May 31, 2017

Dresner Advisory Services, LLC

Wisdom of Crowds® Business Intelligence Market Study

2017 Edition

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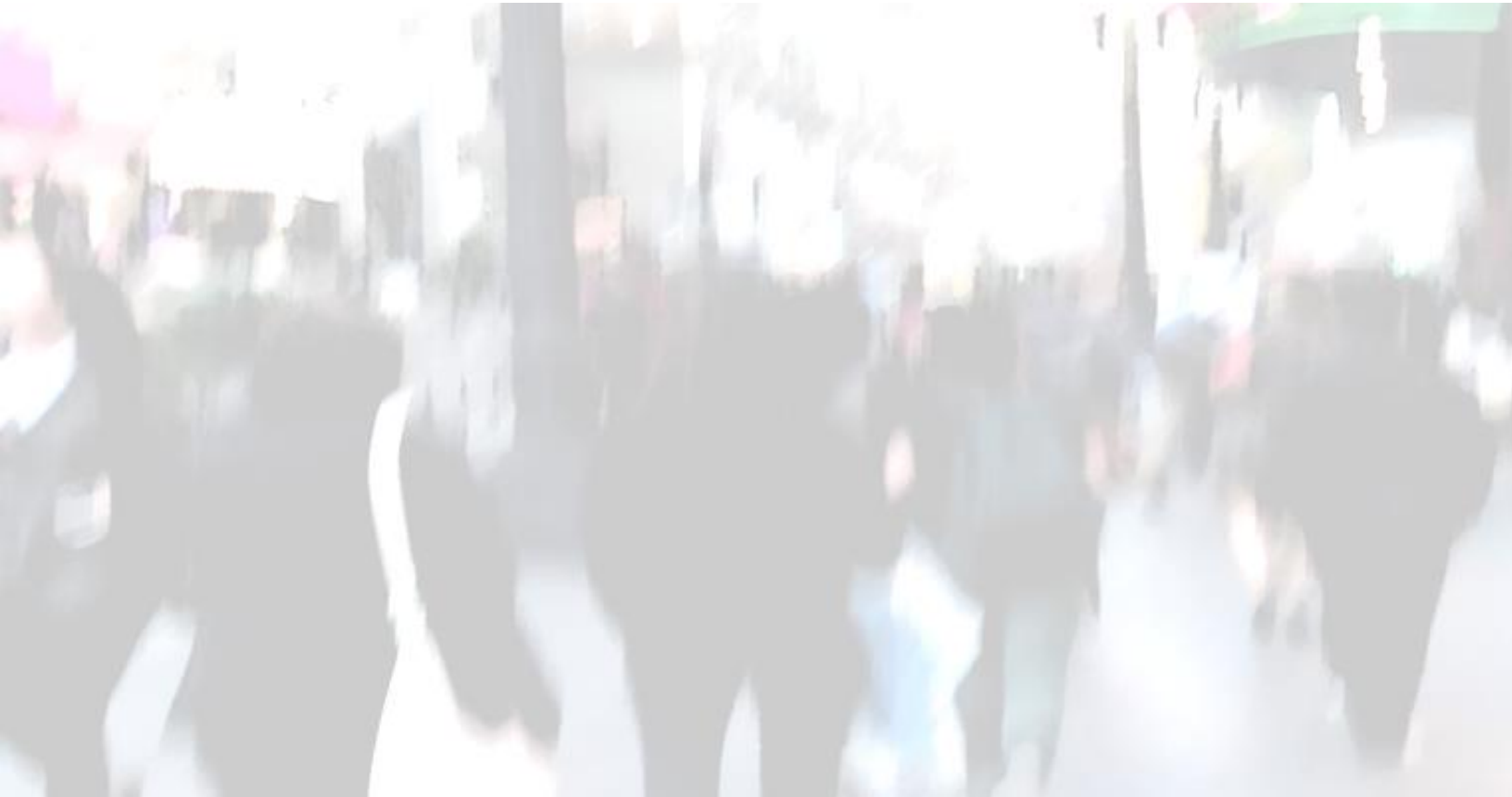


Disclaimer

This report should be used for informational purposes only. Vendor and product selections should be made based on multiple information sources, face-to-face meetings, customer reference checking, product demonstrations, and proof-of-concept applications.

The information contained in all Wisdom of Crowds® Market Study Reports reflects the opinions expressed in the online responses of individuals who chose to respond to our online questionnaire and does not represent a scientific sampling of any kind. Dresner Advisory Services, LLC shall not be liable for the content of reports, study results, or for any damages incurred or alleged to be incurred by any of the companies included in the reports as a result of the content.

Business Intelligence: A Definition

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).

Introduction

This year we celebrate the tenth anniversary of Dresner Advisory Services and our first-ever conference, Real Business Intelligence, July 11th and 12th on the campus of MIT in Cambridge, Massachusetts!

Our thanks to all of you for your continued support and ongoing encouragement!

Since our founding in 2007, we have worked hard to set the "bar" high—challenging ourselves to innovate and lead the market—offering ever greater value with each successive year.

Our first market report in 2010 set the stage for where we are today. Since that time, we have expanded our agenda and have added new research topics every year. For 2017, we plan to release 15 major reports, including, this, our original BI flagship report—in its eighth year of publication!

In previous years, we added new topics to our agenda and 2017 is no exception. Earlier this year, we published our inaugural Analytical Data Infrastructure report and added data catalog to the existing lineup during Q2.

This latest installment of our flagship Business Intelligence Market Study continues to evolve. This year, we expanded our section on the Chief Analytics and Chief Data Officer roles, added a budget section and added information about the ways in which organizations measure success and failure of BI. And we began tracking additional technologies and initiatives including natural language analytics, video analytics, and data catalog—bringing the total to 33.

We hope you enjoy this report!

Best,

Howard Dresner
Chief Research Officer
Dresner Advisory Services

Contents

Benefits of the Study

The Wisdom of Crowds® Business Intelligence Market Study provides a wealth of information and analysis—offering value to both consumers and producers of business intelligence technology and services.

Consumer Guide

As an objective source of industry research, consumers use the Wisdom of Crowds® Business Intelligence Market Study to understand how their peers leverage and invest in business intelligence and related technologies.

Using our trademark 33-criteria vendor performance measurement system, users glean key insights into BI software supplier performance, enabling:

- Comparisons of current vendor performance to industry norms
- Identification and selection of new vendors

Supplier Tool

Vendor Licensees use the Wisdom of Crowds® Business Intelligence Market Study in several important ways such as:

External Awareness

- Build awareness for the business intelligence market and supplier brand, citing Wisdom of Crowds® Business Intelligence Market Study trends and vendor performance
- Create lead and demand generation for supplier offerings through association with Wisdom of Crowds® Business Intelligence Market Study brand, findings, webinars, etc.

Internal Planning

- Refine internal product plans and align with market priorities and realities as identified in Wisdom of Crowds® Business Intelligence Market Study
- Better understand customer priorities, concerns, and issues
- Identify competitive pressures and opportunities

About Howard Dresner and Dresner Advisory Services

The Wisdom of Crowds® 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 Study reports, we engage with a global community to redefine how research is created and shared. Other research reports include:

- Advanced and Predictive Analytics
- Big Data Analytics
- Business Intelligence Competency Center
- Cloud Computing and Business Intelligence
- Collective Insights®
- Embedded Business Intelligence
- End User Data Preparation
- IoT Intelligence™
- Location Intelligence

Howard (www.twitter.com/howarddresner) conducts a weekly Twitter "tweetchat" on Fridays at 1:00 p.m. ET. The hashtag is #BIWisdom. During these live events, the #BIWisdom community discusses a wide range of business intelligence topics.

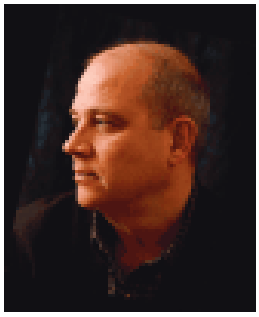
You can find more information about Dresner Advisory Services at www.dresneradvisory.com.

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 2010-2012 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.

Survey Method and Data Collection

As in our original Wisdom of Crowds® Business Intelligence Market Study, we constructed a survey instrument to collect data and used social media and crowd-sourcing techniques to recruit participants.

We also include our own research community of over 4,500 organizations (versus 3,500 in 2016) as well as vendors' customer communities.

Data Quality

We carefully scrutinized and verified all respondent entries to ensure that the study includes only qualified participants.

New for 2017

For 2017, we again expanded our research objectives substantially. As with 2016, this is particularly evident in the area of user trending. This year's study adds:

- Three additional technologies and initiatives strategic to business intelligence (data catalog, video analytics, and natural language analytics) to extend our study to a total of 33 areas
- Additional questions surrounding the impact of chief data officers (CDOs) and chief analytics officers (CAOs)
- Budget questions addressing allocation of funds and whether budgets are increasing, decreasing, or static year over year.
- Questions surrounding how organizations measure success or failure with business intelligence.

Executive Summary

Executive Summary

User Analysis:

- Operations supplanted executive management as the leading driver of BI in organizations. HR increasingly drives BI (pp. 23-28).
- Over time, BI targeting of executives and middle managers declined, while other roles (contributors, customers, suppliers) remained flat (pp. 29-33).
- "Better decision making" remains the top objective for business intelligence, well ahead of revenue and competitive objectives (pp. 34-38).
- Respondents expect greater BI expansion and penetration in coming time frames at a faster rate than during the previous year (pp. 39-48).
- The uptake and maturity of chief data and chief analytics officers remains modest at less than 16 percent. Most organizations experience a high or low impact due to CAO/CDO appointment. Most CAOs/CDOs report to the CEO, but this does not ensure success (pp. 49-56).
- The use of four or more BI tools increased slightly over time, reversing a consolidation trend; it is possibly due to lighter BI architectures (pp. 57-61).
- Fundamental technologies—reporting, dashboards, etc.) continue to top technologies and initiatives strategic to BI. Big data is gaining momentum, while data discovery declined (pp. 62-68).
- Respondents are highly confident in their "state of data," though results are mostly flat over time (pp. 69-74).
- Organizations are highly confident of their ability to take "action on insight," though results are mostly flat or slightly improved over time (pp. 75-80).
- In 2017, our core measure of "success with business intelligence" declined slightly. Successful organizations focus upon user satisfaction; unsuccessful organizations focus more upon system usage and adoption (pp. 81-90).
- Organizations with a CDO or CAO report much greater BI success. Organizations that employ fewer tools tend to be more successful. BI success correlates strongly with positive "state of data" and "action on insight" (pp. 91-94).
- Half of respondent organizations plan to increase BI investment while just 5 percent will decrease BI budgets from 2016 levels. The BICC function indicates the greatest BI budget growth (pp. 95-100).

Industry Analysis:

Based on user scores, industry performance in 2017 improved across nearly every parameter we measured (pp. 103-110).

- Quality and usefulness improved across all measures, notably "reliability of technology," "scalability," and integration of components within product" (p. 105).
- The vendor industry reached all-time high performance scores in all areas of technical performance, notably in "professionalism" and "continuity of personnel" (p. 105).
- BI vendor consulting carried a six-year positive trend into 2017, with rebounds in "value" and "continuity" (p. 107).
- Vendor integrity grew slowly but surely over the last four years with the best year-over-year gains occurring in 2017 (p. 108).
- Industry performance, by the measure of customers willing to recommend, continued a four-year positive trend (p. 109).
- Perpetual on-premises licensing is offered by 66 percent of vendors in 2017, a gain over the previous year (p. 111).
- Fewer than 20 percent of vendors offer concurrent on-premises licensing in 2017. Public cloud concurrent licensing is even less common in 2017 (p. 112).
- The numbers of vendors offering a subscription licensing model continues to grow (p. 113).
- Among vendors that still offer perpetual licenses, maintenance is most often based upon list price versus discounted price (p. 114).

Study Demographics

Our 2017 survey base provides 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 have constructed cross-tab analyses using these demographics to identify and illustrate important industry trends.

Geography

Fifty-six percent of respondents work at North America-based organizations (including the United States, Canada, and Puerto Rico). EMEA accounts for about 32 percent of respondents; the remainder are distributed across Asia Pacific and Latin America (fig. 1).

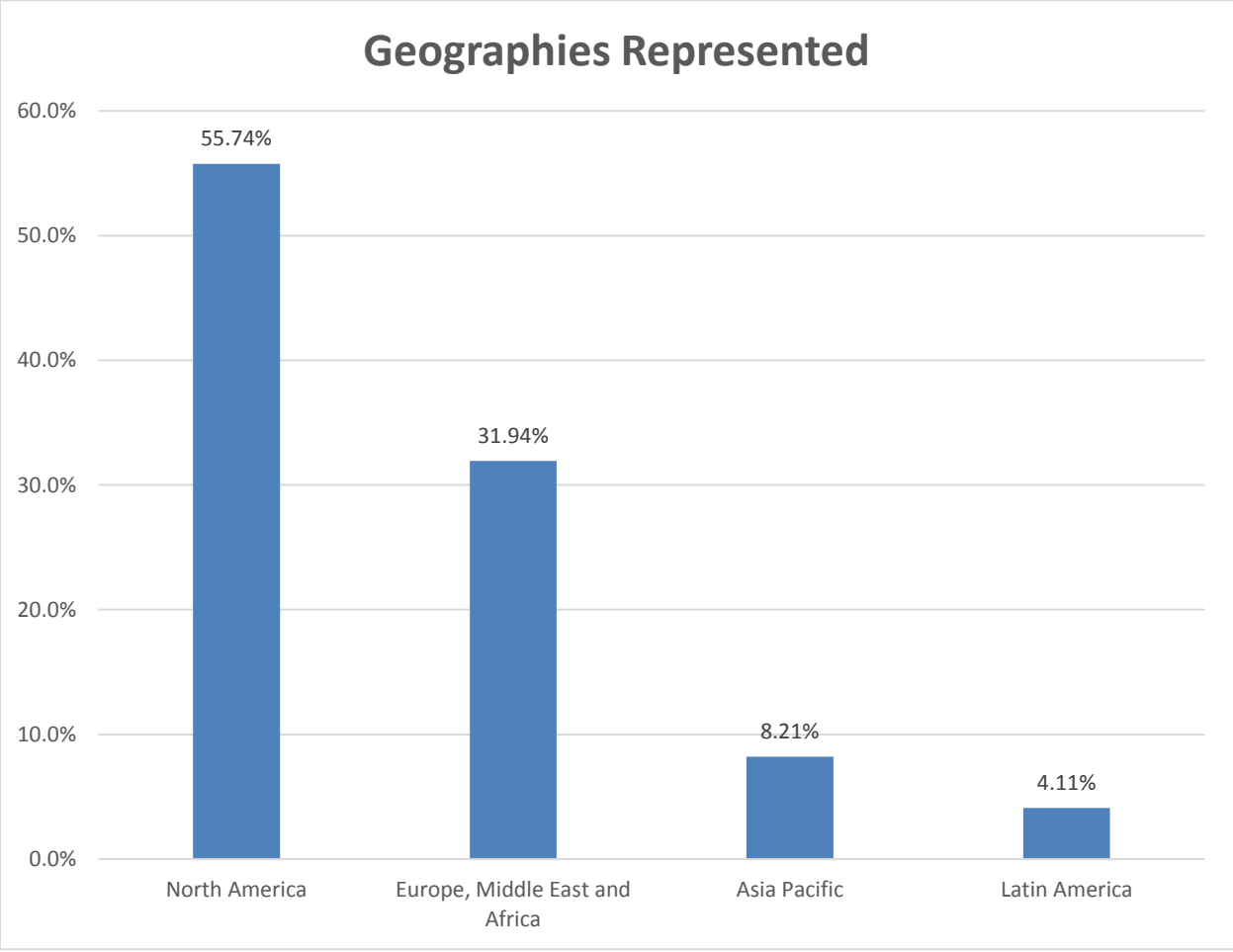


Figure 1 – Geographies represented

Functions

In 2017, our sample base includes a mix of functions (fig. 2). IT accounts for the largest group (26 percent), followed by Executive Management (20 percent) and Finance (14 percent). The BICC, Operations, and Marketing are the next most represented functions.

Tabulating results across functions helps us develop analyses that reflect the differences and influence of different departments within organizations.

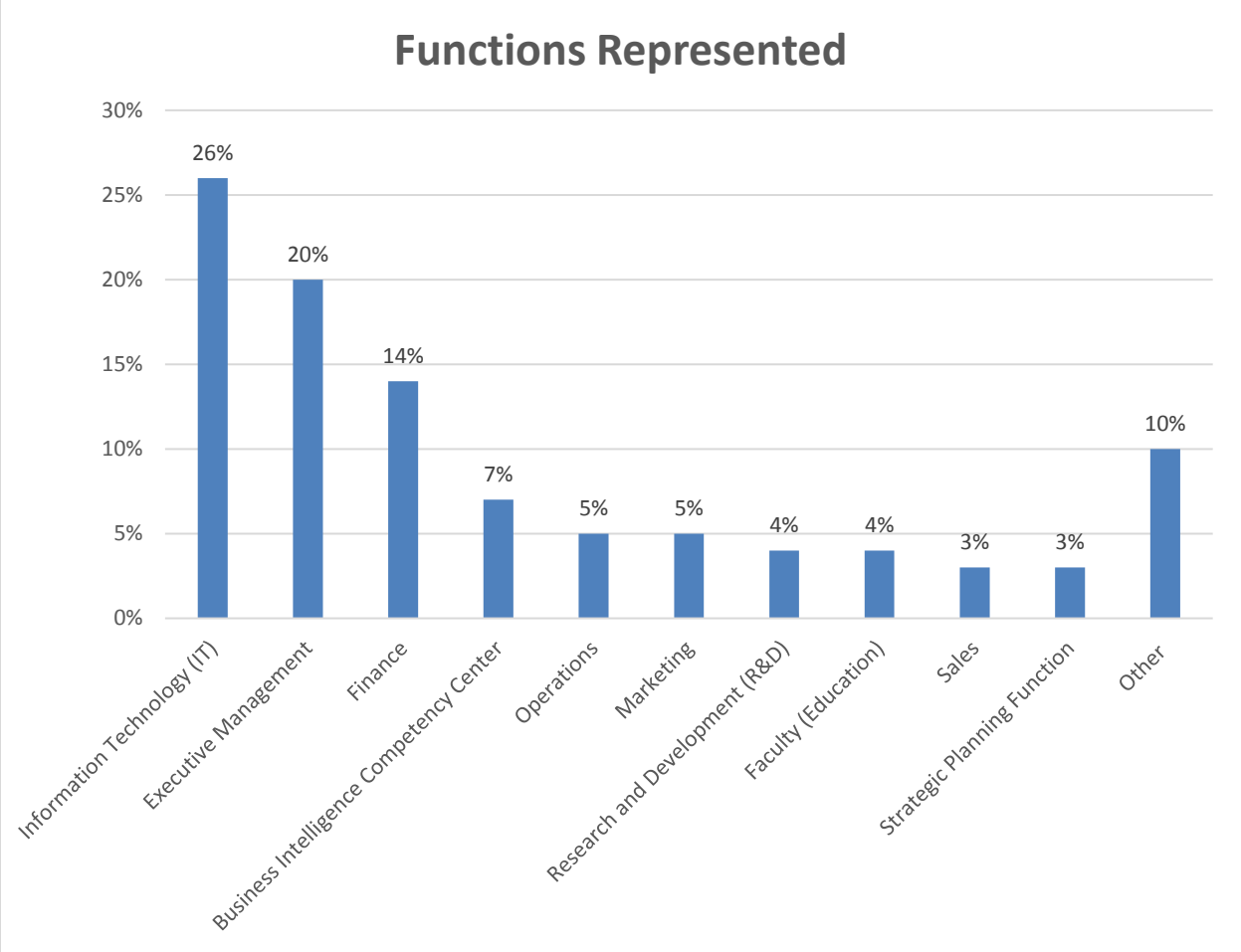


Figure 2 – Functions represented

Vertical Industries

In 2017, vertical industry distribution is similar to prior studies, led by Technology, Consulting, Financial Services and Healthcare (fig. 3). Higher Education, Manufacturing, and Retail/Wholesale are the next most represented industries.

Tabulating results across industries helps us develop analyses that reflect the maturity and direction of different business sectors.

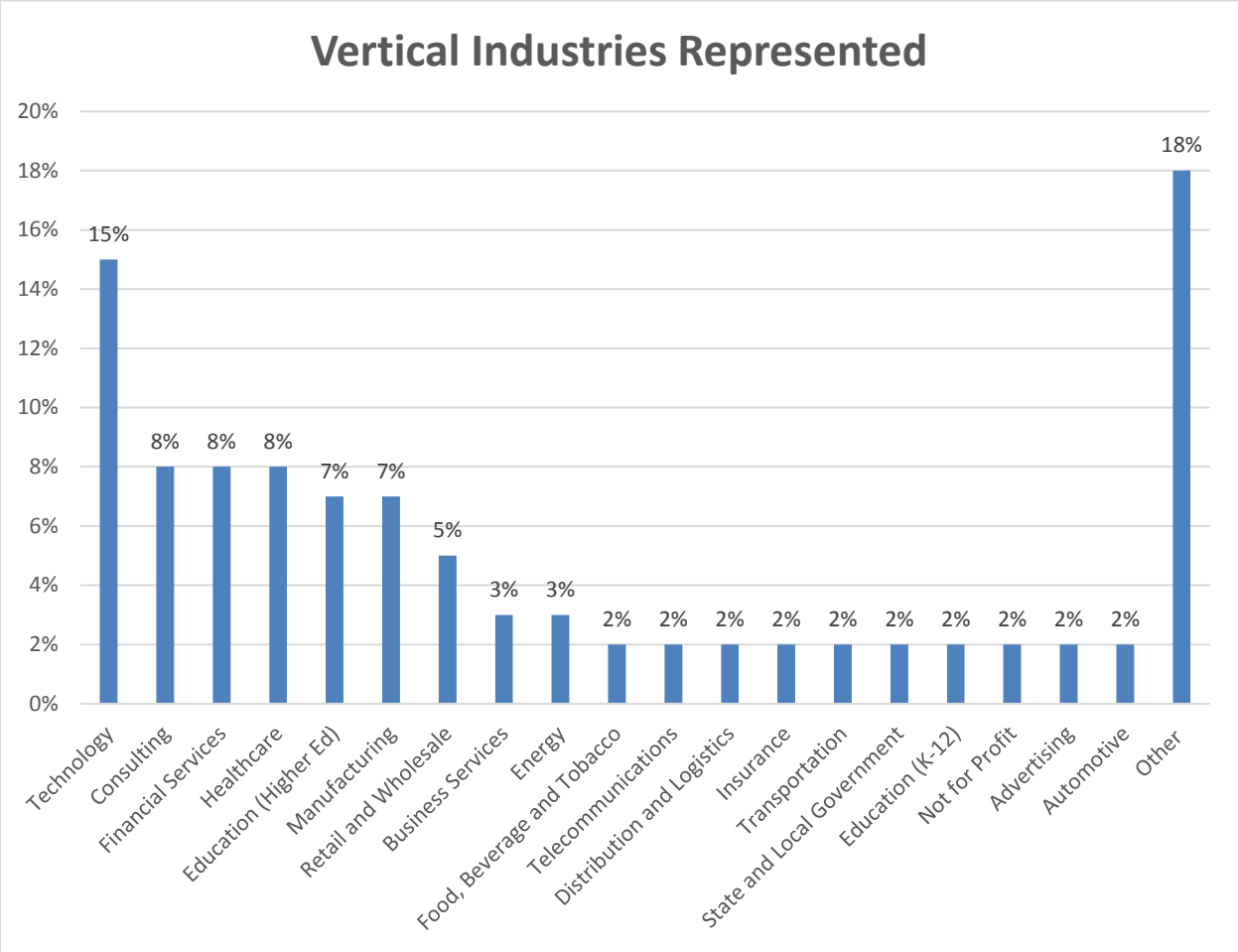


Figure 3 – Vertical industries represented

Organization Size

Participation by organizations of different sizes (global employee head count) is well balanced in 2017. Small organizations (1-100 employees) represent 28 percent of respondents, mid-size organizations (101-1,000 employees) represent 30 percent, and large organizations (>1,000 employees) account for the remaining 42 percent (fig. 4).

Tabulating results by organization size reveals important differences in practices, planning, and maturity.

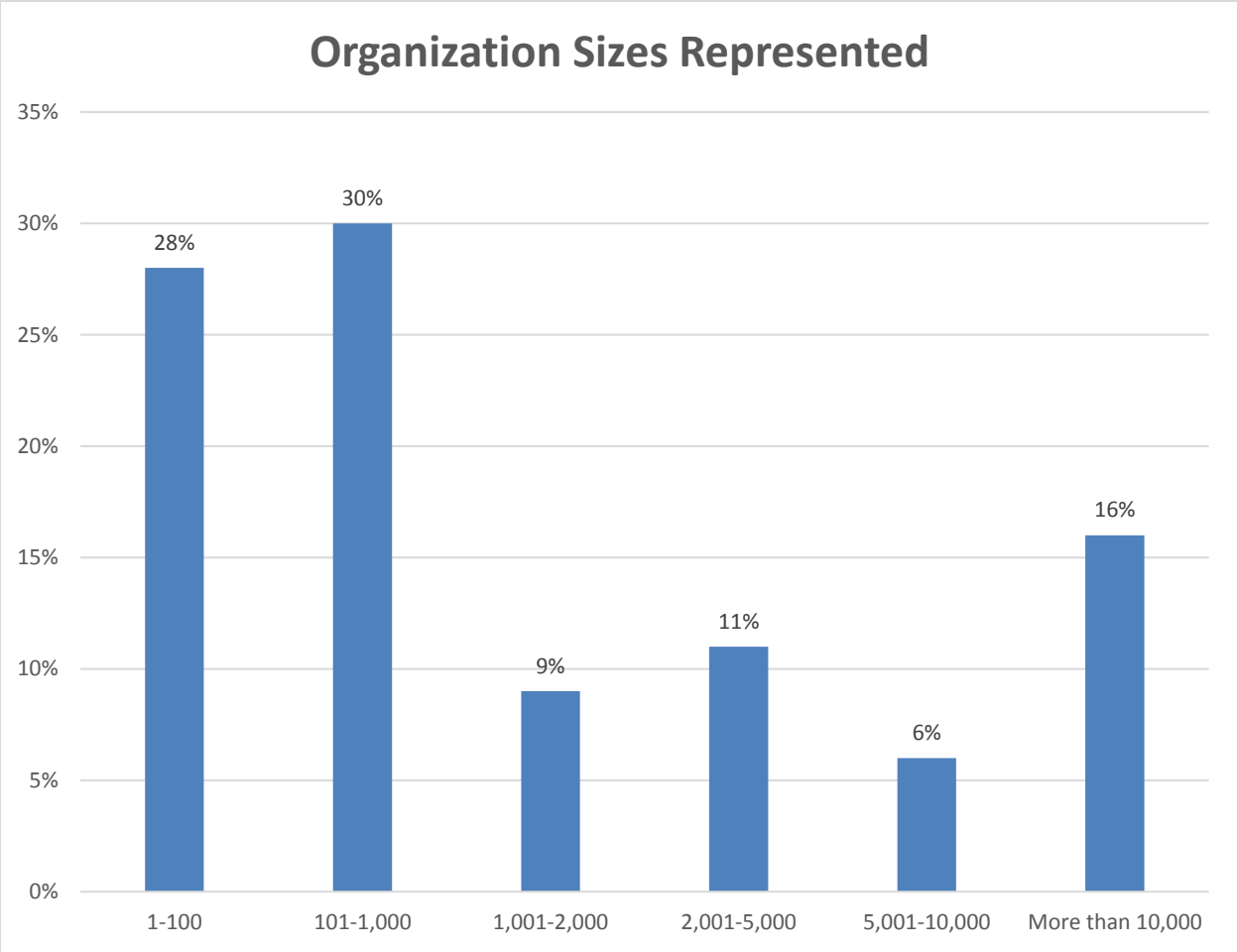


Figure 4 – Organization sizes represented

Analysis and Trends

Analysis and Trends

Departments/Functions Driving Business Intelligence

We asked respondents which functional roles drive business intelligence "always," "often," "sometimes," "rarely," or "never" (fig. 5). Our results show a breadth of influence, and for a second year in a row, survey respondents say Operations is the leading BI driver. (We note that departmental functions, e.g., Marketing, Sales, and Supply Chain, have operational activities within.) By this measure, we might conclude that business operations are becoming more engaged with BI, or that BI is more of a "baked in" or day-to-day tactical activity within Operations. Executive Management, which had formerly and traditionally been the leading driver, is the second most-cited functional driver in 2017. Finance and IT are the next strongest drivers. Sales (like the top three drivers) "always" or "often" drives BI in more than half of organizations responding.

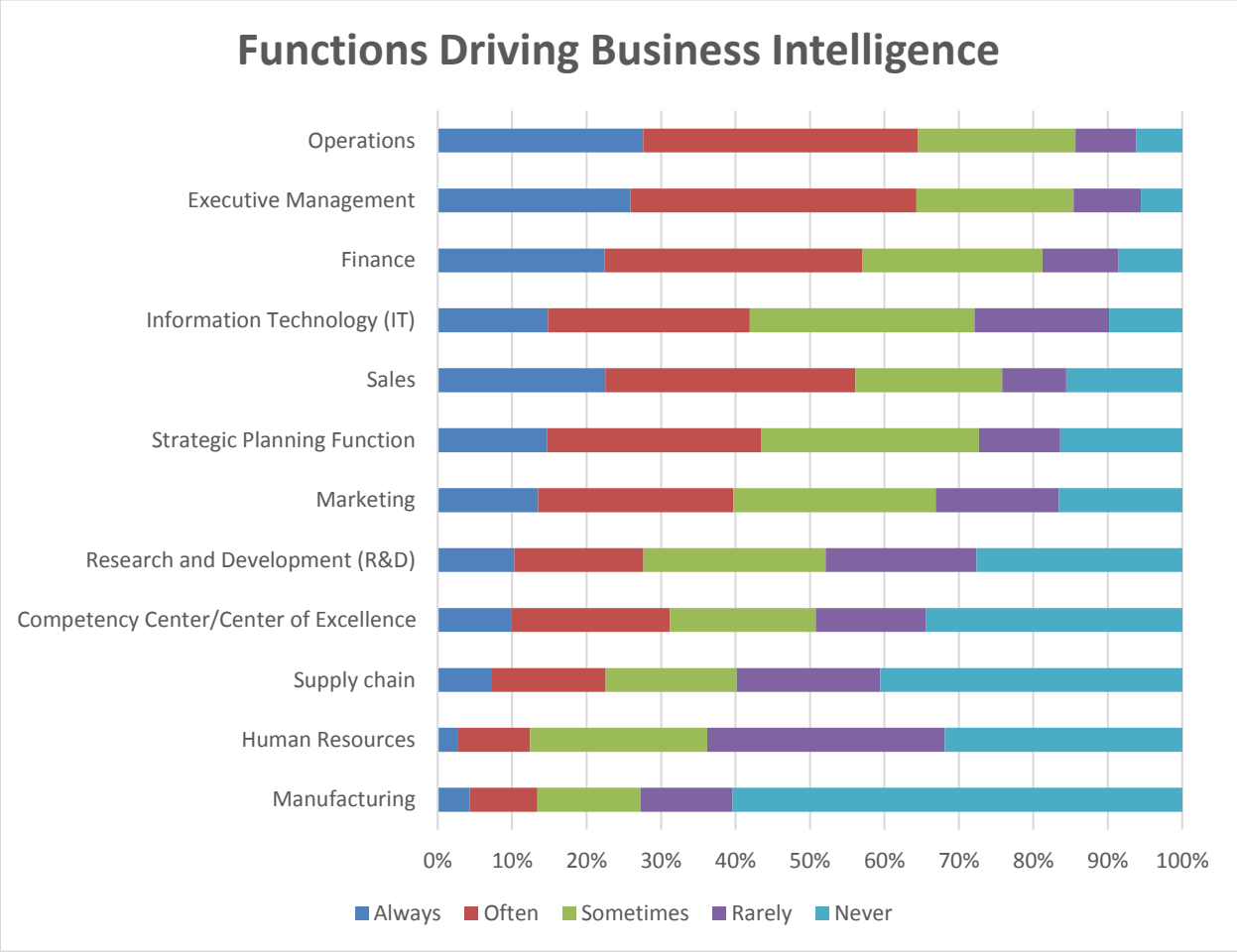


Figure 5 – Functions driving business intelligence

As noted in fig. 5, Operations supplanted Executive Management as the leading driver of business intelligence, though the two functions hold nearly identical influence in 2017 (fig. 6). Saturation of BI among executives might account for this shift, and it appears that mean importance reflects more downstream "democratization" of business intelligence solutions. We note that Finance is the third most influential, ahead of Sales and other front-office functions. Overall, functional influence in 2017 is somewhat on the decline, though in 2017 we see minor upticks in Strategic Planning and Supply Chain.

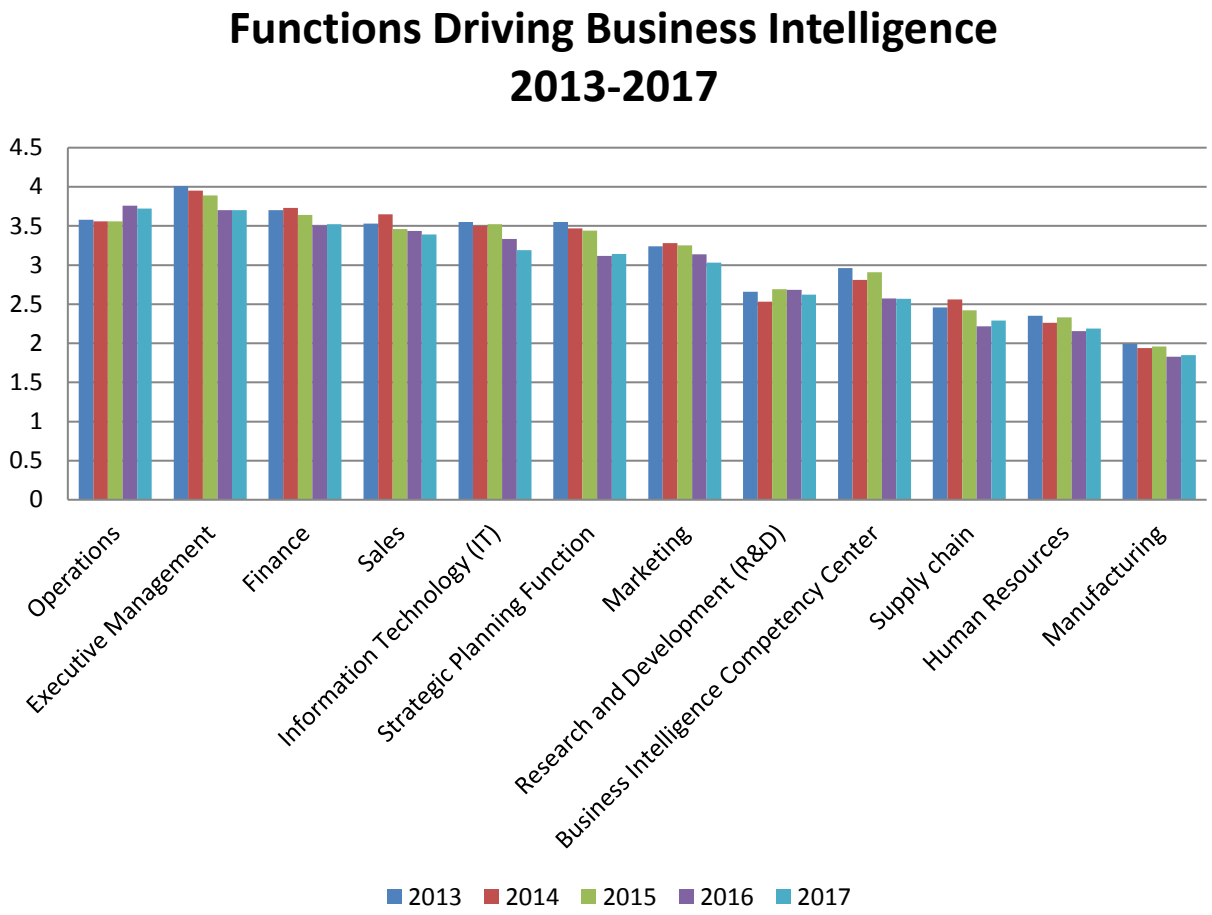


Figure 6 – Functions driving business intelligence 2013-2016

Fig. 7 depicts another instructive view of year-over-year office and departmental influence. Most notable is a nearly 7 percent increase in influence from human resources, which could portend future HR BI enablement (as was once predicted for Marketing and Sales). Rising Manufacturing and Supply Chain influence underpin the operational nature of current BI influence. Somewhat surprising are year-over-year decreases in Sales and Executive Management influence, although this may simply represent mature enablement.

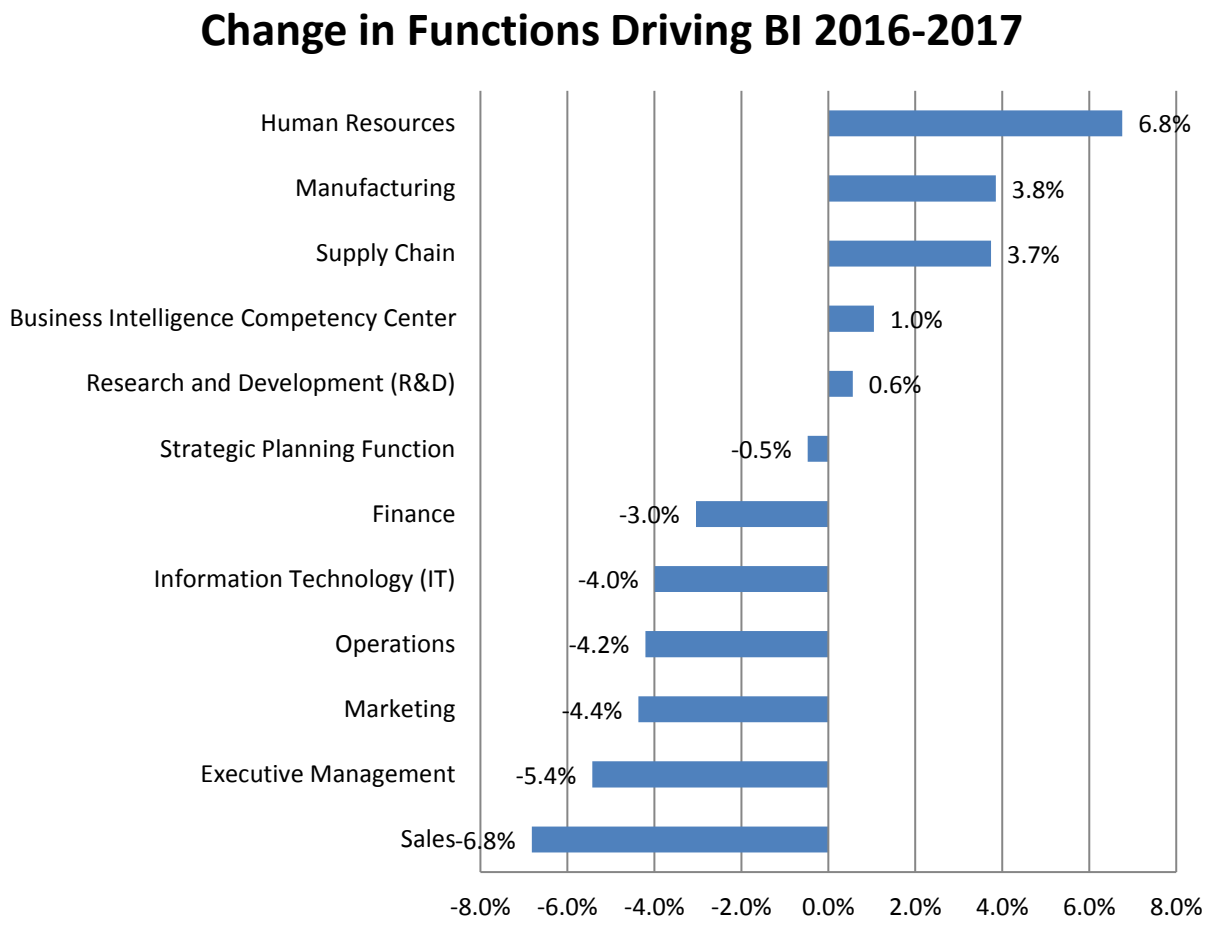


Figure 7 – Change in functions driving BI 2016-2017

Functions Driving Business Intelligence by Major Geography

Operations is generally the strongest functional driver of business intelligence by geography, though Executive Management influence remains slightly higher in North America (fig. 8). Elsewhere, we see the highest overall Sales and Strategic Planning influence in Latin America. EMEA respondents are narrowly most influenced by respondents in Finance. Though we already noted year-over-year gains, Manufacturing, Supply Chain, and HR are still the least influential departments in all regions.

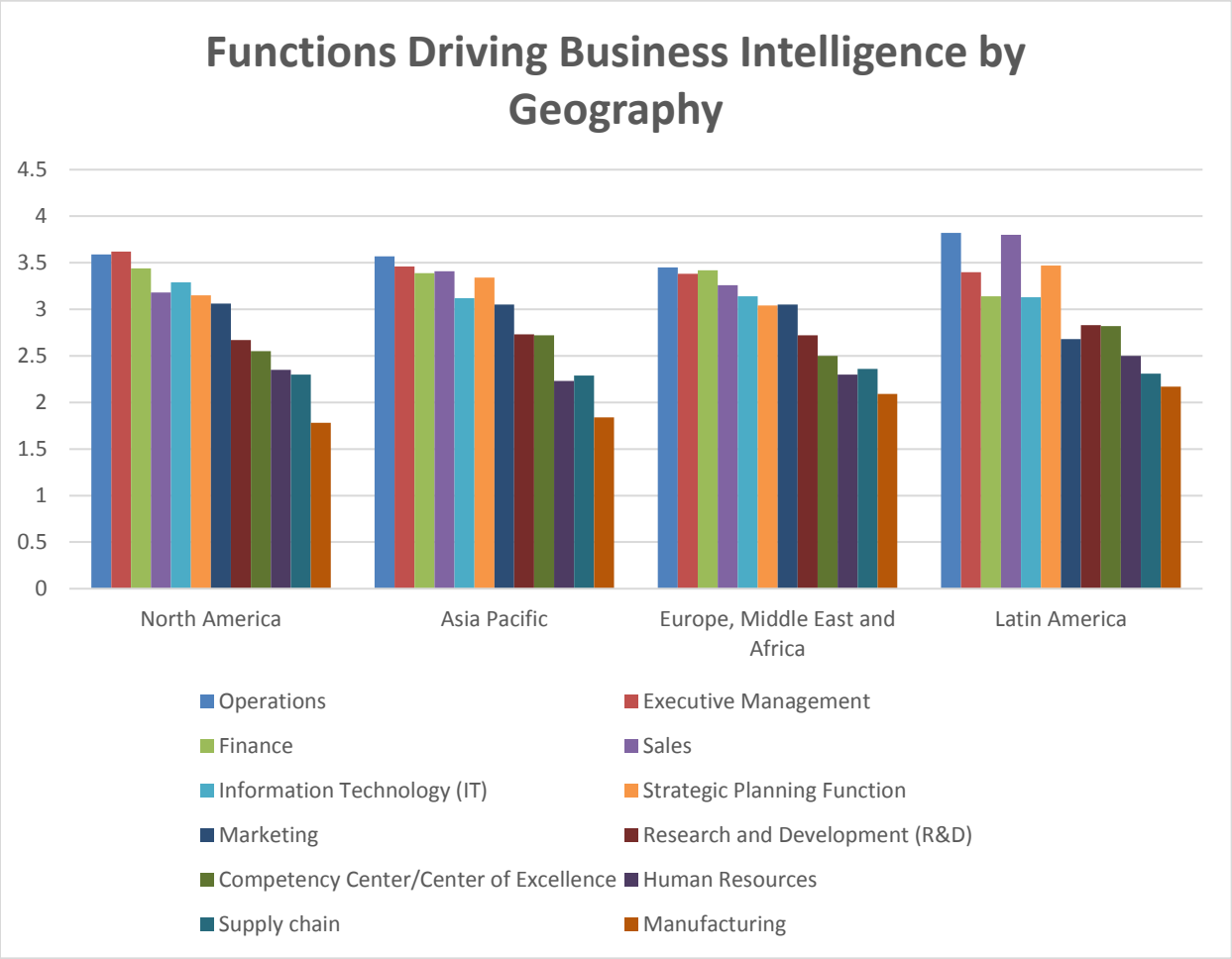


Figure 8 – Functions driving business intelligence by geography

Functions Driving Business Intelligence by Vertical Industry

The importance of various functional drivers of BI is somewhat predictable across industries (fig. 9). In 2017, Retail/Wholesale shows the highest marks for not only operations, but also Sales, Executive Management, and Marketing. The influence of Executive Management is most distributed: highest in Retail/wholesale as mentioned and lowest in healthcare. IT is the most likely driver in Energy organizations. While Finance is a below-average influencer in several industries, the influence of Finance is greatest in Higher Education. The Competency Center / Center of Excellence is far and away the strongest driver in Manufacturing.

