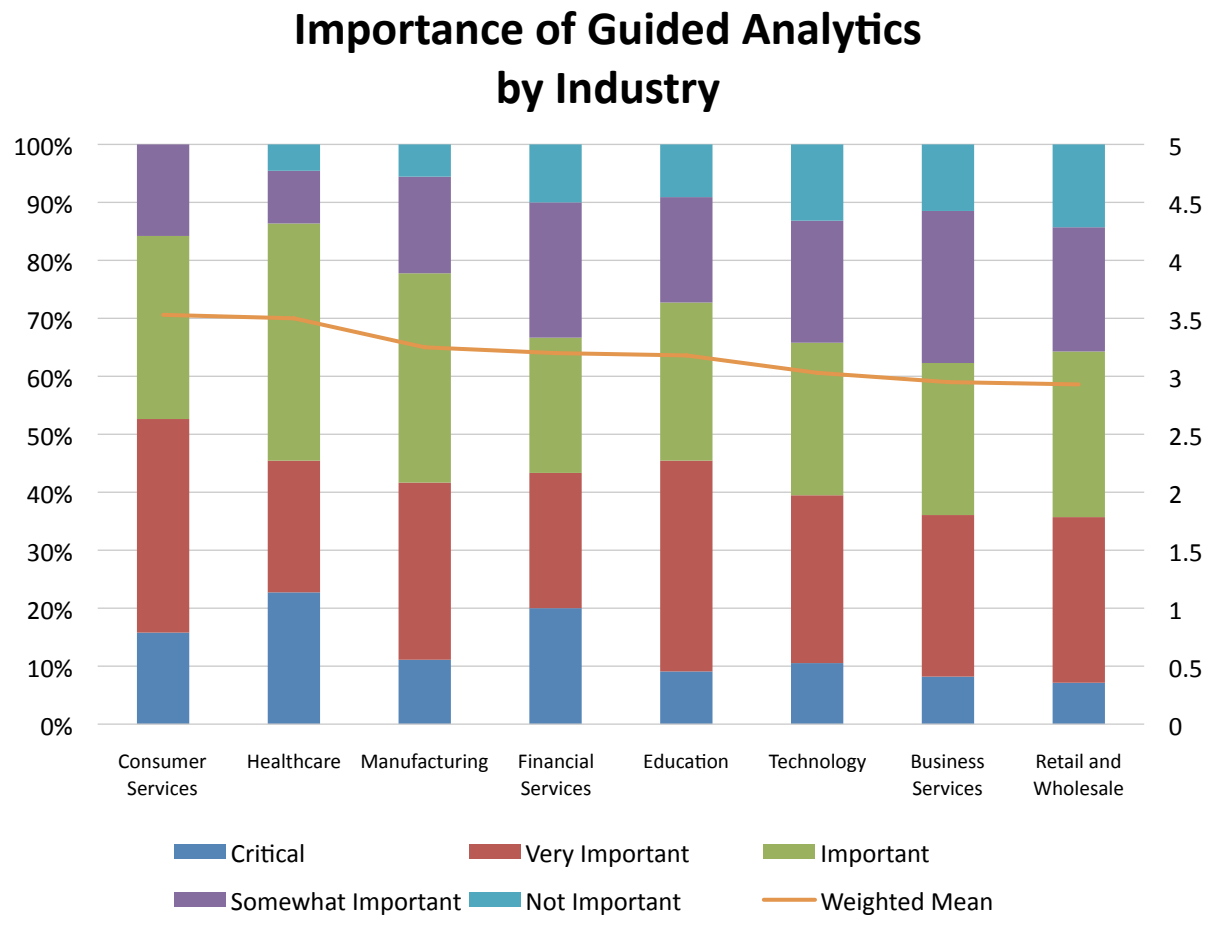

Figure 30 – Importance of Guided Analytics by industry

A majority of respondents from all geographic regions perceive Guided Analytics as at least *important* in 2023 (fig. 31). *Asia Pacific* has the highest weighted-mean interest at 3.6 and the largest percentage of respondents reporting Guided Analytics as *critically* important (24 percent). *North America* and *EMEA* have similar levels of weighted-mean interest, though *EMEA* respondents are most likely to report Guided Analytics as *somewhat important* or *not important*.

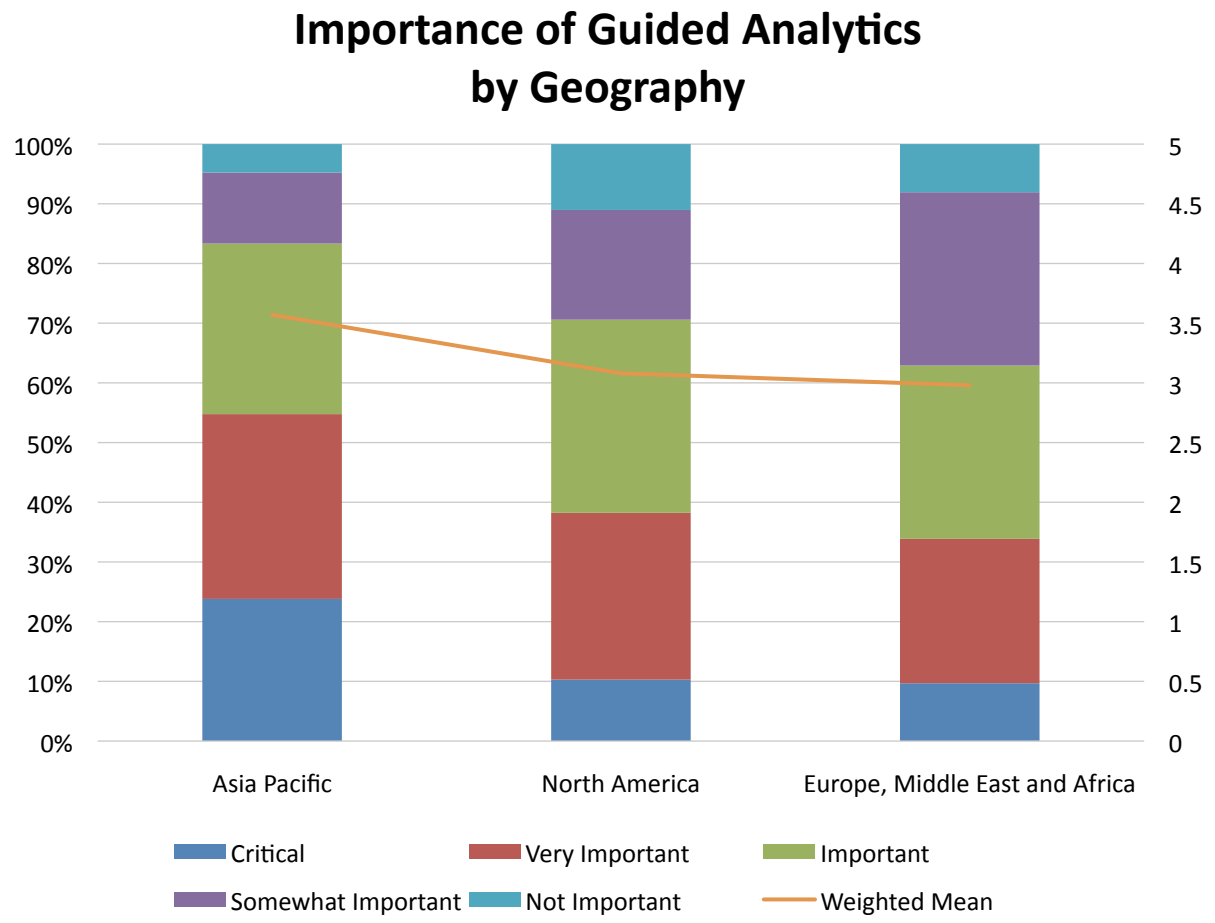

Figure 31 – Importance of Guided Analytics by geography

The perceived importance of Guided Analytics decreases as organization age increases in 2023 (fig. 32). It is not unusual to observe younger organizations with fewer embedded processes and policies lead adoption of newer technologies. Even so, respondents from all organizations of any longevity report that Guided Analytics is at least *important*. Companies that have existed for *less than 5 years* have the highest weighted mean interest at 3.9 and are most likely to report Guided Analytics as *critically* important (37 percent). Companies that are from *5-10 years old* report a sharp drop in interest to 3.2. Those that have existed for *11-16 or more years* report weighted-mean interest of 3.0-3.1.

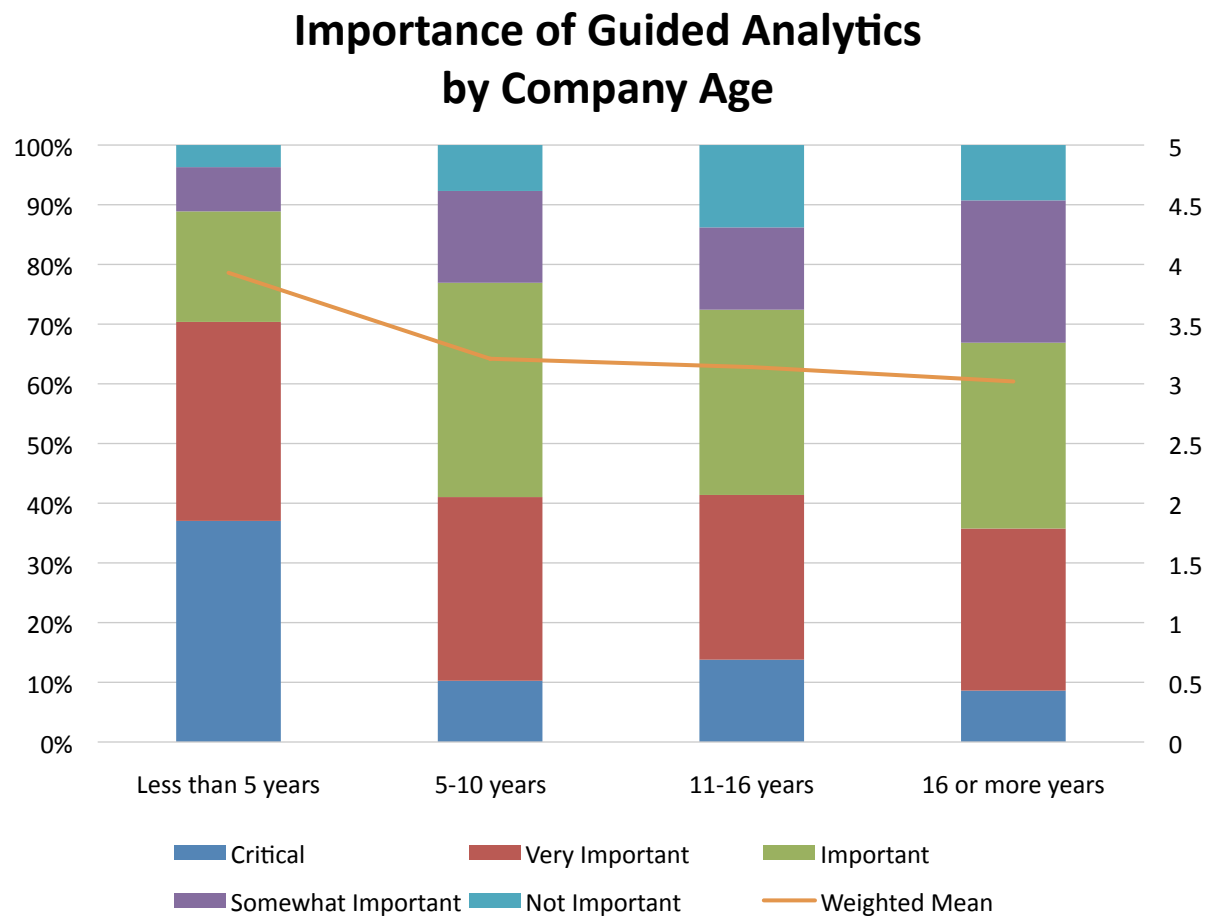

Figure 32 - Importance of guided analytics by company age

Guided Analytics Authoring Features

In our 2023 report, we surveyed respondents about their prioritization of 9 different Guided Analytics authoring features (fig. 33). This year, *flexible, customizable authoring/content creation* is the most important feature to respondents (as it was in 2022). *Author-defined navigation/flows of visual/analytical objects* is the next most important feature, up significantly compared to 2022. *Navigational aids* is the third most important feature, and also shows increased year-over-year importance. Most remaining features see similar levels of interest in 2023 as was seen in 2022.

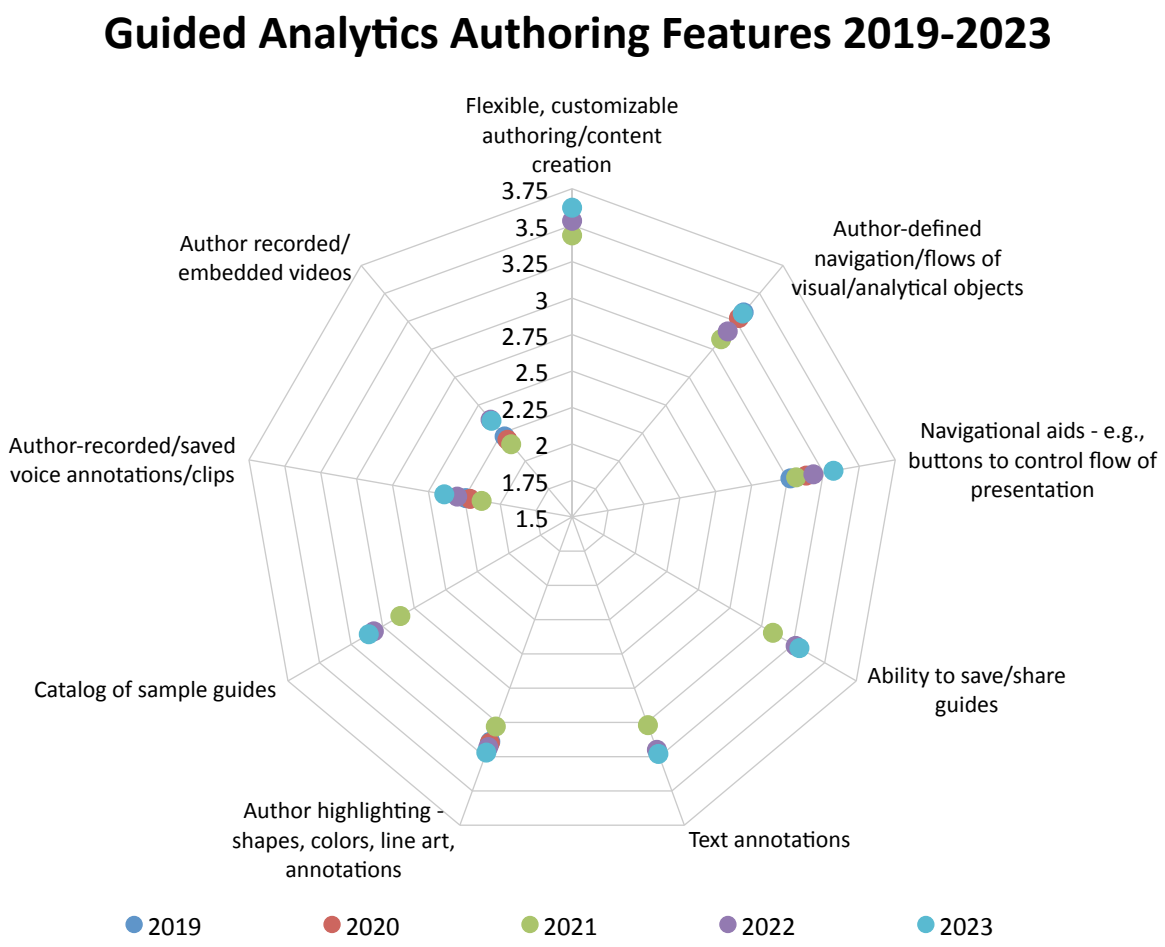

Figure 33 – Guided Analytics authoring features 2019-2023

Multiple functions ascribe high importance to Guided Analytics authoring features in 2023 (fig. 34). *BICC* respondents are most interested in nine of 12 features, including four of the top five overall. Among multiple observations of interest, s*trategic planning* respondents give the highest scores to *author-defined navigation/flows of visual/analytical objects*. *Marketing and sales* give the highest scores to two low-ranked features, *author-recorded/embedded videos* and *author-recorded/saved voice annotations/clips*. *R&D* and *finance* are almost always least interested in all features.