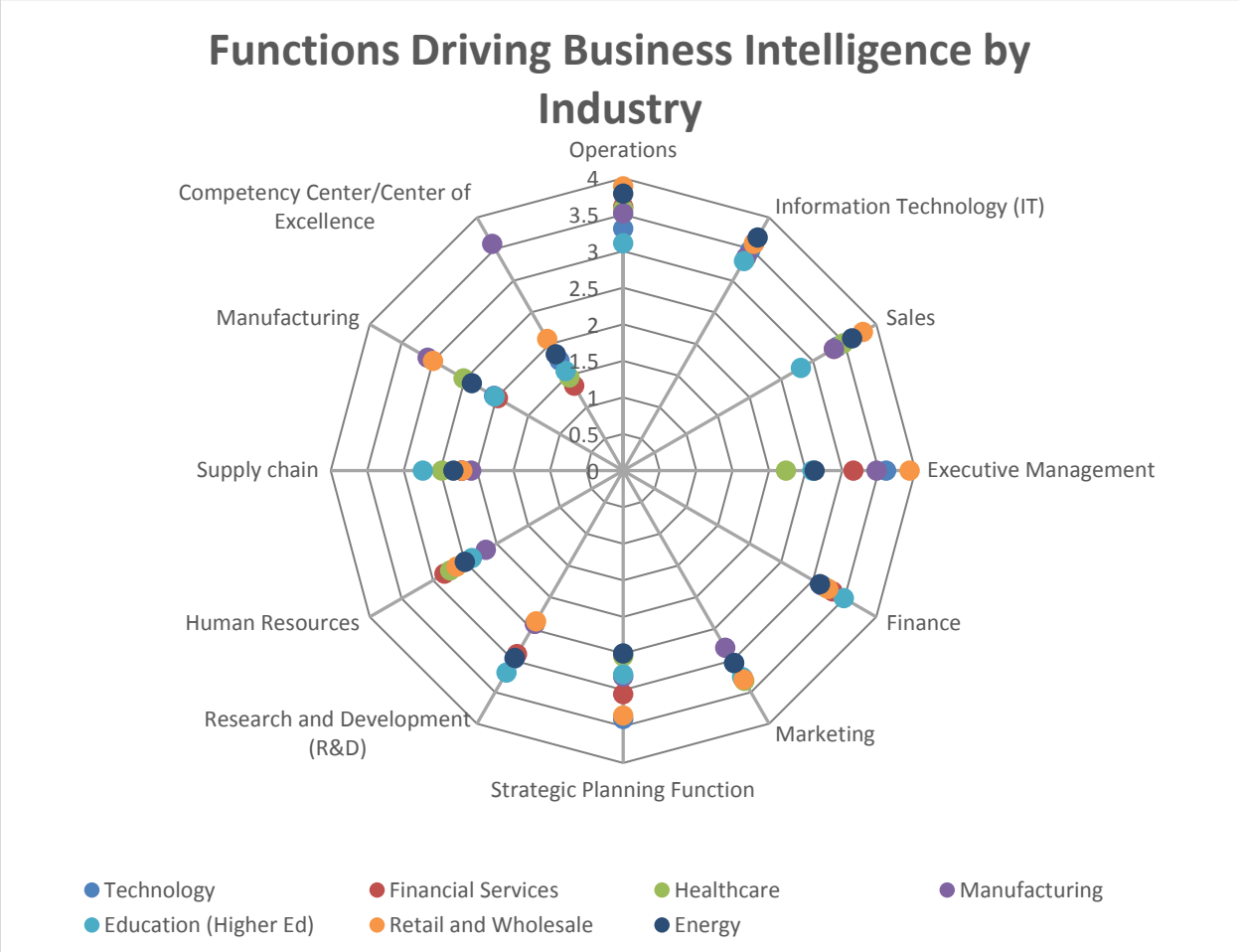


Figure 9 – Functions driving business intelligence by industry

Functions Driving Business Intelligence by Organization Size

Operations and executive management are the most likely drivers of business intelligence in small (1-100 employees) and very large (> 10,000 employees) organizations (fig. 10). In mid-sized organizations (101-1,000 employees) and large organizations with up to 10,000 employees, Finance is most influential by a narrow margin. Sales and Marketing are most influential in small organizations, and Sales influence carries over to mid-sized organizations. As in other measures, Manufacturing, Supply Chain and HR are the least influential, though we noted (fig. 7, p. 25) these areas have growing year-over-year influence.

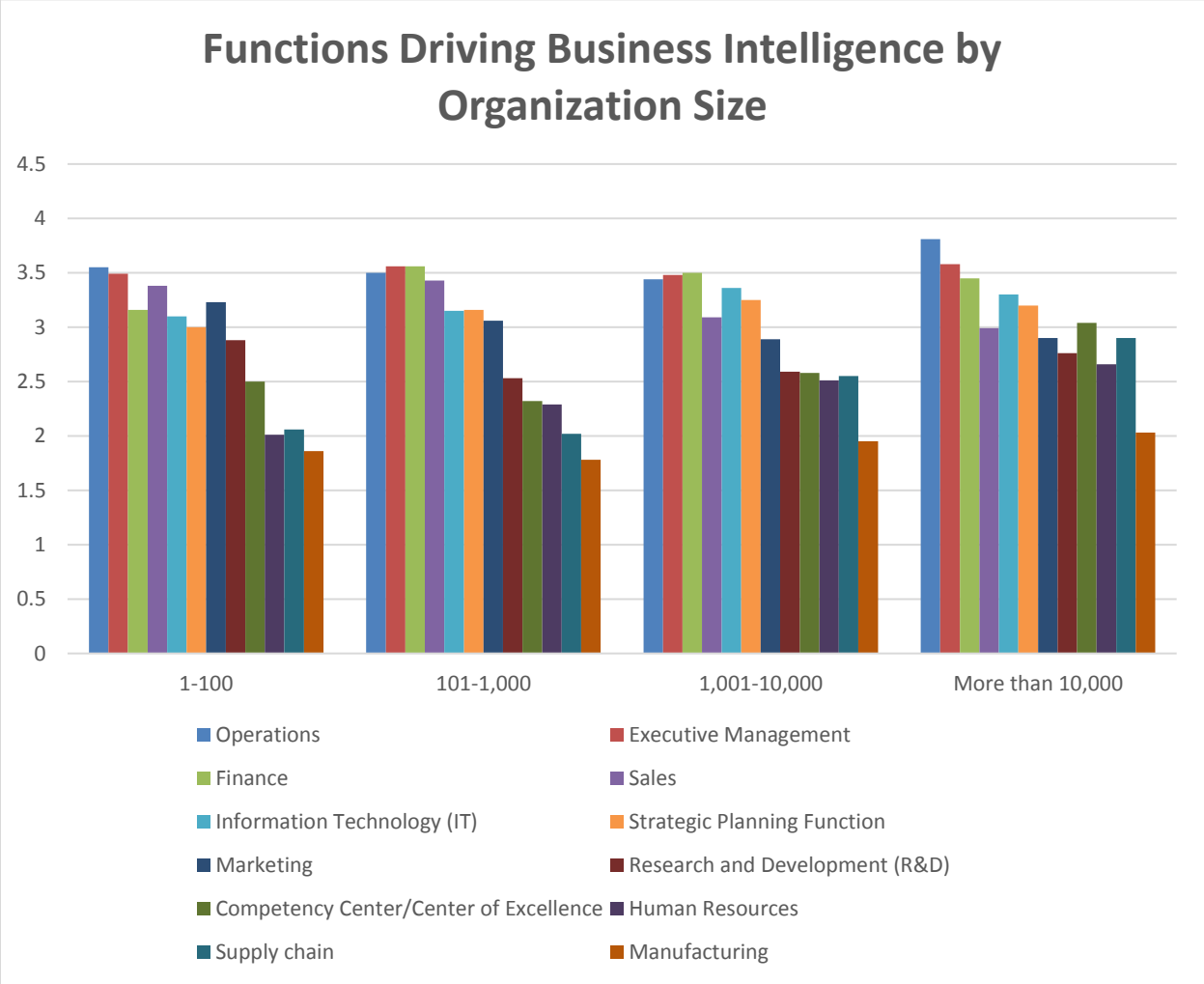


Figure 10 – Functions driving business intelligence by organization size

User Roles Targeted for Business Intelligence

In 2017 (as in 2016), executives and middle managers are about 93 percent likely to be targeted as primary or secondary users of business intelligence (fig. 11). Middle managers are less often seen as primary users but are as likely as executives to be targeted overall. Individuals and contributors/professionals and line managers are targeted as primary or secondary users at more than three-quarters of respondent organizations. Fewer than half of respondent organizations (25 percent primary, 23 percent secondary) currently target customers and suppliers.

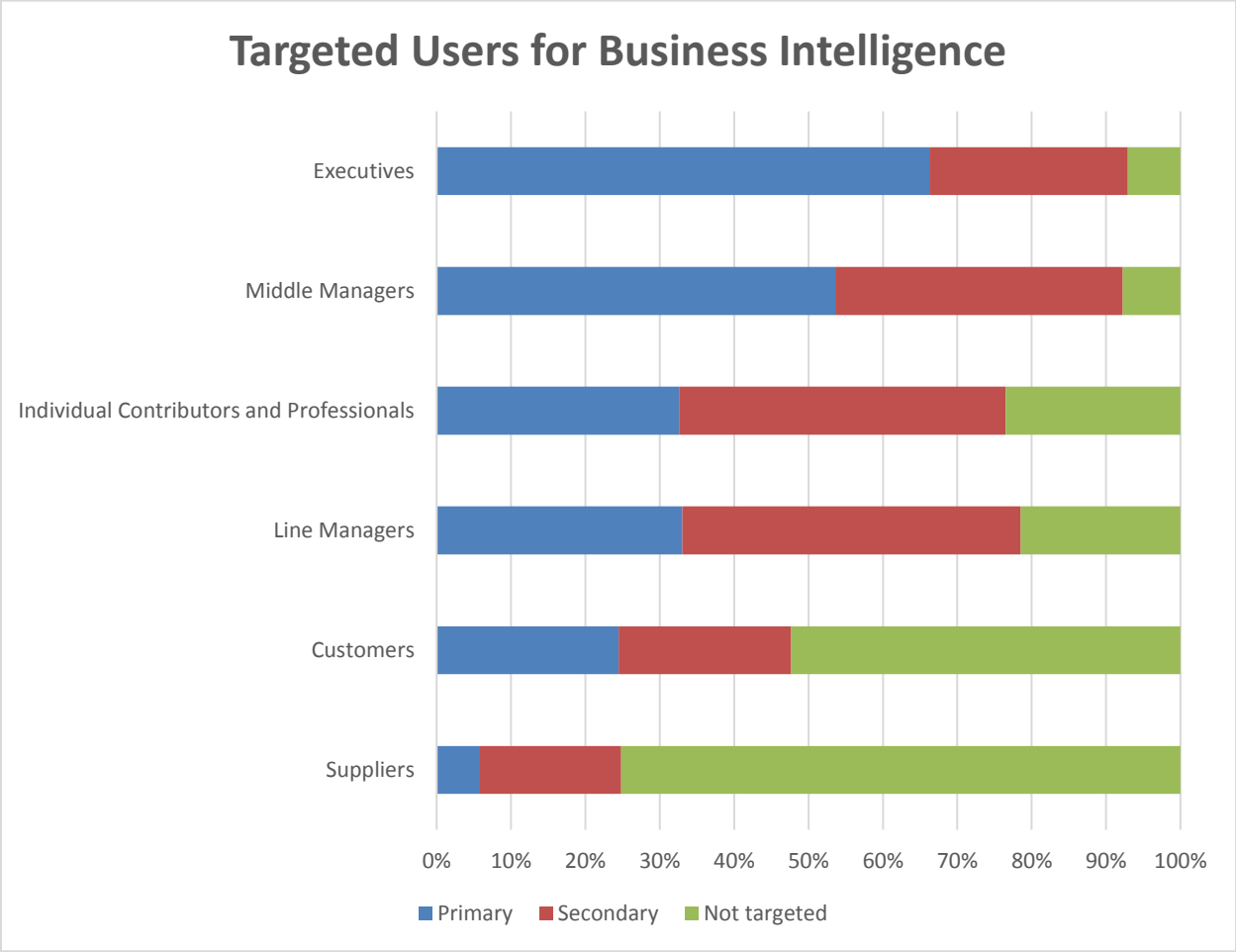


Figure 11 – Targeted users for business intelligence

Across five years of data, executive and middle manager BI targeting declined while other roles are mostly flat or improved somewhat (fig. 12). Perhaps in line with trends of specialization and outsourcing, individual contributors and professionals have been the greatest beneficiaries over time and today are roughly on par with line managers. Customer and supplier BI enablement are still back-burner issues for organizations.

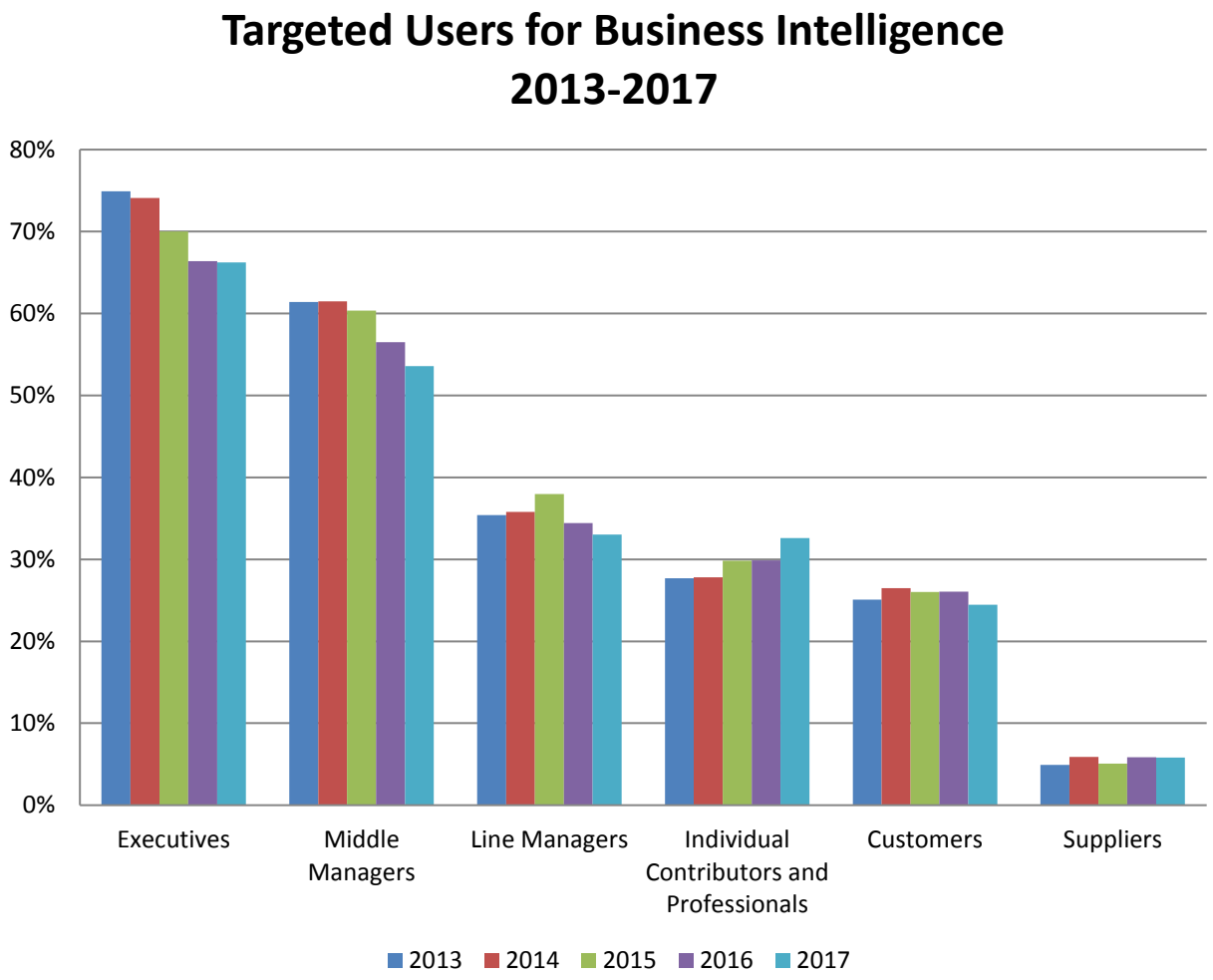


Figure 12 – Targeted users for business intelligence 2014-2016

Targeted Users for Business Intelligence by Geography

Executives are the most likely targets for business intelligence across all geographies except EMEA, where middle managers surpassed them (fig. 13). The aforementioned importance of targeting individual contributors and professionals is most important in North America (71 percent), followed by Asia Pacific (66 percent) and EMEA (65 percent). Customer and supplier targeting is comparatively low across all geographies, though customer targeting is highest in Asia Pacific (51 percent).

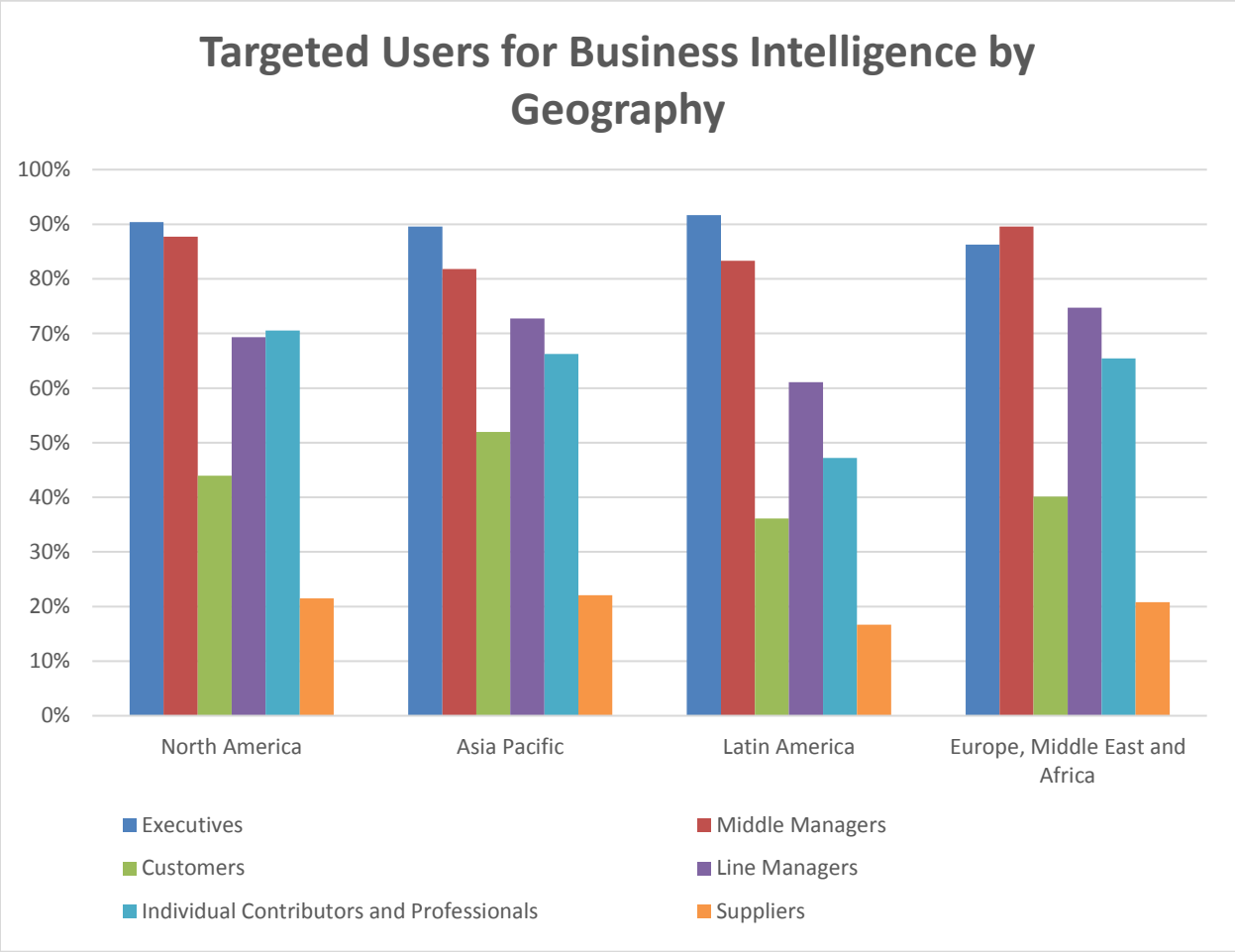


Figure 13 – Targeted users for business intelligence by geography

User Targets for Business Intelligence by Organization Size

Small organizations (1-100 employees), which tend to be flatter organizationally, favor executives as targets compared to other roles (fig. 14). Targeting customers is greatest at small organizations and tends to decrease as headcount increases. Targeting trends are more consistent at mid-sized and large organizations; all are 90 percent or more likely to target executives and middle managers. Very large organizations (> 10,000 employees) are most likely to target individual contributors and professionals. Targeting line managers and individuals increases with organization size.

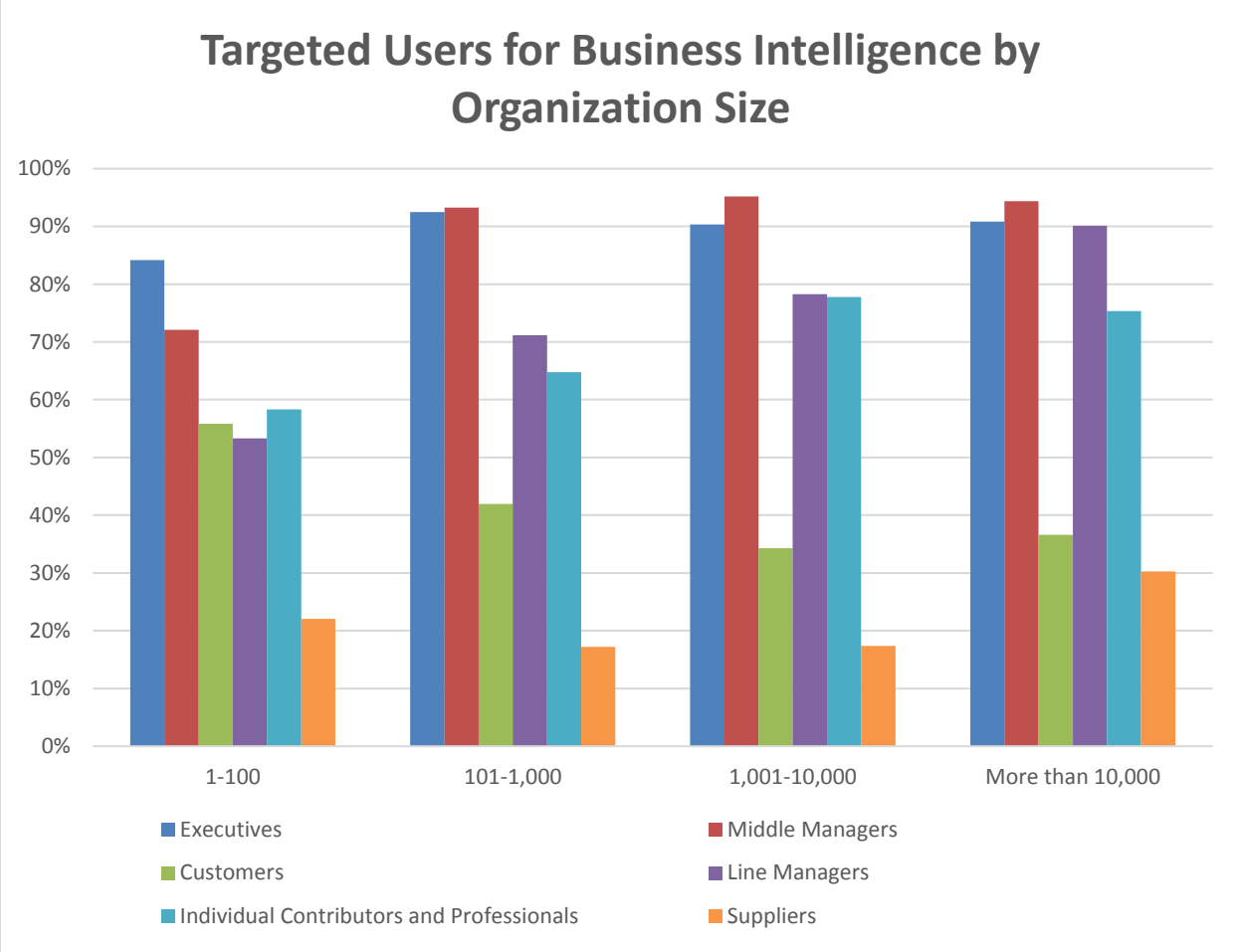


Figure 14 – Targeted business intelligence users by organization size

User Targets for Business Intelligence by Vertical Industries

Our 2017 sample shows some differences in user targeting by industry (fig. 15). Executive targeting is high across all industries, led by Financial Services, Retail/Wholesale, and Energy (all at 93 percent). Likewise, targeting middle managers is high across industries, led by Manufacturing (98 percent). Targeting individual contributors and professionals is highest in healthcare (77 percent) and targeting customers is highest in Technology (58 percent). As we might expect, supplier targeting is highest in Manufacturing and Retail/Wholesale.

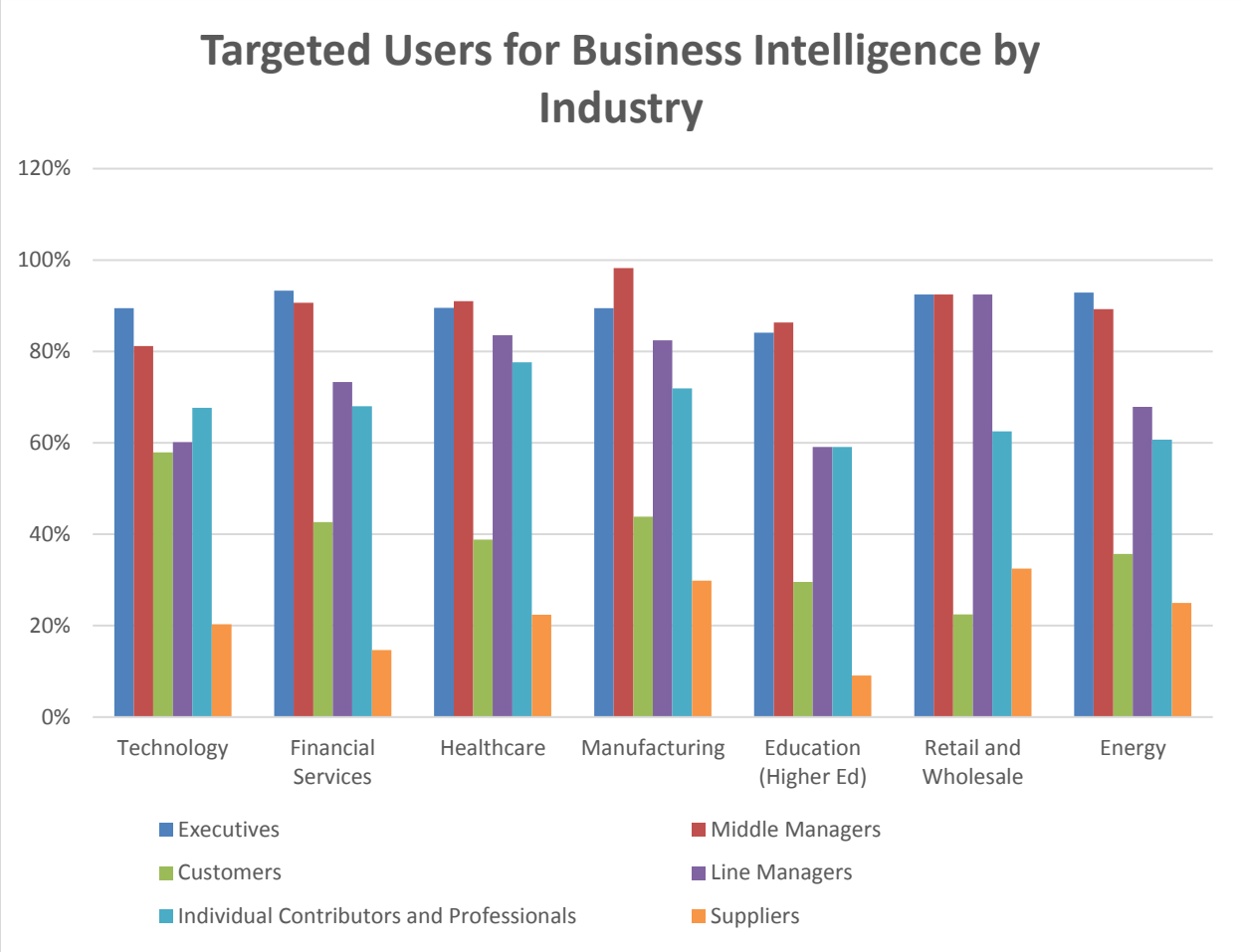


Figure 15 – Targeted business intelligence users by industry

Objectives for Business Intelligence

In 2017, the anecdotal and arguably philosophical goal of “making better decisions” remains atop our list of business intelligence objectives (fig. 16). We traditionally associated this goal with organizations seeking general improvements wherever available through the use of business intelligence. In perhaps another reflection of recent operational emphasis, improved operational efficiency was the second choice (70 percent "critical" or "very important"), followed by revenue growth, increased competitive advantage, and enhanced customer service. The priority of these rankings is virtually unchanged over time. Just 7 percent or fewer respondents consider any of the offered BI objectives "unimportant."

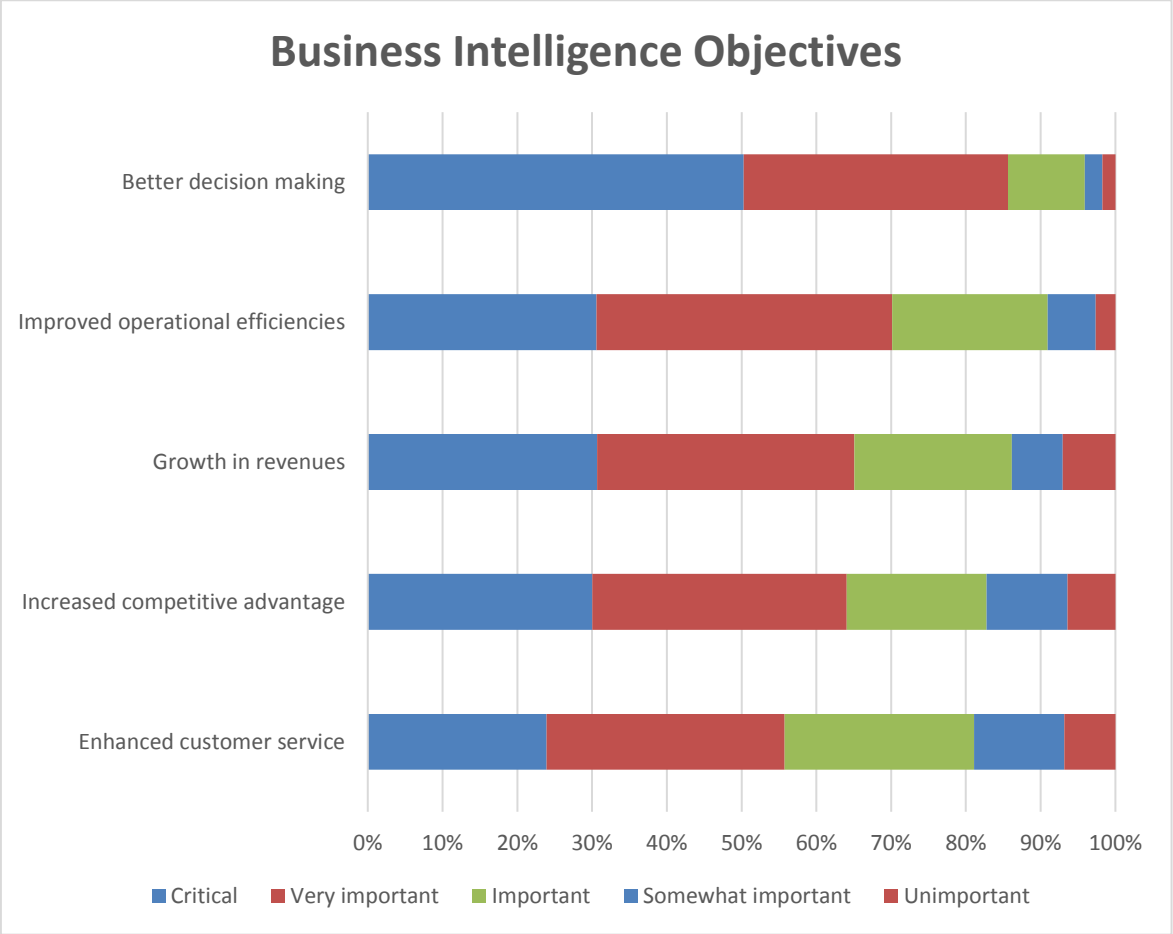


Figure 16 – Business intelligence objectives

Business Intelligence Objectives by Geography

"Better decision making" is the most important BI objective across all geographical regions in 2017, and to a slightly greater extent in North America and Latin America (fig. 17). Asia-Pacific and North American respondents also have the highest goals for improved operational efficiency (the second most important objective in all regions except Latin America) and increased competitive advantage. Asia-Pacific respondents put the most emphasis on enhanced customer service as a BI objective.

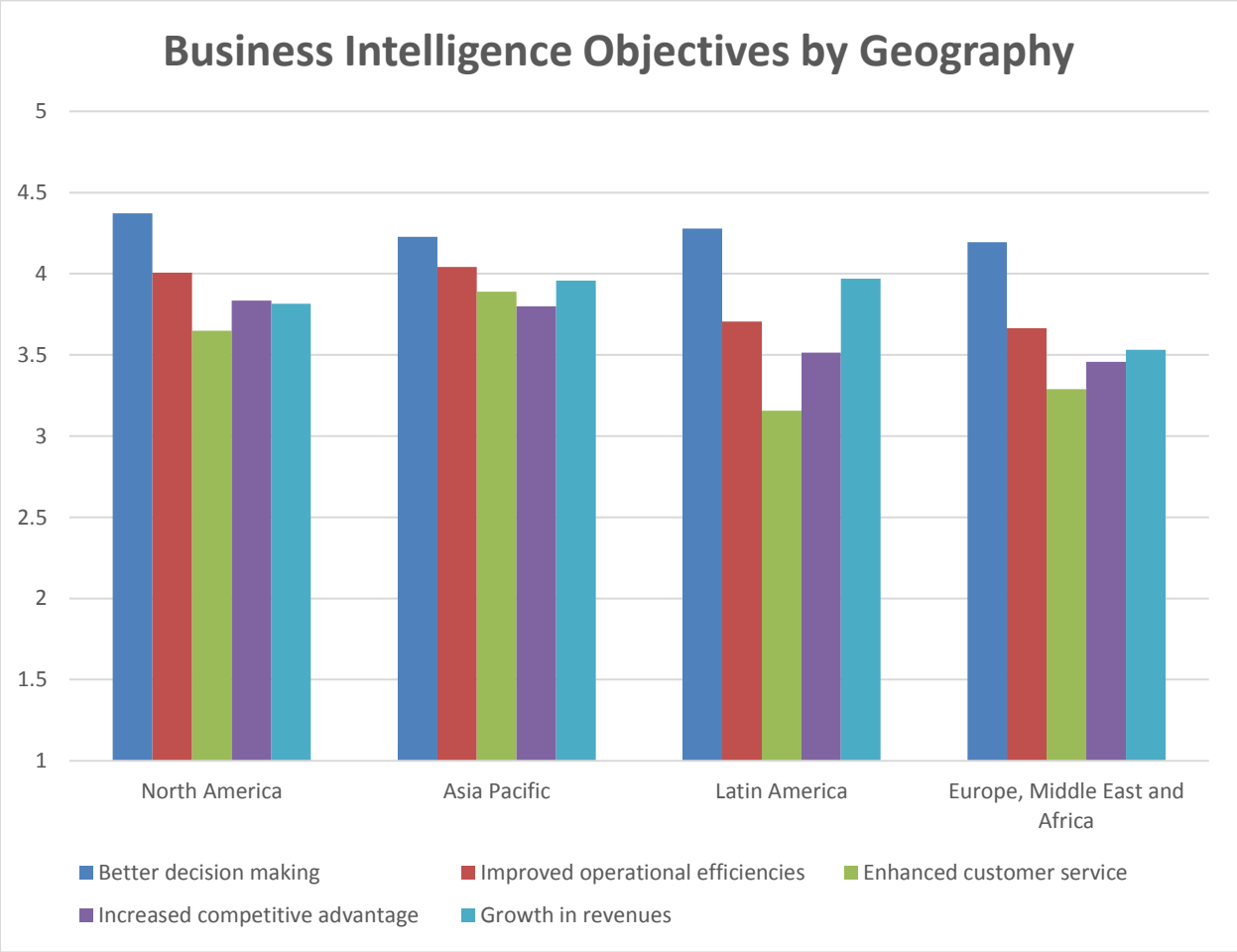


Figure 17 – Business intelligence objectives by geography

Business Intelligence Objectives by Function

In 2017, interest in business intelligence objectives varies somewhat by function, though "better decision making" is the top choice for all roles (fig. 18). Operations has the highest overall marks for operational efficiency and increased competitive advantage. Not surprising, Executive Management puts above-average emphasis on revenue growth and increased competitive advantage. The objective of revenue growth is highest overall in Sales and Marketing; sales also gives "better decision making" its highest scores.

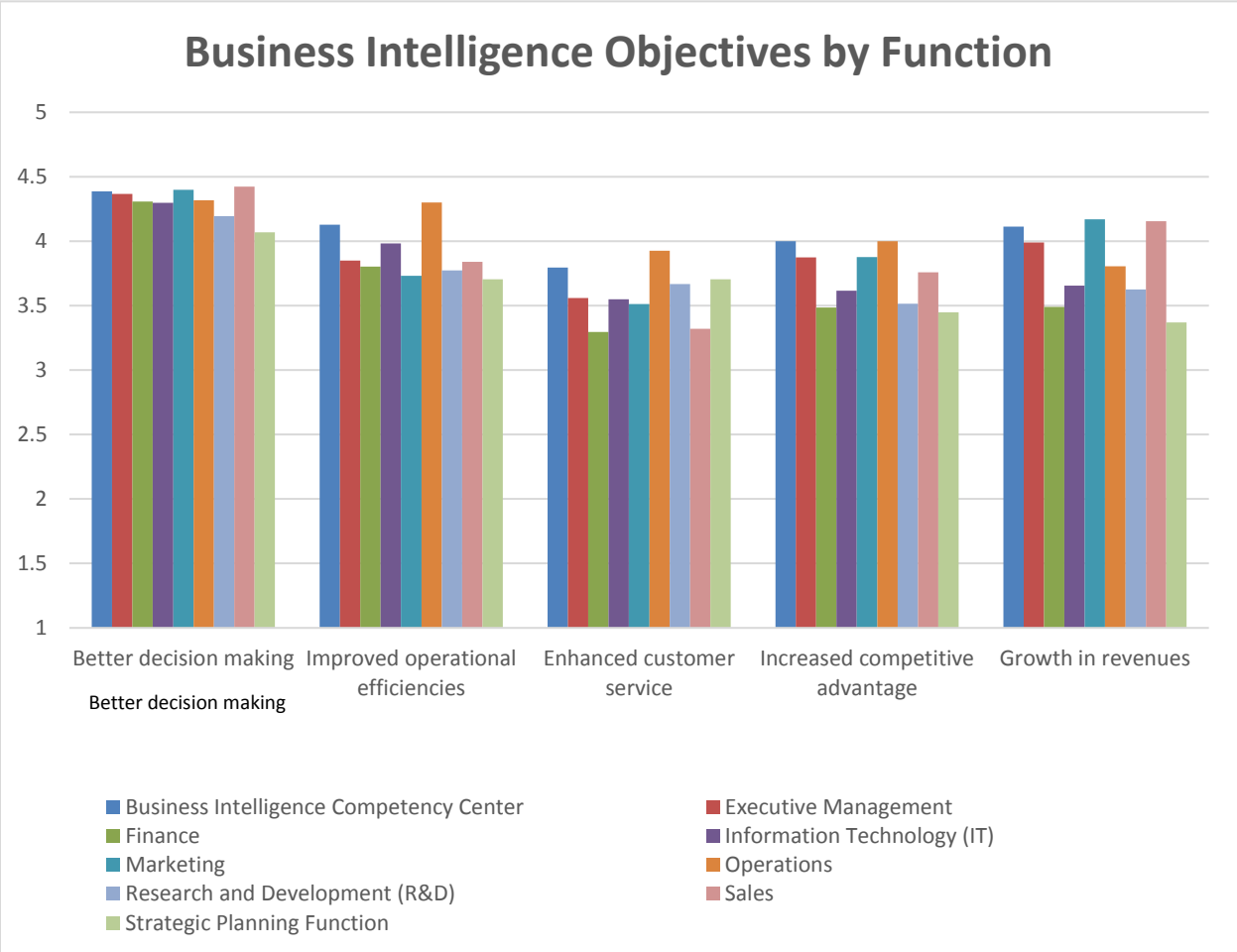


Figure 18 - Business intelligence objectives by function

Business Intelligence Objectives by Vertical Industry

Better decision making ranks high across all industries in 2017 but is not always the top pick among BI objectives (fig. 19). In Healthcare, operational efficiency is the most important BI objective. In churn-heavy Financial Services, customer service is the top BI objective. Technology, Financial Services and Retail/Wholesale are the most revenue-centric industries in their BI endeavors. Competitive advantage appeals most strongly to Technology, Financial Services and Energy organizations.

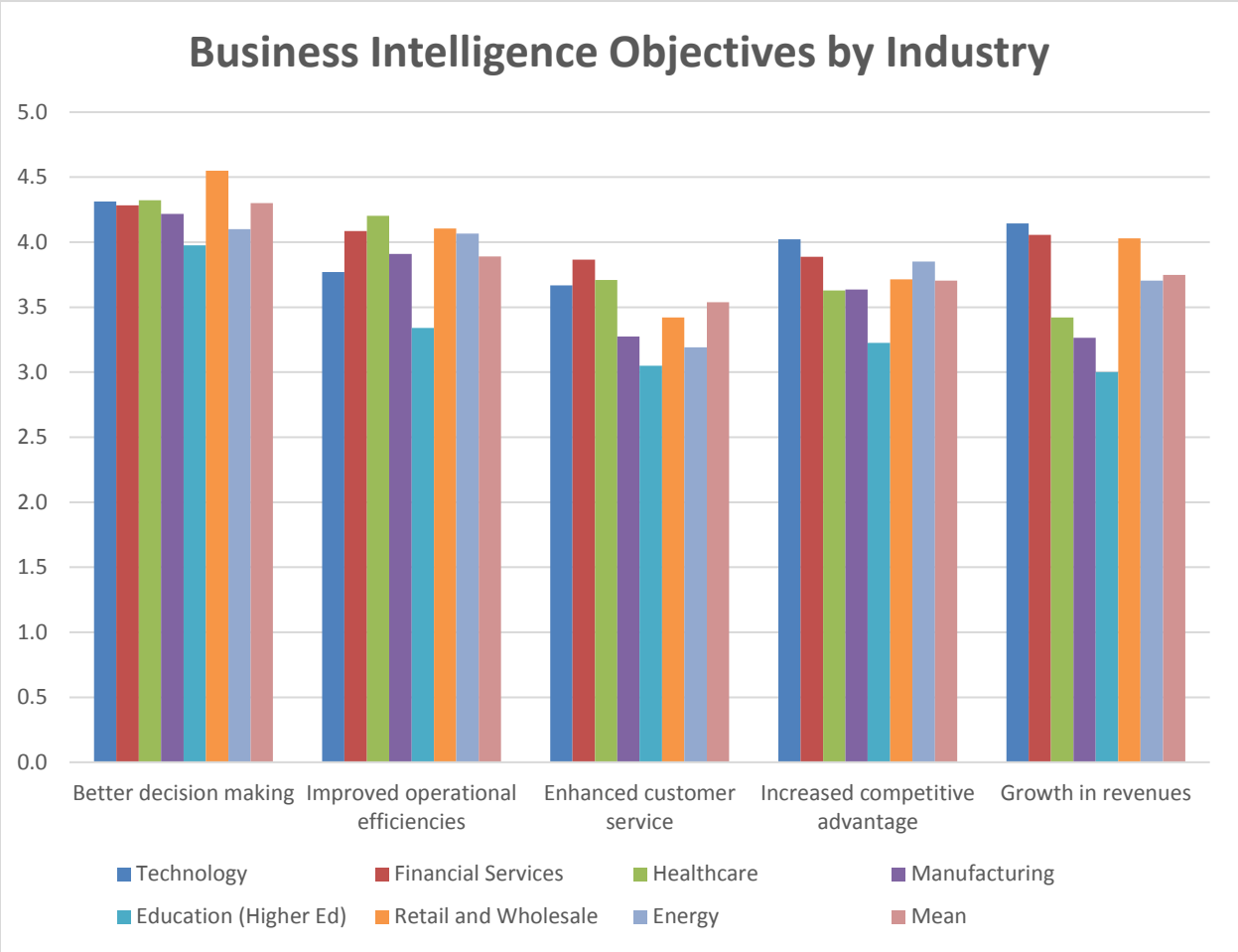


Figure 19 – Business intelligence objectives by industry

Business Intelligence Objectives by Organization Size

Organizations of different sizes place the highest emphasis on better decision making with similar high mean importance above "very important" (fig. 20). Improved operational efficiency is the next most important objective to all organizations and increases noticeably as organization headcount increases. Small organizations (1-100 employees) have the highest mean interest in all objectives. Small and very large organizations share the highest interest in enhanced customer services.