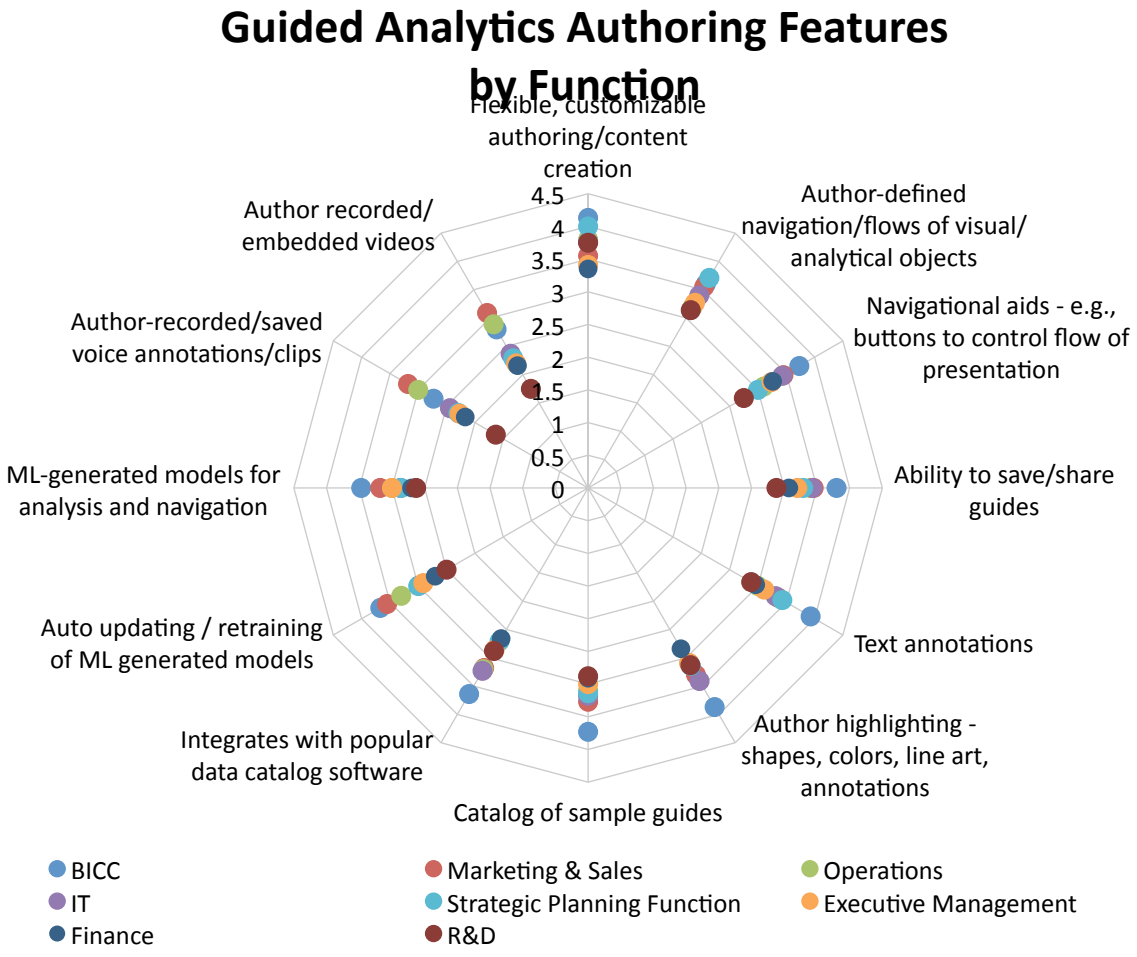

Figure 34 – Guided Analytics authoring features by function

In 2023, Guided Analytics authoring features are most important within *very large organizations* (>10,000 employees), and *large organizations* (1,001-10,000 employees), usually followed by *small* (1-100 employees) and *mid-size* (101-1,000 employees) organizations (fig. 35). *Very large* organizations are most interested "across the board," followed by *large* organizations in the case of nine of 12 features. *Very large* organizations often lead in interest by a large margin. As we frequently observe, *mid-size* organizations are most often least interested, with *small* organizations almost always reporting higher perceived importance. *Small* organizations show relatively high interest in *auto updating / retraining ML generated models* and *author-recorded/saved voice annotations/clips* and *author-recorded/embedded videos*, where they are second most interested overall.

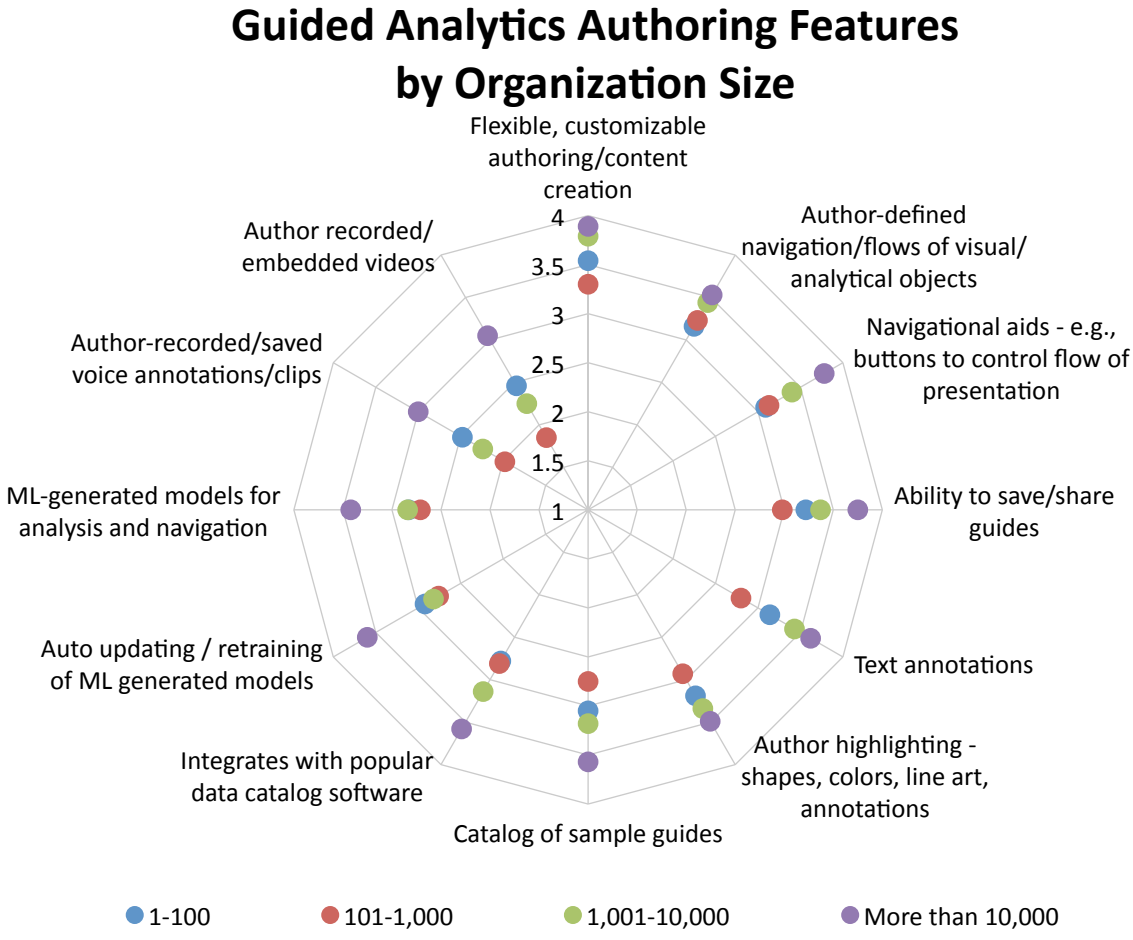

Figure 35 – Guided Analytics authoring features by organization size

Respondents across multiple industries perceive multiple Guided Analytics authoring features as important (fig. 36). In 2023, m*anufacturing* respondents are most interested in the *top feature*: *flexible, customizable authoring/content creation*. *Healthcare* respondents give the highest scores to seven features, including two of the top three: *author-defined navigation* and *navigational aids*. *Consumer services* is most interested in four features, including *ability to save/share guides*, *author highlighting*, and lower ranked *author recorded/embedded saved voice annotations* and *author recorded/embedded videos*.

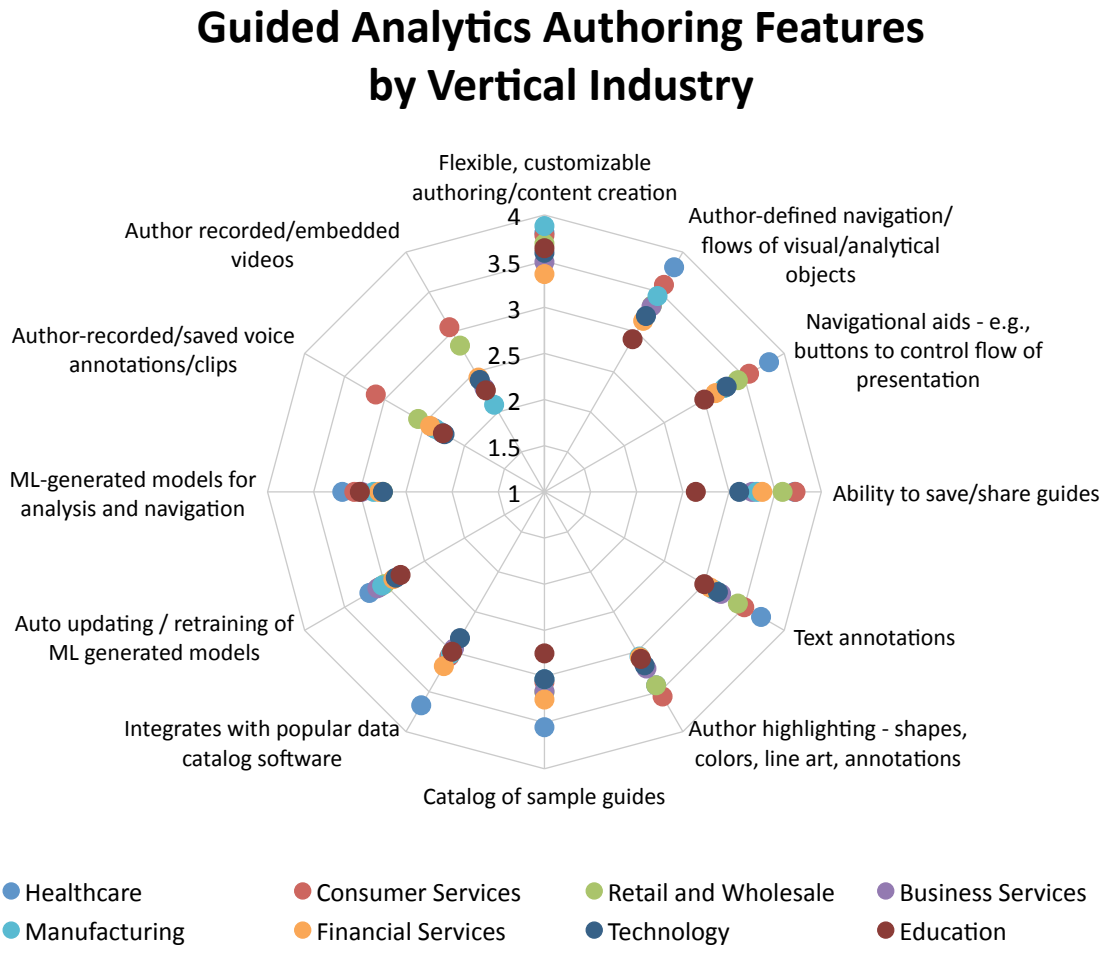

Figure 36 – Guided Analytics authoring features by vertical industry

In 2023, the top seven Guided Analytics authoring features are scored as at least *important* by respondents in all regions (fig. 37). Respondent interest is highest for all features among respondents in Latin America and Asia Pacific. Latin America respondents give the highest scores to nine of 12 authoring features, including the top seven. Asia Pacific is most interested in remaining areas, including *integrates with popular data catalog software*, *auto updating/retraining of ML generated models*, and *author recorded/embedded videos*. EMEA and North America are least interested in all features, often with similarly-scored importance.

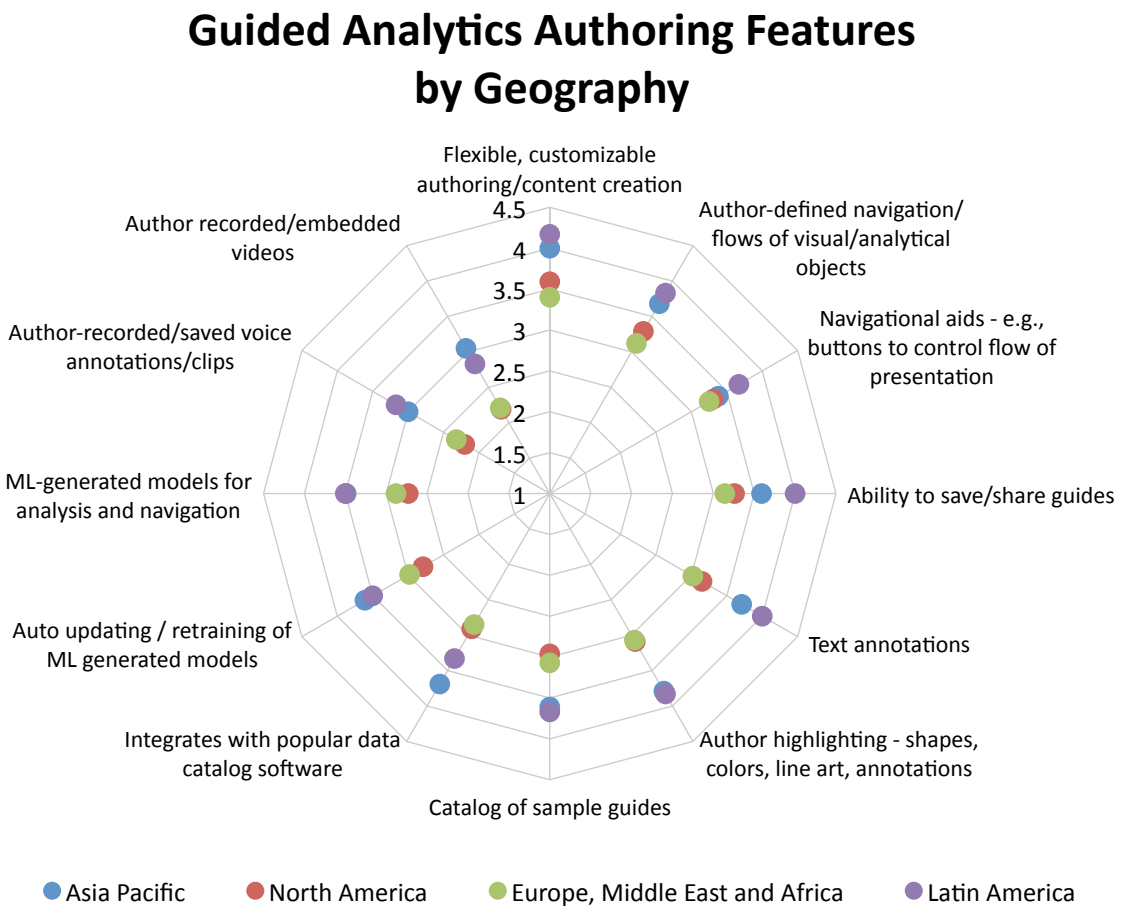

Figure 37 – Guided Analytics authoring features by geography

Guided Analytics User Features

We asked respondents to describe the importance of 12 Guided Analytics user features in 2023 (fig. 38). This year, importance scores are close to 2022 levels and significantly higher than in 2021. *Anomaly identification/highlighting/user altering*, *user interaction with visual/analytical objects within flow, search/navigate/recommend available guides, directed navigation;* and *contextual explanation capability* all receive importance scores of 3.2 or higher. All features except lowest-ranked *auto-generated navigation* are at least *important* to respondents in 2023.

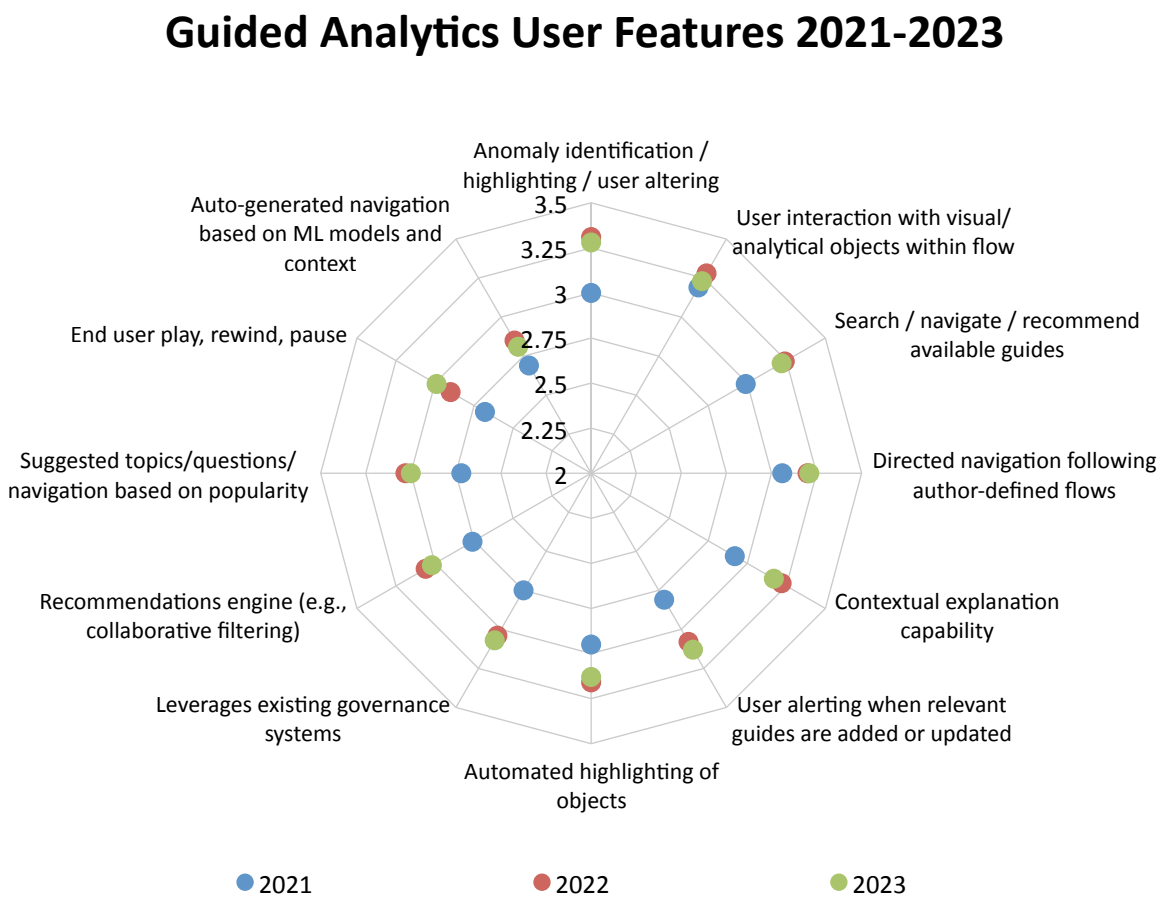

Figure 38 – Guided Analytics user features 2021-2023

Interest in Guided Analytics user features varies by function in 2023, with *BICC* respondents reporting the highest interest in 10 of 12 features, including top-ranked *anomaly identification/highlighting/user altering* (fig. 39). Among other observations, *strategic planning* respondents report the highest interest in *user interaction with visual/analytical objects. Operations* respondents report the greatest interest in *search/navigate/recommend available guides*. *Finance* and *R&D* respondents are least interested in user features by function.