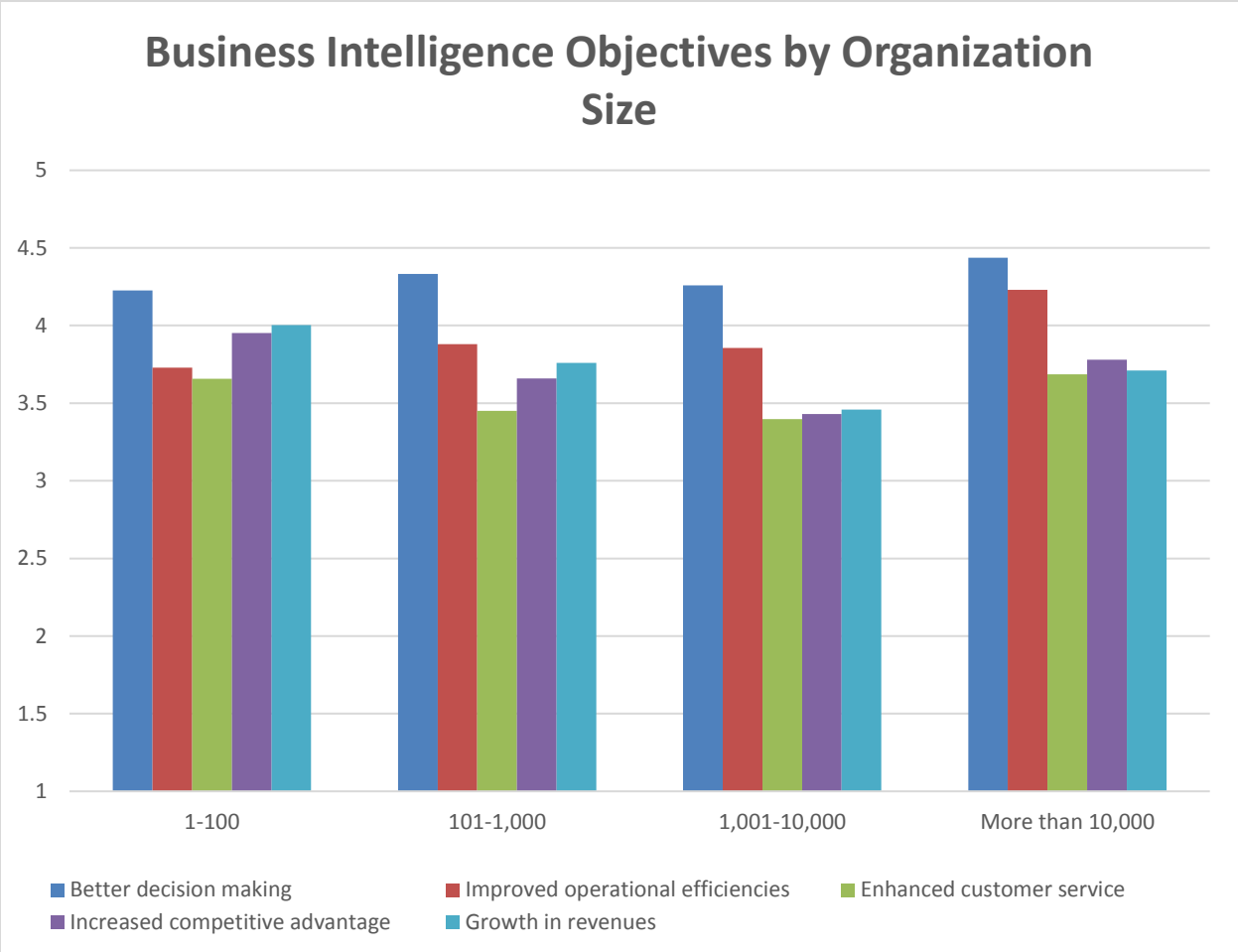


Figure 20 – Business intelligence objectives by organization size

Penetration of Business Intelligence Solutions

In an ongoing positive development, penetration of business intelligence (as a percentage of total employees) grew noticeably between 2015 and 2017 (fig. 21). Percentages of lower penetration (< 10 percent, 11-20 percent, 21-40, 41-60) all declined while the highest levels (61-80 percent, > 81 percent) improved correspondingly. The linear trending of this finding gives us some confidence that the BI enablement and democratization we saw last year continues to show improvement.

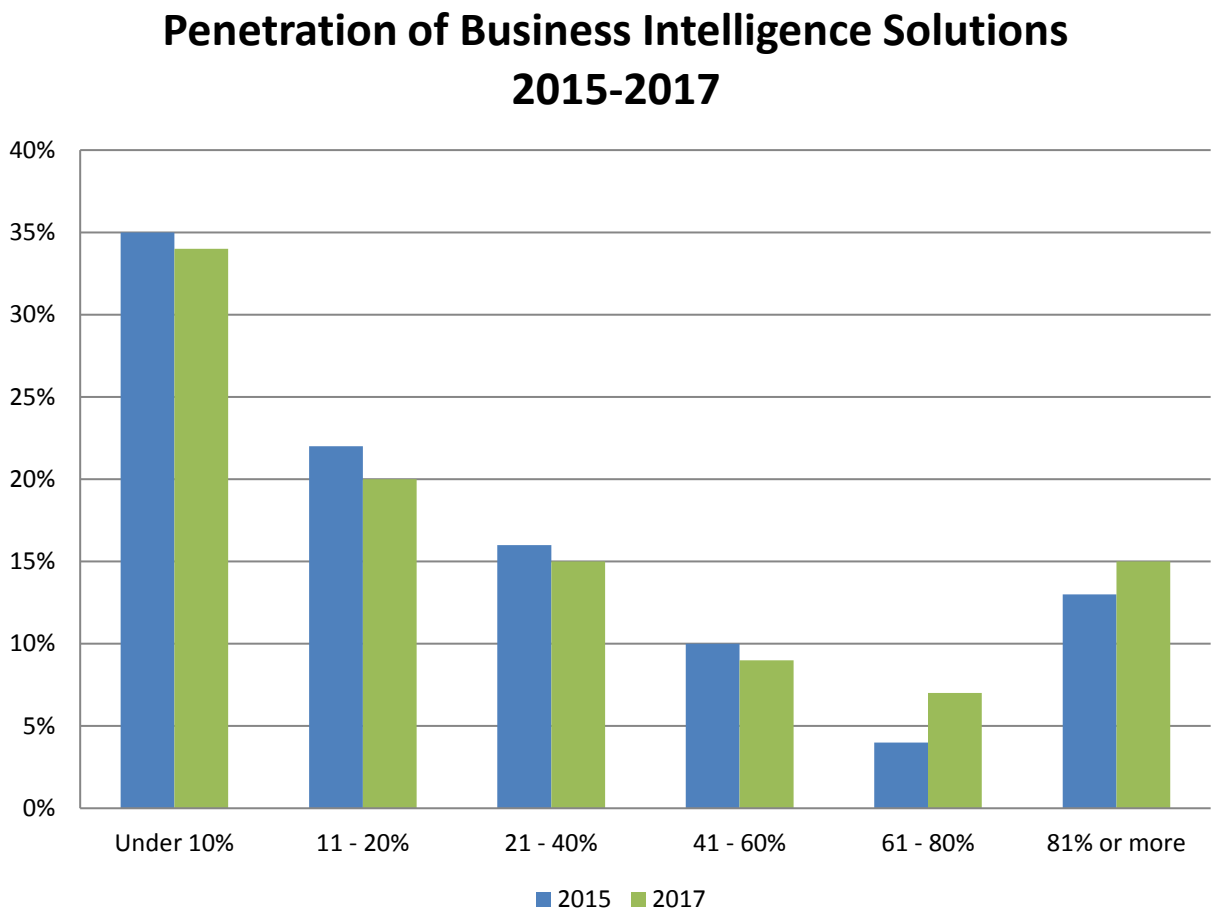


Figure 21 – Business intelligence penetration 2015-2017

Expansion Plans for Business Intelligence Through 2018

Respondents describe bullish plans for expanding BI in future time frames, and we consider the 12-month period the most likely to be supportable and budgeted (fig. 22). In this context, 39 percent of respondents (compared to 31 percent current) expect greater than 41 percent penetration within the coming year, and 28 percent (versus 21 percent current) expect 61 percent or greater penetration. Longer time frames predict still more ambitious rates of growth in BI penetration: 36 months from now, 26 percent of organizations expect 81 percent or greater BI penetration, versus 15 percent today.

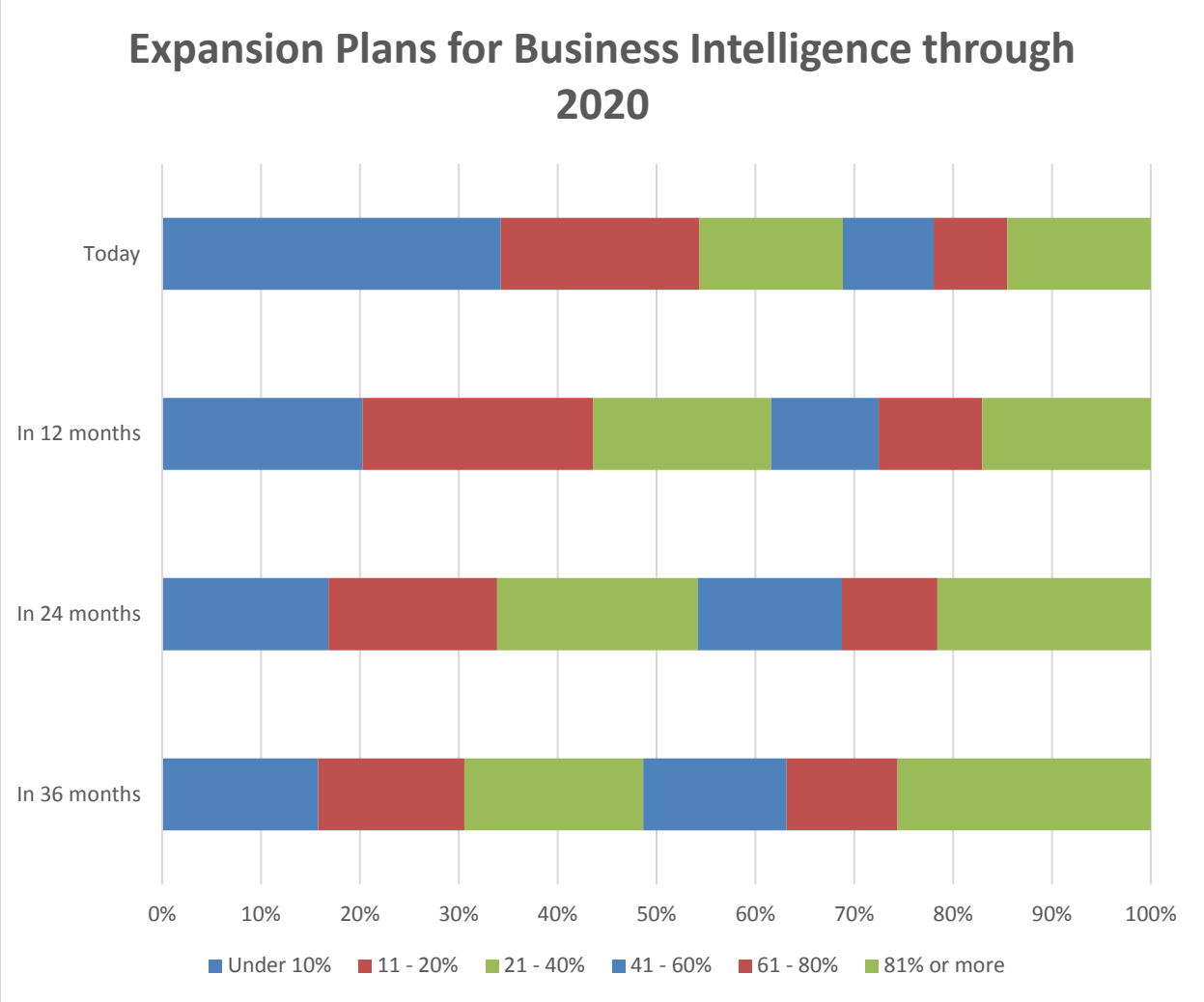


Figure 22 – Expansion plans for business intelligence through 2020

Current Business Intelligence Penetration by Geography

Globally, the highest levels of current BI penetration are in North America and EMEA, where solutions have historically been more available and widespread (fig. 23). In total, North America ranks significantly ahead of all other geographic regions, particularly at BI penetration rates greater than 61 percent. Asia Pacific reports 81 percent BI penetration levels that only slightly trail respondents in North America.

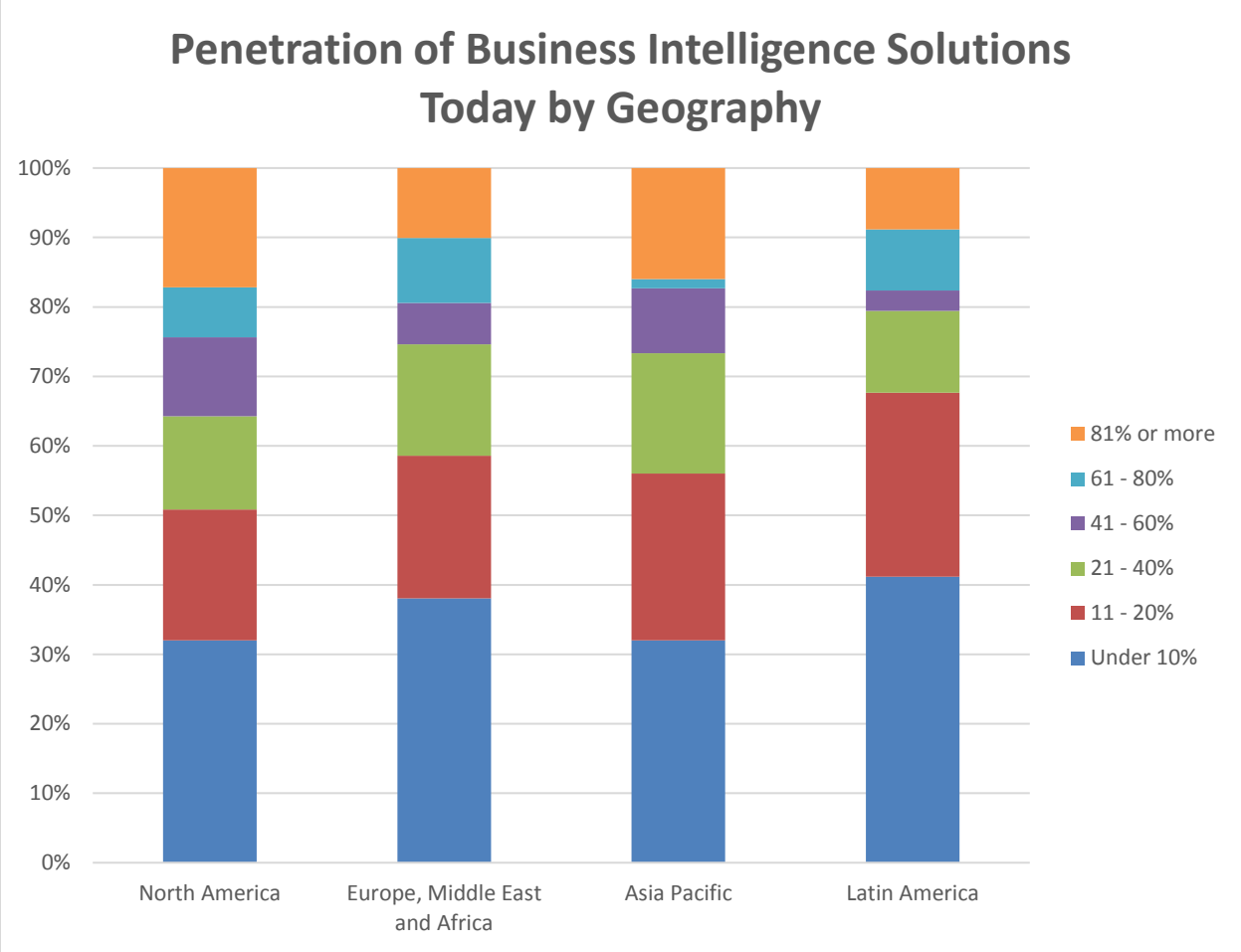


Figure 23 – Business intelligence user penetration today by geography

Planned Business Intelligence Penetration by Geography

A view of future BI plans by geography reveals distinctions, but supports the overall theme of growing expectations in 12, 24 and 36-month time frames (fig. 24). North America clearly leads expansion in the highest rate of penetration, followed by EMEA and Asia Pacific. In contrast, the highest level of BI penetration will be essentially flat in Latin America in future time frames (though low-level penetration will improve).

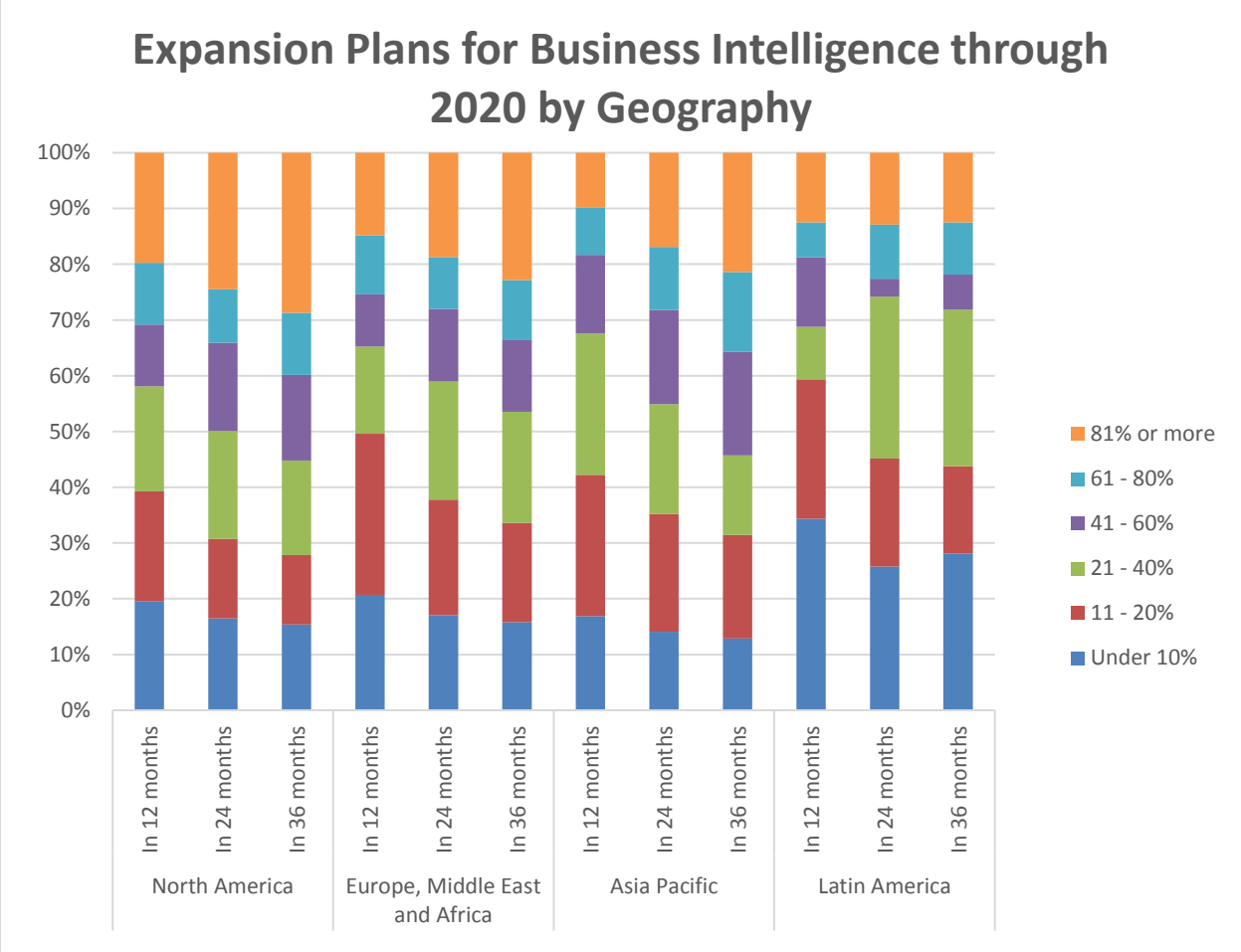


Figure 24 – Planned business intelligence user penetration through 2020 by geography

Business Intelligence Penetration by Function

Perceived penetration of BI solutions by function may be telling a tale of "specialist" information worker usage as well as average rates of adoption (fig. 25). Clearly, Marketing/Sales and Executive Management show the highest rates of perceived penetration (41 percent and greater). Meanwhile, the BICC reports the lowest rates of under-penetration (< 20 percent) but less penetration at the highest levels.

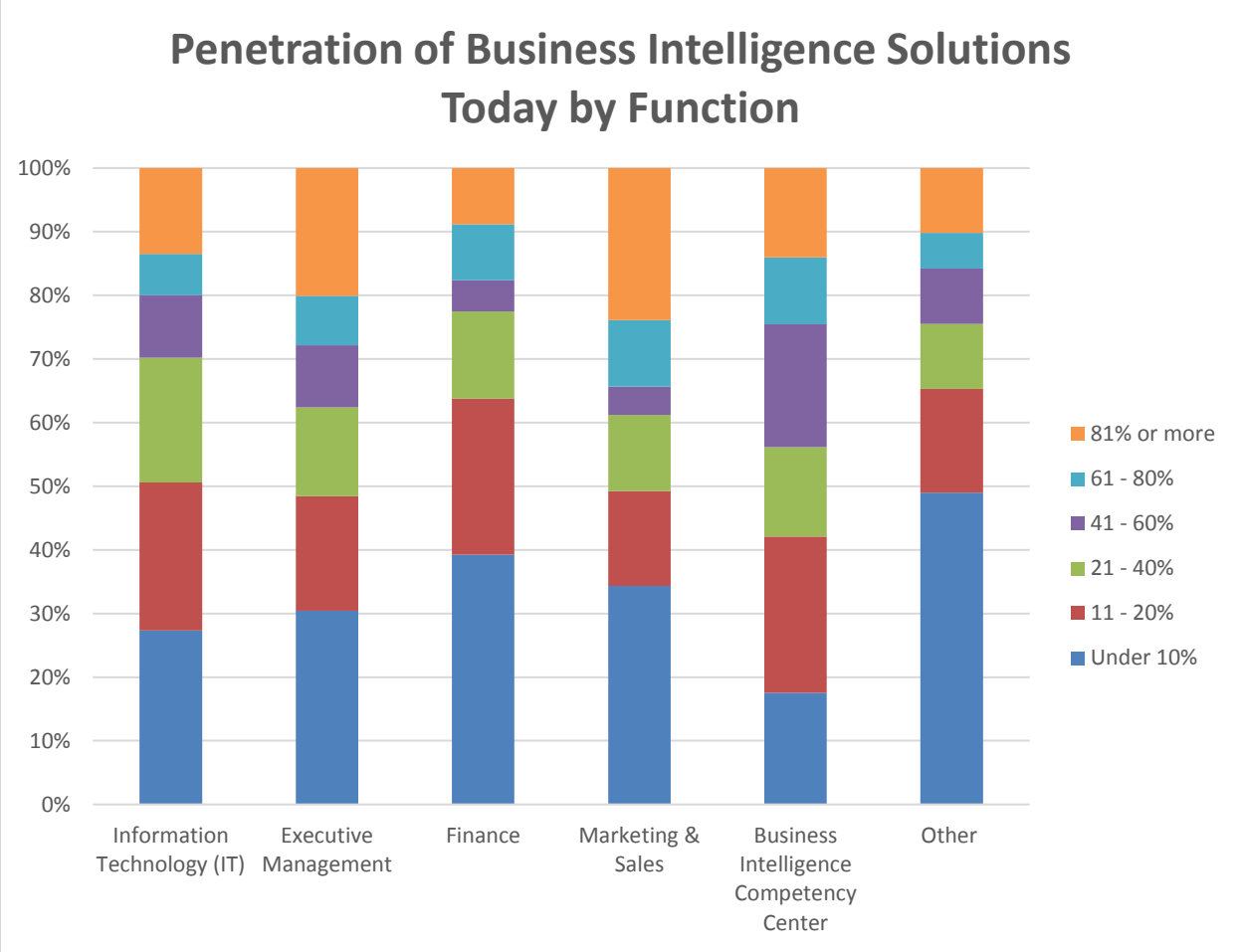


Figure 25 – Business intelligence penetration today by function

All functions expect to see increased BI penetration over time (fig. 26). At high levels of penetration, BICC and Executive Management respondents have the most aggressive plans for coming time frames, where half expect 61 percent or greater penetration within 36 months. Marketing/Sales is the next most aggressive function, while Finance, IT, and "other" have modest plans to expand BI penetration.

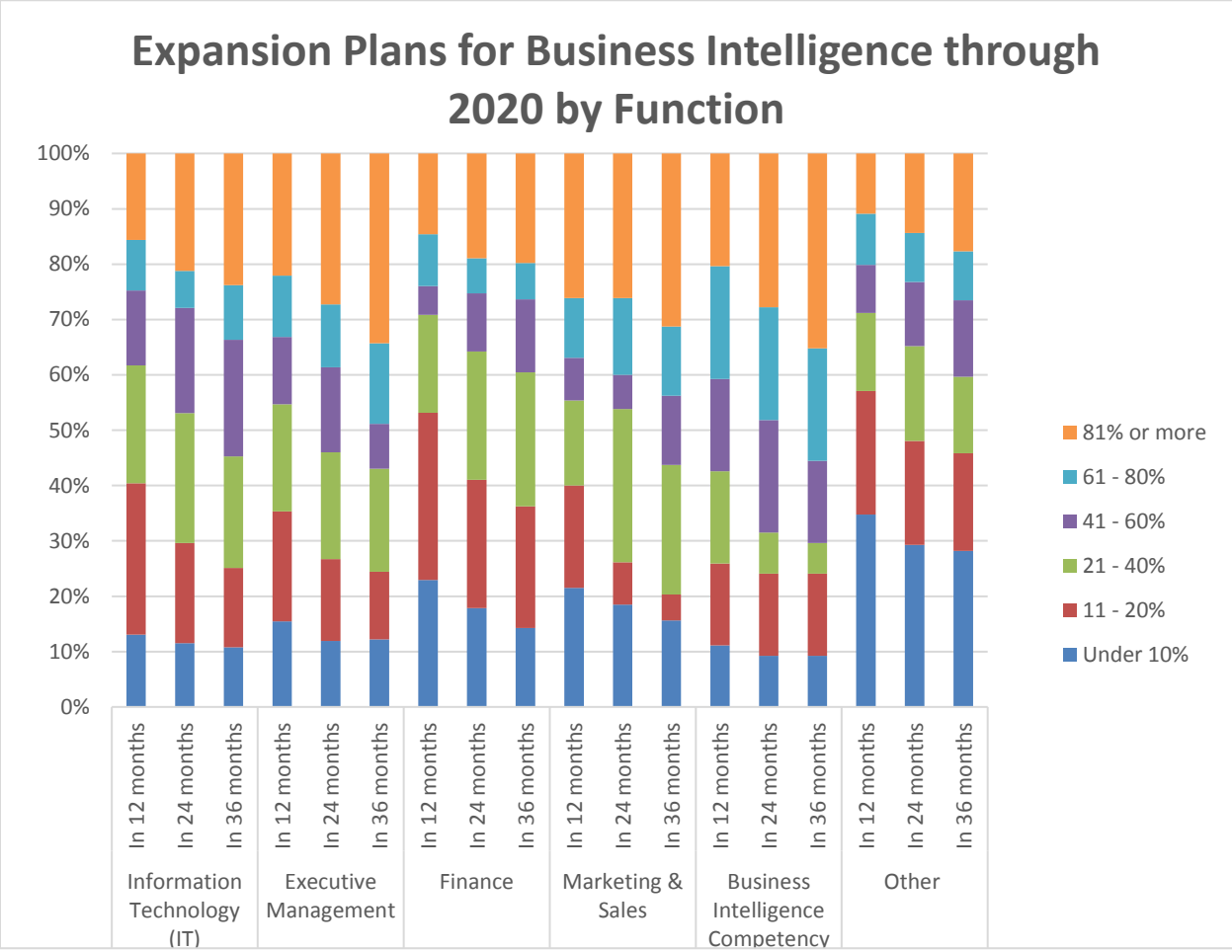


Figure 26 – Expansion plans for business intelligence through 2020 by function

Current Business Intelligence Penetration by Vertical Industry

Higher levels of BI penetration vary inconsistently across different vertical industries (fig. 27). In our 2017 sample, technology organizations report the fewest instances of low-level penetration (< 20 percent) and the highest adjusted mean scores for BI penetration overall. Higher Education and Manufacturing report the most low-level penetration. Energy respondents report the highest levels of 81 percent penetration but much lower levels of overall business intelligence uptake.

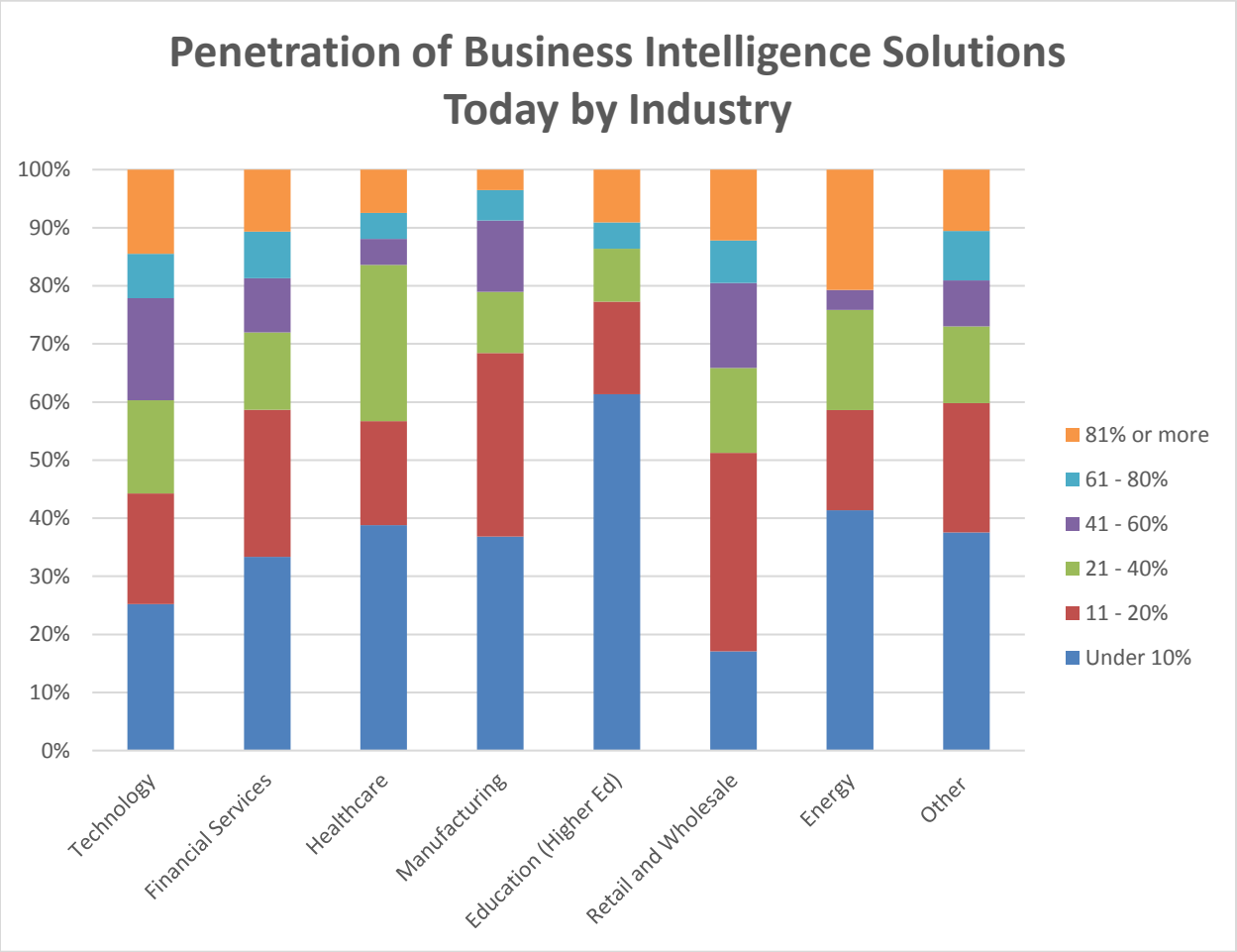


Figure 27 – Penetration of business intelligence solutions today by industry

Planned Business Intelligence Penetration by Vertical Industry

In our 2017 sample, expansion plans for business intelligence vary unevenly by industry (fig. 28). While 12-month plans are generally modest, Retail/Wholesale, Financial Services, and Technology organizations have the most aggressive long-term expansion plans. Higher Education respondents expect the weakest growth in BI penetration in coming time frames.

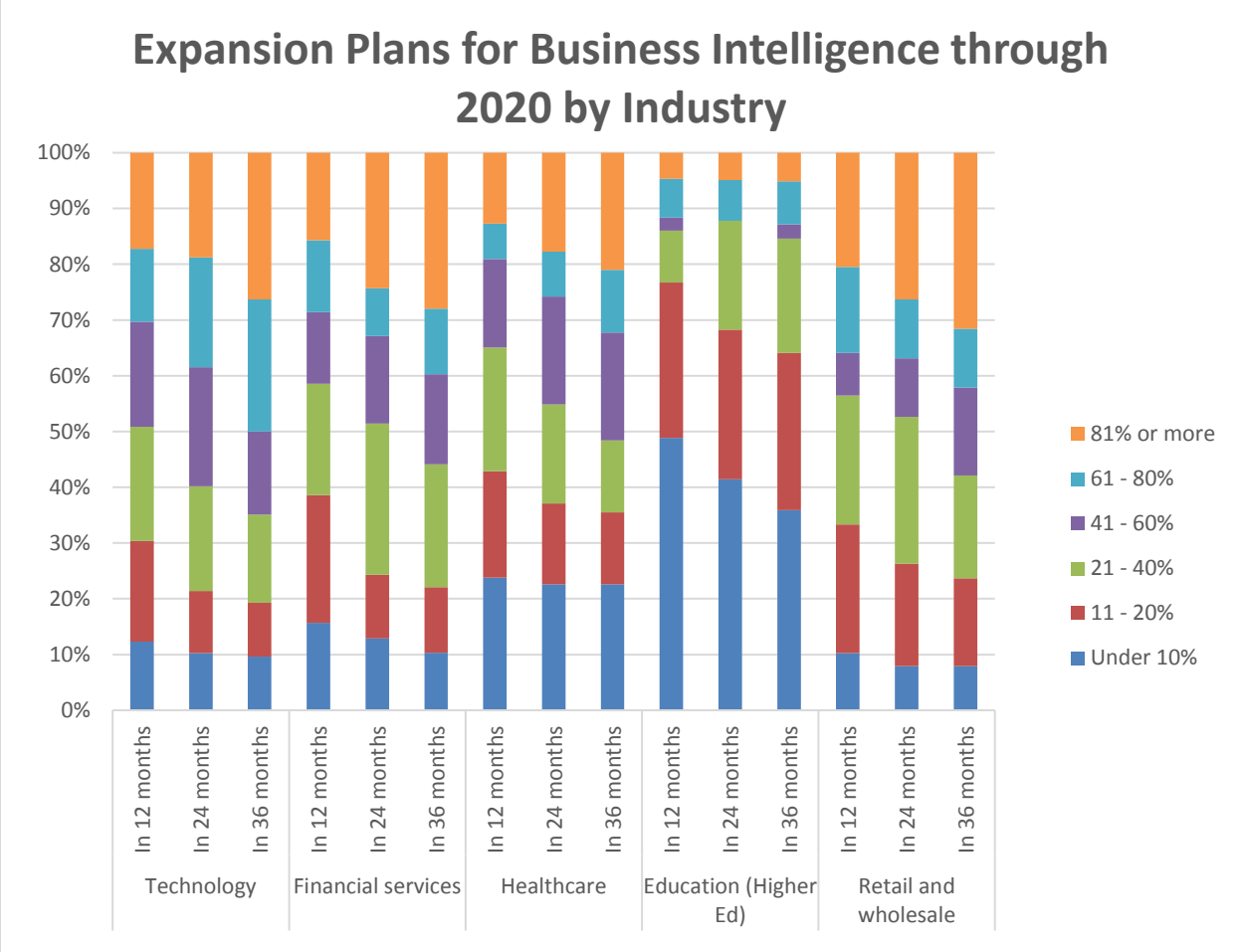


Figure 28 – Expansion plans for business intelligence through 2020 by industry

Current Business Intelligence Penetration by Organization Size

As we have reported in every year of our study, small organizations of one to 100 employees have higher BI penetration than larger peers (fig. 29). While overall headcount influences this score, we also expect small organizations, likely to be newer and comprised of more information workers, would find fewer barriers of cost or deployment and more immediate benefits than larger and older companies. As we saw in earlier studies, very high penetration rates tend to decrease with organization size.

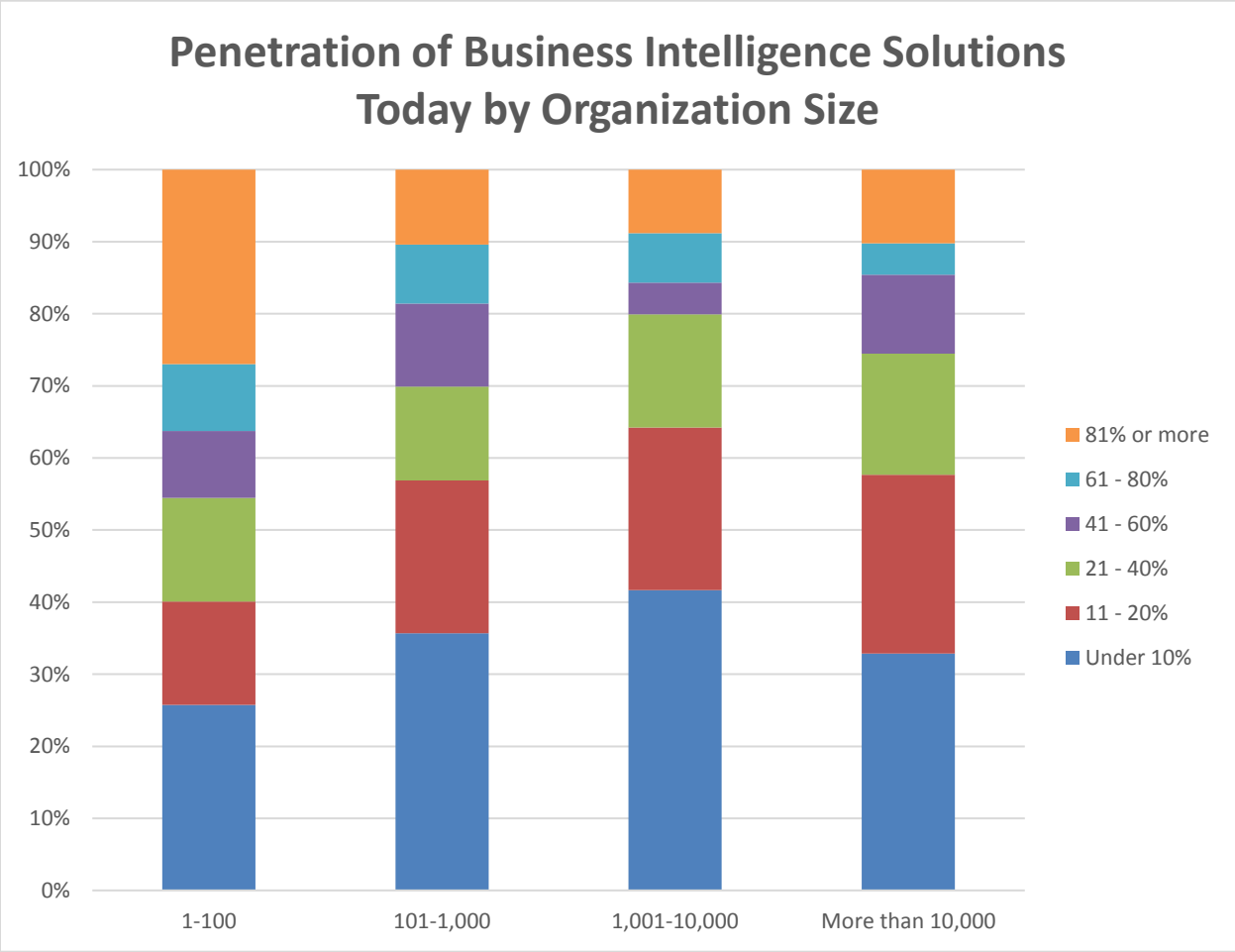


Figure 29 – Penetration of business intelligence solutions today by organization size

Planned Business Intelligence Penetration by Organization Size

Along with being the most penetrated BI users today, small organizations (1-100 employees) have the steepest expectations for high future BI penetration in coming time frames (fig. 30). Though less aggressive, mid-sized organizations (101-1,000 employees) expect the next highest number of highly penetrated (> 60 percent) user audiences. Large and very large organizations (> 10,000 employees) have somewhat lower expectations (which may be colored by overall rank-and-file headcount not considered audiences for business intelligence).