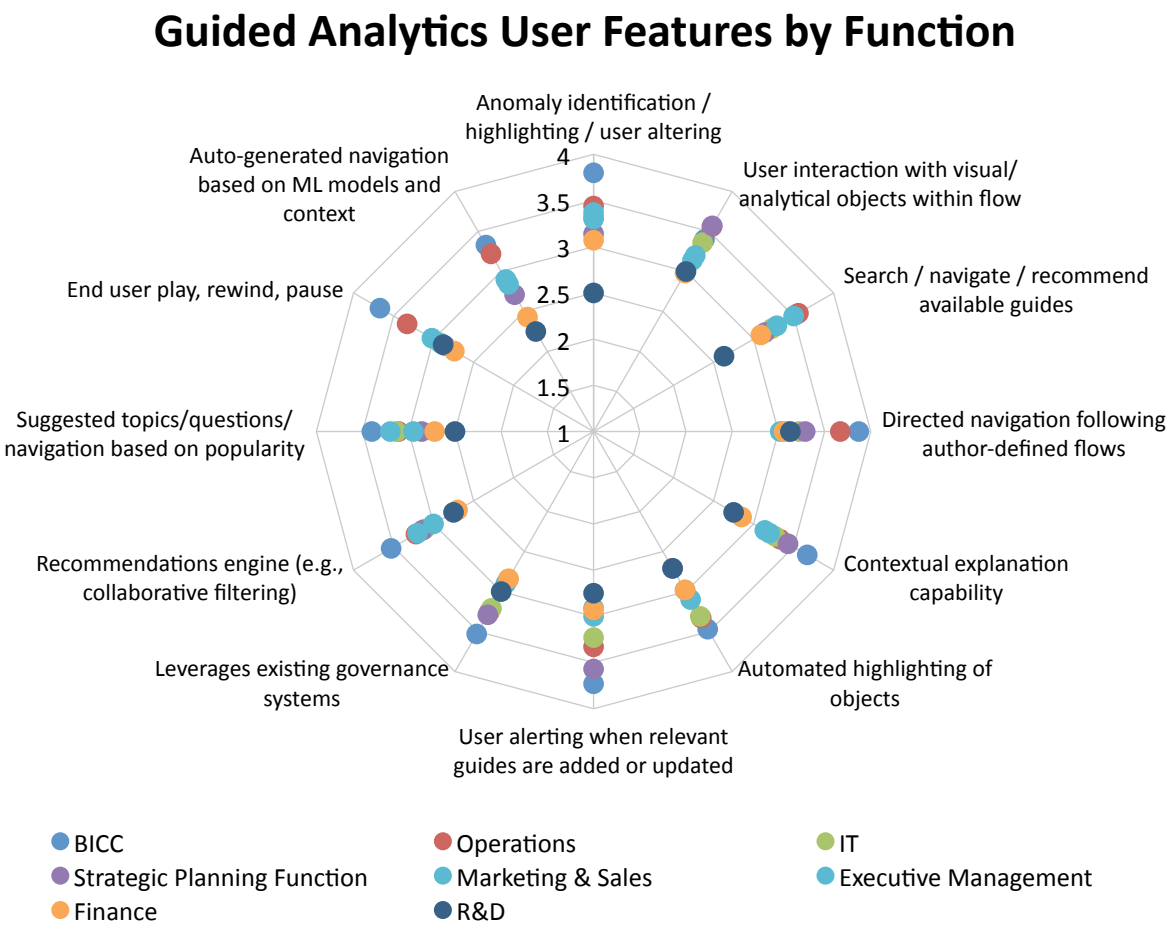

Figure 39 – Guided Analytics user features by function

In 2023, all 12 Guided Analytics user features are most important in very large (> 10,000 employees) organizations, often by a wide margin (fig. 40). Indeed, very large organizations assign weighted-mean scores greater than 3.5 (midway between *important* and *very important*) to 10 of 12 features. Interest is most often second highest in large organizations (1,001-10,000 employees), followed by small organizations (1-100 employees). The lone exception to the rule of scale of large / very large feature interest leadership is category laggard *end-user play, rewind, pause*, where small organizations report the second-highest interest.

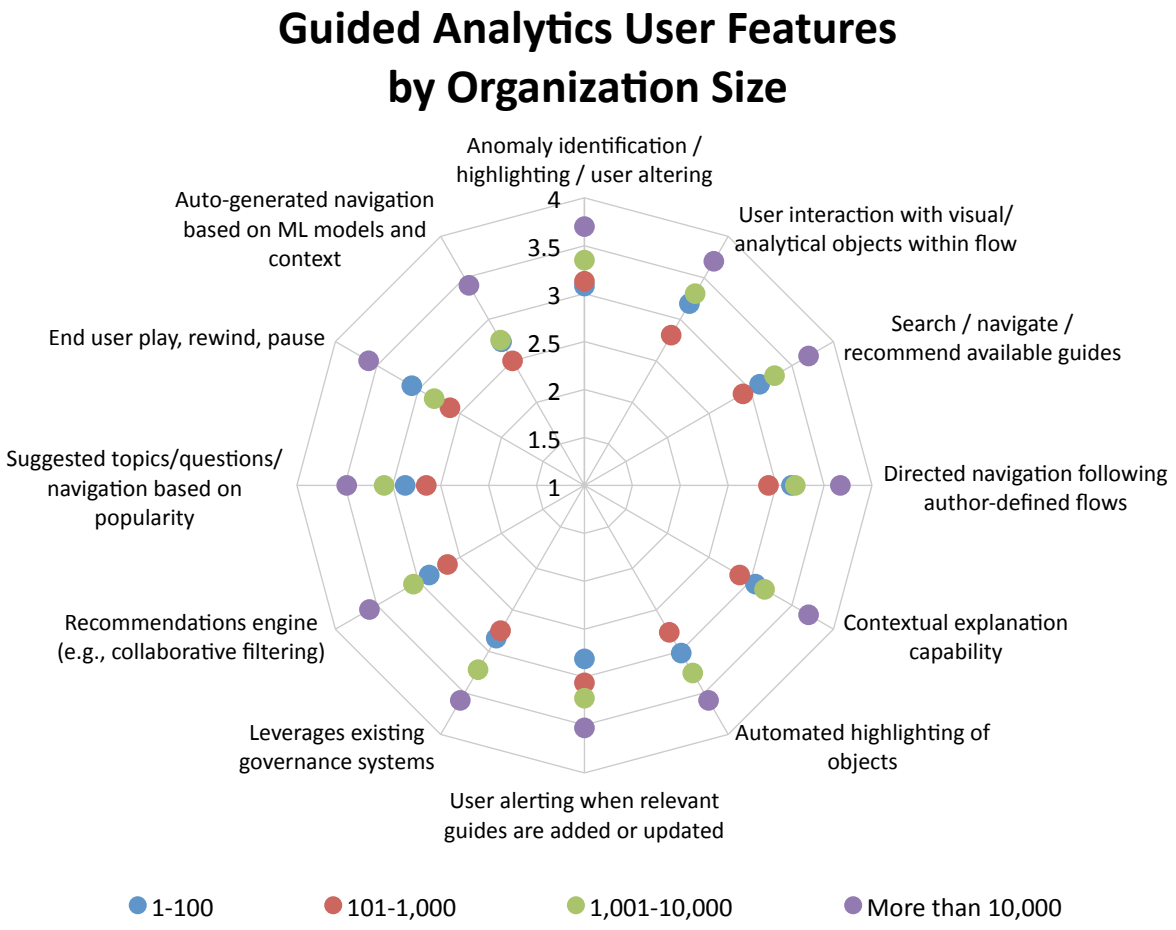

Figure 40 – Guided Analytics user features by organization size

The importance of multiple Guided Analytics user features extends broadly across multiple vertical industries (fig. 41). This year, *healthcare* organizations lead interest in *anomaly identification*, *user interaction with visual/analytical objects*, *search/navigate/recommend*, and five lower-ranked features. *Consumer services* reports well-above-average scores for several areas and leads interest in *directed navigation*, *recommendations engine*, and *end user play, rewind, pause.* Among other findings, *retail and wholesale* respondents give top scores to *automated highlighting of objects*, and *education* respondents most often report the lowest scores by industry.