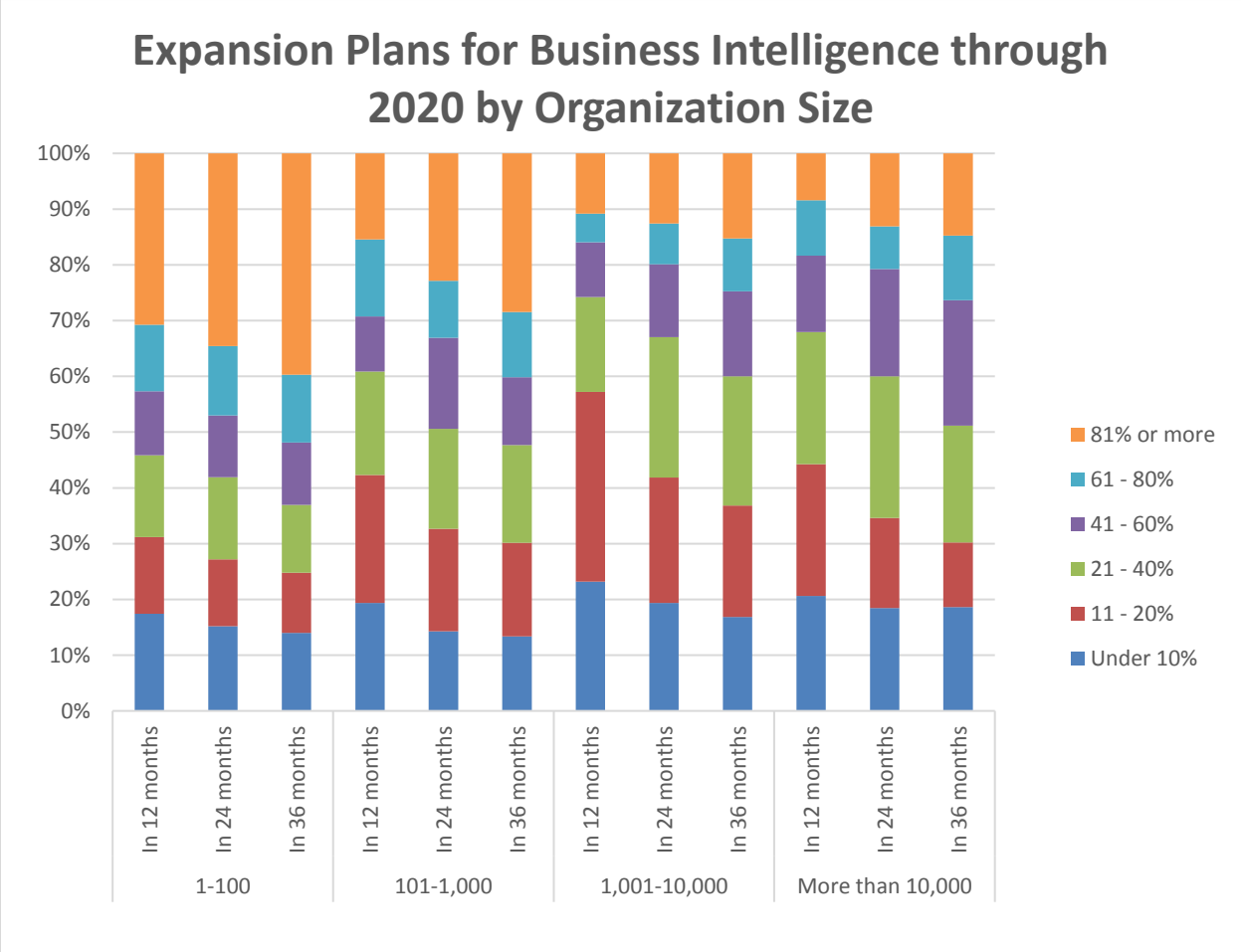


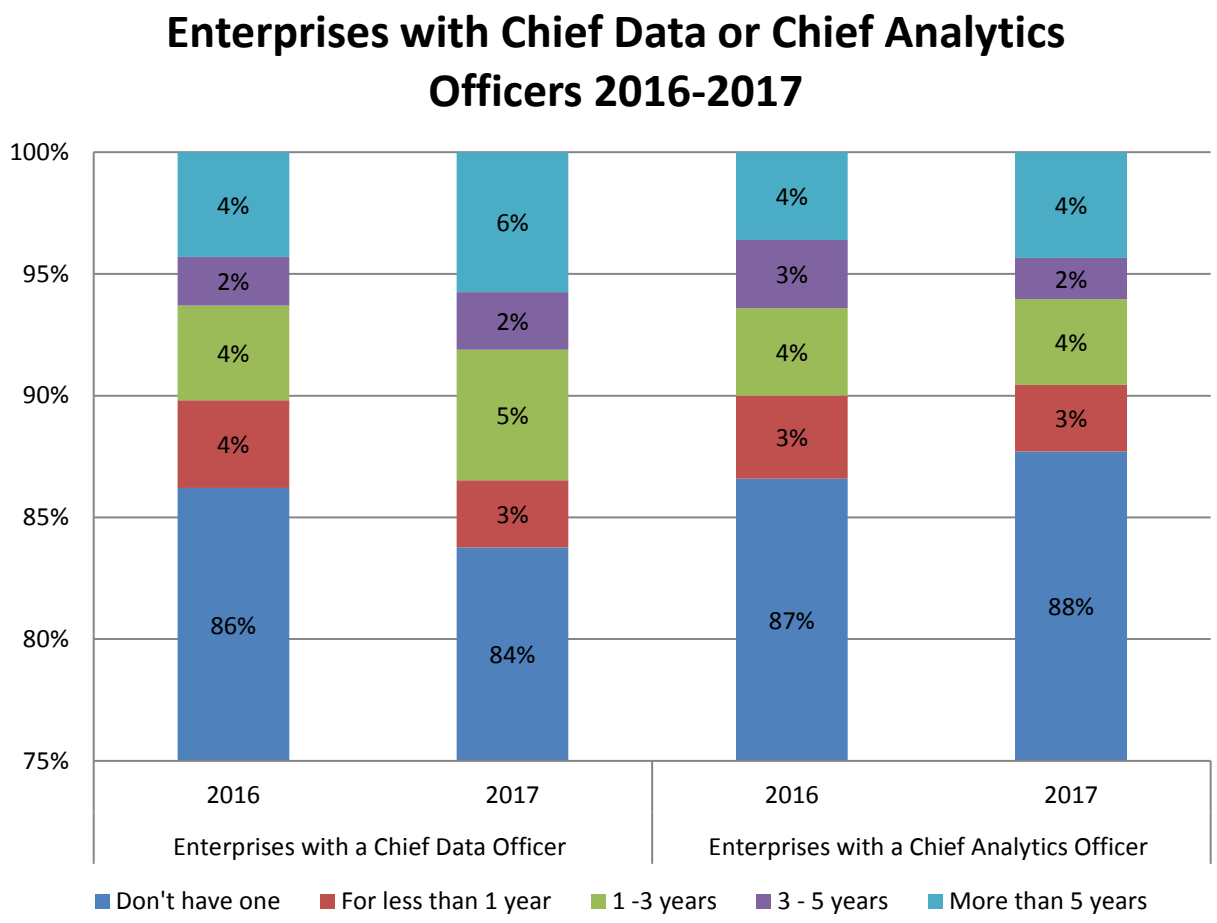
Figure 30 – Expansion plans for business intelligence through 2020 by organization size

Chief Data and Chief Analytics Officers

Beginning in 2016, we asked our audience whether their organization had appointed a chief data officer (CDO) or chief analytics officer (CAO). We understand that these appointments can cause significant changes in the technology and business architecture of organizations and also that these roles and titles are relatively new, fluid by definition, and evolving.

Enterprises with Chief Data or Chief Analytics Officers

The ongoing uptake and maturity of chief data and chief analytics officers is modest to date, with fewer than 16 percent of respondent organizations having adopted the title(s) (figs. 31). Over our two years of study, momentum is somewhat in favor of chief data officers versus chief analytics officers. In 2017, CDO longevity increases, while CAO momentum is decidedly flat or decreased slightly.



Figures 31 – Enterprises with chief data or chief analytics officers 2016-2017

Perceived Impact of Chief Data or Chief Analytics Officers

in 2017, we asked respondents to describe the perceived impact of a chief data officer or chief analytics officer in their organization (fig. 32). This question does not account for good or bad impact, tenure, or other variables. To almost identical degrees, 29 percent say the presence of the CDO or CAO brought "high impact," 57 to 59 percent reported "moderate impact," and 13 to 14 percent reported "low impact." While abstract, an initial observation of this finding is that the presence of a CDO or CAO definitely creates broad workforce awareness in some discernible way. In our view, the presence of a CDO or CAO might well represent an elevation of the competency center or a high-reporting approach to data and analytics that brings more organizational focus. (Also see reporting structure, fig. 36, p. 54.)

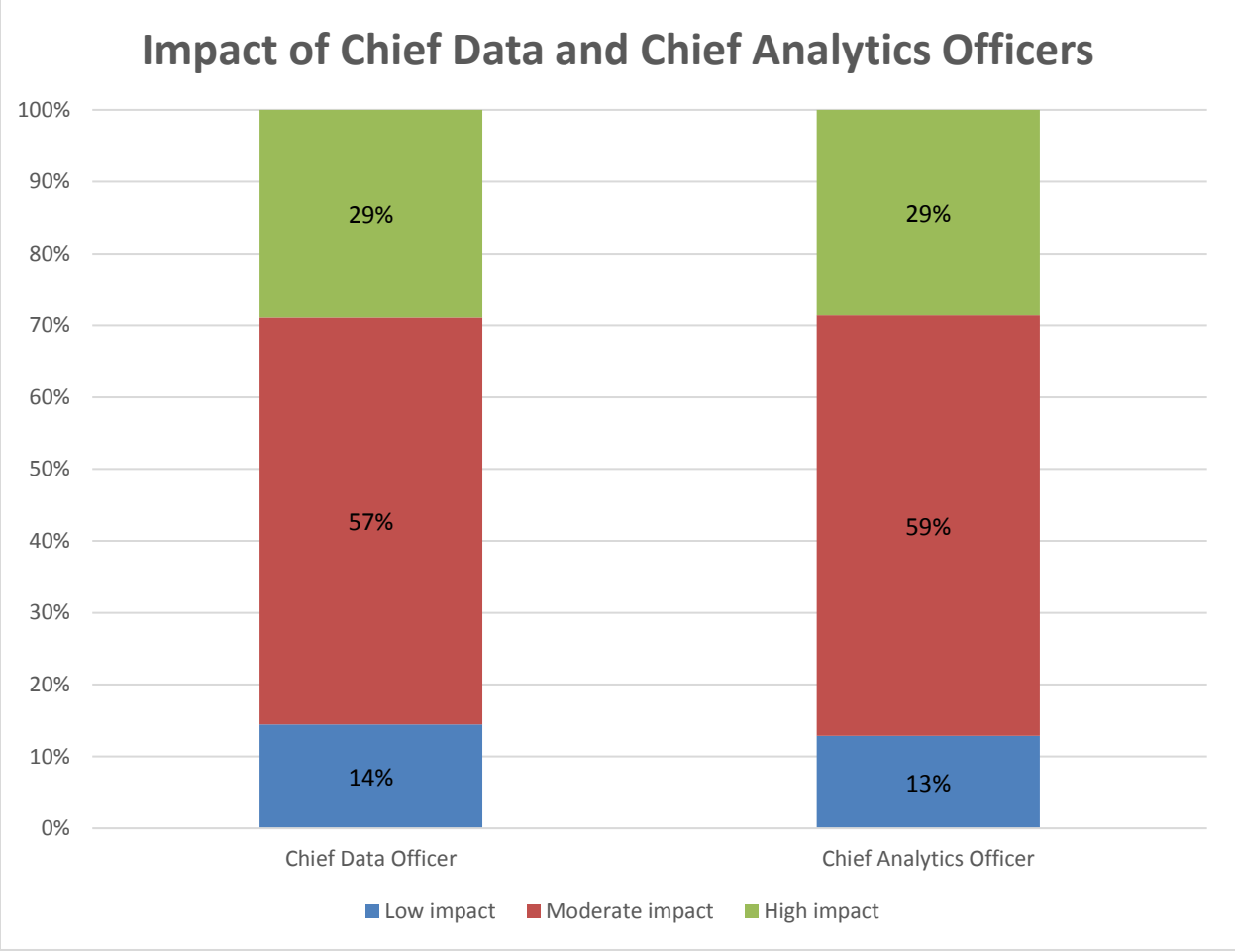


Figure 32 – Impact of Chief Data and Chief Analytics officers

Enterprises with Chief Data or Chief Analytics Officers by Geography

The title of chief data officer has the greatest overall penetration and the most activity in Asia Pacific, followed by EMEA (fig. 33). This finding is the reverse of what we reported in 2016. CDO longevity (> 5 years) is greatest in EMEA (7 percent) and North America (6 percent). The title of chief analytics officer likewise has the greatest overall penetration in Asia Pacific followed by EMEA. CAOs have less overall penetration than CDOs outside of Asia Pacific and lower percentages of lengthy tenure. Interestingly, Latin American respondents report slightly higher CDO/CAO penetration than North American organizations.

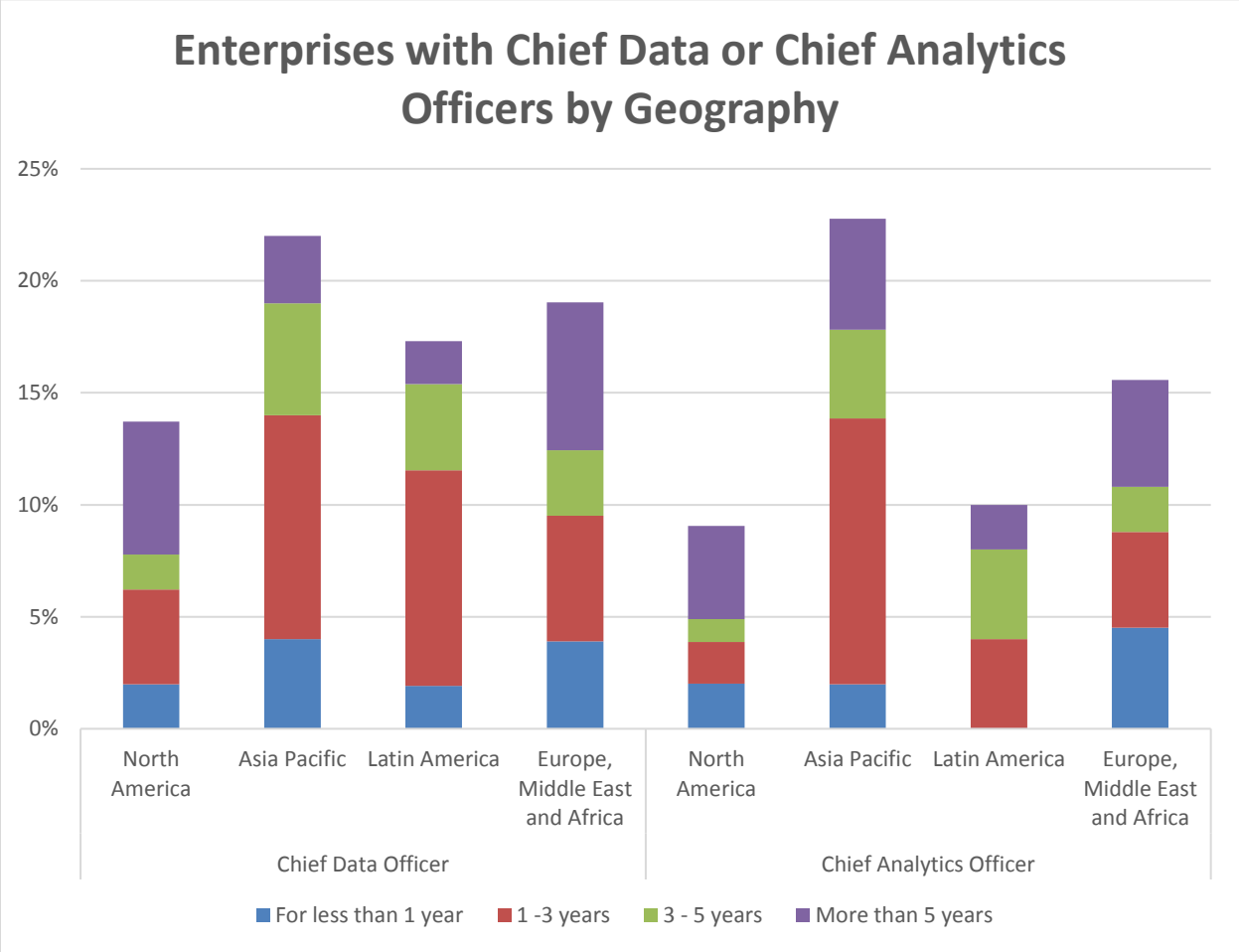


Figure 33 – Enterprises with chief data or chief analytics officers by geography

Enterprises with Chief Data or Chief Analytics Officers by Industry

In 2017, Business Services leads appointment rates for chief analytics officers, with the bulk of these jobs newly created in the last year (fig. 34). Excluding Business Services, CAO penetration is highest (and most mature) in Higher Education, followed by Healthcare, Financial Services, Technology, and a comparatively small group in Retail/Wholesale. Higher Education respondents also lead our sample in CDO appointments and report the most longevity. Financial Services and Healthcare respondents are the next most likely to have appointed CDOs.

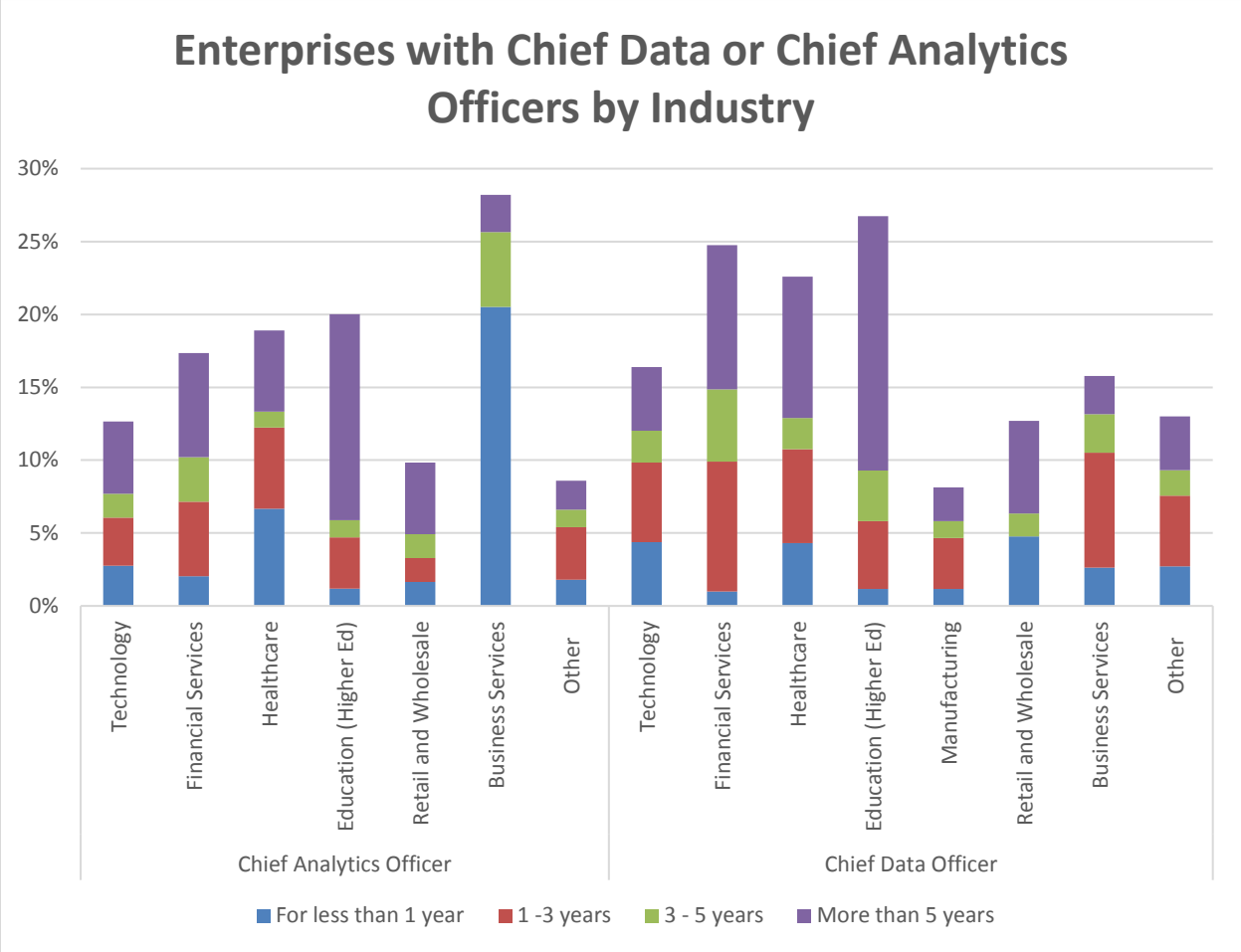


Figure 34 – Enterprises with chief data or chief analytics officers by industry

Enterprises with Chief Data or Chief Analytics Officers by Organization Size

Appointments of chief data officers and chief analytics officers are, for the most part, a large-organization phenomenon (fig. 35). Small organizations of one to 100 employees are the next most likely to appoint a CAO, though we expect this role might be inclusive of other duties and not a dedicated position (depending on definition). Chief data officers are by far most numerous at very large organizations followed by large organizations with 1,001 to 10,000 employees. Large organizations report the greatest maturity by far for both titles, though new activity is more comparable at small as well as large organizations.

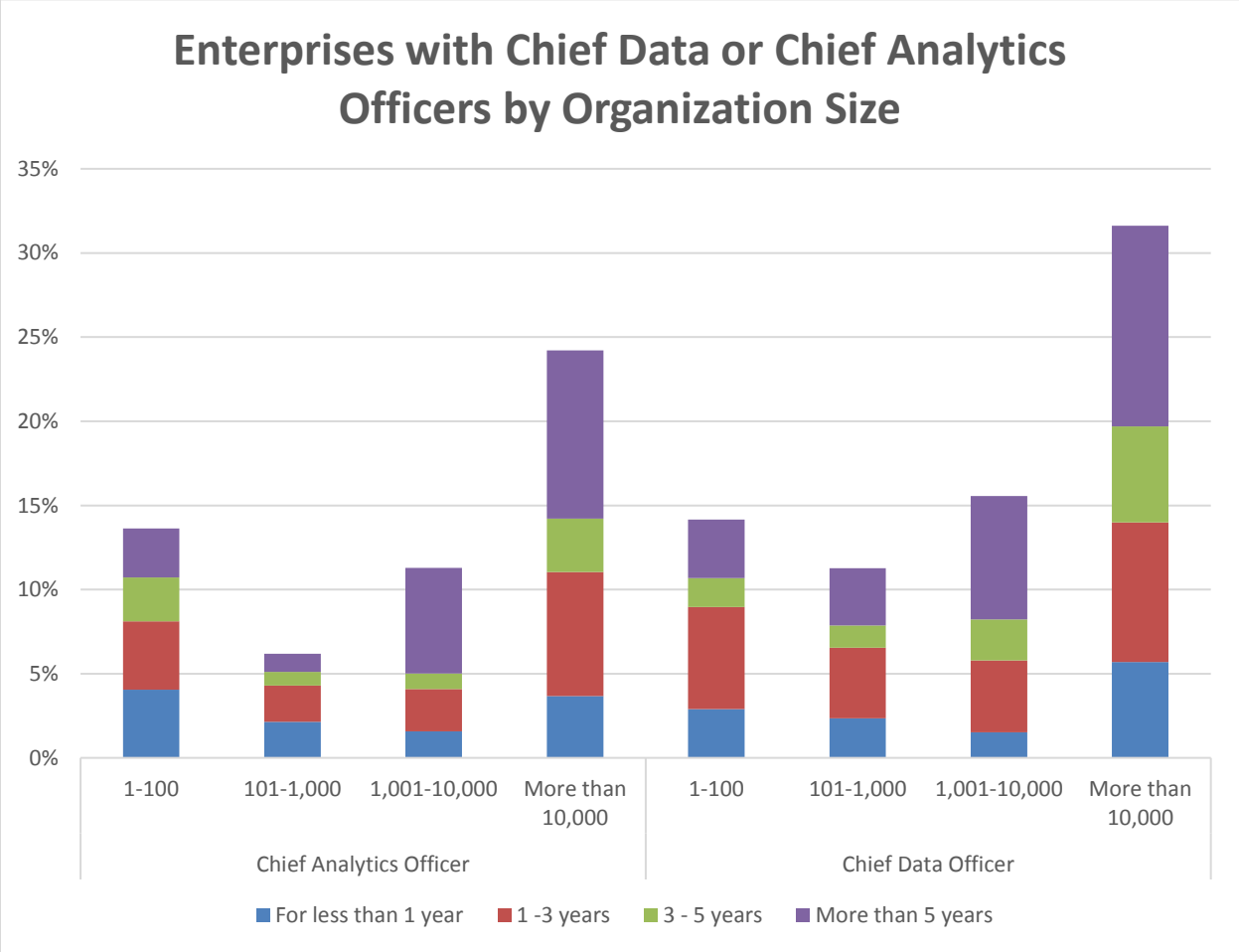


Figure 35 – Enterprises with chief data or chief analytics officers by organization size

Enterprises with Chief Data and Chief Analytics Officers Reporting Structure

Among organizations with a CAO or CDO, both titles are by far most likely to report in to the CEO (fig. 36). Chief data officers are more likely to report in to the CIO than are CAOs, perhaps in reflection of the true or perceived business strategy implications of analytical expertise versus traditional wrangling of data. In smaller numbers, CAOs are also more likely to report to the senior marketing function. That said, both roles are about equally likely to report to Finance.

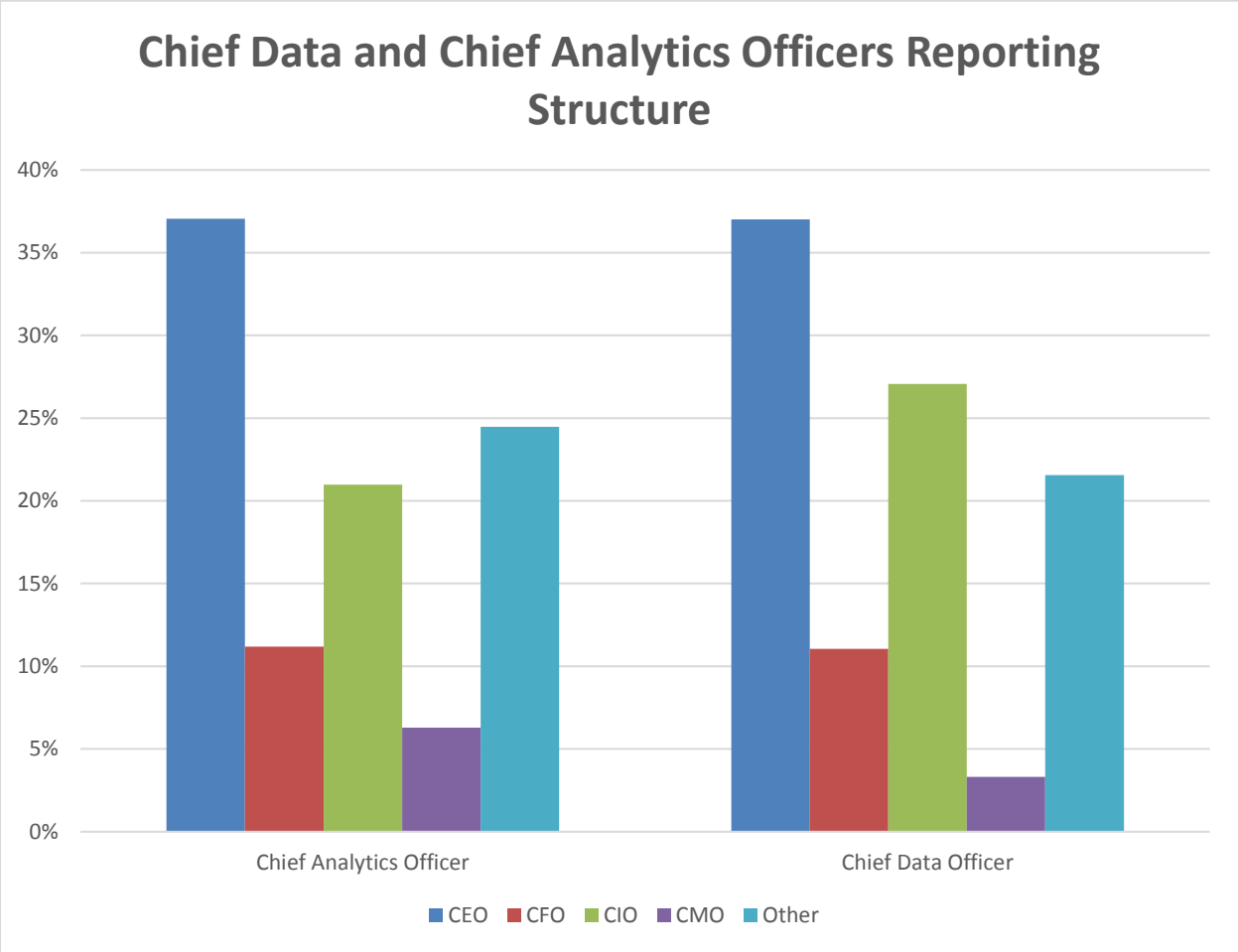


Figure 36 – Chief data and chief analytics officer reporting structure

Chief Data Officer and Success with BI by Reporting Structure

Organizations with a chief data officer that are also successful with business intelligence are most likely by far to report to the CEO (fig. 37). However, unsuccessful BI organizations with CDOs are even more likely to report to the CEO. CDOs in unsuccessful BI organizations are also more likely to report to the CIO. By this measure, we might first observe that there is no obvious correlation between CDO reporting and BI success. But we also observe that in successful BI organizations, CDOs are often connected to high-level business resources (senior executives, successful IT departments, and Finance).

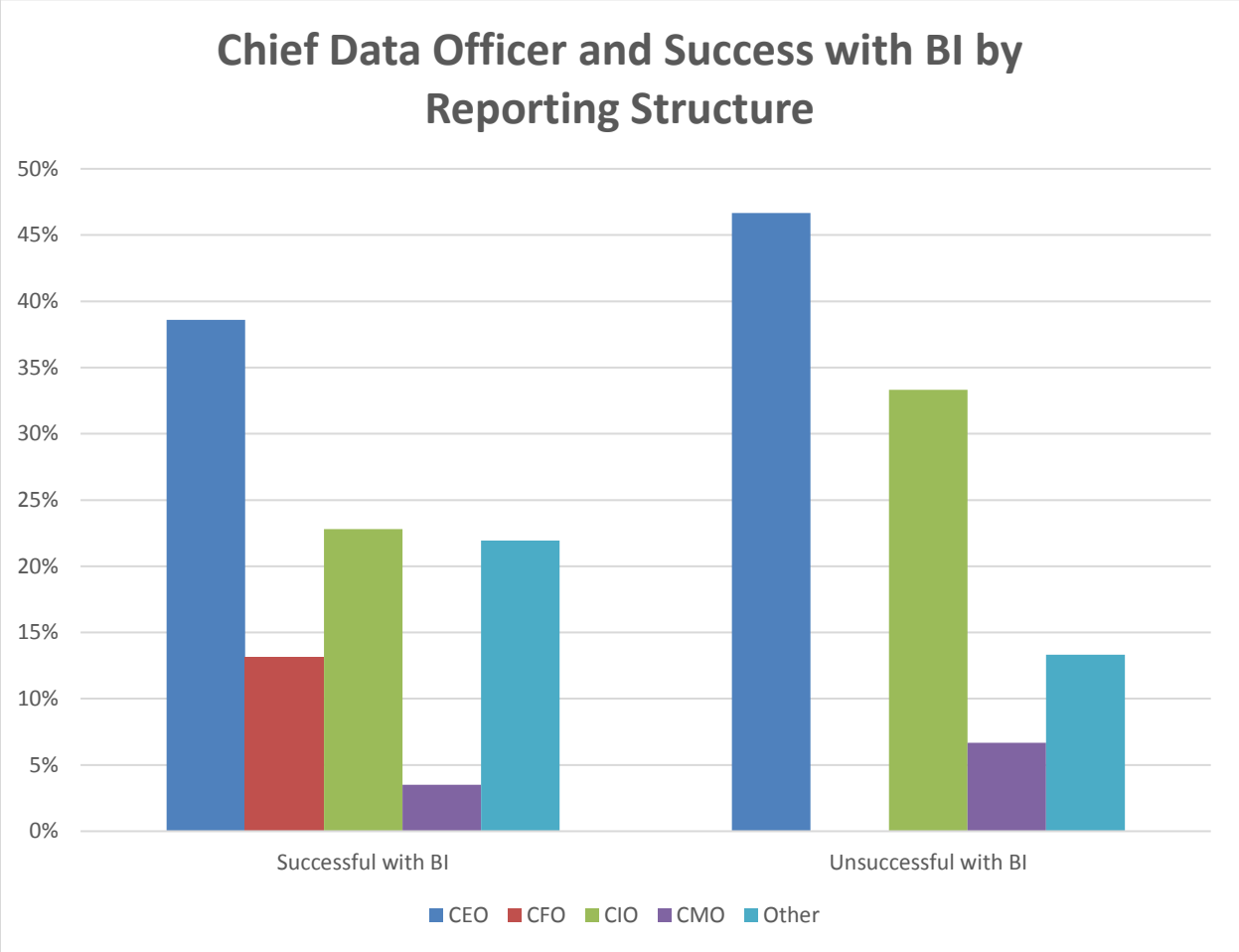


Figure 37 – Chief data officer and success with BI by reporting structure

Chief Analytics Officer and Success with BI by Reporting Structure

Like CDOs, chief analytics officers from successful and unsuccessful BI organizations most often report to the CEO, in part merely because CEOs are by far the most common reporting hierarchy (fig. 38). Also, both successful and unsuccessful BI organizations are about equally likely to report to Finance or IT leadership. Though a small minority, there is some evidence of BI success among CAOs reporting in to the chief marketing officer.

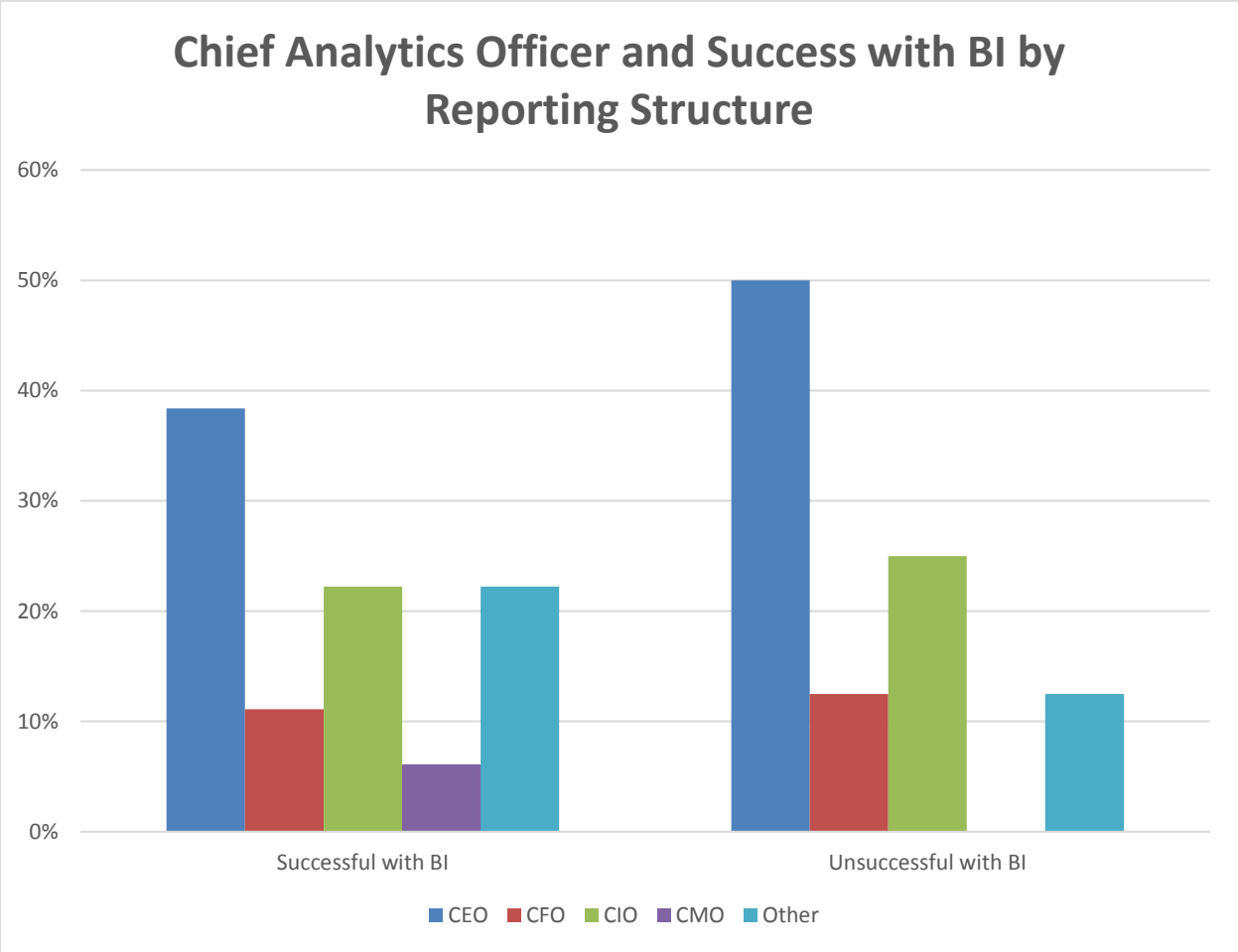


Figure 38 – Chief analytics officer and success with BI by reporting structure

Number of Business Intelligence Tools in Use

Number of Business Intelligence Tools in Use 2013 to 2017

Over time, we see some shifting in the number of business intelligence tools in use by organizations accompanied by somewhat improved awareness (fewer "don't know") (fig. 39). Most obviously in 2017, the number of organizations using three to four or more BI tools has increased over time (though we also acknowledge the increase in the number of role-specific, lightweight and service-based BI tools that might allow operational/discretionary spending and departmental use of BI).

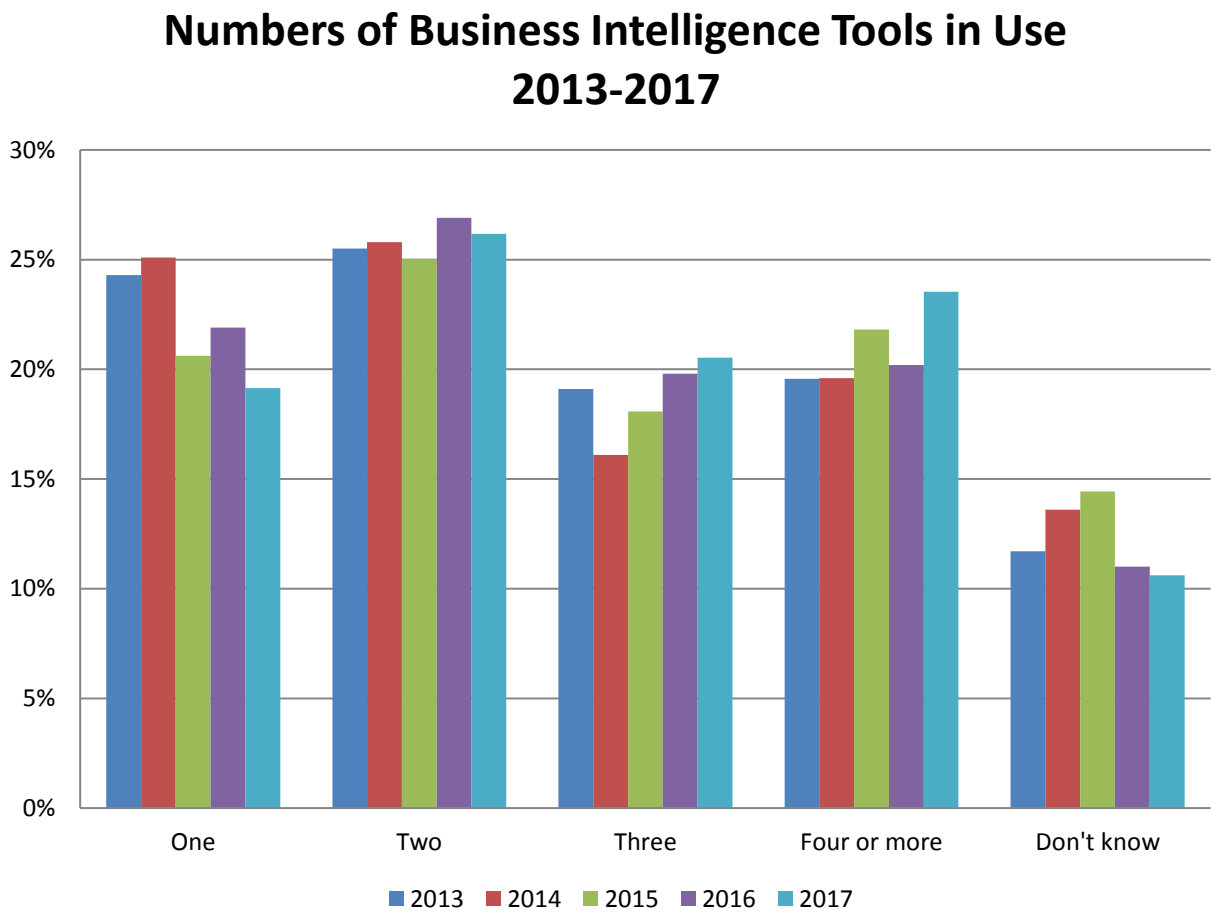


Figure 39 – Number of business intelligence tools in use 2013-2017

Number of Business Intelligence Tools by Geography

North American and Asia-Pacific organizations are most likely to use four or more business intelligence tools (purple band, fig. 40). While geographical differences remain, (e.g., higher multiple tool use in North America and lack of awareness in Latin America), they are less distinctive than in earlier studies.

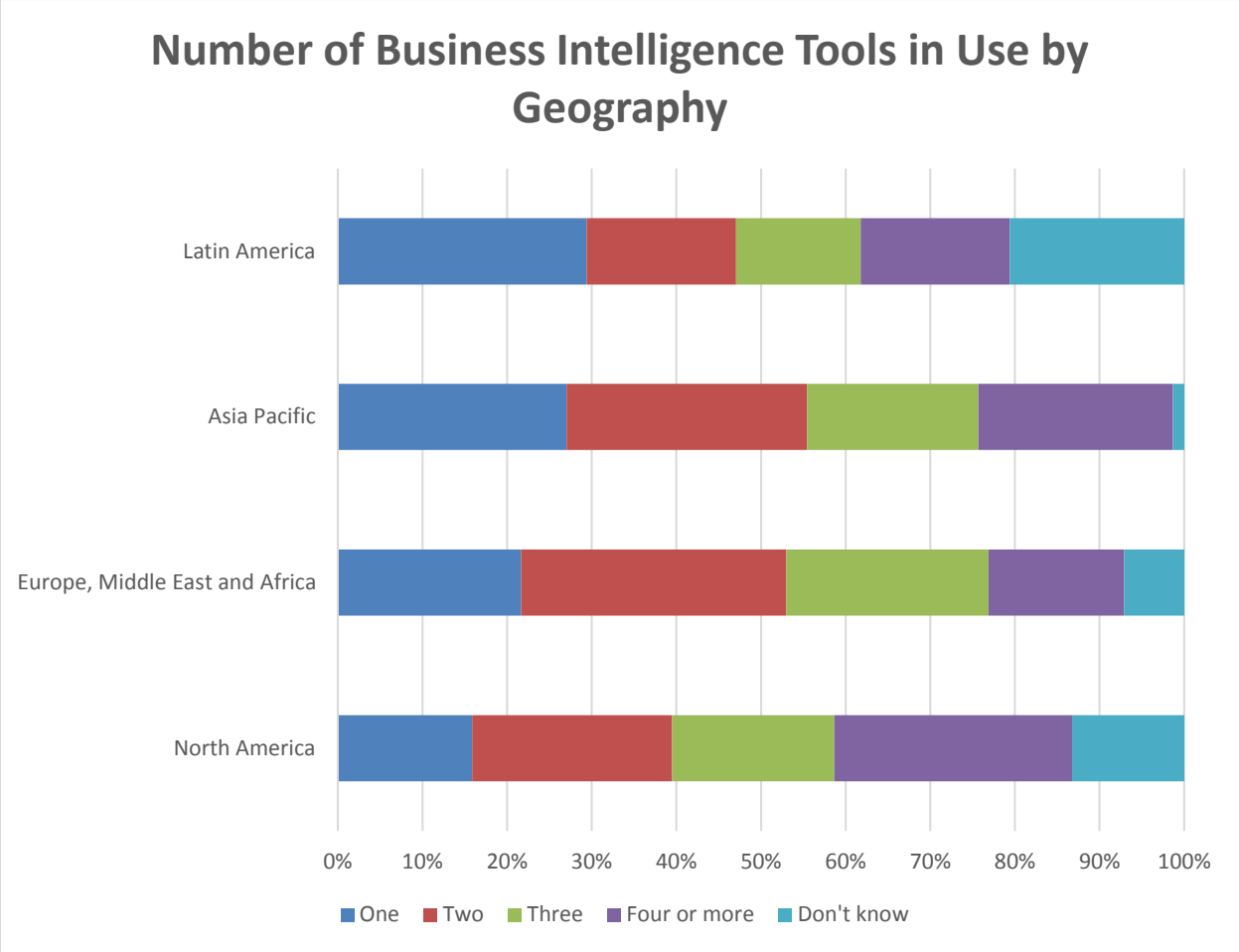


Figure 40 – Numbers of business intelligence tools in use by geography

Number of Business Intelligence Tools by Function

Executive management respondents are most likely to report one or two BI tools in use and the most BI tool awareness (fig. 41). Executive management is most likely to know the actual number of tools in use compared to all functions except the BICC. The BICC, with the most organizational sympathy toward BI projects, tends to report higher numbers of tools in use than do other functions. Finance departments are the least likely to know the number of tools in use, perhaps another reflection of increasing discretionary spending and departmental use of BI.