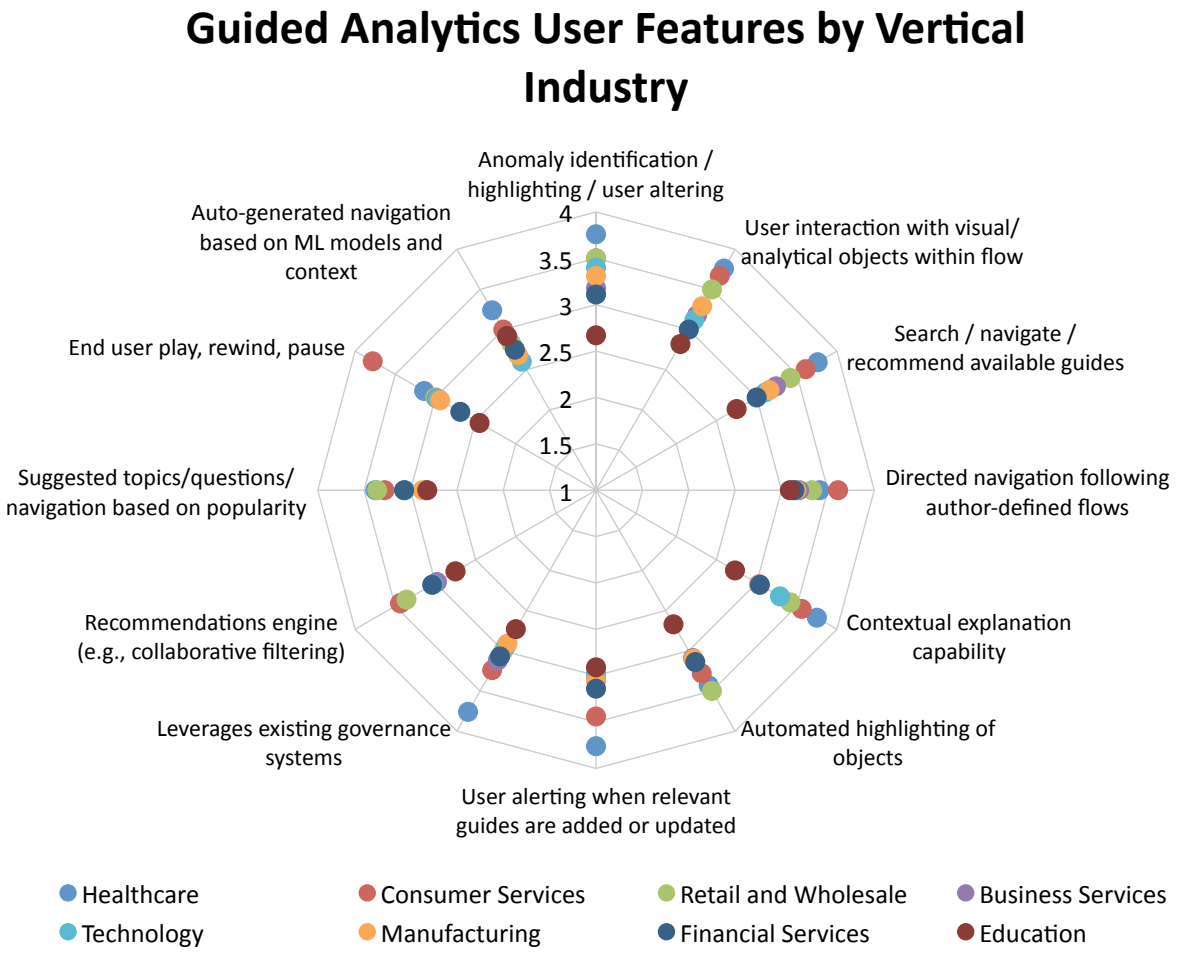

Figure 41 – Guided Analytics user features by vertical industry

In 2023, Guided Analytics user features importance varies by geographic region and is invariably highest among respondents in Asia Pacific (fig. 42). This year, Asia Pacific respondents assign particularly high scores of 3.5 (midway between *important* and *very important*) or greater for all features. Excluding Asia Pacific, respondents in EMEA and North America assign scores of 3.0 (*important*) or higher to the top seven user features.

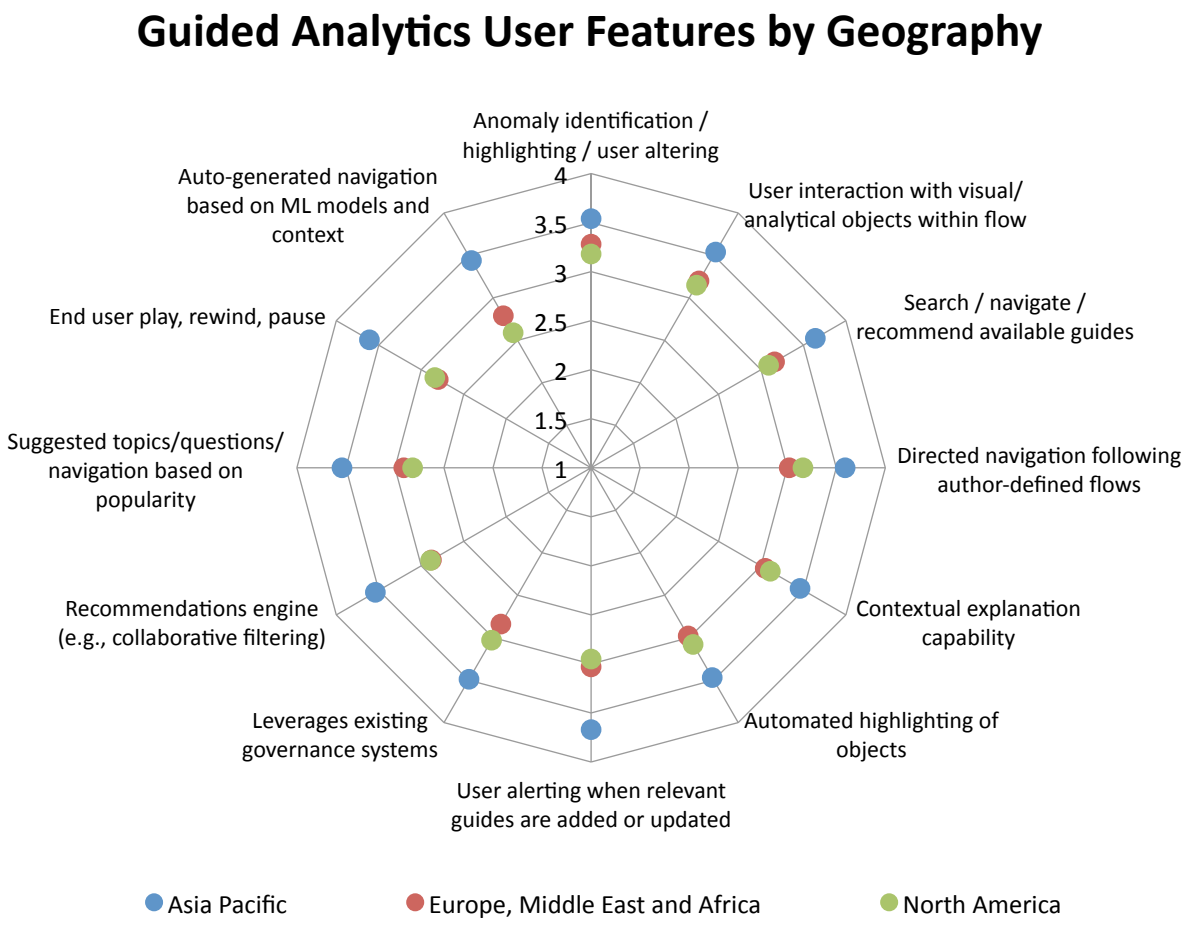

Figure 42 – Guided Analytics user features by geography

Natural Language Analytics

We asked respondents, “How important is a natural language interface to access data and analytics (i.e., Natural Language Analytics, or NLA)?” In 2023, close to one-third (32 percent) say NLA is either *critical* or *very important*, and 61 percent say NLA is, at minimum, *important* (fig. 43). We consider this a significant endorsement of a relatively new technology and feature that nonetheless leaves about 40 percent of the sample somewhat or completely disinterested. We believe this leaves both a user and market opportunity to innovate and extend the value of NLA through use cases and customer experiences.