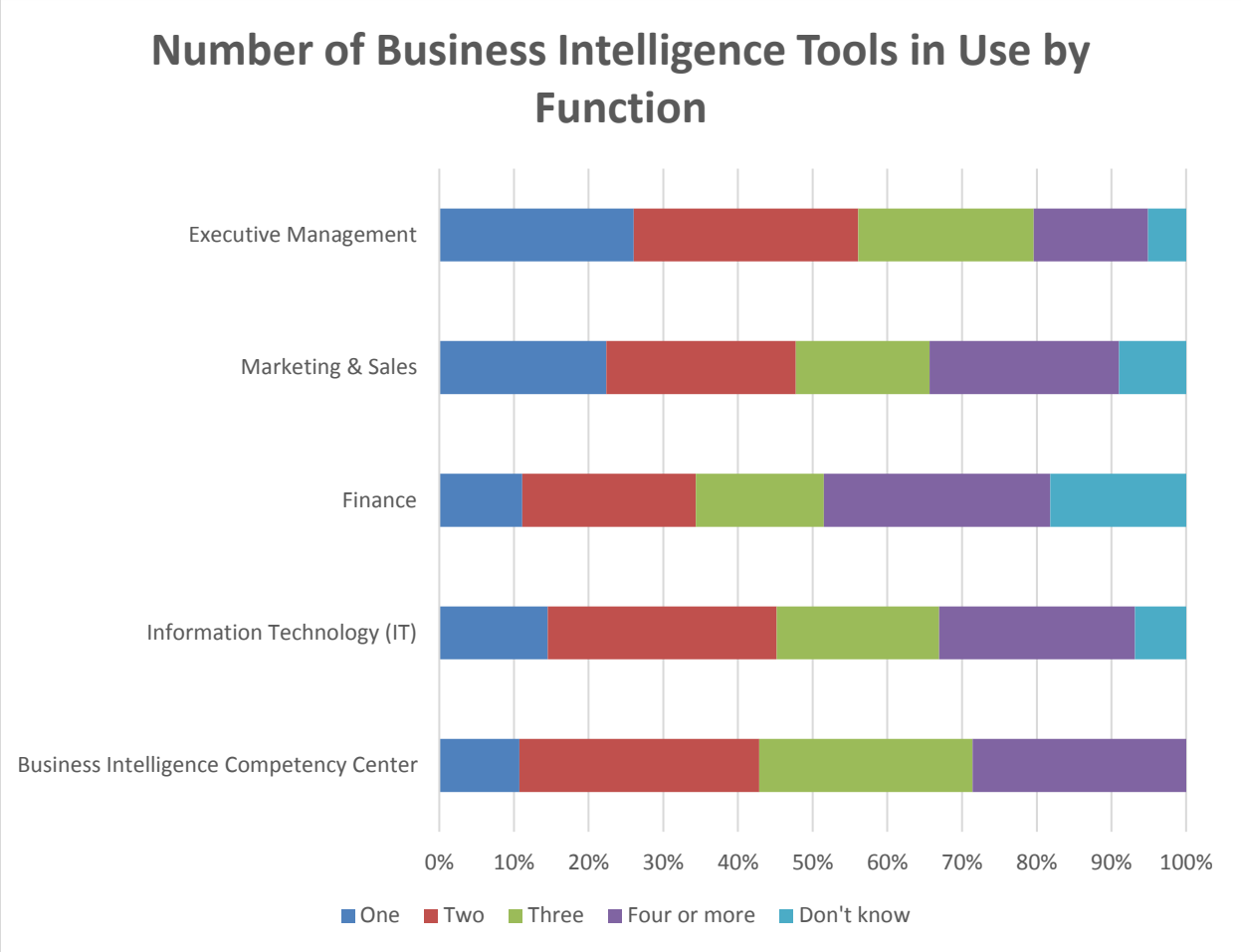


Figure 41 – Numbers of business intelligence tools in use by function

Number of Business Intelligence Tools by Vertical Industry

By industry, Healthcare respondents have the highest awareness of the number of BI tools in use, while Higher Education respondents have the lowest (fig. 42). Manufacturing reports the most (consolidated) one or two tools in use, while majorities of Financial Services and Healthcare respondents report three or four BI tools in use.

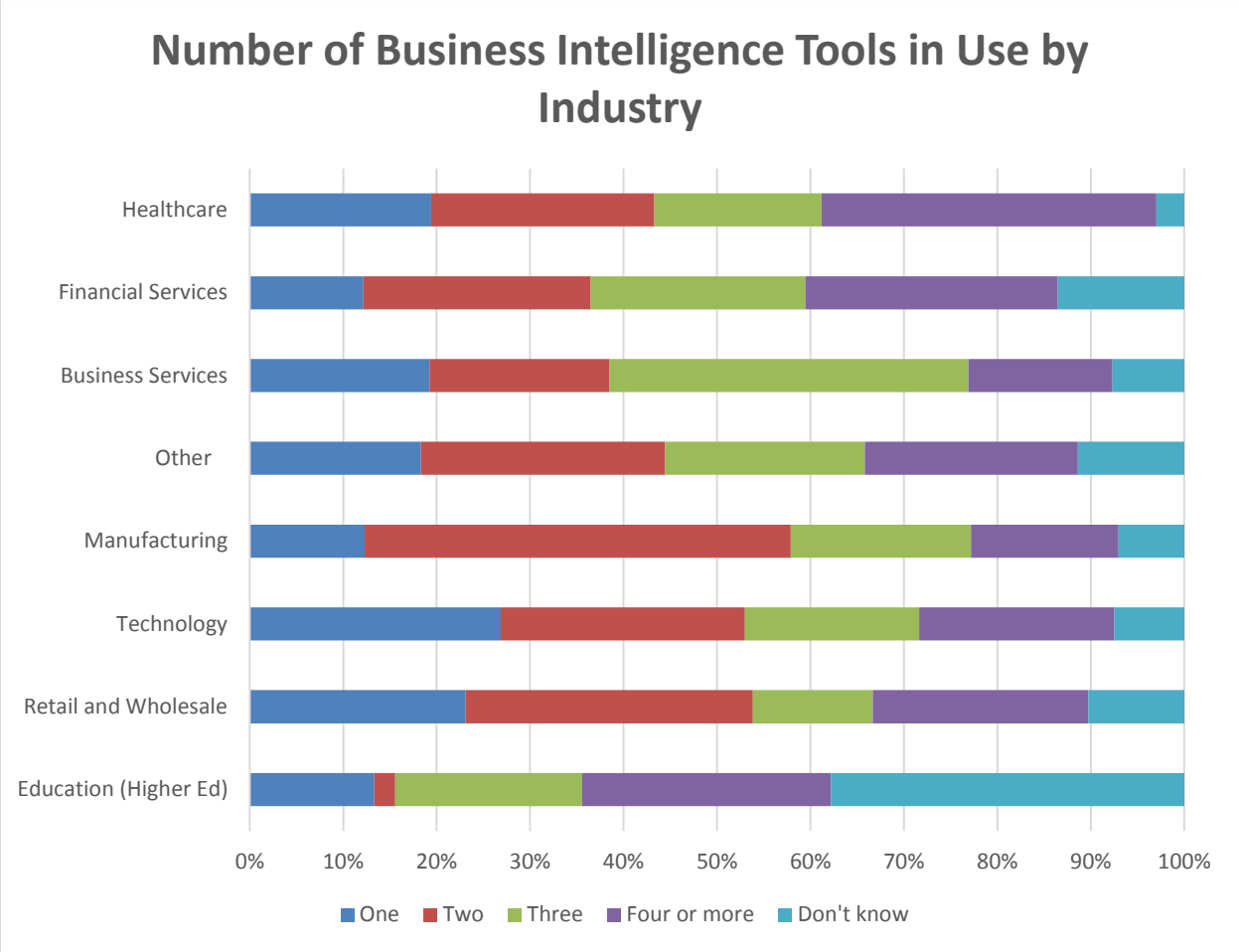


Figure 42 – Numbers of business intelligence tools in use by industry

Number of Business Intelligence Tools by Organization Size

High organizational headcount historically correlates to greater numbers of business intelligence tools in use, and the same is true in 2017 (fig. 43). Organizations of 100 or fewer employees are more than 60 percent likely to report one or tools in use. Mid-sized organizations are 55 percent likely to report one or two tools in use, a figure that drops to just over 30 percent in large organizations of 1,001 to 10,000 employees. Meanwhile, very large organizations (>10,000 employees) are 49 percent likely to report four or more BI tools in use, compared to just 12 percent in small organizations.

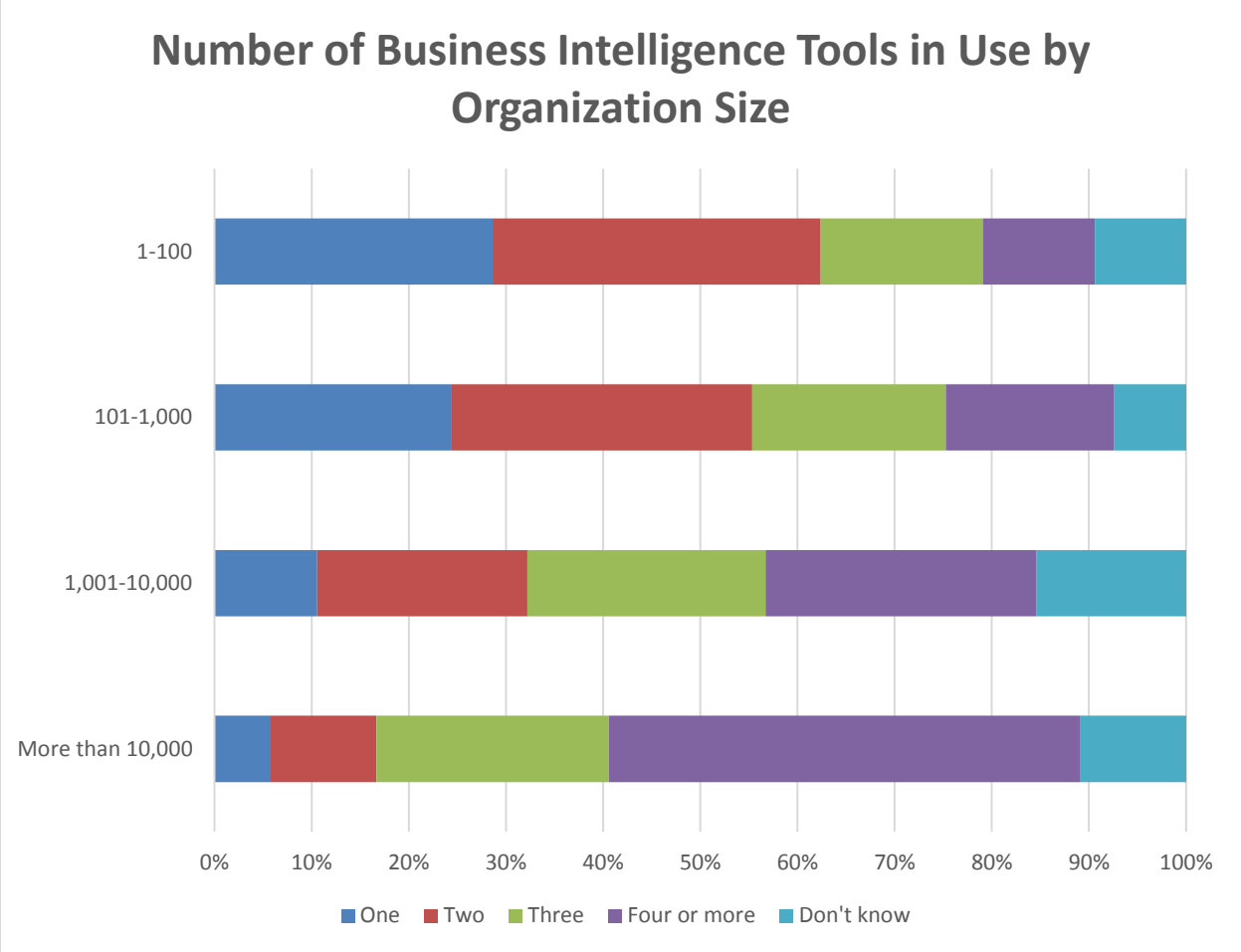


Figure 43 – Number of business intelligence tools in use by organization size

Technologies and Initiatives Strategic to Business Intelligence

Fundamental business intelligence technologies—reporting, dashboards, end-user self-service, advanced visualization, and data warehousing—top our 2017 list of technologies and initiatives among 33 topics we currently study (fig. 44). Second-tier initiatives include data discovery, data mining/advanced algorithms, and data storytelling. Midrange priorities include governance, end user data prep and data catalog. Compared to longstanding BI assets, some “hot button” topics including Internet of Things, cognitive BI, and social media analytics remain fringe priorities among respondents. (In 2017, we added data catalog, natural language analytics, and video analytics to the topics we study).

Figure 44 – Technologies and initiatives strategic to business intelligence

Technology Priority Changes from 2013

Technology priority rankings (particularly the highest scored), remain fairly consistent since 2013 (fig. 45). Reporting and dashboards retain and improve their top standing. We see that overall appetites for data discovery, integration with operational processes, and data storytelling, among others, decline across three years of data, though year-over-year trends are somewhat different (next chart, following page). If the past is precedent, some post-hype declines, especially among newer technologies, may come to rebound in future studies as more use cases and maturity arrive.

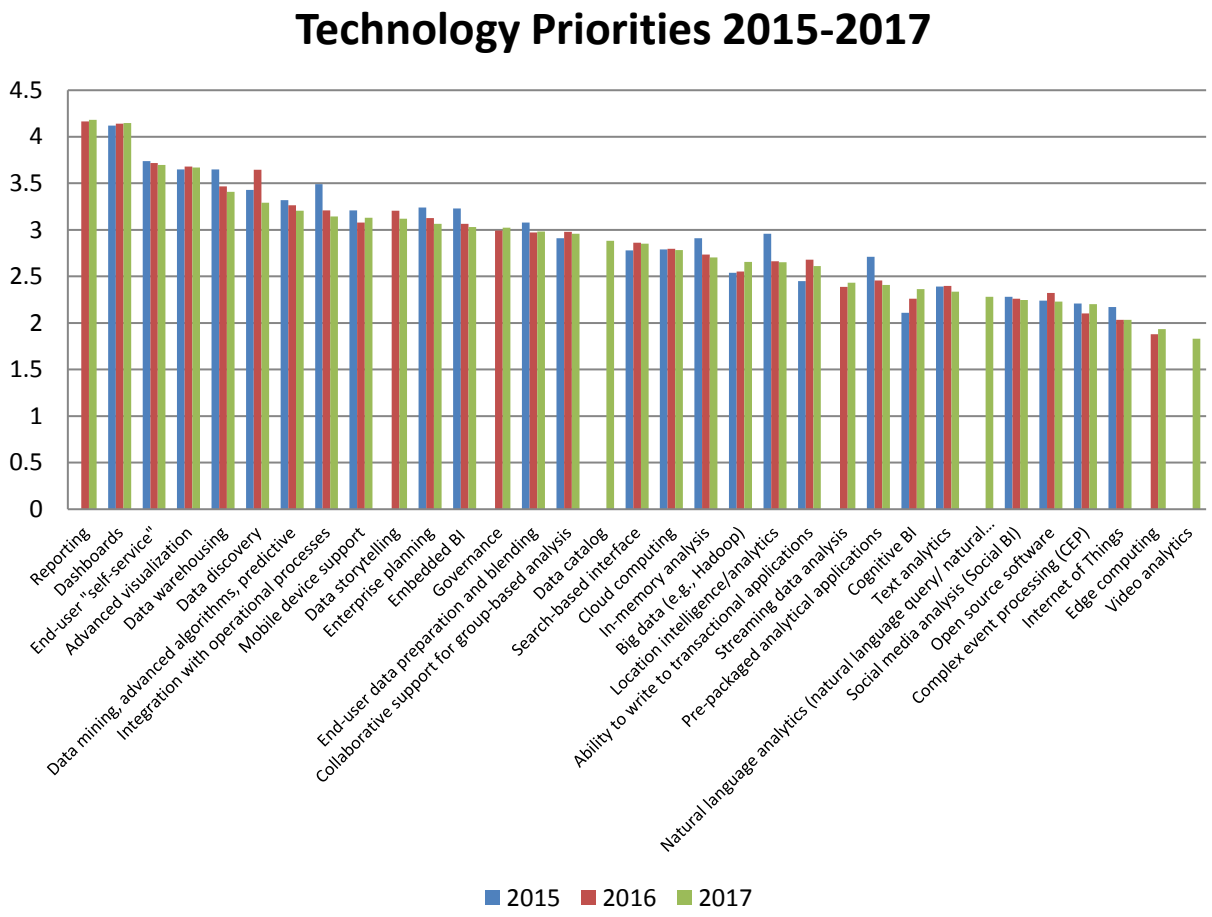


Figure 45 – Technology priorities 2015-2017

In Fig. 46 we show another instructive view of year-over-year changes in business intelligence priorities. In this view, big data (e.g., Hadoop), complex event processing, and cognitive BI grew most by percentage. (We first noted a significant post-hype rebound in big data in our eponymous 2016 report after years of stagnation.) Durable topics including mobile device support, governance, and reporting also saw gains in 2017. Among decliners, data discovery reversed 2016 gains, and open source software and data storytelling fell next most in prominence. Momentum measurements add color to our overall rankings, but short-term swings in sentiment may or may not confirm trends.

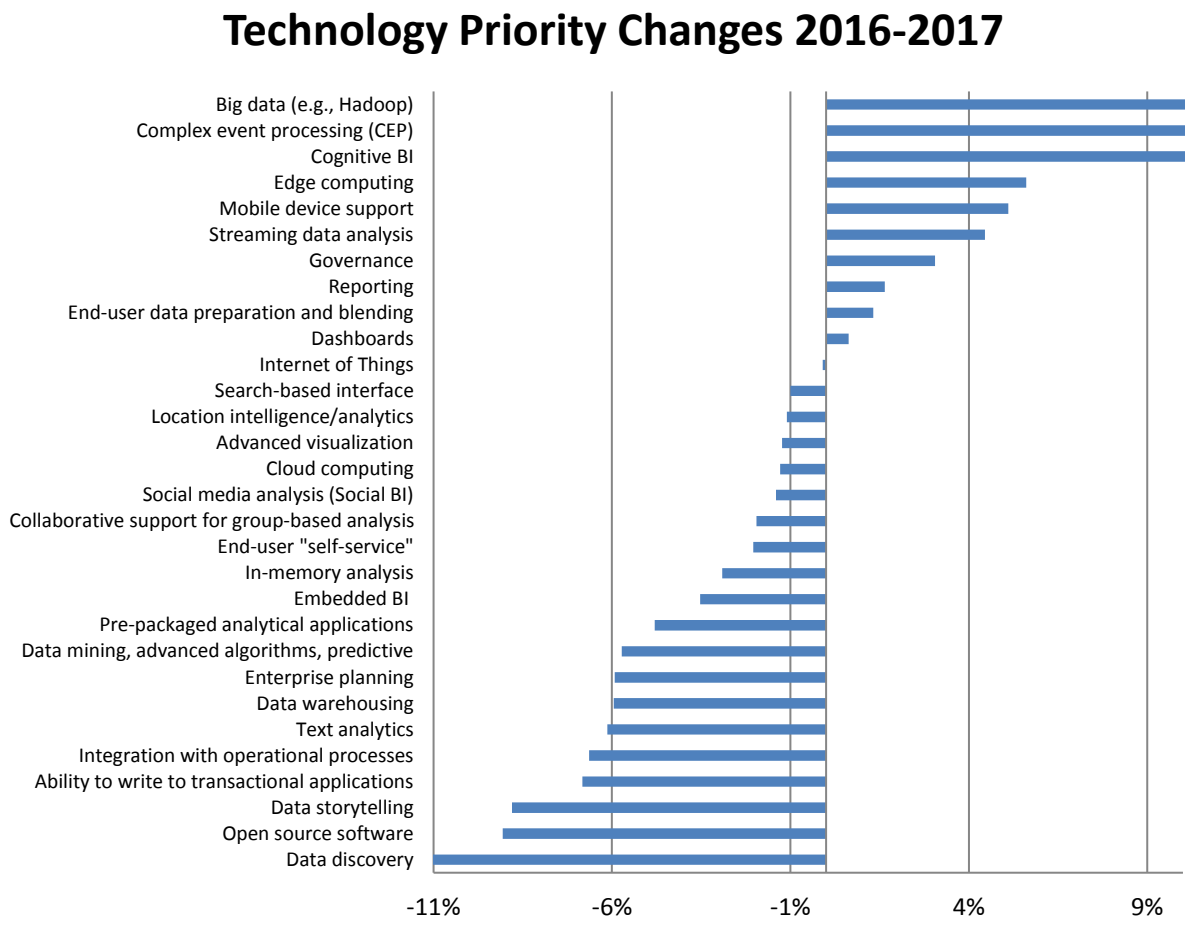


Figure 46 – Technology priority changes 2016-2017

Technologies and Initiatives Strategic to Business Intelligence by Geography

By region, Asia Pacific leads interest in most technologies and initiatives strategic to BI (fig. 47). Asia Pacific interest stands out most in cloud computing and search-based interface. North America generally ranks second in most measures but has the highest score for the top initiative, reporting. EMEA and Latin America trail interest in most technologies and initiatives, though Latin America reports the highest interest in ability to write to transactional apps, cognitive BI, and edge computing. EMEA does not lead in any category of interest.

Figure 47 – Technologies and initiatives strategic to business intelligence objectives by geography

Technologies and Initiatives Strategic to Business Intelligence by Function

Functional attitudes toward BI technologies and initiatives generally relate to specific daily roles and responsibilities (fig. 48). Executives report the highest interest in reporting, enterprise planning, and ability to write to transactional apps. The BICC, responsible for support services across BI objectives, leads prioritization of many or most categories including end-user self-service, embedded BI, and end-user data preparation. Dashboards, cloud computing, and natural language analytics appeal strongly to Marketing and Sales. It is interesting to note that IT is not the primary driver of any specific initiative or technology.

Figure 48 – Technologies and initiatives strategic to business intelligence by function

Technologies and Initiatives Strategic to Business Intelligence by Vertical Industry

Vertical industries describe a range of interest in different 2017 business intelligence initiatives and priorities (fig. 49). Manufacturing reports high scores for end-user self-service, data warehousing, integration with operational processes, and end-user data preparation. Healthcare leads interest in several mid-tier initiatives including enterprise planning, embedded BI, governance, collaborative support for group-based analysis, and search-based interface, among others. Financial Services respondents are strong advocates for cloud computing, big data, cognitive BI, and social media analysis and also have strong affinity for governance. In 2017, Education respondents trail interest in many technologies and initiatives we study.

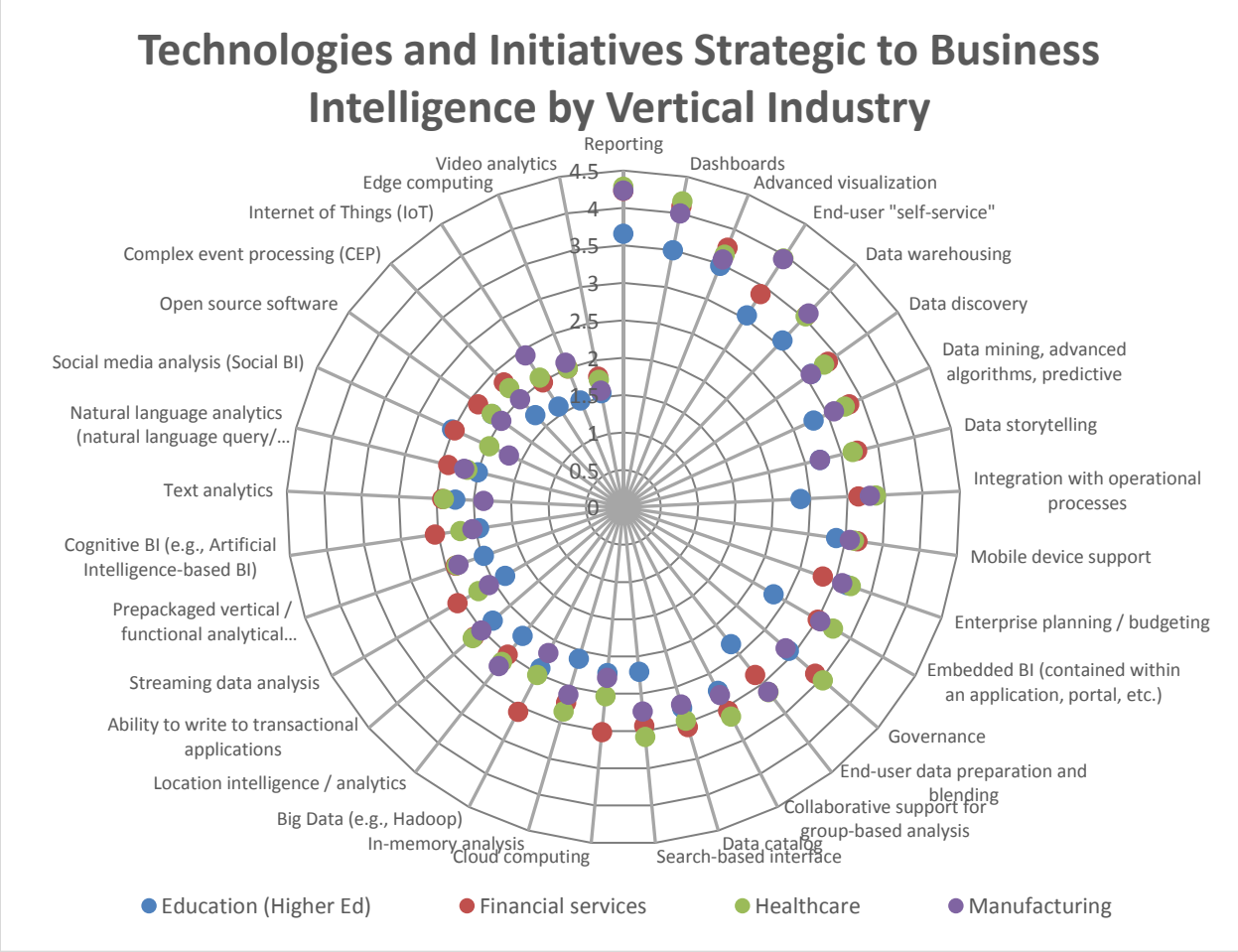


Figure 49 – Technologies and initiatives strategic to business intelligence by vertical industry

Technologies and Initiatives Strategic to Business Intelligence by Organization Size

Business intelligence priorities vary by organization size though, generally, very large organizations lead interest in most technologies and initiatives in 2017 (fig. 50). That said, mid-sized organizations of 101 to 1,000 employees actually lead demand for dashboards, and small organizations (1-100 employees) expectedly lead interest in cloud computing as well as social media analysis. We note that the top two initiatives, reporting, and dashboards are tightly grouped with high importance compared to all others.

Figure 50 – Technologies and initiatives strategic to business intelligence by organization size

Business Intelligence and the State of Data

For a fourth year, we polled respondents for attitudes and behaviors reflective of the "state of data" in their organizations (fig. 51). As their choices describe, a good majority (65 percent) of organizations say they either see data as "truth" or maintain a common enterprise view of data limited by parochial views and semantics. This finding is slightly higher than in 2016. Twenty-three percent report consistent "department-level data," and 12 percent report the worst state of data, "multiple inconsistent data sources with conflicting semantics and data."

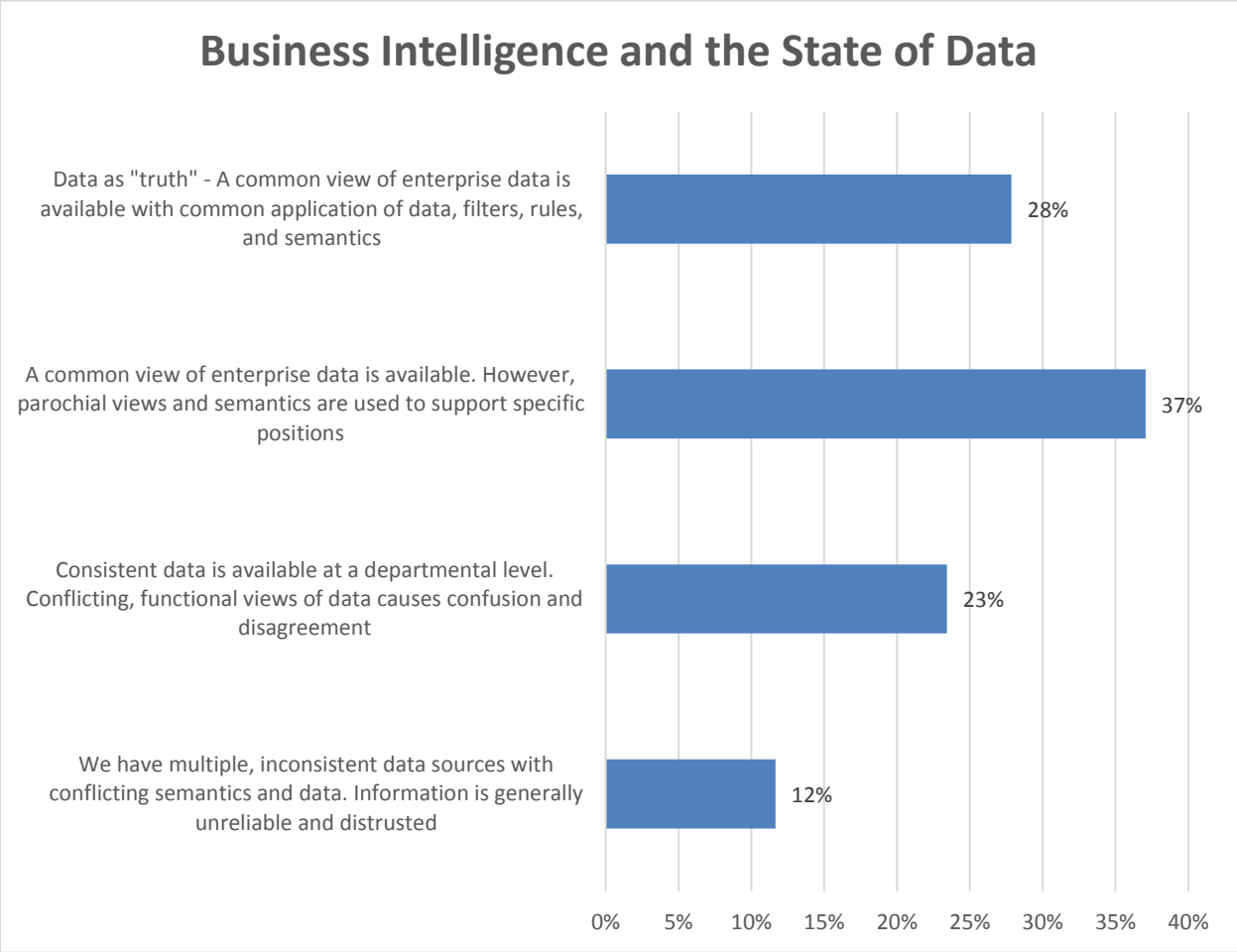


Figure 51 – Business intelligence and the state of data

Across three years of data, respondents' overall opinions of their "state of data" are largely flat with some nuanced distinctions (fig. 52). Twenty-eight percent see the highest level of data as "truth" and may constitute a base of high-performing organizations that stand out from the majority. The next most desirable state, "a common view of enterprise data is available..." has declined somewhat in the last three years but is closer to flat year over year. Lower states of "consistent department..." data and "multiple inconsistent data sources" are effectively flat over time.

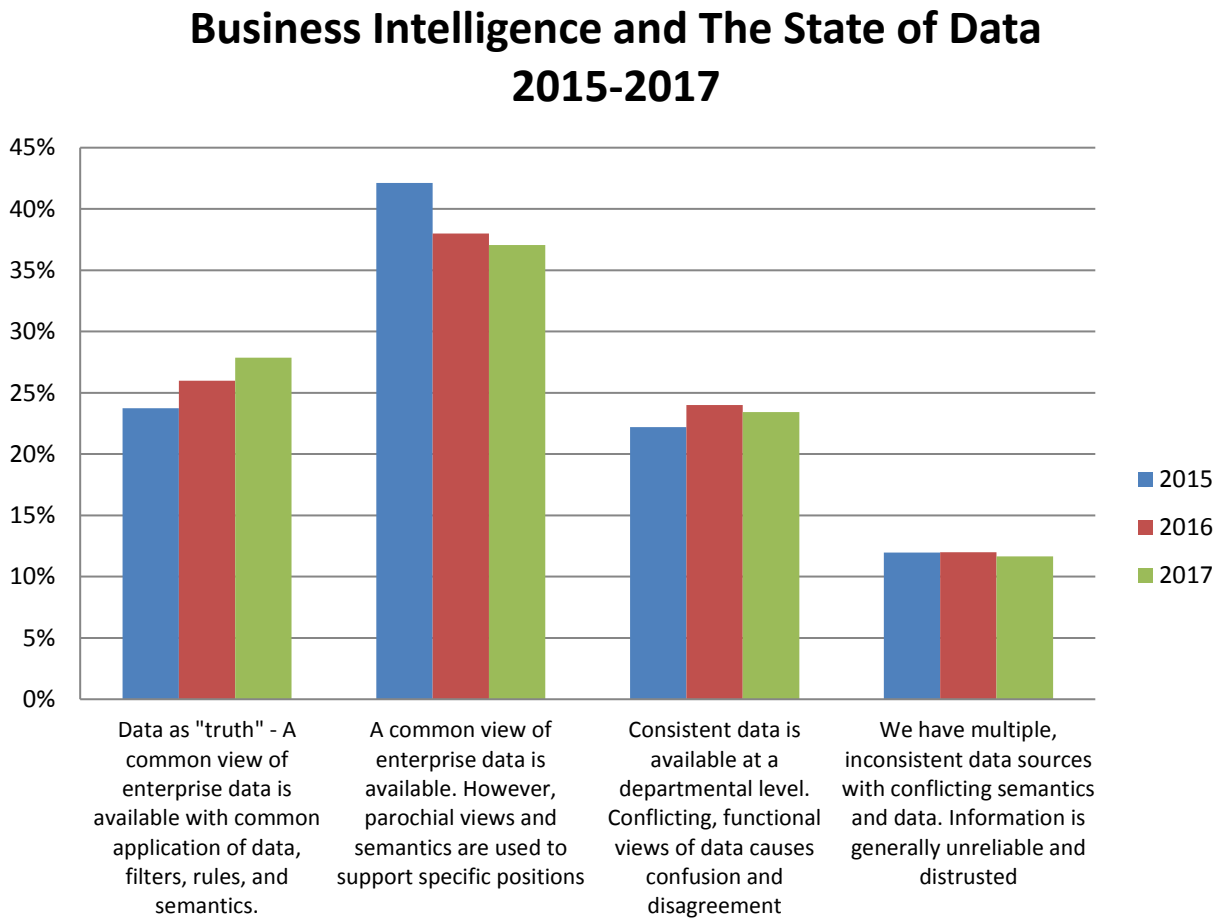


Figure 52 – Business intelligence and the state of data 2015-2017

Business Intelligence and the State of Data by Geography

Estimations of organizational data maturity are remarkably similar across regional geographies (fig. 53). Asia-Pacific respondents report the highest scores for "data as truth" (31 percent) while all other regions trail this measure rather closely (28-29 percent). Asia-Pacific respondents are also slightly the most likely to report "consistent data by department" or "multiple, inconsistent data sources" (red, blue bands). EMEA respondents report slightly higher "common view of enterprise data" available (green band).

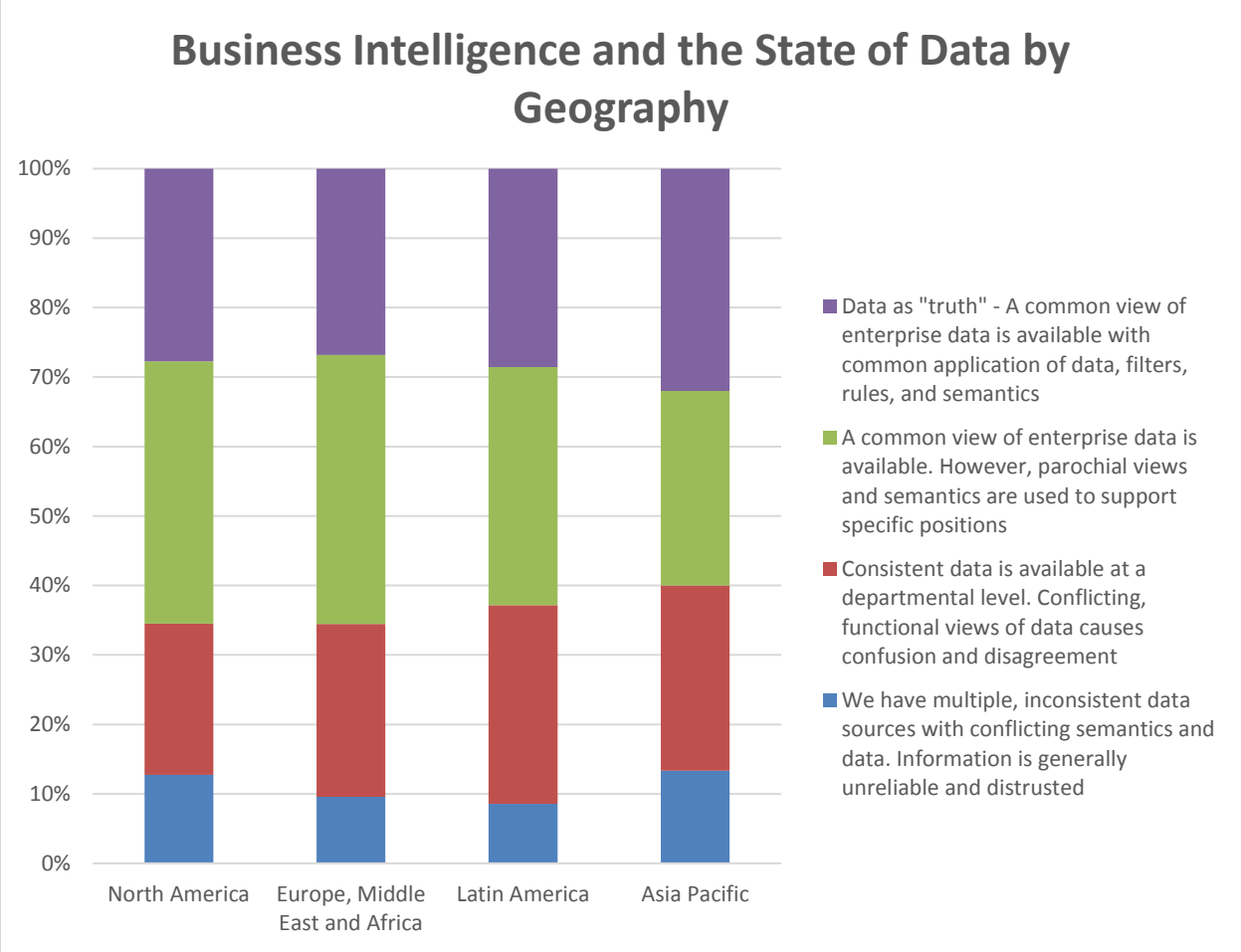


Figure 53 – Business intelligence and the state of data by geography

Business Intelligence and the State of Data by Function

Estimations of organizational data maturity are less consistent by function than by geography (fig. 54). Executive Management and BICC respondents are the most likely to report the highest common view of data as “truth.” Interestingly, Finance respondents are less certain, though they have a better overall estimation than Marketing, Sales, or IT. Unidentified or non-traditional functions (other) are least confident in their organizational state of data.

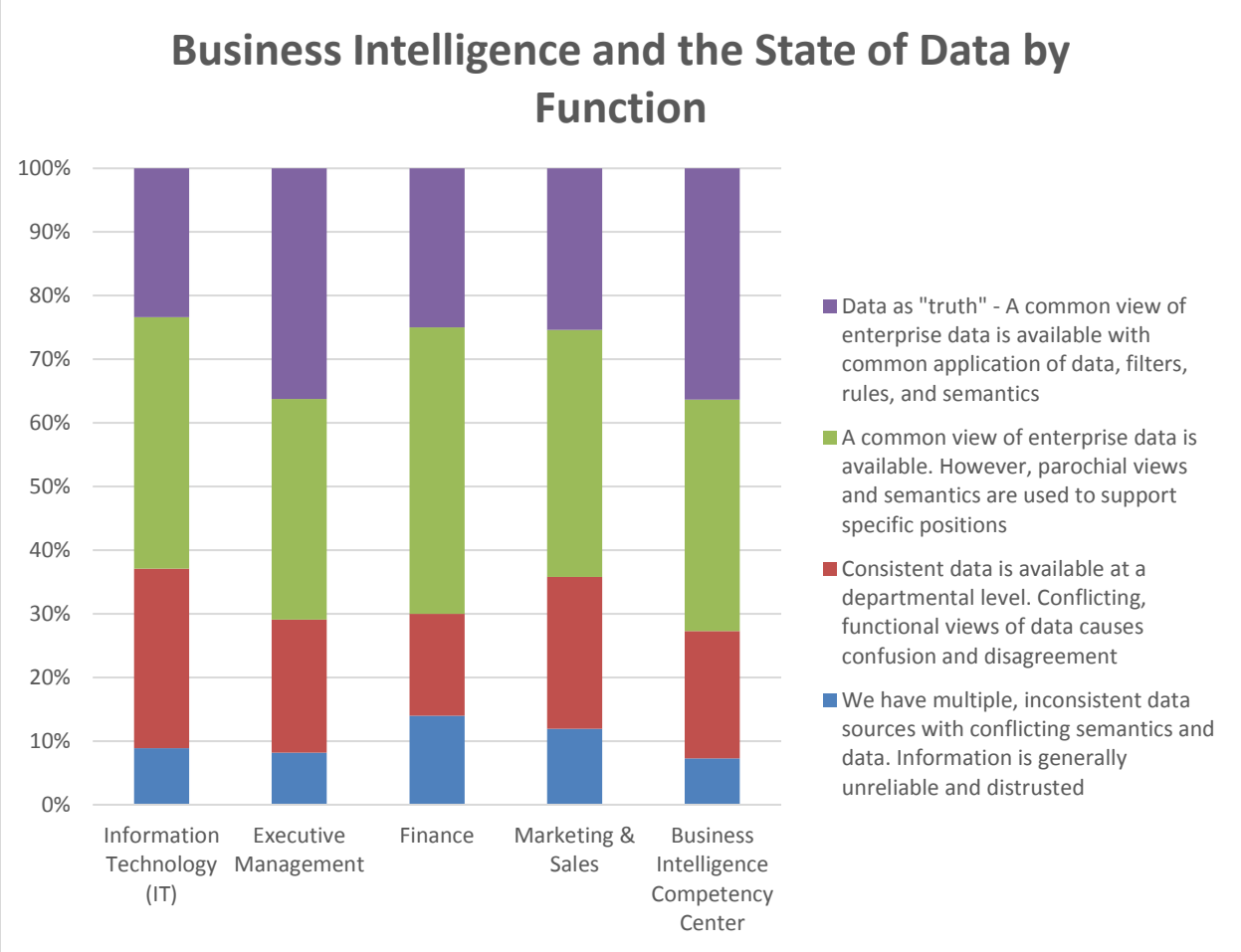


Figure 54 – Business intelligence and the state of data by function

Business Intelligence and the State of Data by Vertical Industry

By industry, 80 percent of Manufacturing respondents report their data conforms to the two highest states of data (fig. 55). Retail/Wholesale and Technology respondents are most likely to report a state of "data as truth." Higher Education, Financial Services, and Healthcare respondents are the least confident in their organizations' state of data.

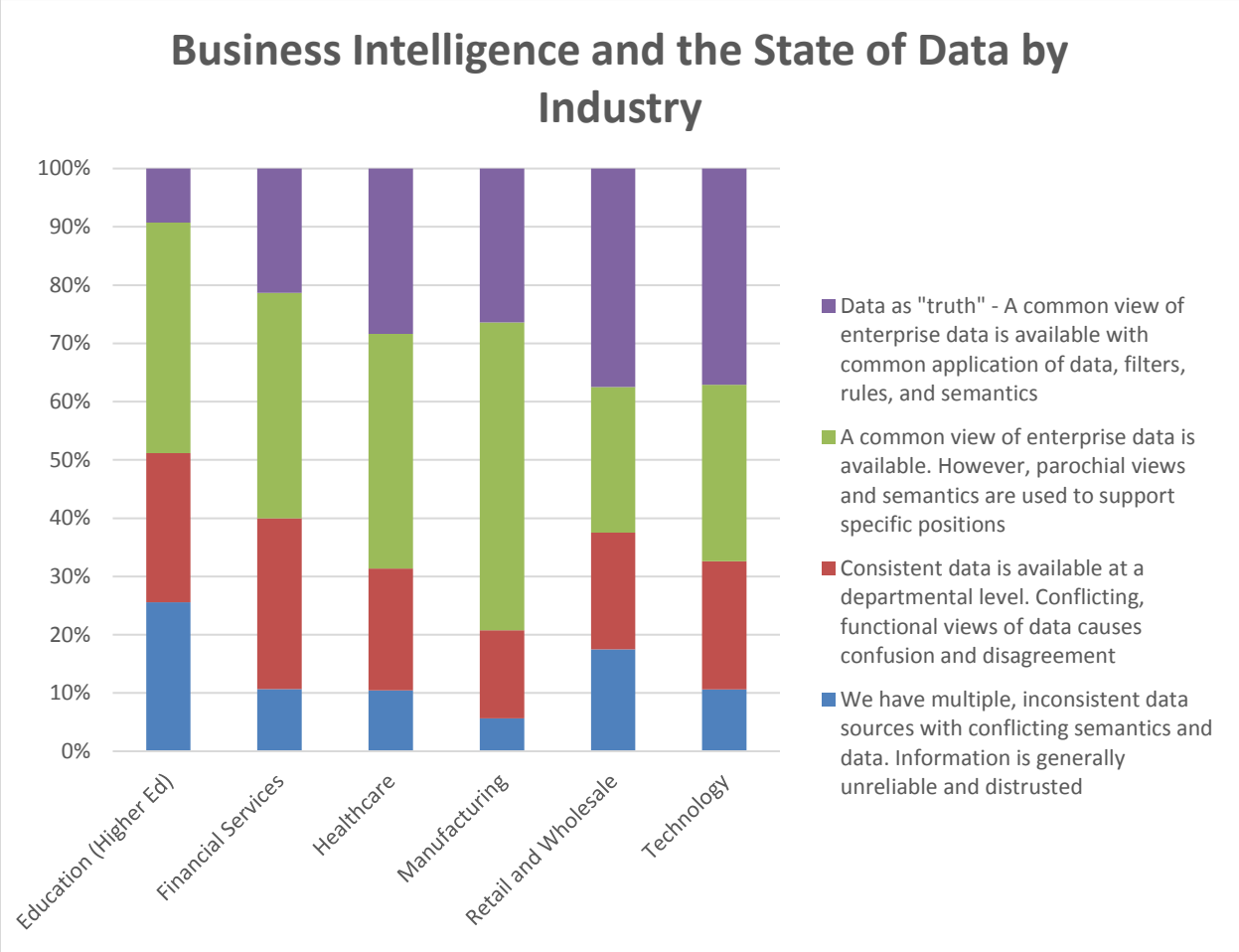


Figure 55 - Business intelligence and the state of data by industry

Business Intelligence and the State of Data by Organization Size

Smaller organizations (which, on average, manage a smaller scope of data than larger peers) are most likely to "have their act together" with a more mature state of data than larger peers (fig. 56). Moving left to right, we see the state of data tends to become less coordinated and more fragmented as organization headcount increases until it improves slightly at the largest organizations with more than 10,000 employees. Less than 14 percent of organizations of any size report the lowest state on multiple, inconsistent data sources, a 3 percent improvement over 2016.

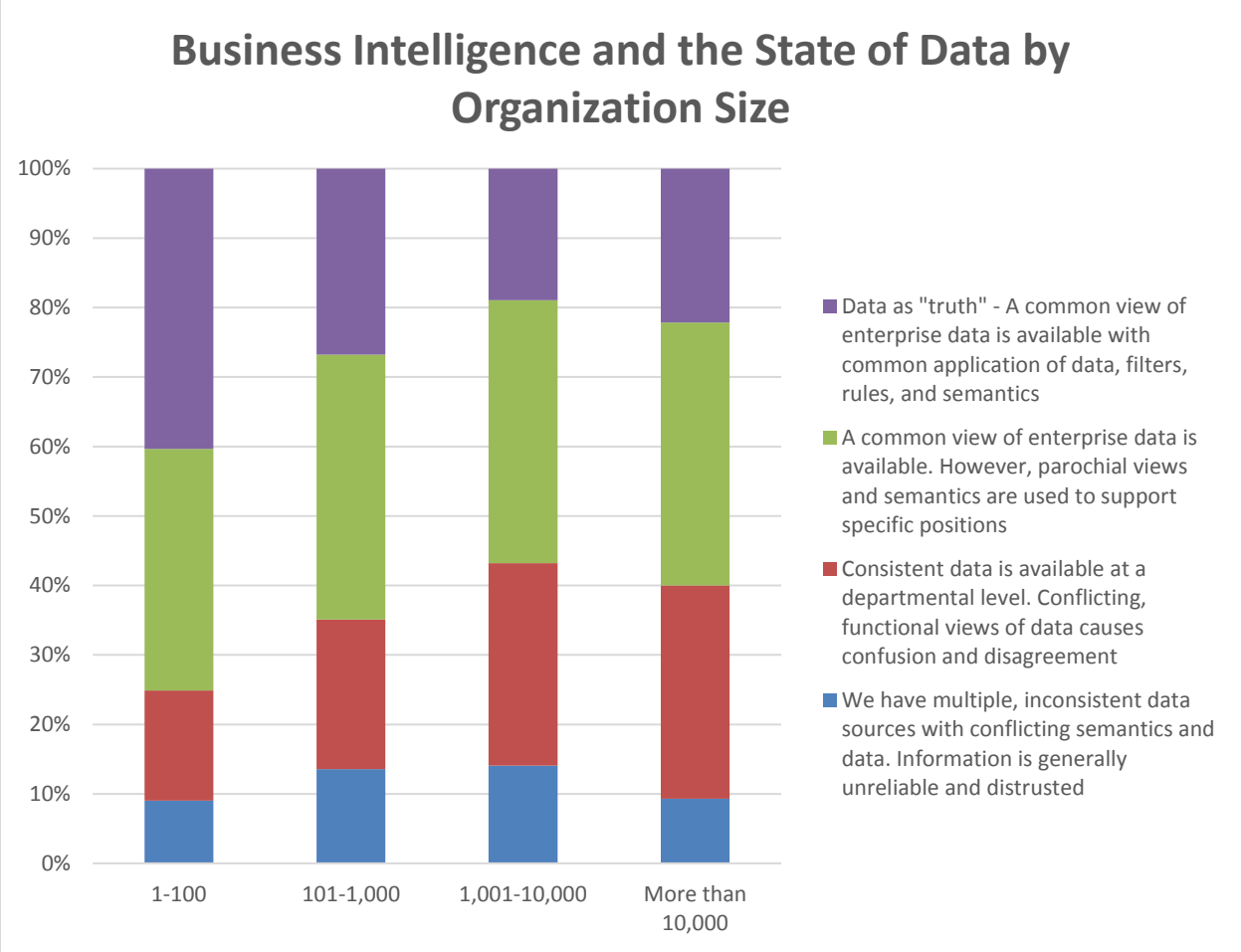


Figure 56 – Business intelligence and the state of data by organization size

Business Intelligence and Action on Insight

In 2014, we introduced “action on insight,” a high-level self-assessment of best (and worst) practices in organizational use of data. In 2017, respondents paint a very positive picture of insight leverage (fig. 57). Eighty-six percent of respondents say they have either "closed loop" or "ad hoc (informal)" action on insights, meaning that they actively share BI-derived insights with colleagues. Just 9 percent report "uncoordinated or parochial action," and only 5 percent say "insights are rarely leveraged."

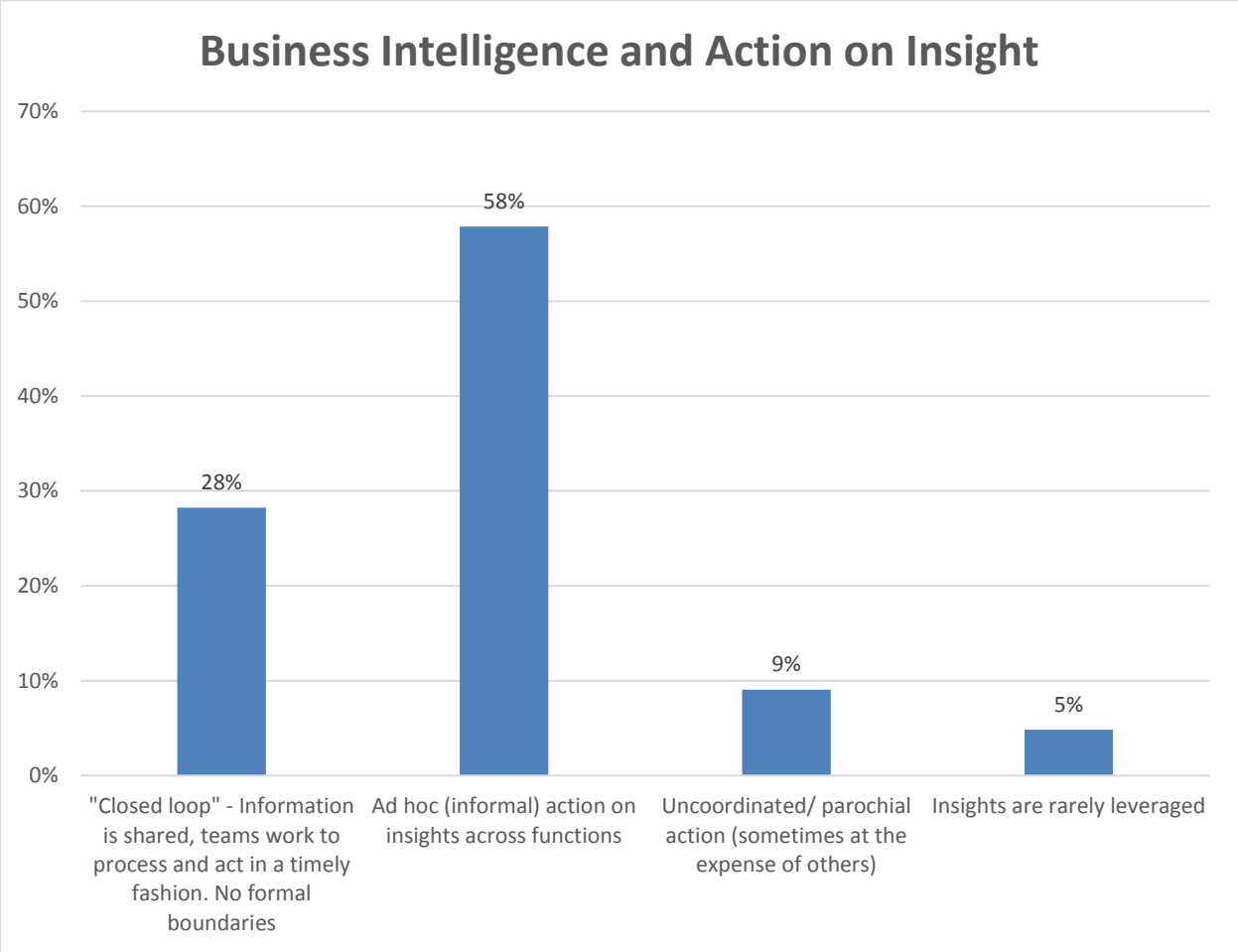


Figure 57 – Business intelligence and action on insight

Across four years of data, we have seen a mostly flat or slightly improving trend in estimations of organizational ability to take action on insight (fig. 58). We note small incremental gains in "closed loop" success, again perhaps indicating the constitution of a core set of high performers. The number reporting "ad hoc (informal)" action on insight is below all-time highs but rebounded somewhat from 2016. Less than 10 percent of respondents say they take "uncoordinated/parochial action," and only 5 percent "rarely leverage insights."

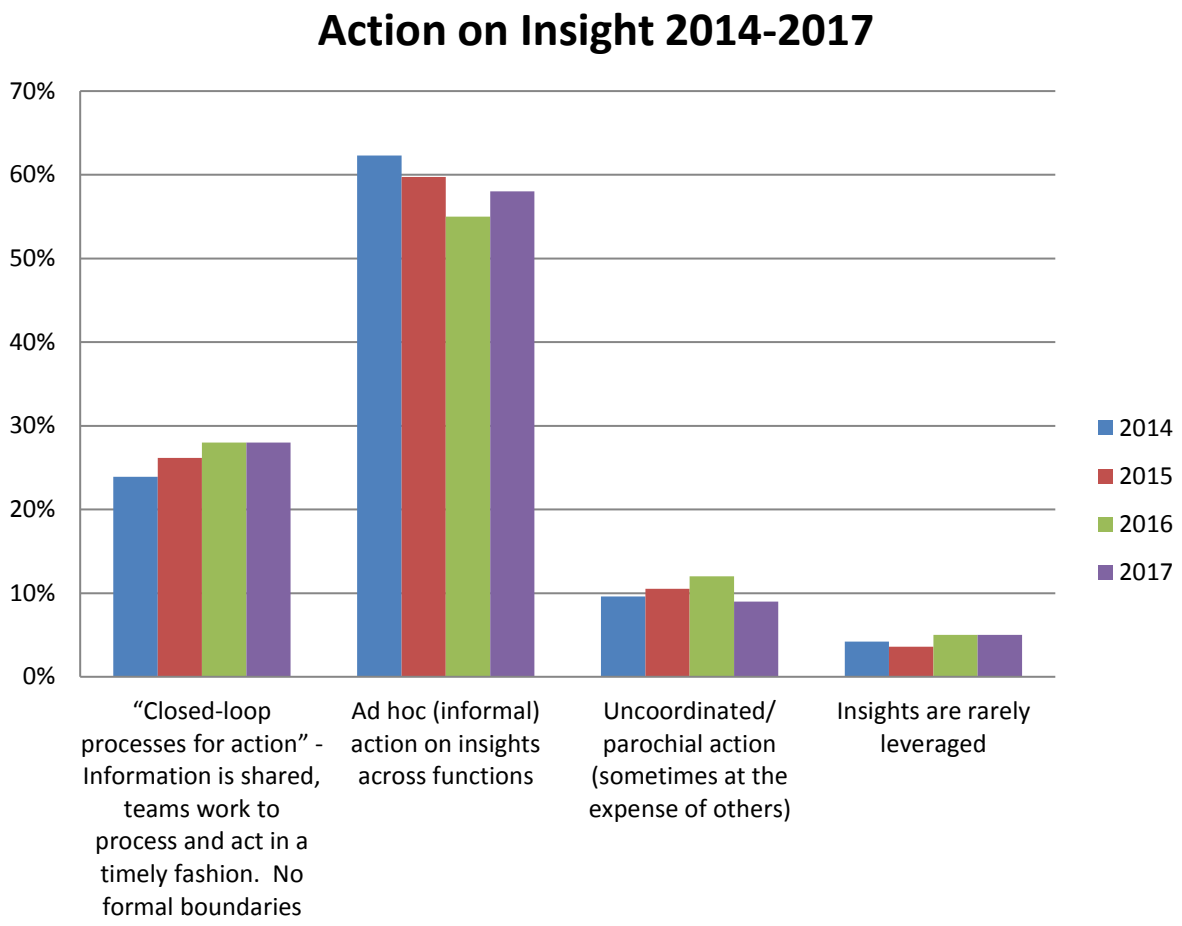


Figure 58 – Business intelligence and action on insight 2014-2017

Business Intelligence and Action on Insight by Geography

Organizational estimations of the ability to take action on insight run strongest in Asia Pacific, followed by Latin America, where sentiment grew noticeably from 2016 (fig. 59). Confidence is somewhat lower in North America and EMEA. We acknowledge these scores are sentiment and do not represent hard measurements. Rather, they are regional sentiments of perceived capabilities to act on insight.

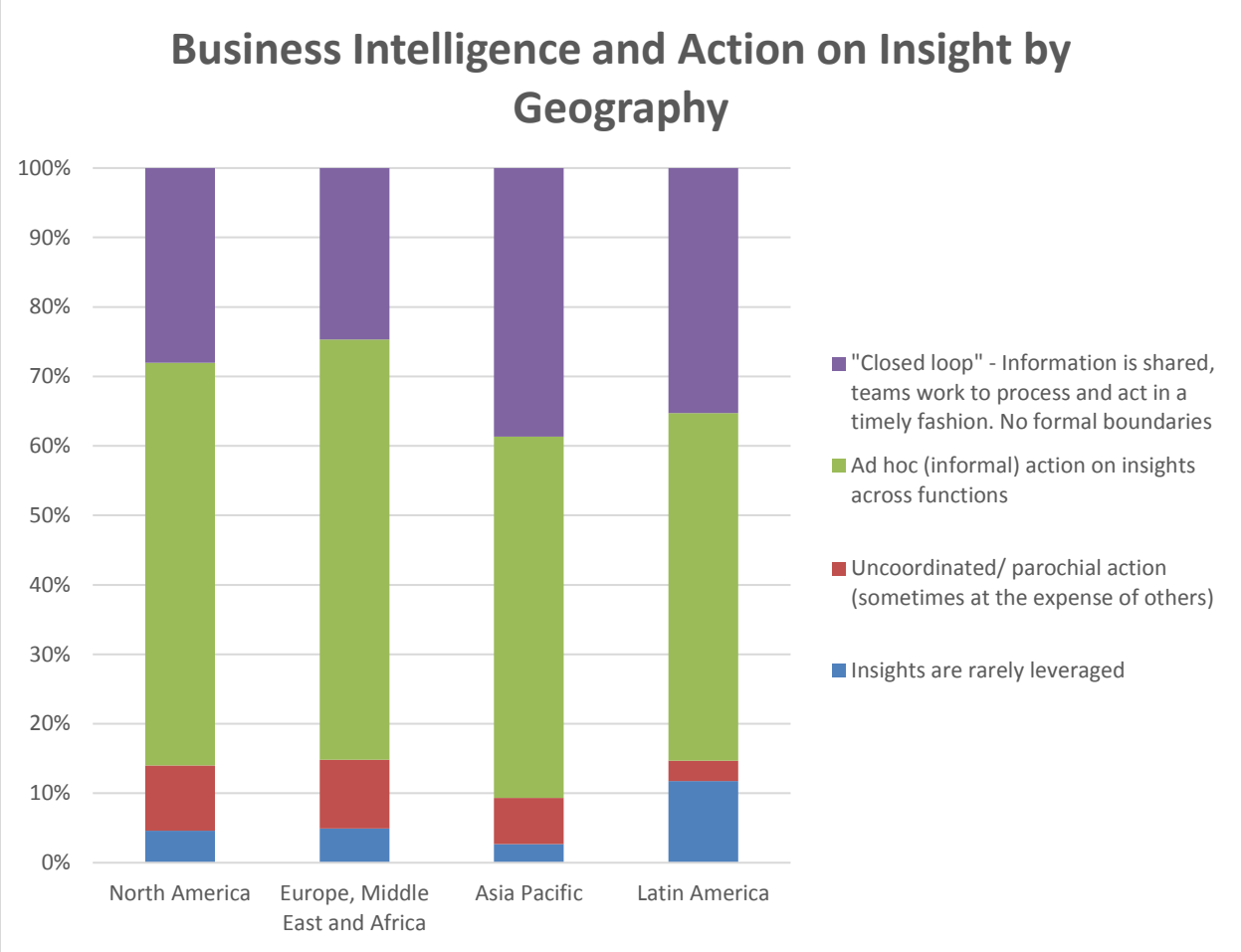


Figure 59 – Business intelligence and action on insight by geography

Business Intelligence and Action on Insight by Function

BICC respondents, most aware of BI and collaborative capabilities, have traditionally been the most confident in their organization's ability to take action on insight, and this is again the case in 2017 (fig. 60). "On-the-go" users in Marketing/Sales and Executive Management are the next most likely to say they are adept at taking action on data insights. Of the functions studied, IT and Finance are least likely to coordinate action on insight in 2017.

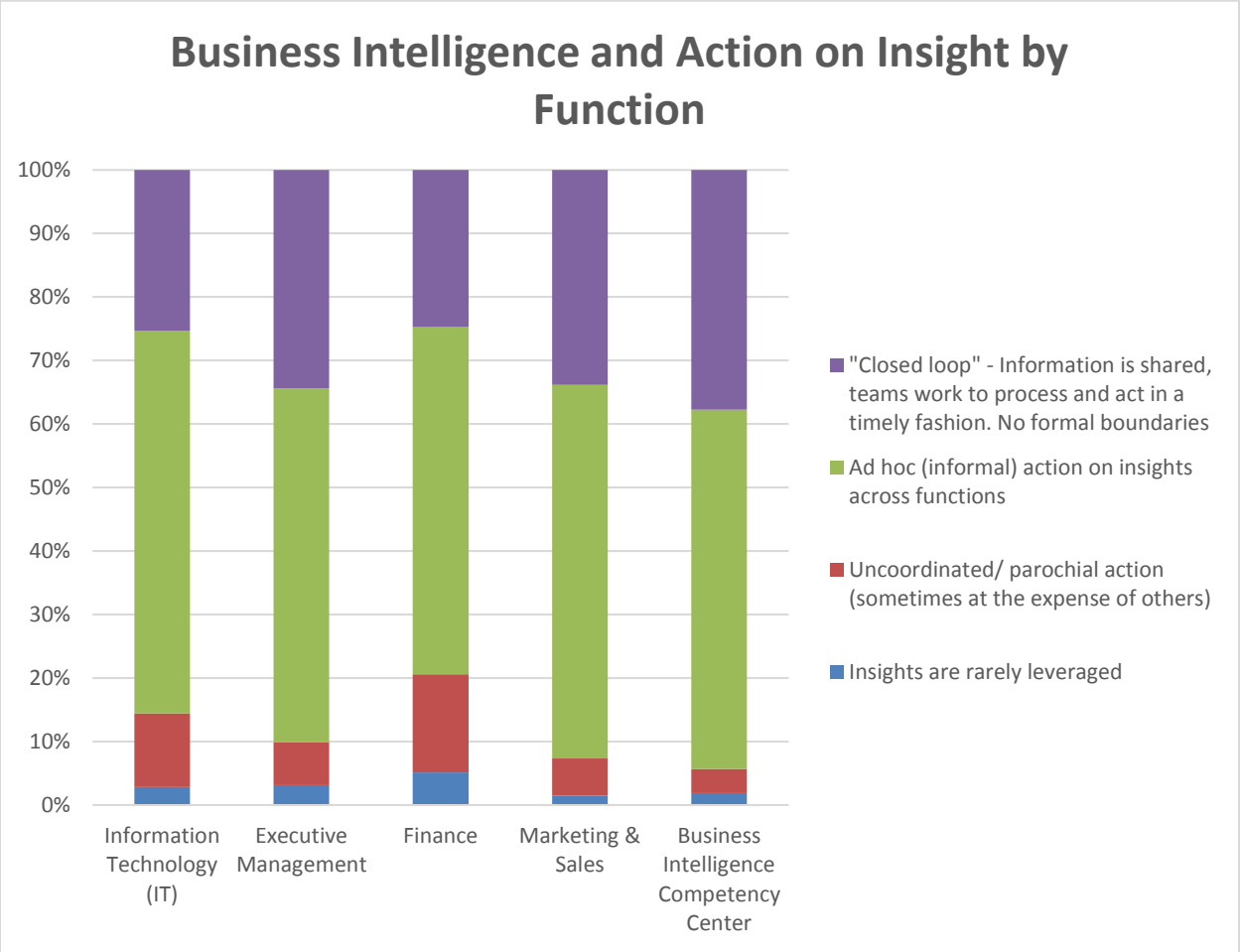


Figure 60 – Business intelligence and action on insight by function

Business Intelligence and Action on Insight by Vertical Industry

Industries generally exhibit high confidence in their ability to take action on insight (fig. 61). In our 2017 sample, respondents in Technology, Retail/Wholesale, and Manufacturing are the most confident in their ability to act on data. Heathcare respondents are the most likely to report "closed-loop" processes. Education and Financial Services trail all industries in their ability to act on insight.

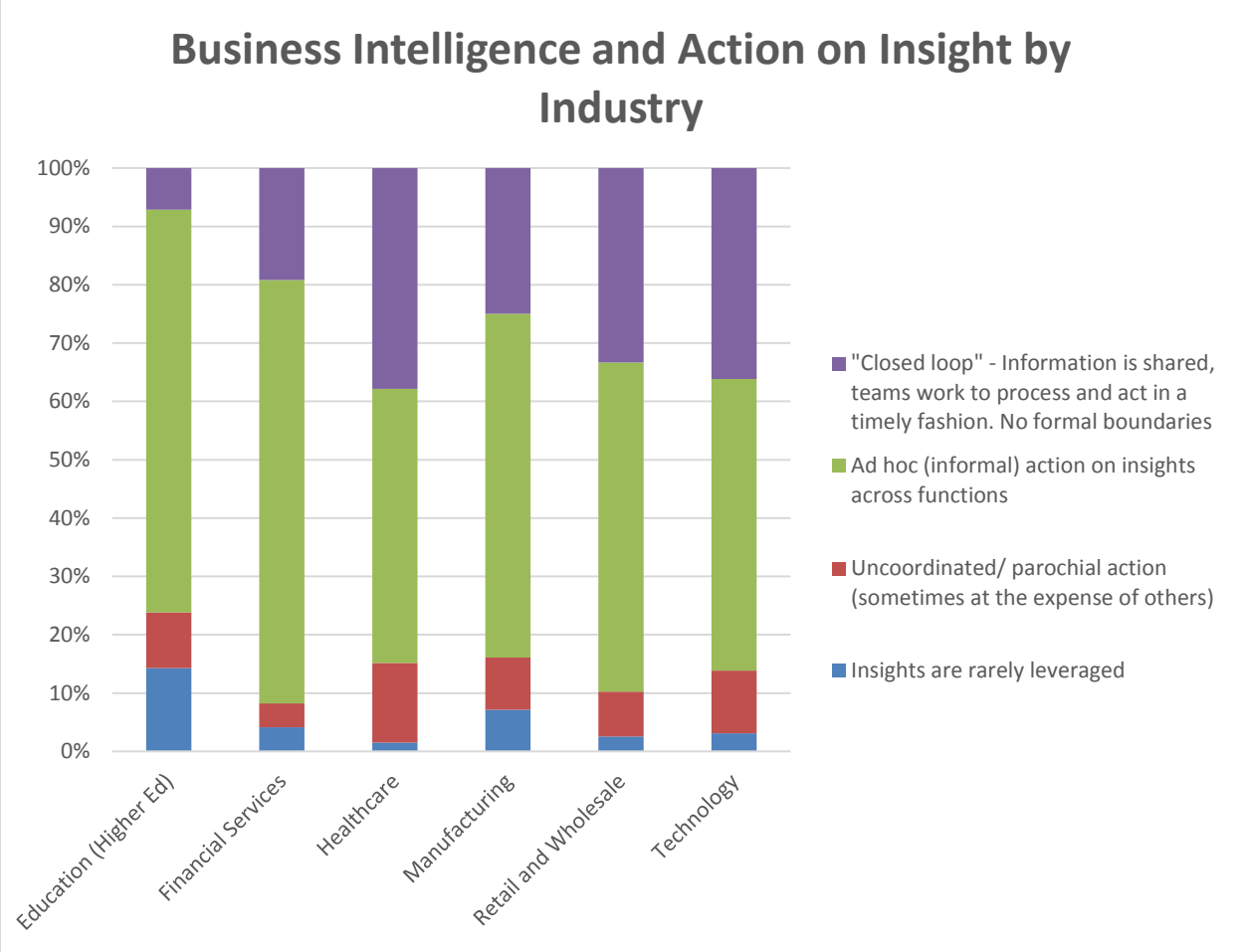


Figure 61 – Business Intelligence and action on insight by industry

Business Intelligence and Action on Insight by Organization Size

Small organizations (1-100 employees) fare best in their ability to act on insight, and confidence decreases thereafter as organization size grows (fig. 62). More than 80 percent of all organizations claim "closed loop" or ad hoc abilities; however, very large organizations are more than twice as likely as small peers to report "uncoordinated/parochial action" or "insights are rarely leveraged."

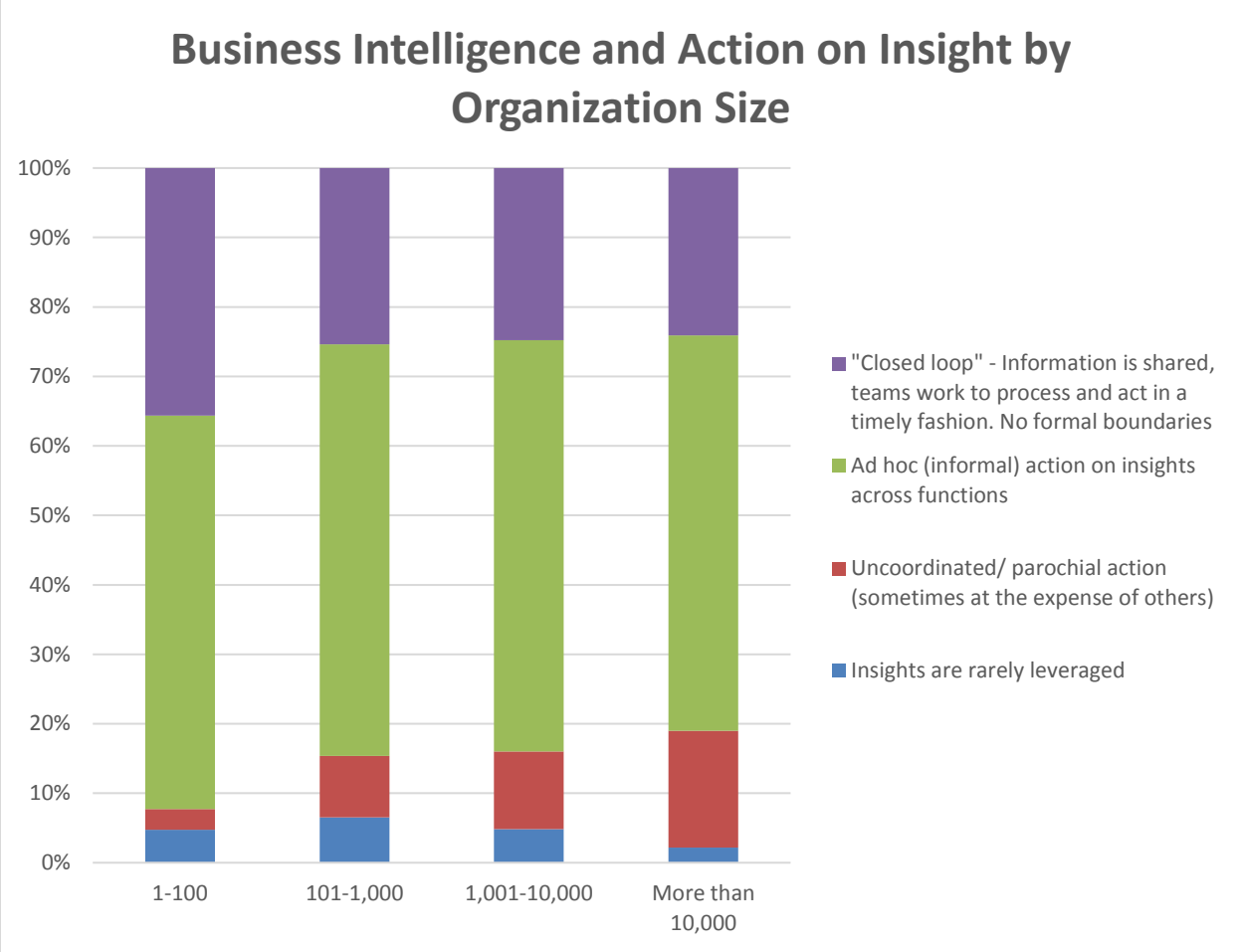


Figure 62 – Business intelligence and action on insight by organization size

Success with Business Intelligence

In 2017, our core measure of "success with business intelligence" appears to have declined slightly overall (fig. 63). The number of respondents that say their organizations are “successful” with BI fell from 37 percent to 33 percent. "Somewhat successful" organizations fell by 2 percent while "somewhat successful" organizations grew noticeably from 8 percent to 14 percent. We cannot be certain what mix of emergent BI challenges and/or higher expectations these scores represent, but it goes against the grain of incremental improvements we have seen over time.

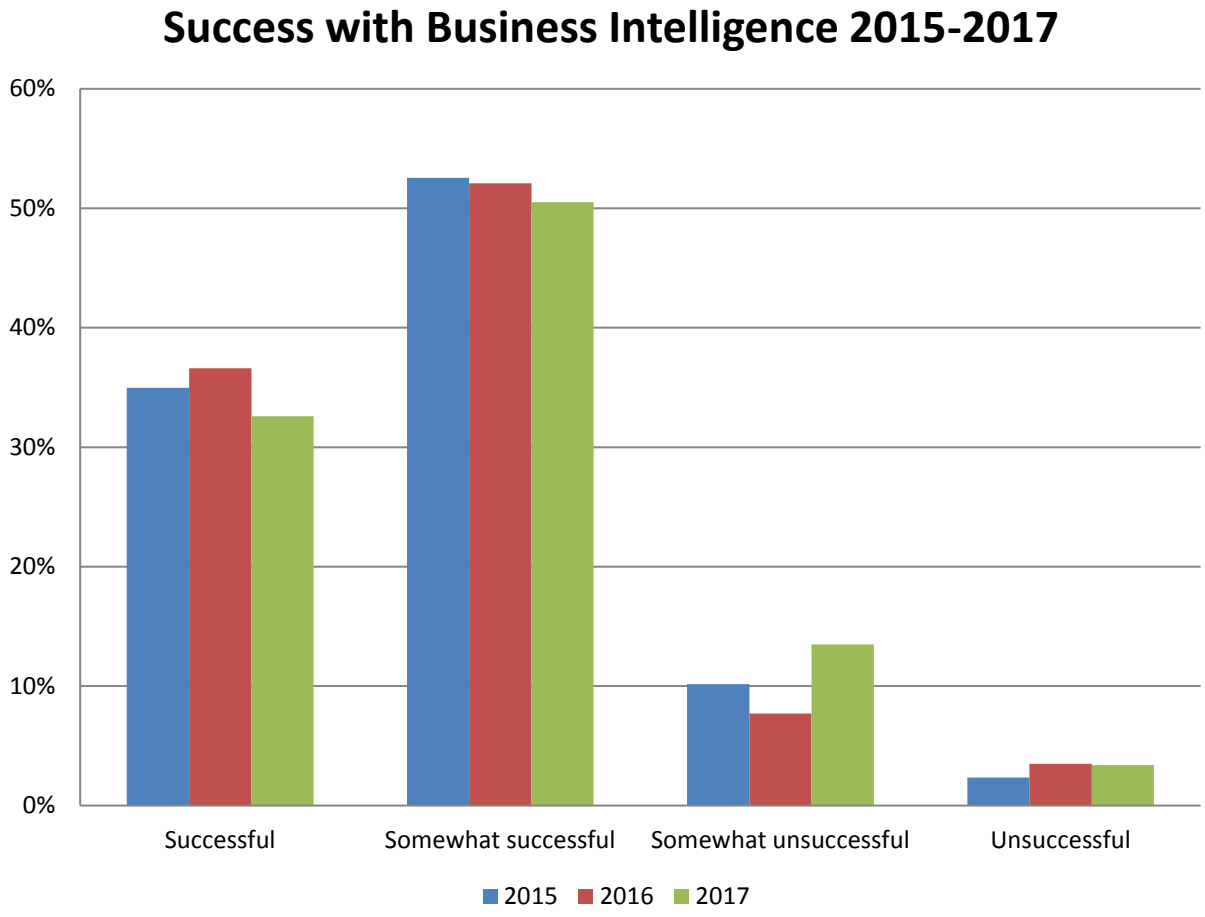


Figure 63 – Success with business intelligence 2015-2017

Reasons Why Business Intelligence Succeeds

Tag cloud analysis of BI success flows through classic expectations of information improvements in "data," “business,” "users," and “use” (fig. 64). Interestingly, "reporting" ranks as strongly as more hyped terms like "analytics." Also interesting, 2017 respondents commenting on success are more interested in applied use of BI rather than process-oriented terms such as "integration" or "quality" as measures of success.

Figure 64 – Reasons for success with business intelligence

Reasons Why Business Intelligence Fails

Asked for reasons why business intelligence fails, respondents point to "data" as a moving target of quality, integration, security, etc., and their "lack" of ability to access, manipulate, and use data (fig. 65). To a lesser extent, they see shortfalls in business "resources," "systems," and "analytics" and seem unconvinced that management has grasped process issues of teamwork, establishing needs, and data quality issues.

Figure 65 – Reasons why business intelligence fails

How Successful Organizations Measure Success with Business Intelligence

New in 2017, we asked respondents to quantify in more detail how they measure the success of business intelligence initiatives (fig. 66). The top result is "user feedback/satisfaction" (70 percent), followed by "customer feedback/satisfaction" (39 percent), "ROI" (33 percent), "system/app activity" (33 percent), and "numbers of users" (23 percent). The top takeaway from this view is rather obviously to "engage with users" rather than focus on systems or investment, though it also reflects that positive user experiences led these organizations to conclude they were successful.

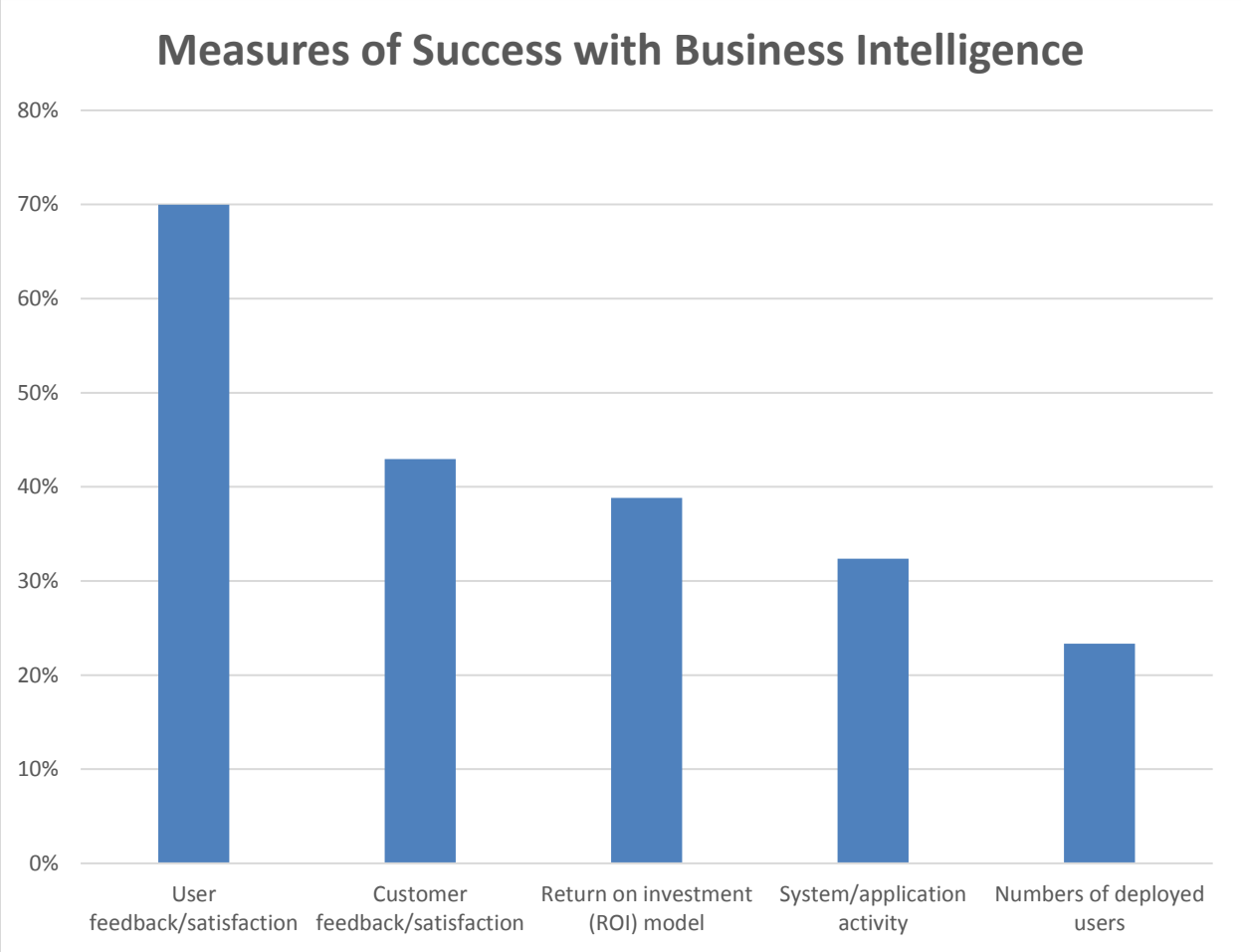


Figure 66 – Measures of success with business intelligence

How Unsuccessful Organizations Measure Failure with Business Intelligence

In 2017, we also asked respondents to better quantify how they measure the failure of business intelligence initiatives (fig. 67). The top result was "lack of usage" (69 percent), followed by "limited adoption" (59 percent), "user feedback" (41 percent), "cost/ROI" (33 percent), and "numbers of users" (27 percent). From this view, we might conclude that less successful organizations are less likely to judge their failure on user feedback than successful ones. Unsuccessful companies instead are more likely to judge their failure on less transparent, high-level (often IT) metrics of system activity and user headcount. We believe the findings in figs. 66 and 67 also demonstrate the value and more frequent success of organizations with a business intelligence competency center.

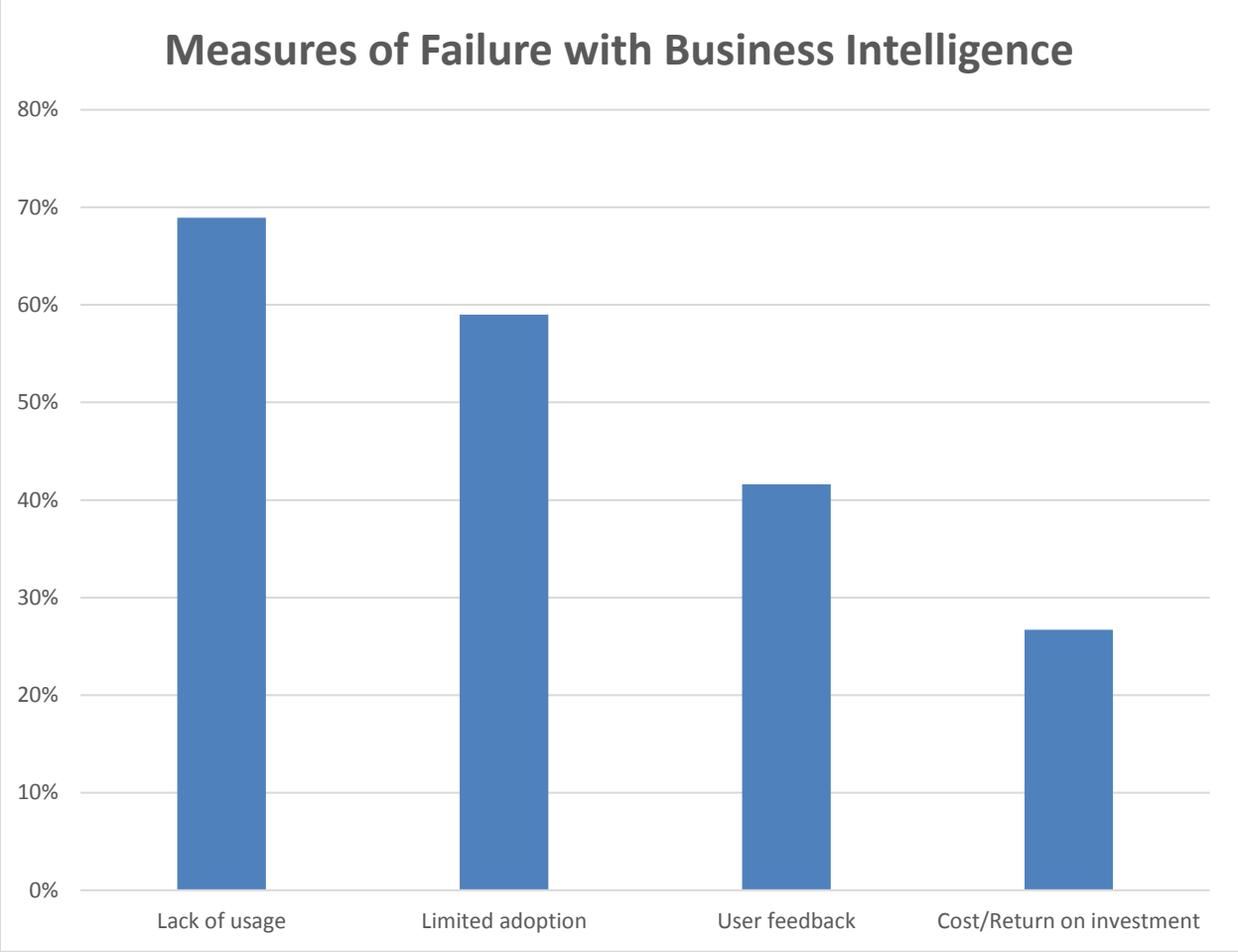


Figure 67 – Measures of failure with business intelligence

Success with Business Intelligence by Organization Size

The smallest organizations are most likely (41 percent) to consider themselves "completely successful," and 86 percent say they are at least "somewhat successful" with business intelligence (fig. 68). One-third of mid-sized organizations say they "completely agree" that they are successful, a figure that declines to about 22 percent in large organizations. As we see elsewhere in our survey data, reports of success tend to decline with organizational size until they flatten or rebound slightly with the very largest.