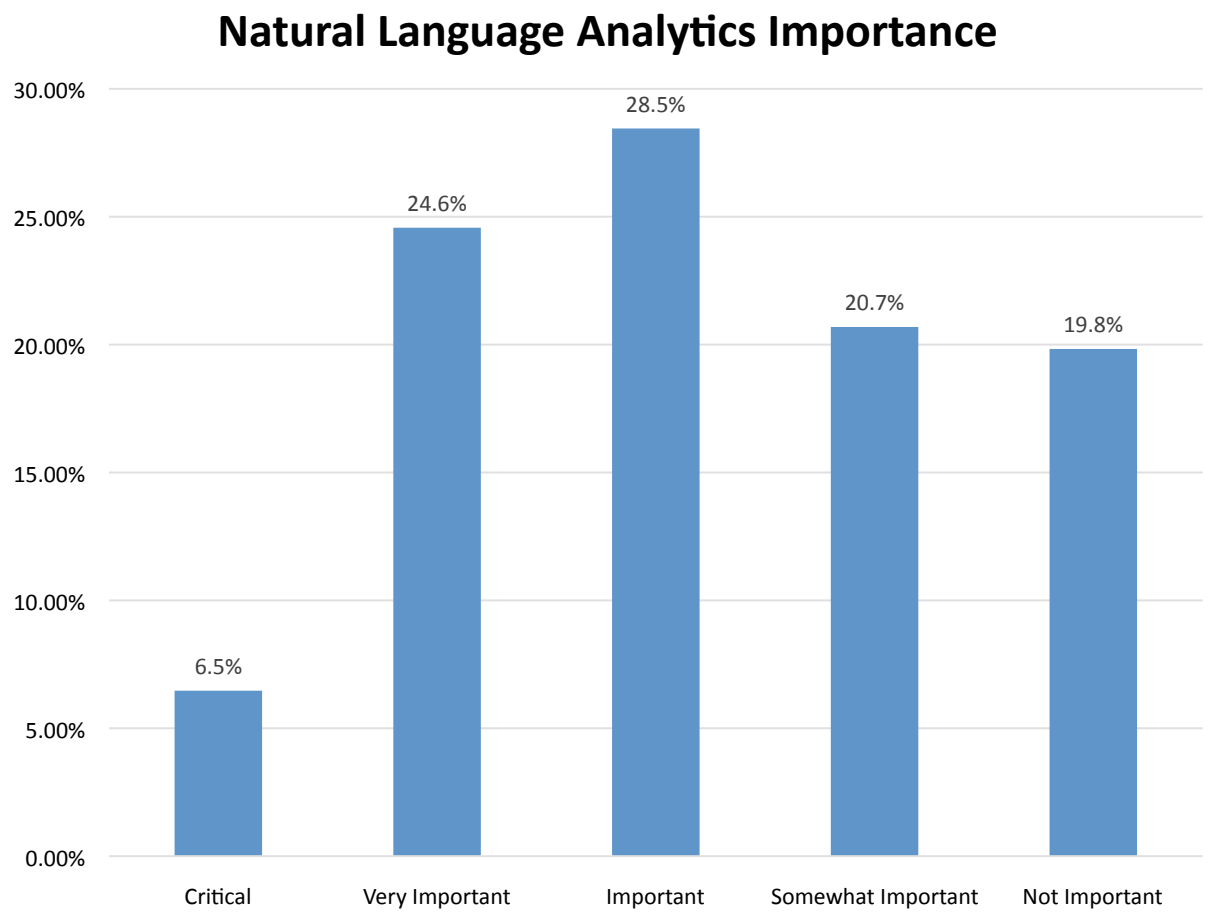

Figure 43 – Natural language analytics importance

The importance of natural language analytics correlates directly with success with BI in 2023 (fig. 44). Organizations that are *completely successful* with BI are 65 percent likely to say NLA is, at minimum, *important* compared to 61 percent at *somewhat successful* BI organizations and just 45 percent of *somewhat unsuccessful* and *unsuccessful* BI organizations. About 28 percent of *somewhat unsuccessful* and *unsuccessful* BI organizations say NLA is *not important*, compared to 17 percent at *somewhat successful* and 22 percent at *completely successful* BI organizations.

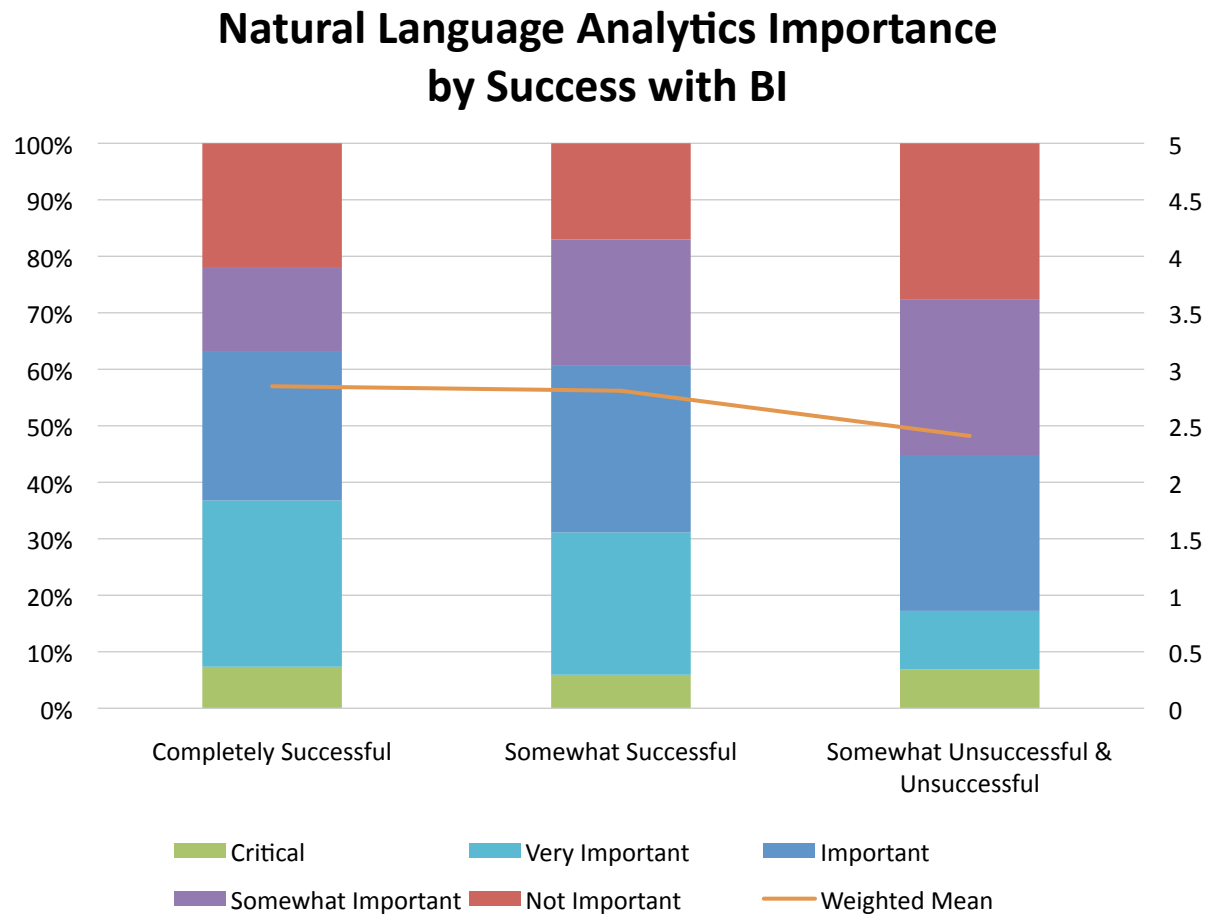

Figure 34 – Natural language analytics importance by success with BI

Use of Natural Language Analytics

Natural language analytics is at a phase of early adoption and use in 2023 (fig. 35). Slightly more than one-quarter of respondents (26 percent) *currently use* NLA, and about 74 percent currently have *no plans* for NLA use. Based only on anecdotal evidence and consumer popularity of NLA-driven devices and languages interfaces for search, entertainment or map use, we would expect NLA use and adoption in BI settings to increase materially in future time frames.