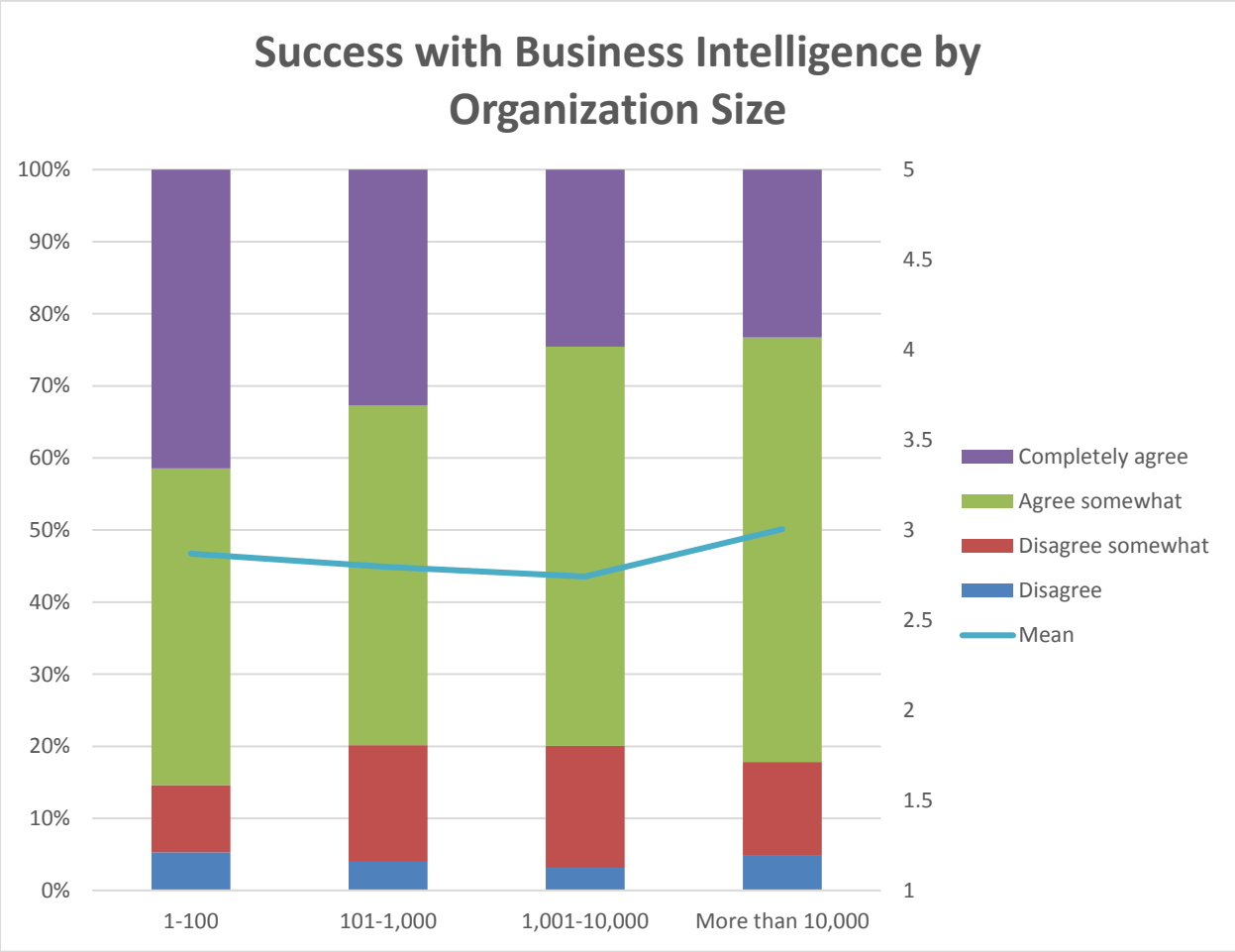


Figure 68 – Success with business intelligence by organization size

Success with Business Intelligence by BI Objectives

Organizations that are successful with business intelligence are most likely to focus on the full range of objectives we sampled in 2017 (fig. 69). The most popular objective of successful BI organizations is “better decision making” followed by "improved operational efficiency," "improved revenue growth," and "increased competitive advantage." Organizations that consider themselves unsuccessful are less emphatic in all areas but are the most likely to focus on revenue growth over "soft benefits" of generally improved performance.

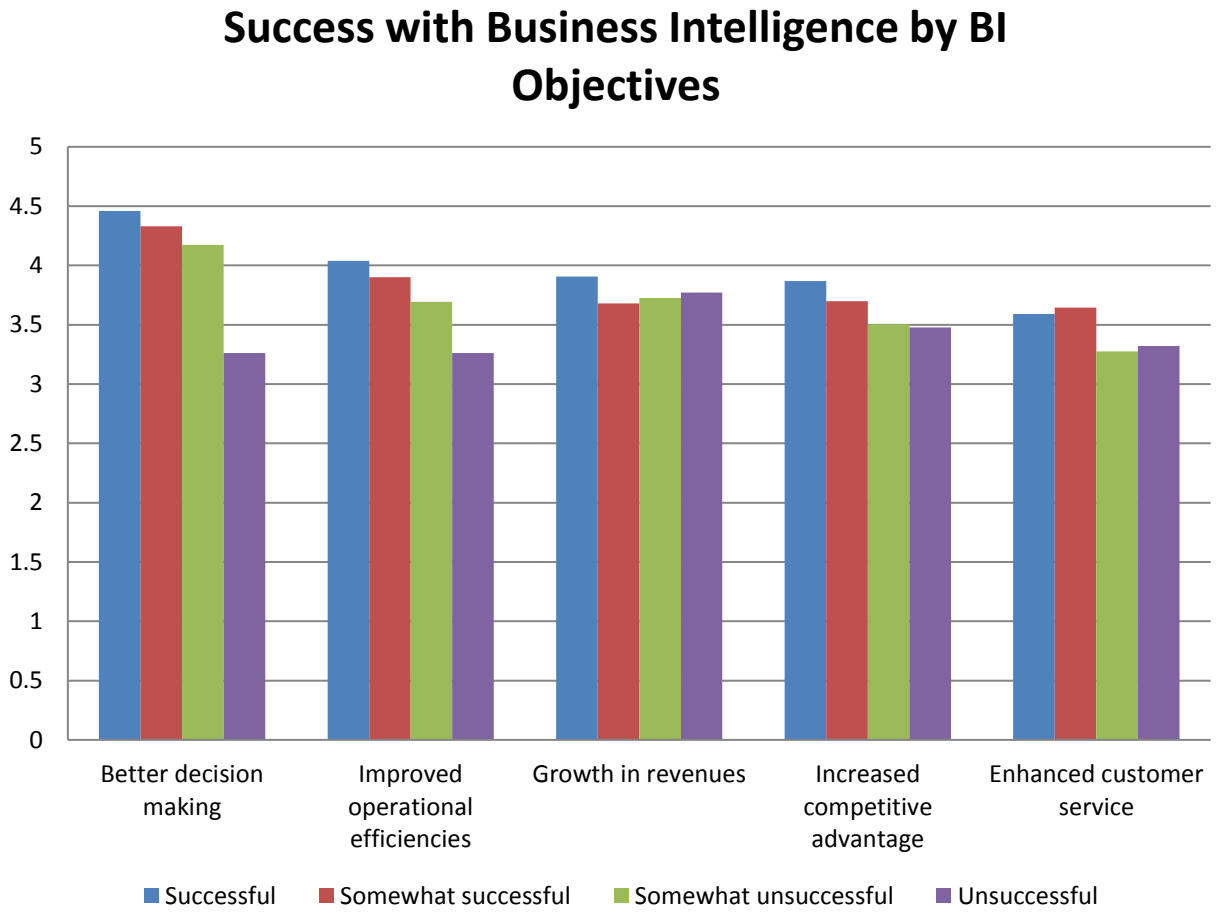


Figure 69 – Success with business intelligence by BI objectives

Success with Business Intelligence by Targeted Users

Organizations at all levels of BI success are highly likely to target executive as users (fig. 70). We also notice that less successful BI organization take executive focus to the extreme, and become less successful as executive focus increases. We also see that successful BI organizations are more likely than all other groups to focus on customers (though historically, a small minority of organizations has targeted customers for BI). Organizations that focus on middle managers are most likely to be "somewhat successful" though this is not a linear trend across differing levels of success.

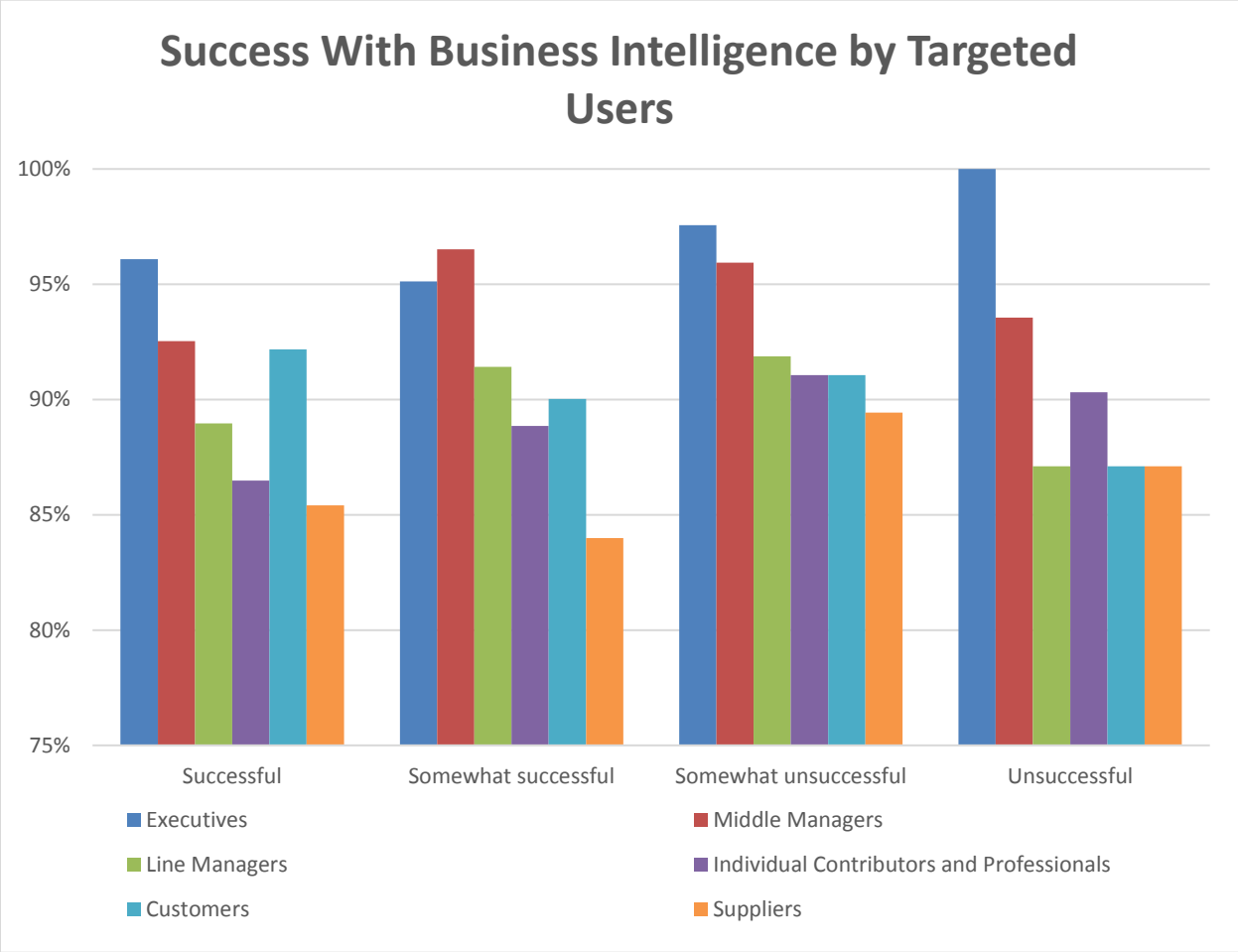


Figure 70 – Success with business intelligence by targeted users

Success with Business Intelligence and Technology Priorities

Organizations with a chief data officer or chief analytics officer with "high" or "moderate" impact are highly likely to report success with business intelligence (fig. 71). This finding alone would appear to be an endorsement of the CDO/CAO function, though we reiterate that the criteria for what constitutes "impact" and sentiments of success are abstract and in the eye of the beholder.

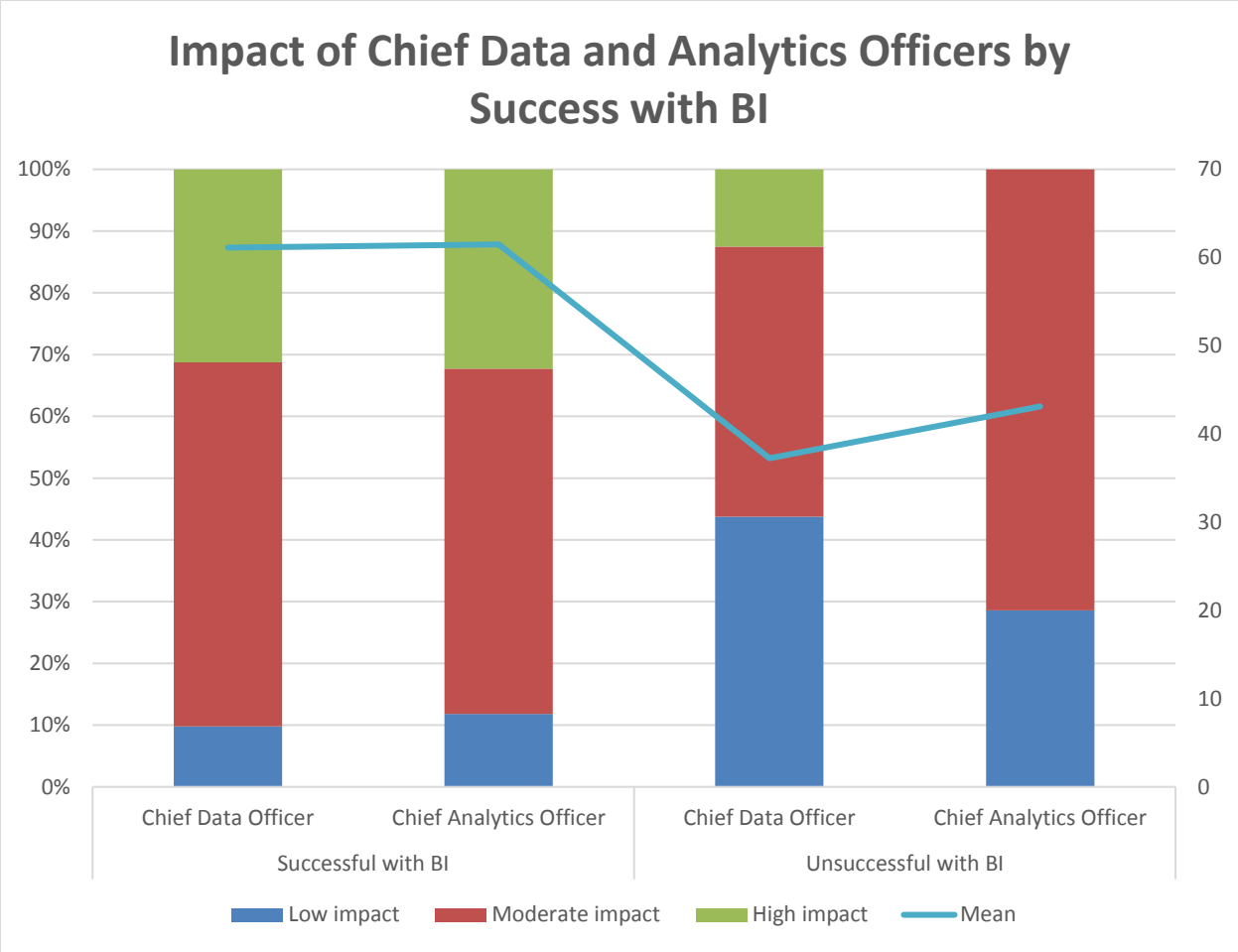


Figure 71 – Impact of chief data and analytics officers by success with BI

Success with Business Intelligence and Technology Priorities

Organizations that are successful with business intelligence broadly pay more attention to multiple BI-related technology priorities than all other groups (fig. 72). This diversity of attention extends from the most basic (reporting, dashboards) to the more obscure (edge computing, video analytics) priorities. Without fail, unsuccessful organizations care much less about any and all BI initiatives and technologies. The most significant gaps between high- and low-performing BI organizations also run from the foundational (dashboards, end-user self-service) to the emerging and experimental (CEP, IoT). Overall, attention to technologies and initiatives diminishes in an orderly way as success with BI diminishes.

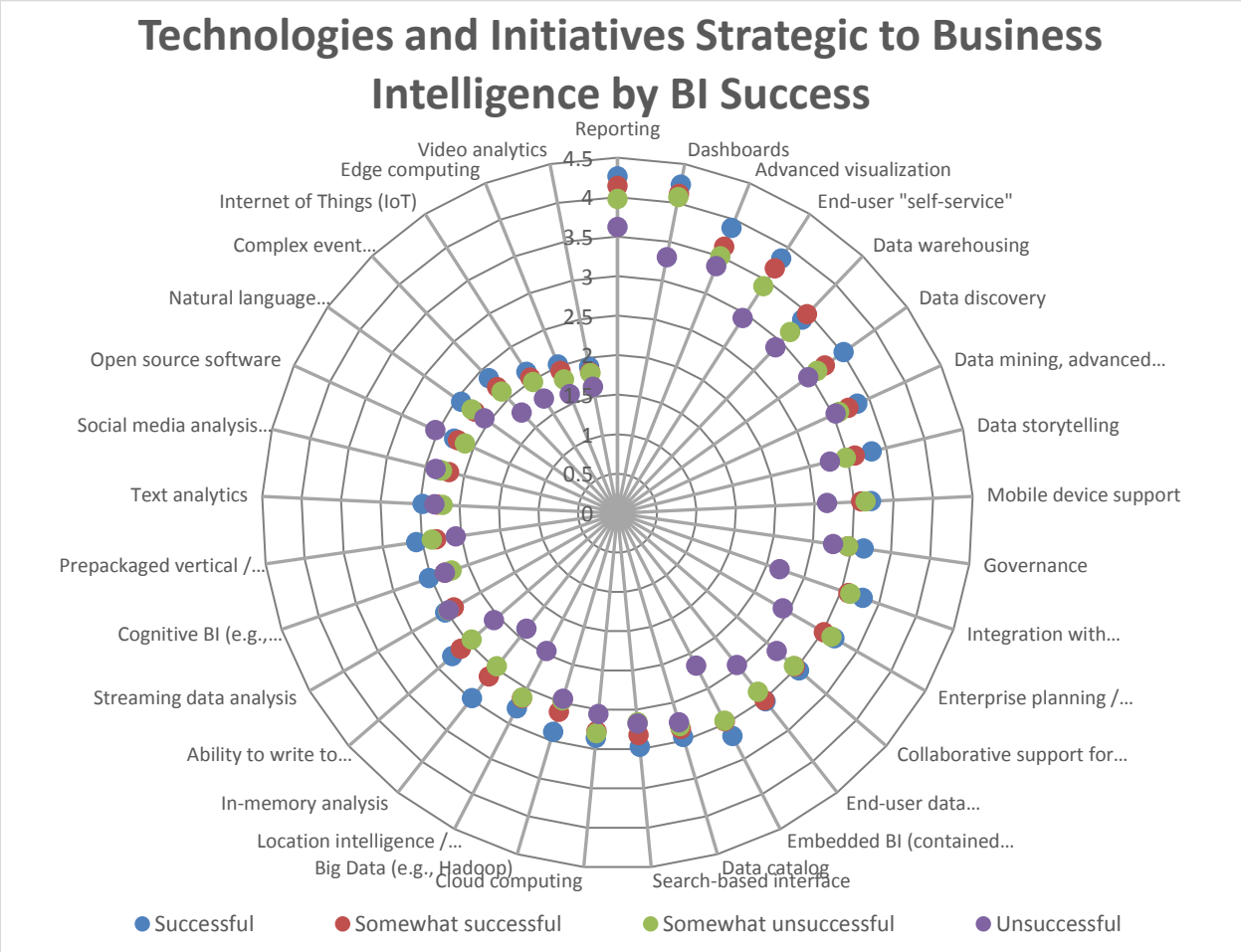


Figure 72 – Technologies and initiatives strategic to business intelligence by BI success

Success with Business Intelligence and Number of BI Tools

In 2017 (and historically), we find that organizations that are successful with business intelligence generally have fewer tools in use, an outcome we associate with strategic intent and engaged leadership. Awareness of the number of tools in use also increases with the degree of BI success (fig. 73). As we noted elsewhere in this report (figs. 39-43, pp. 57-61) the emergence of specialized / lightweight / service-based BI tools could change the historically virtuous pursuit of BI tool consolidation.

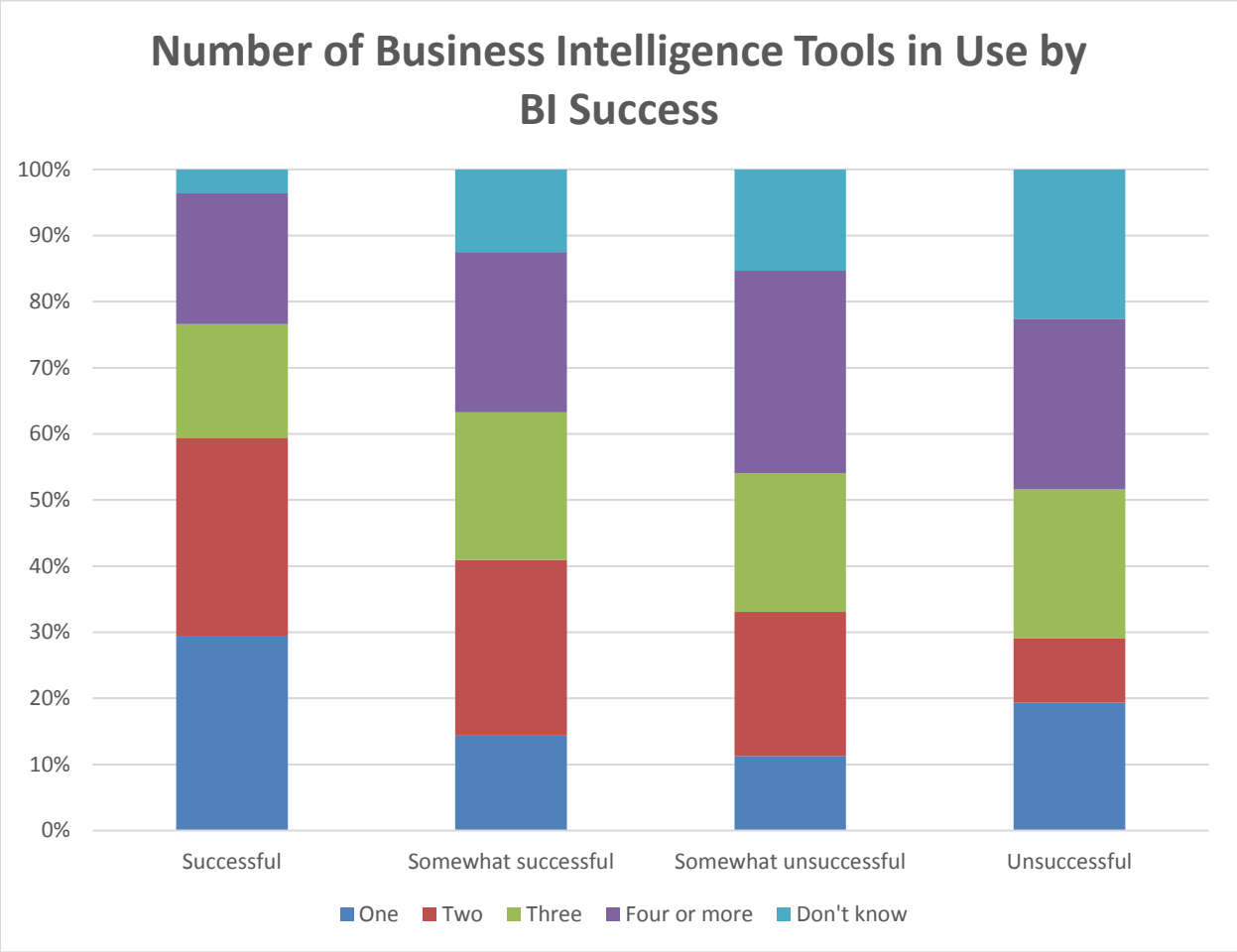


Figure 73 – Number of business intelligence tools in use by BI success

Success with Business Intelligence and the State of Data

Success with business intelligence correlates directly and powerfully to an organization's state of data (fig. 74). Organizations that view data as "truth" are more than 80 percent likely to be "successful," compared to 40 percent for "somewhat unsuccessful" and just 12 percent of "unsuccessful" organizations. "Unsuccessful" BI organizations are 60 percent likely to have "multiple, inconsistent data sources."

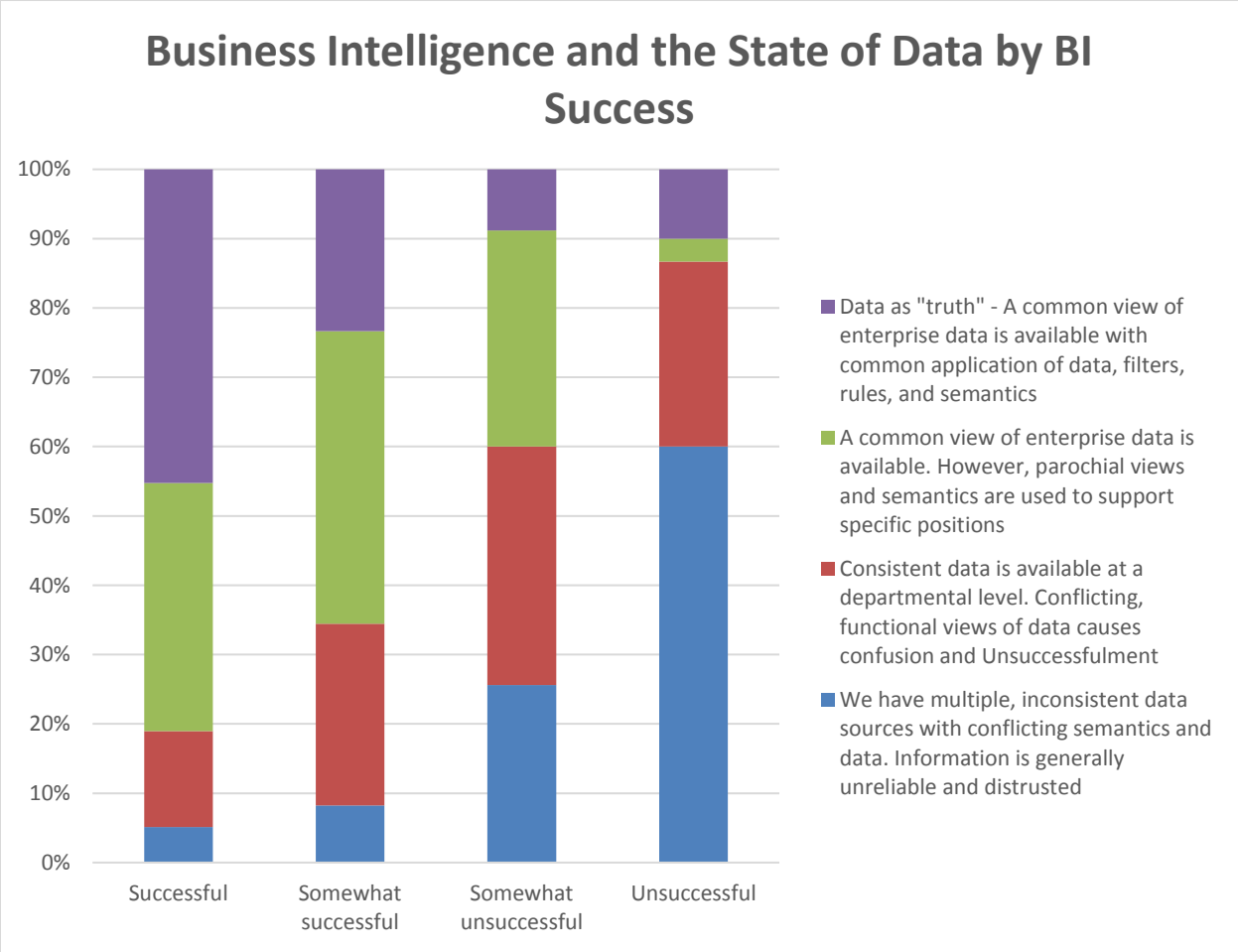


Figure 74 – Business intelligence and the state of data by BI success

Success with Business Intelligence and Action on Insight

Success with business intelligence correlates (even more strongly than state of data) with an organization's ability to take action on insights (fig. 75). At the high end of performance, organizations with closed-loop processes are completely successful 47 percent of the time and at least somewhat successful 95 percent of the time. Organizations with ad hoc or informal action on insights are four times or more less likely to report complete success. Organizations with the lowest level of coordination are much more likely to fail than to succeed.

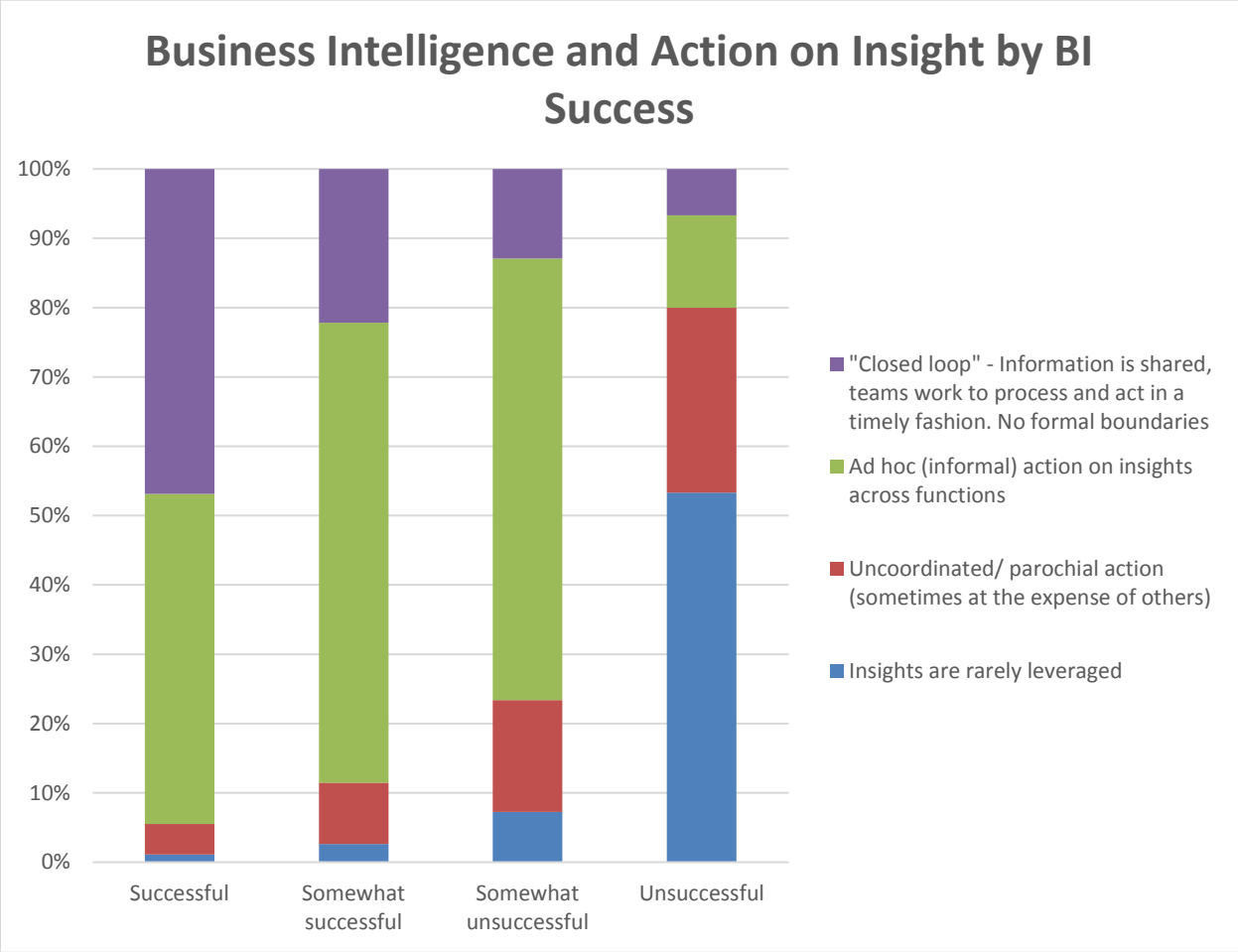


Figure 75 – Business intelligence and action on insight by BI success

Success with Business Intelligence and Penetration of Users

Organizations that are more successful with business intelligence have a higher number of users as a percentage of the workforce (fig. 76). Nearly half of "successful" organizations have BI penetration levels of 41 percent or more. As BI success decreases, so does penetration: among unsuccessful organizations, less than 20 percent have the same (41 percent or greater) level of BI penetration. More than half of unsuccessful organizations have less than 10 percent BI penetration.

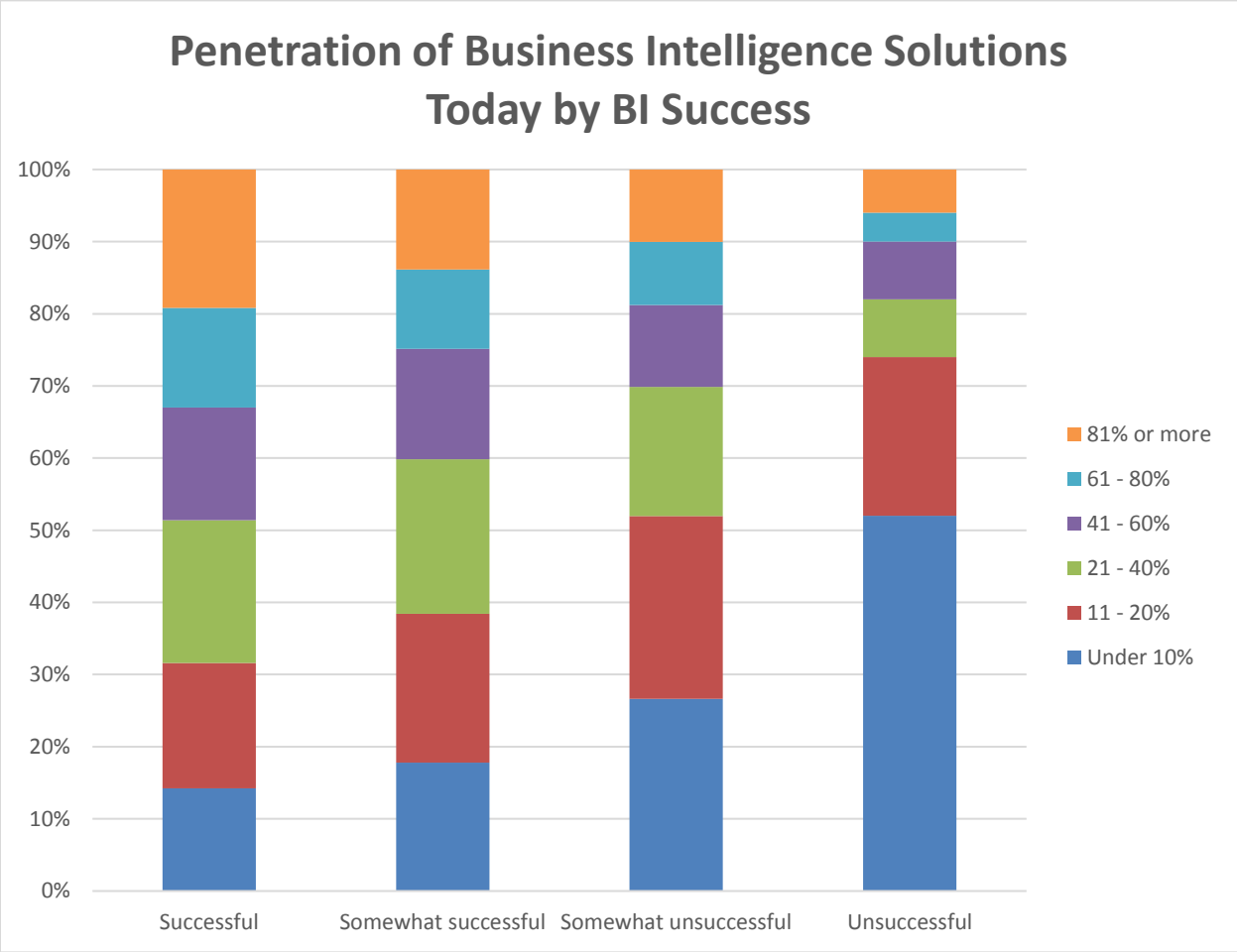


Figure 76 – Penetration of business intelligence solutions today by BI success

Budget Plans for Business Intelligence

In 2017, we asked organizations whether they will increase, decrease, or maintain existing business intelligence budgets (fig. 77). Overall, we can affirm that spending will increase: half of respondent organizations plan to increase BI investment while just 5 percent will decrease BI budgets from 2016 levels. The remaining 45 percent will maintain current budgeting, though we do not know the extent to which BI expansion might be affected by departmental spending or the adoption or service/subscription BI services.

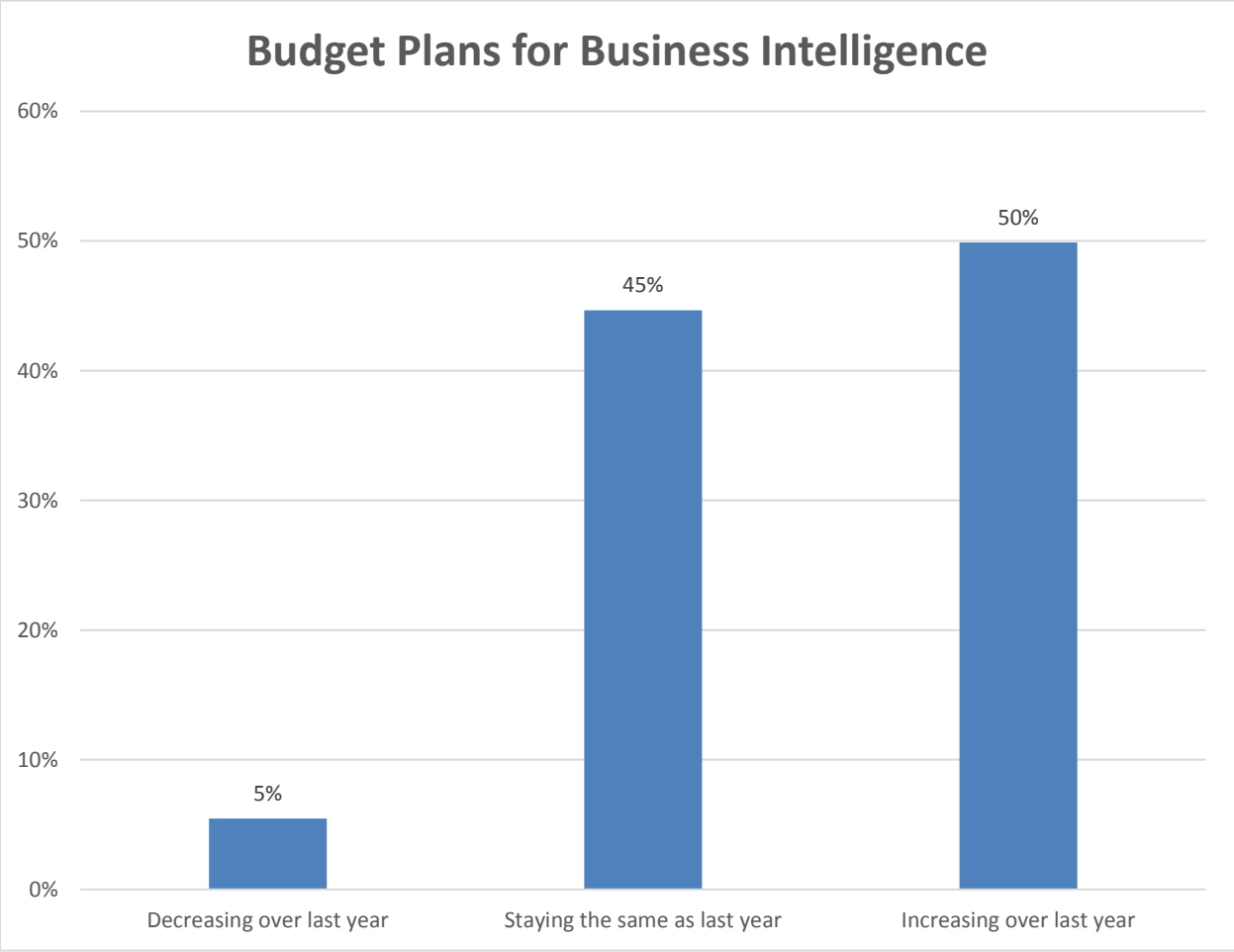


Figure 77 – Budget plans for business intelligence

Budget Plans for Business Intelligence by Geography

In 2017, 59 percent of Asia-Pacific organizations say they will increase BI spending, compared to 52 percent in North America and fewer than half in other regions (fig. 78). EMEA organizations are the least likely to increase BI spending, though fewer than 10 percent plan to decrease spending. Ninety-six percent of North American organizations will increase or maintain business intelligence budgets compared to current levels.

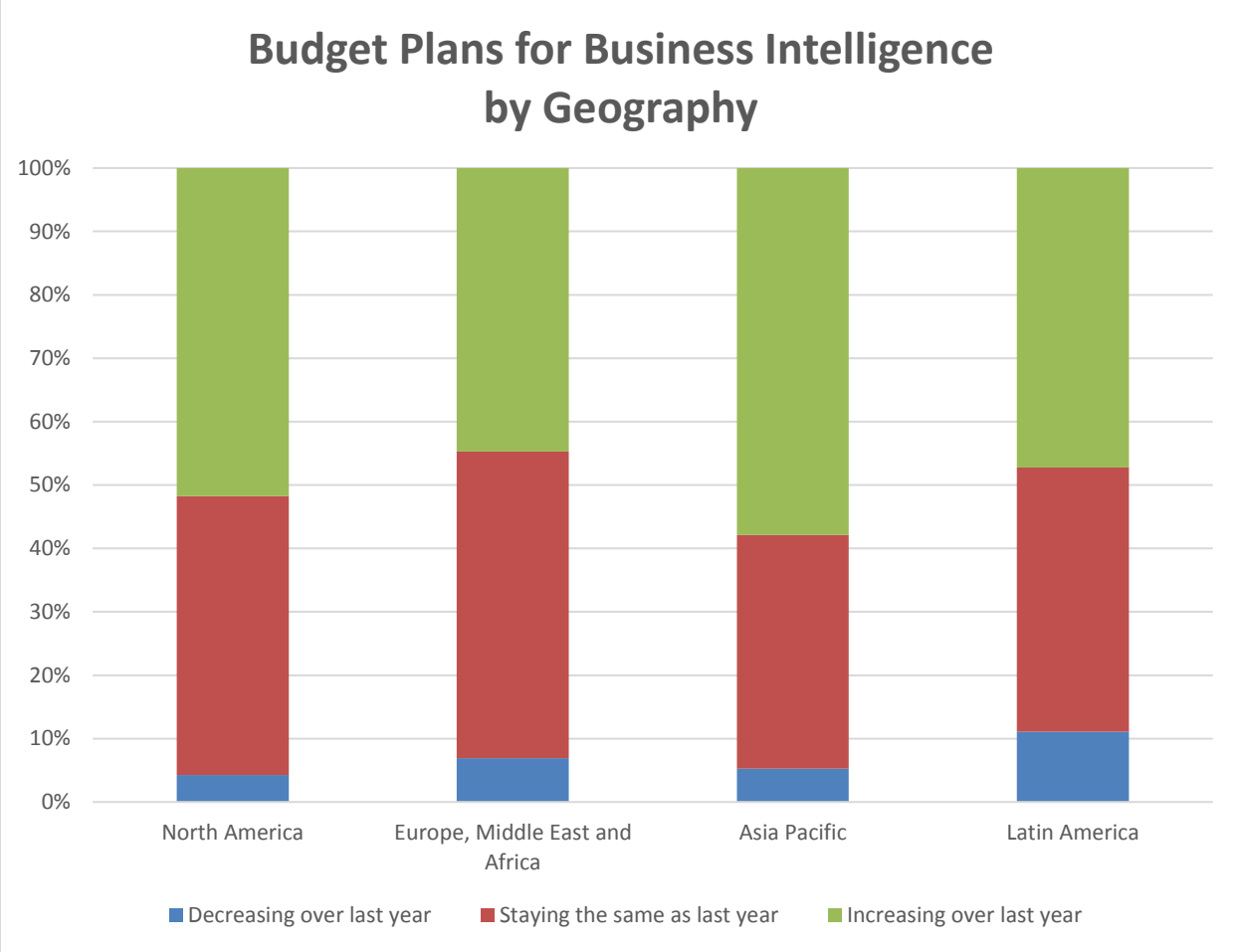


Figure 78 – Budget plans for business intelligence by geography

Budget Plans for Business Intelligence by Function

In 2017, 70 percent of BICC respondents (the most ardent BI advocates) say they will increase BI spending over last year (fig. 79). Perhaps pursuant to earlier investment, BICCs are also the most likely (10 percent) to decrease BI spending. Executive management respondents are the next most likely to increase BI spending; IT and Finance respondents are the least likely to increase business intelligence spending.