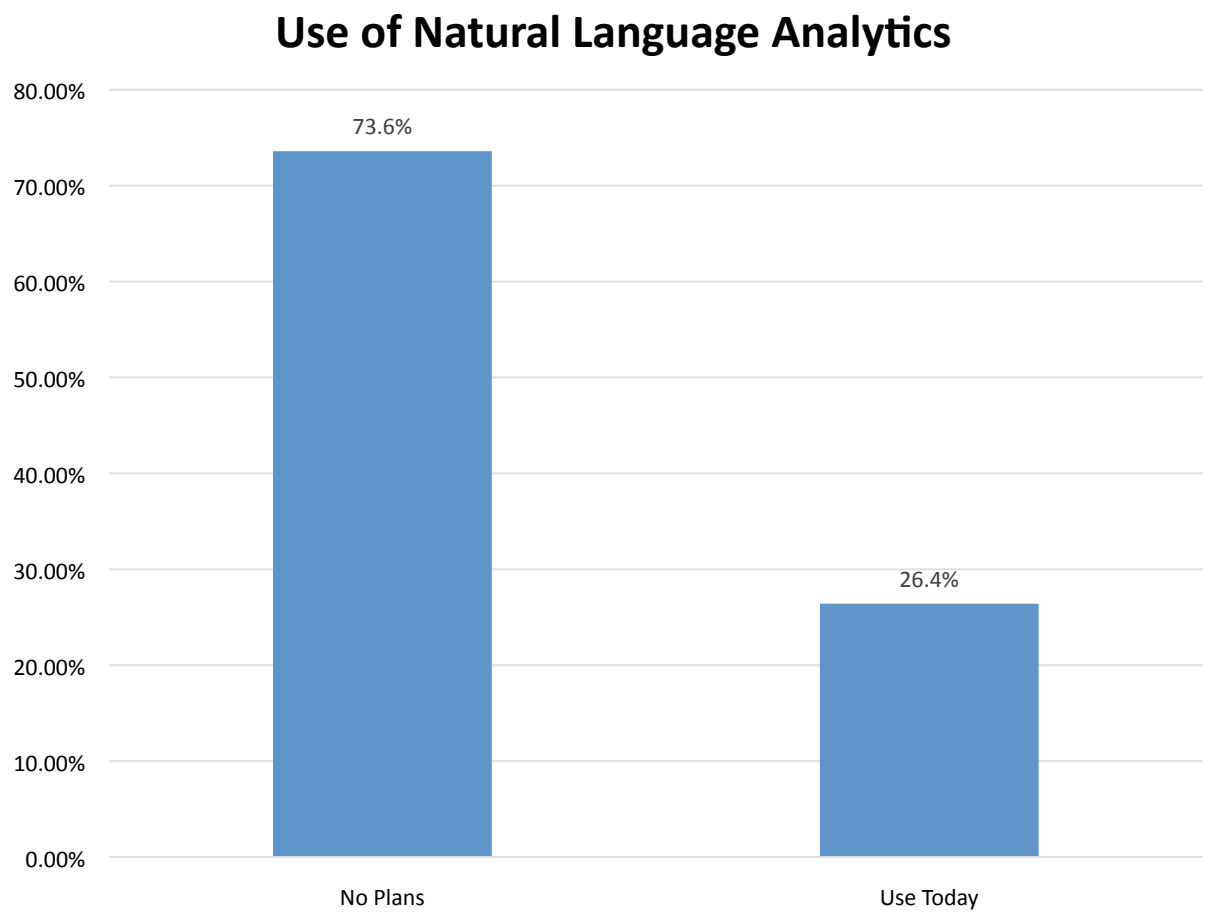

Figure 35 – Use of natural language analytics

Though it would be highly premature to causally link NLA use to success with BI, our 2023 sample reports a connection between adoption and success with BI (fig. 36). Even coincidentally, we historically observed that organizations that adopt multiple avenues and features linked to core practices such as visualization, collaboration, process management, governance, or business intelligence in general, are likely to be highly performative BI organizations. In any case, our latest sample tells us that organizations that are *completely successful* or *somewhat successful* with BI are well more than twice as likely to be *current users* of NLA than organizations that are *somewhat unsuccessful and unsuccessful* with BI.

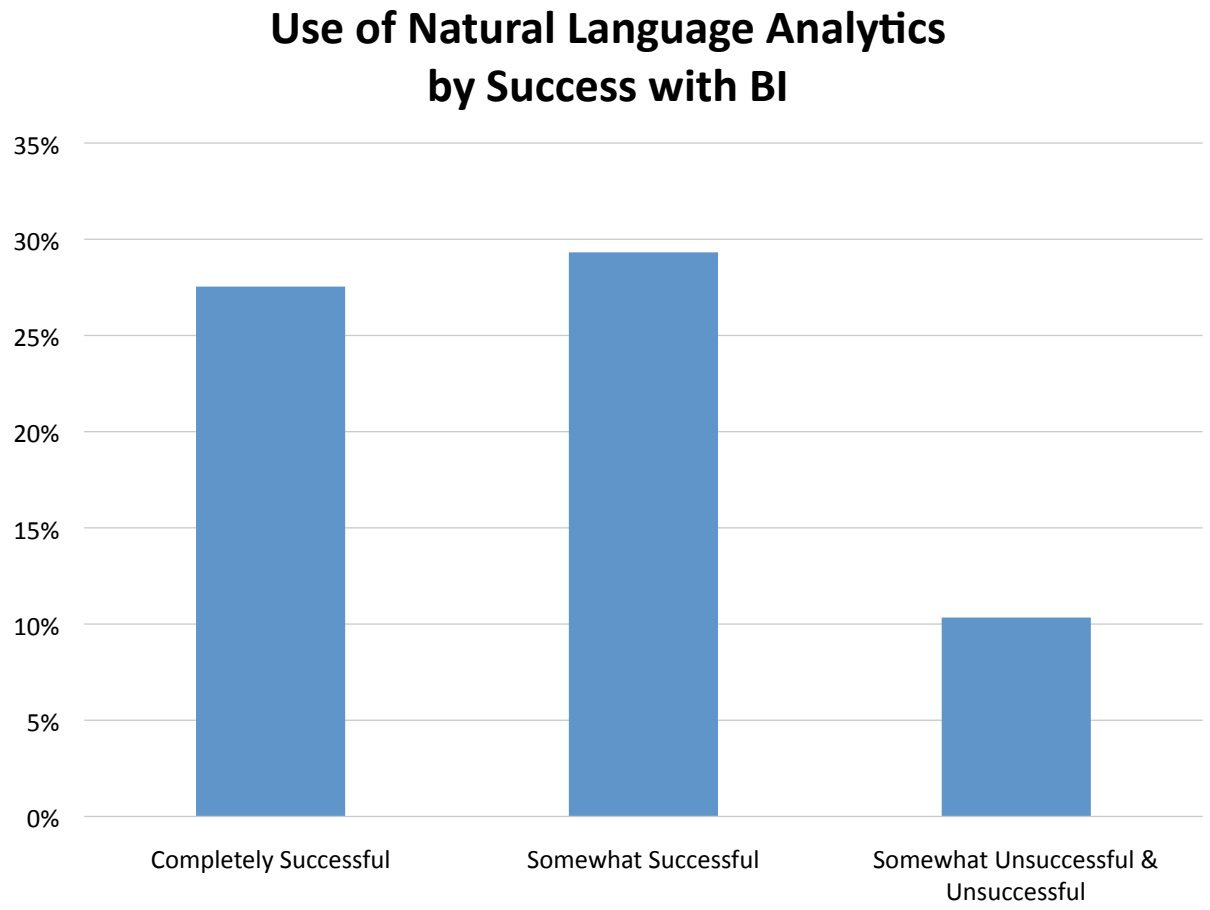

Figure 36 – Use of natural language analytics by success with BI

Self-Service BI Vendor Ratings

In rating the vendors, we considered all self-service BI, collaborative, governance, natural language analytics, and Guided Analytics features as reported by vendors and weighted by users. Thus, this chart (fig. 37) represents those vendors with the strongest (or most complete) capabilities.

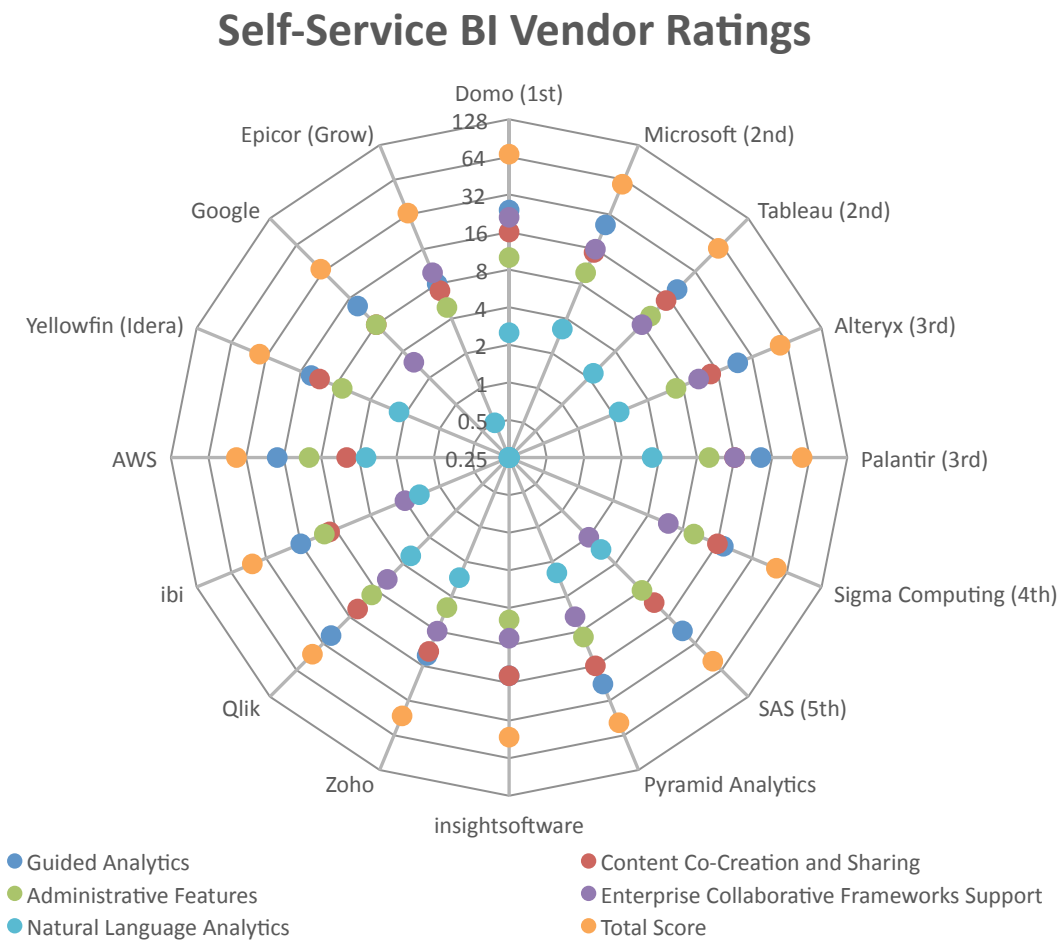

Figure 37 – Self-service BI vendor ratings