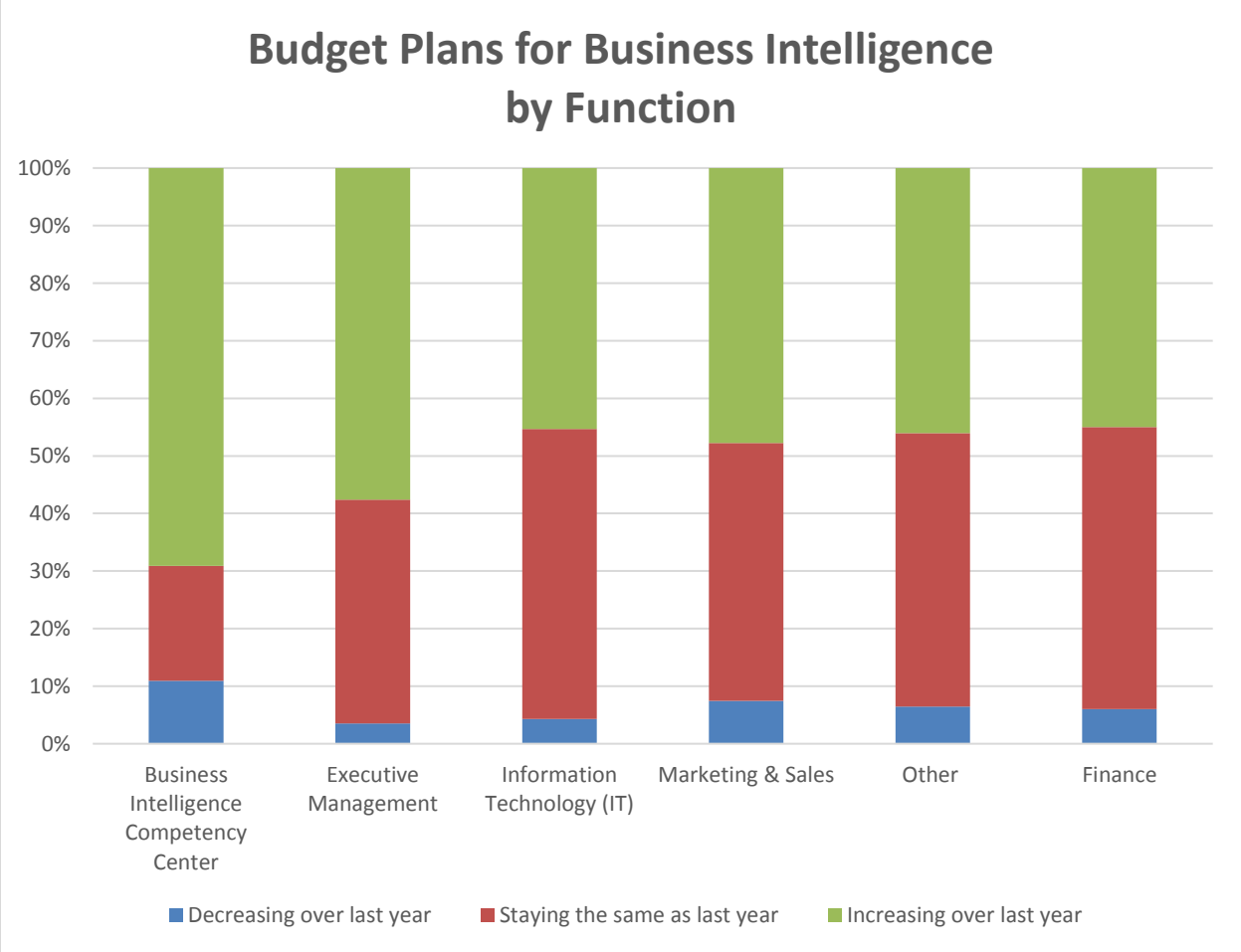


Figure 79 – Budget plans for business intelligence by function

Budget Plans for Business Intelligence by Vertical Industry

In 2017, Technology industry respondents are most likely (60 percent) to increase BI budgets and least likely (< 1 percent) to decrease spending (fig. 80). At the other end of the spectrum, Manufacturing and Higher Education are the least likely (40 percent) to increase spending and 4 to 7 percent likely to decrease spending. Retail/Wholesale, Financial Services, and Healthcare are slightly above average in increased or maintained BI spending.

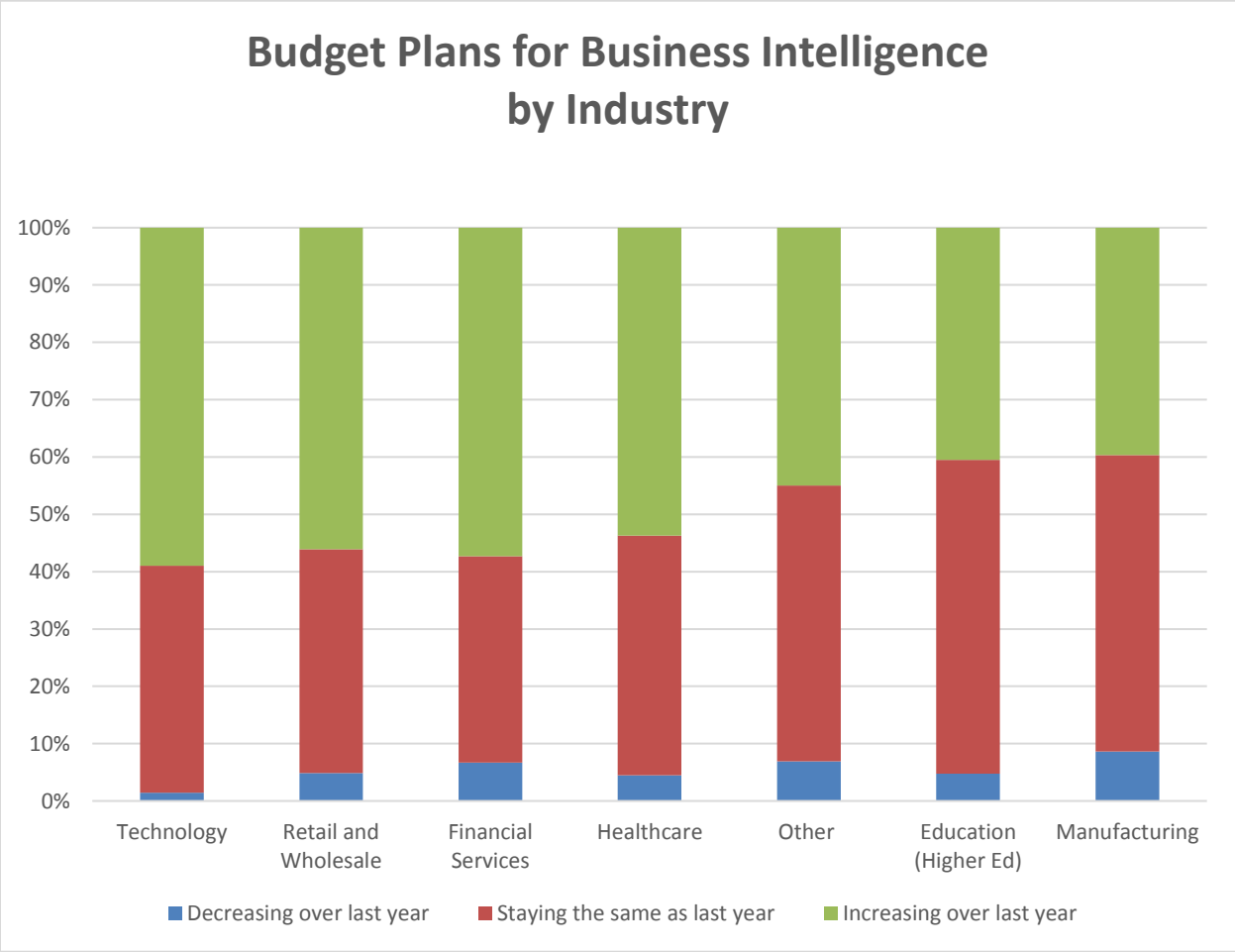


Figure 80 – Budget plans for business intelligence by industry

Budget Plans for Business Intelligence by Organization Size

As we have traditionally observed, in 2017, small organizations (1-100 employees) and very large organizations (>10,000 employees) are slightly more aggressive in their business intelligence plans compared to mid-sized (101-1,000 employees) and large (1,001-10,000 employees) organizations (fig. 81). While very large organizations are most likely overall (54 percent) to increase spending, they are also most likely (11 percent) to decrease BI spending.

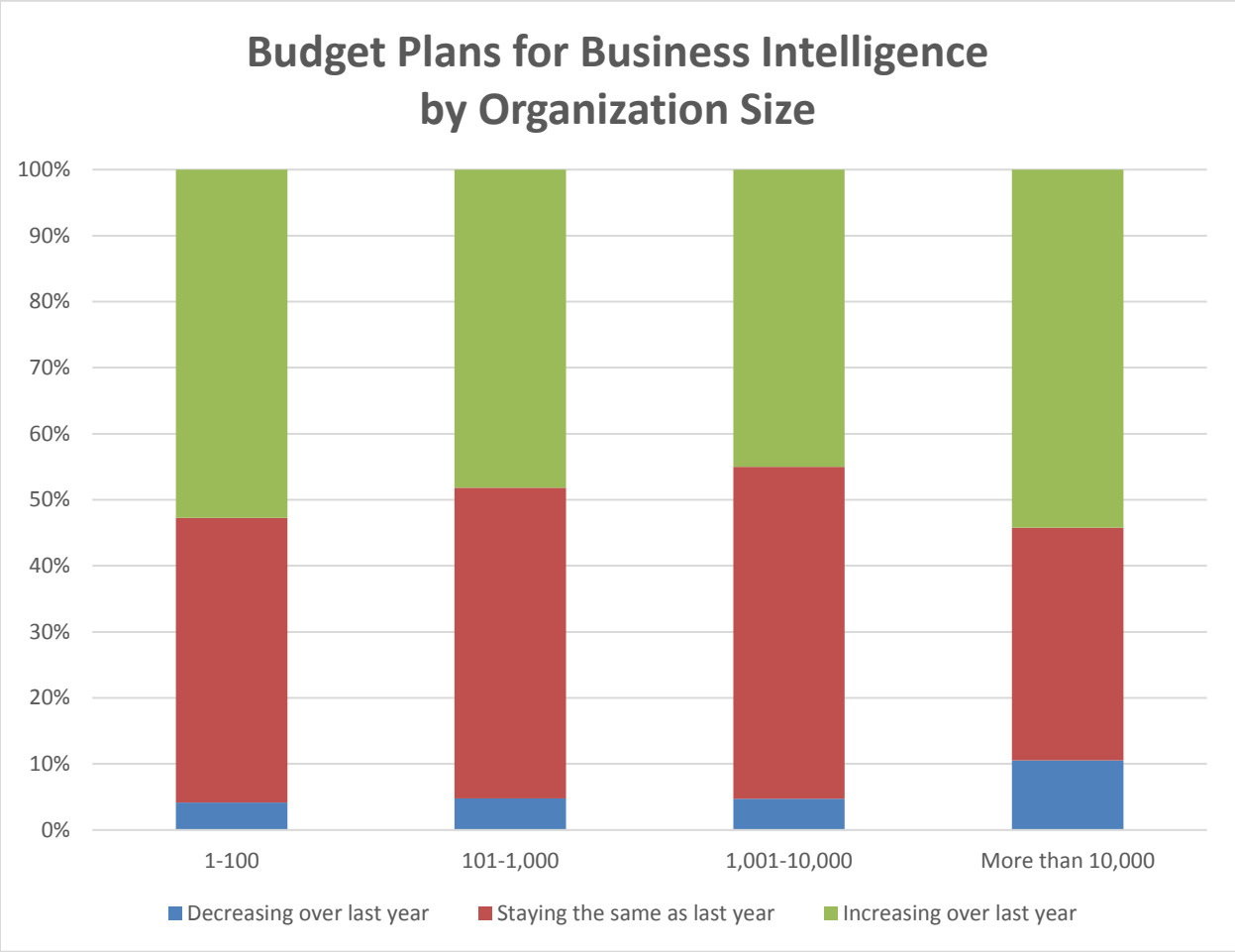


Figure 81 – Budget plans for business intelligence by organization size

Budget Plans for Business Intelligence by Success with BI

Organizations that are successful with business intelligence are more likely to increase BI spending (51 percent versus 43 percent) in 2017 (fig. 82) Successful BI organizations are also less likely (4 percent) to decrease BI spending in the current year compared to unsuccessful BI organizations (11 percent). We note again that this finding refers to budgeted BI spending and does not necessarily reflect departmental/ discretionary spending.

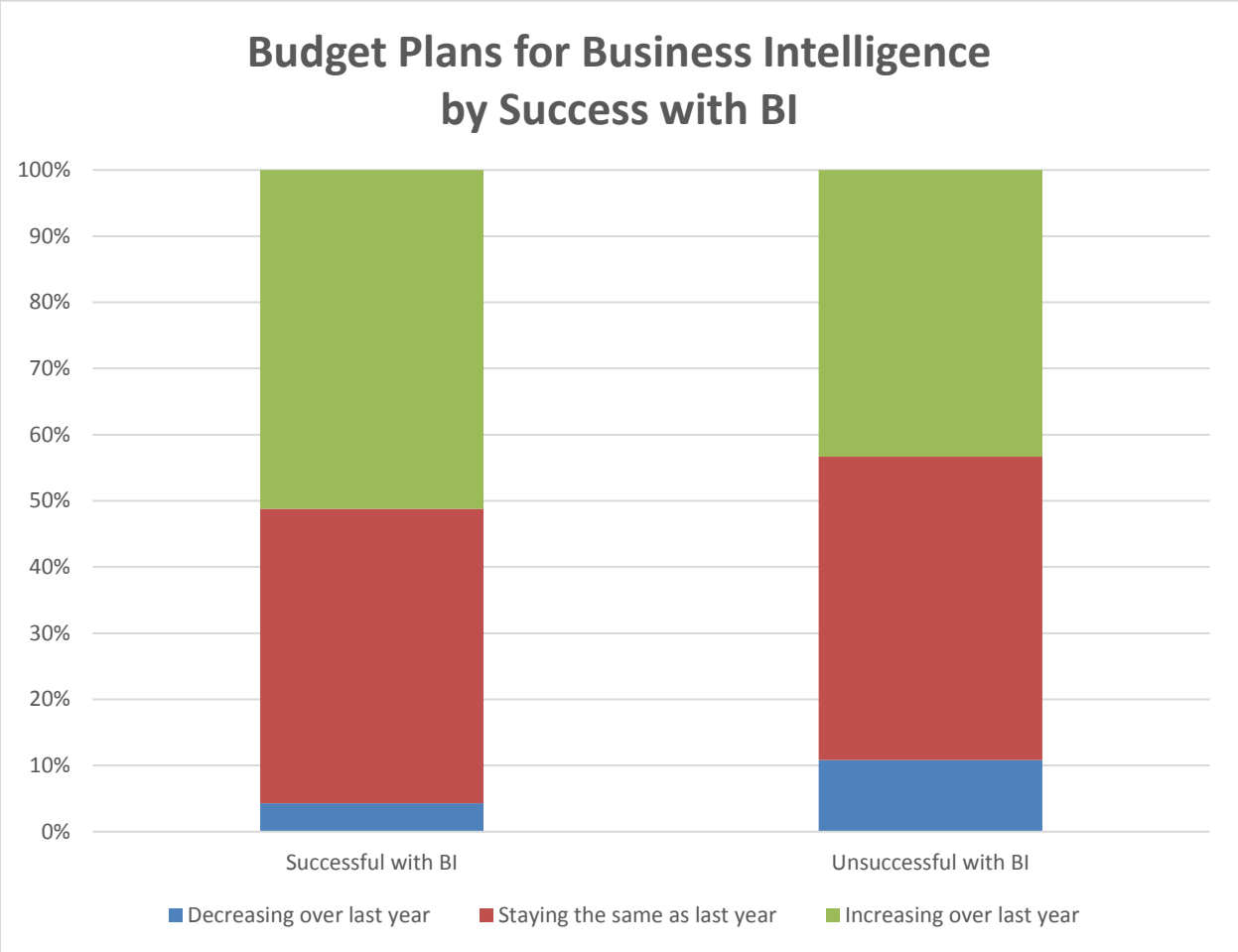


Figure 82 – Budget plans for business intelligence by success with BI

Industry and Vendor Analysis

Industry and Vendor Analysis

In this section, we review business intelligence vendor and market performance, using our trademark 33-criteria evaluation model.

Scoring Criteria

The criteria for the various industry and vendor rankings are grouped into seven categories including sales/acquisition experience, value for price paid, quality and usefulness of product, quality of technical support, quality and value of consulting, integrity, and whether the vendor is recommended.

Industry Performance

Sales/Acquisition Experience

Across four years of data, "industry professionalism" and "product knowledge" retain the highest and most consistent scores in our evaluation (fig. 83). In 2017, we see incremental, across-the-board improvements. Most notably, "responsiveness" has a strong increase over the previous three years of mostly flat performance. We also see notable gains in "contractual terms," "business practices," "follow up after sale," and "flexibility/accommodation." "Understanding our business needs" also improved.

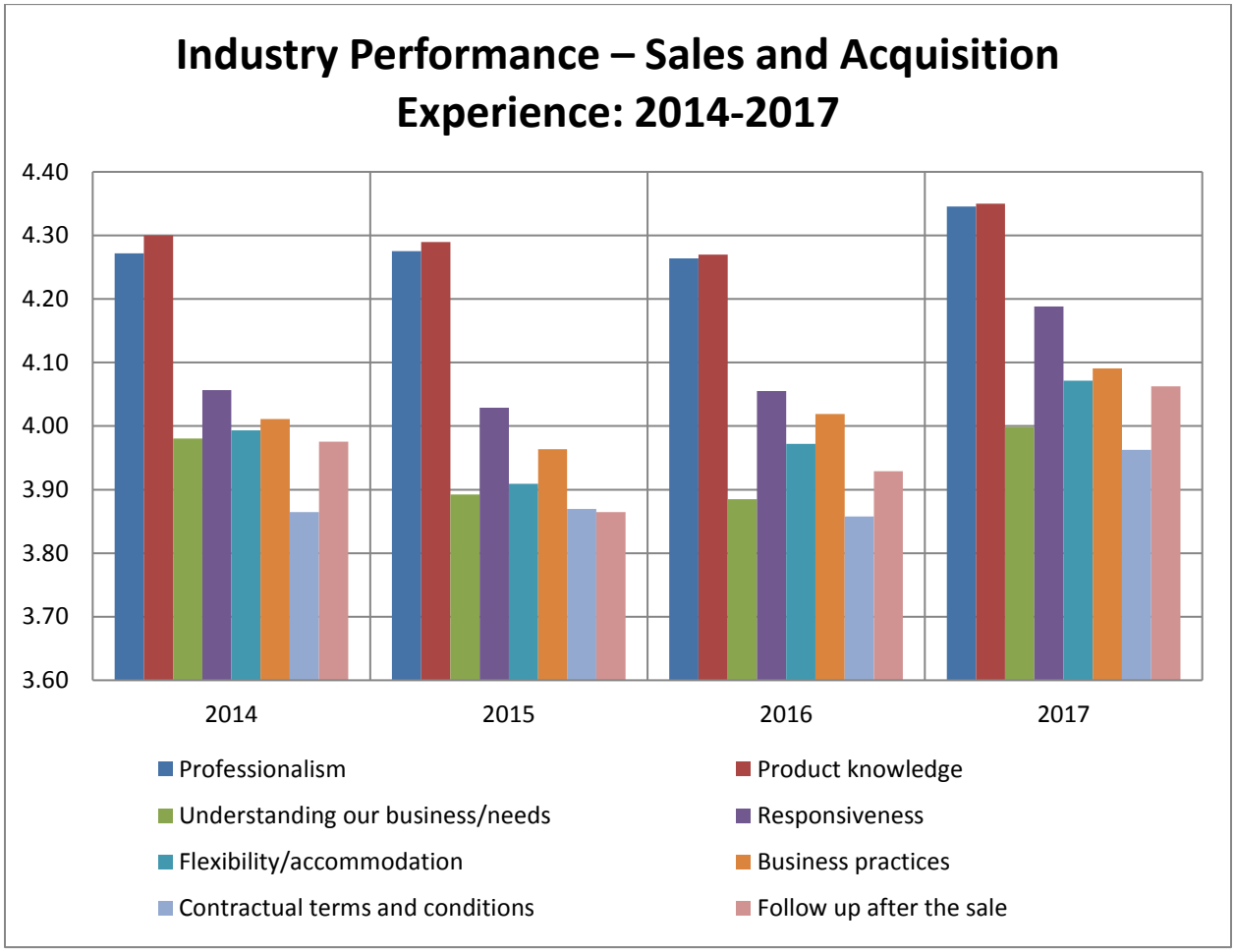


Figure 83 – Industry performance — sales and acquisition experience: 2014-2017

Value

End users generally believe they get high and improving value from industry vendors over time (fig. 84). While performance fell modestly in 2017 compared to the prior year, upward impetus is clear across the last four years of our study, and the ongoing trend line above 4.0 remains very positive. Since 2012, perceived value for price paid has remained above "very good."

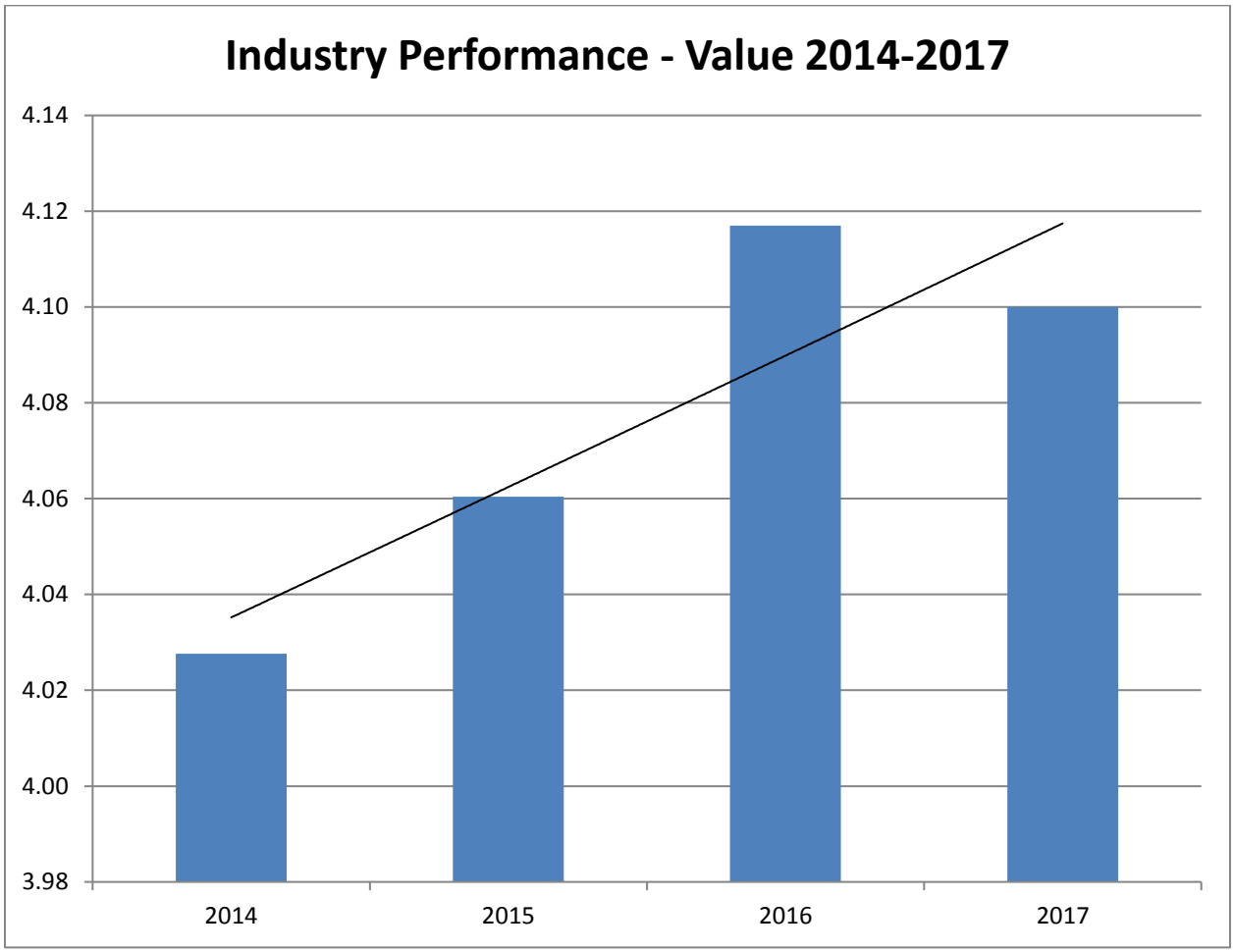


Figure 84 – Industry performance — value 2014-2017

Quality and Usefulness of Product

Industry product quality and usefulness has improved over time across almost all dimensions (fig. 85). Some of the most notable year-over-year improvements are in areas associated with product maturity and include "reliability of technology," "scalability," and integration of components within product." The only measure that declines in 2017 is "ease of upgrade/migration to new versions."

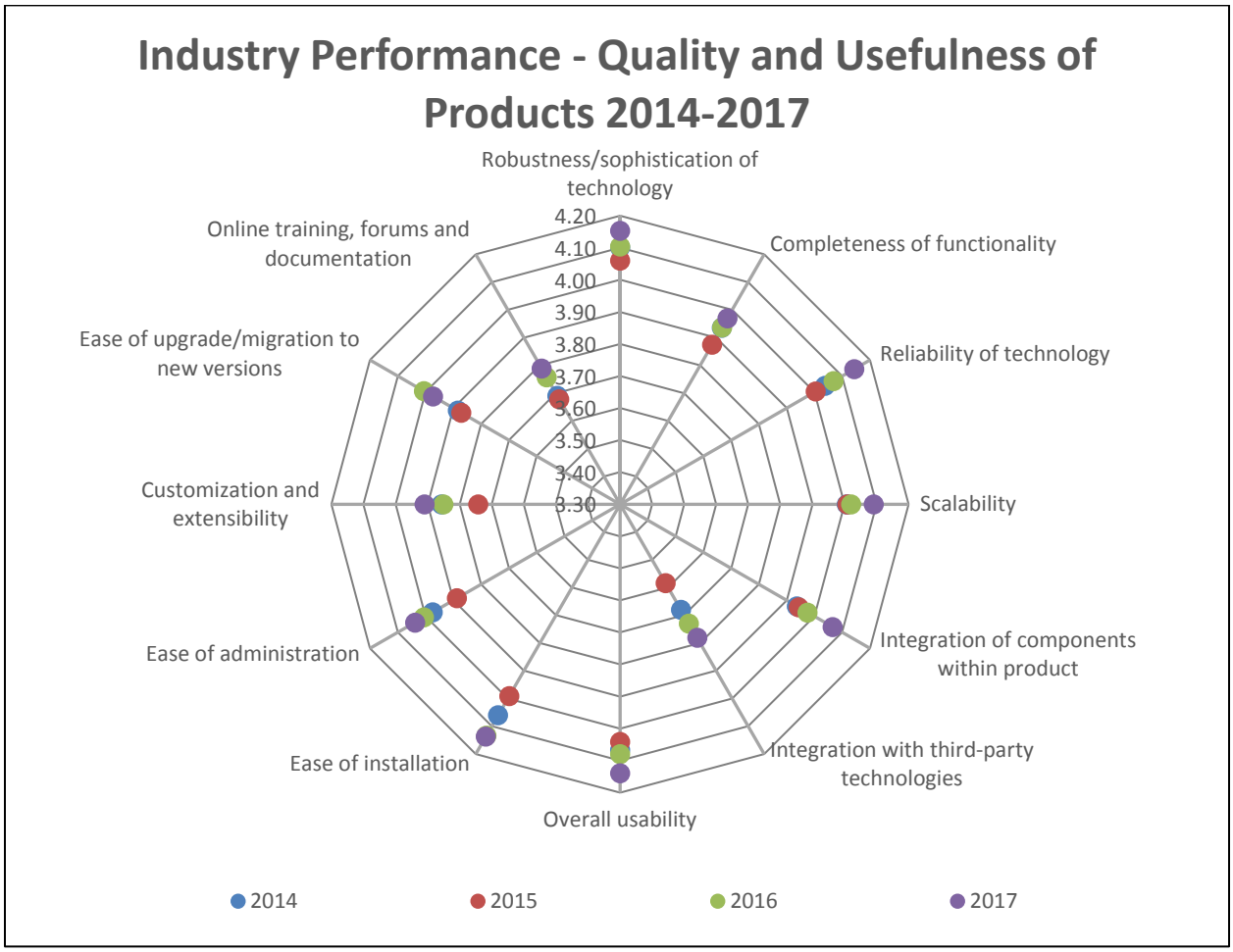


Figure 85 – Industry performance — quality and usefulness of products 2014-2017

Technical Support

In 2017, the vendor industry reached all-time high performance scores in all areas we measure (fig. 86). The largest year-over-year gains are in "professionalism" and "continuity of personnel." "Product knowledge," "responsiveness," and "time to resolve problems" also improved. (We consider these latter three areas cornerstones of immediacy in support of urgent customer needs). In total, these results indicate encouraging signs of vendor success that should continue into the future.

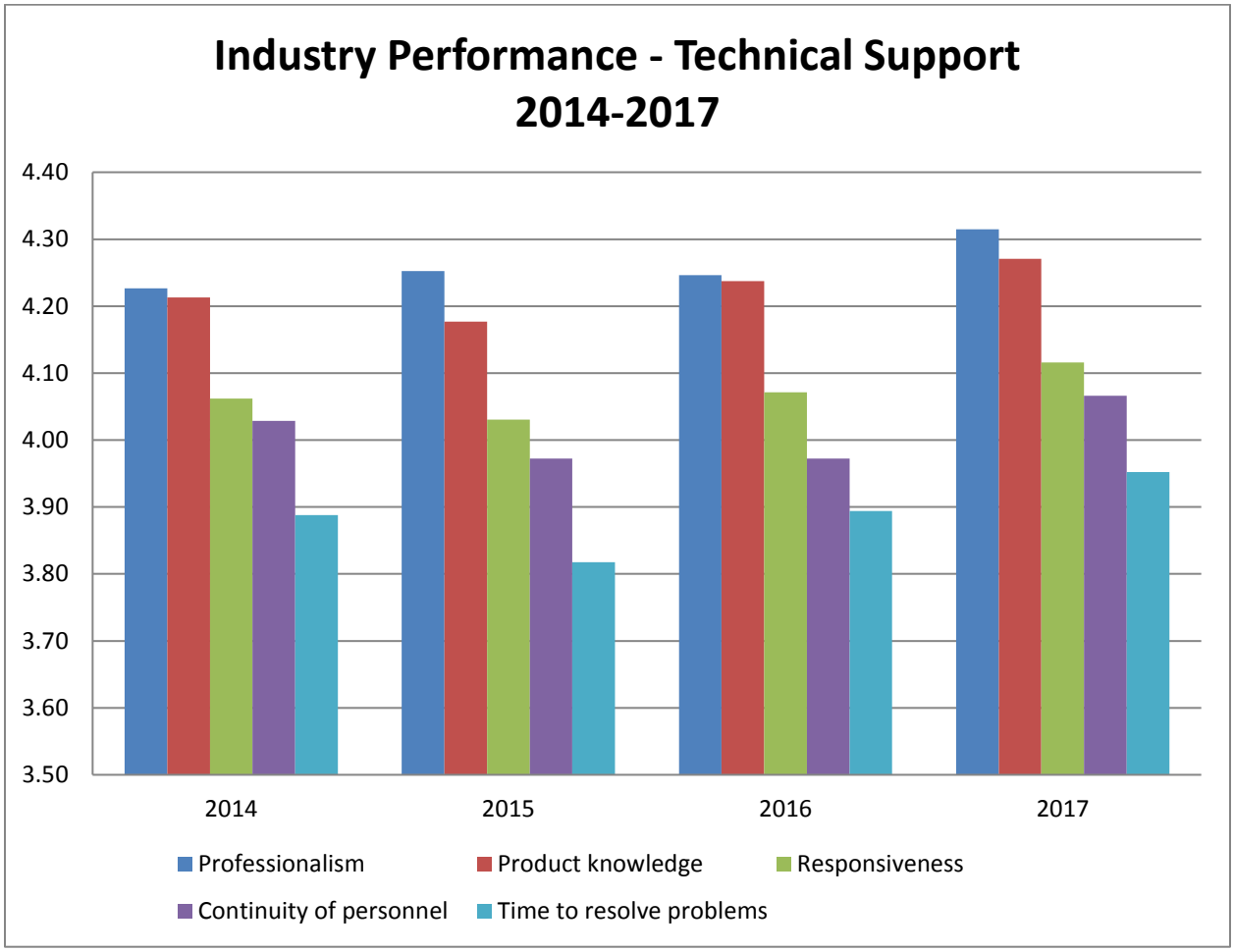


Figure 86 – Industry performance — technical support 2014-2017

Consulting

BI vendor consulting also carries a six-year positive trend into 2017 (fig. 87). Every attribute we measured exceeds 2016 performance, and very nearly all attributes stand at all-time highs. Year-over-year gains are mostly equal across all attributes. Estimations of "value" rebounded since 2015, and "continuity" (which suffered from both employee poaching and consultant over-hiring beginning in 2015), shows steady improvement.

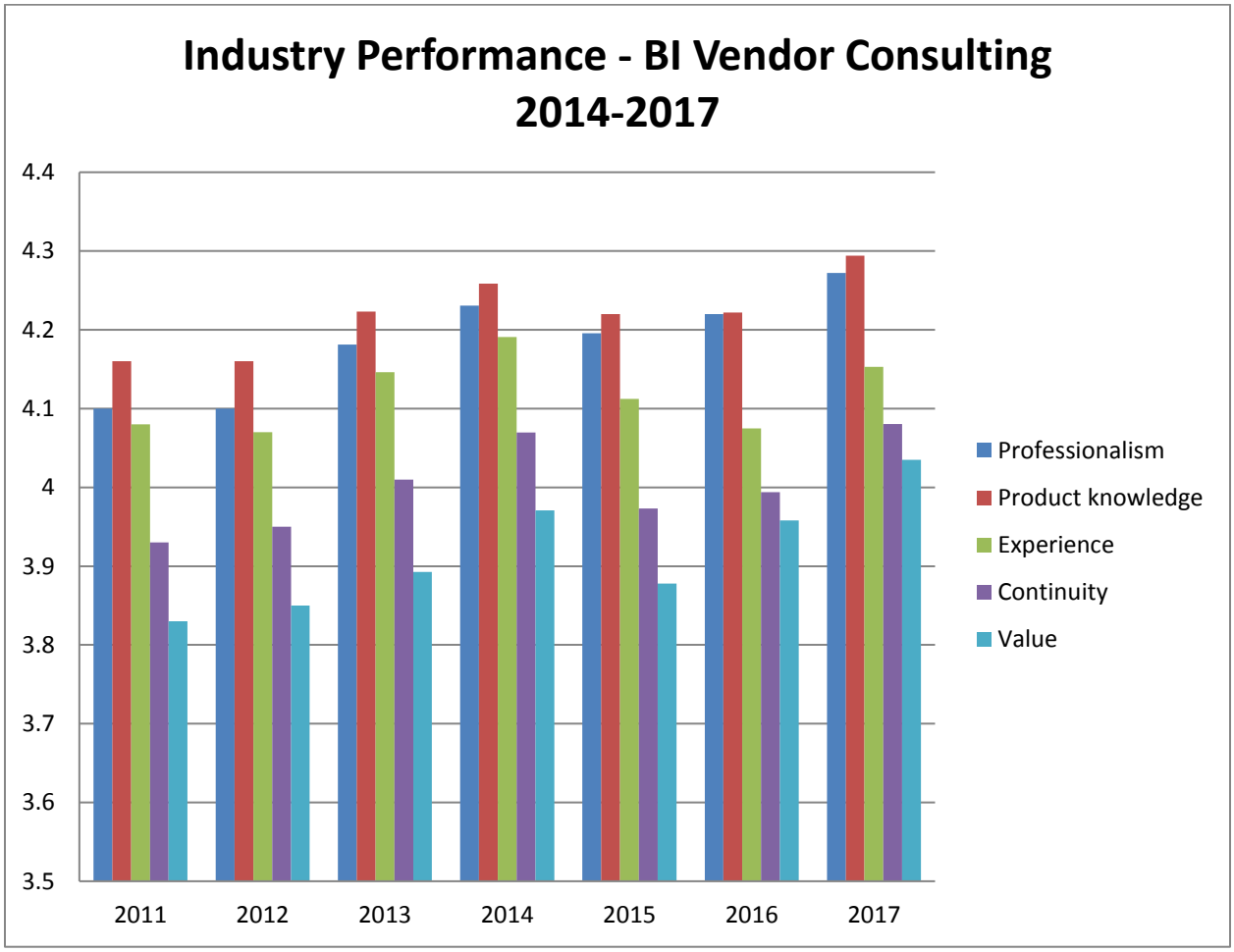


Figure 87 – Industry performance — BI vendor consulting 2014-2017

Integrity

Vendor integrity—measured as honesty and truthfulness in all dealings—grew slowly but surely over the last four years with the best year-over-year gains occurring in 2017 (fig. 88). With mean scores well above 4.0, indicating "very good" to "excellent," this parameter of industry performance is secure and improving as a core competency of the provider industry.

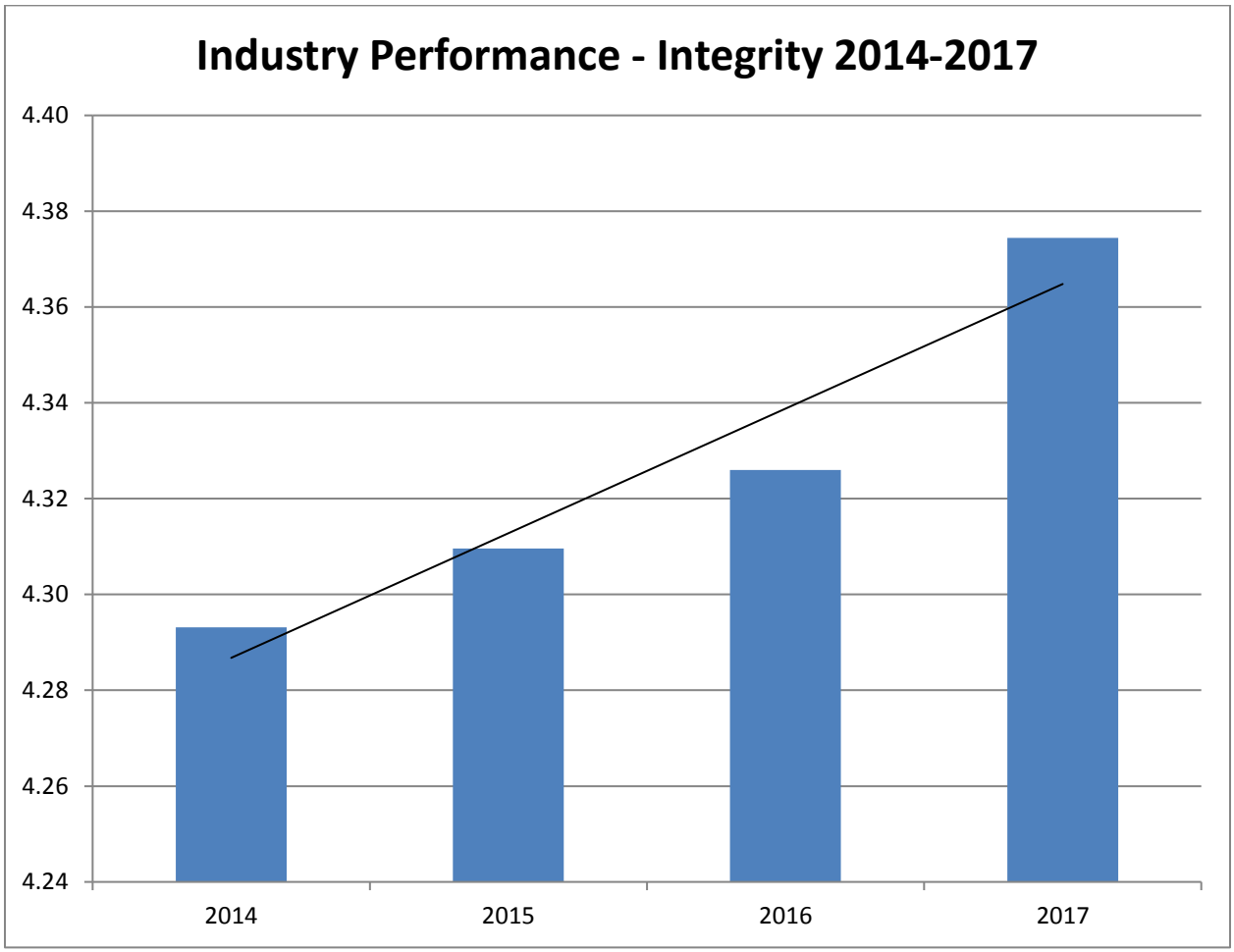


Figure 88 – Industry performance — integrity 2014-2017

Recommended

Industry performance, by the measure of customers willing to recommend, continues a four-year positive trend that had reversed after 2011 (fig. 89). Just as the scores for recommend have rebounded for three straight years, they are also the highest mean scores of any in our survey, well above "very likely" and approaching certainty.

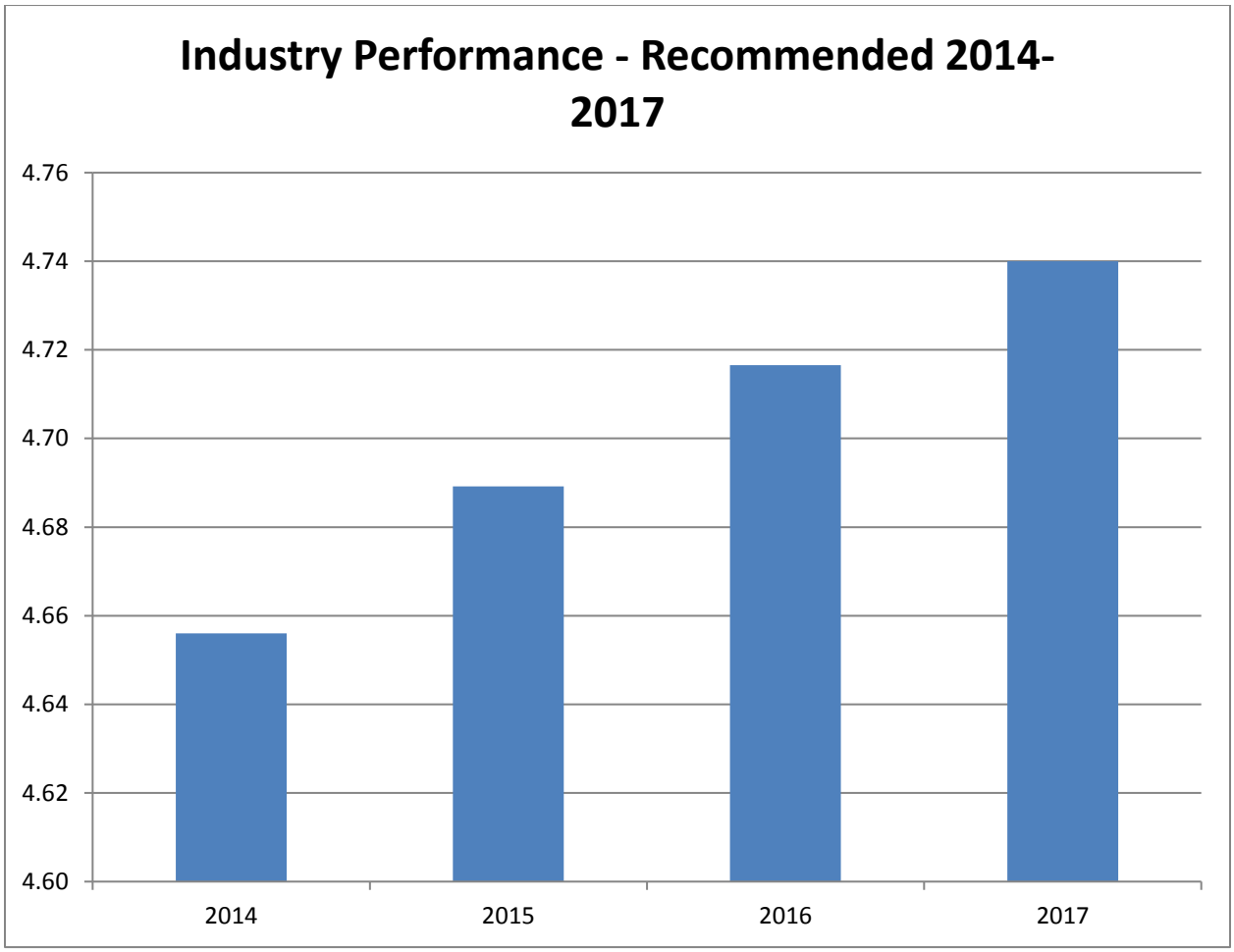


Figure 89 – Industry performance — recommended 2014-2017

Performance Improvements

Another view of overall vendor performance over time shows entrenched positive scores that may signal maturity in features and diminishing urgency for vendor upgrades (fig. 90). Compared to 2016 and the two previous years, perceived overall industry performance is nearly flat, suggesting that vendors paid suitable attention to their products in a positive sales climate. In conjunction with positive views of their own performance, users do not perceive any notable decline in overall vendor performance.

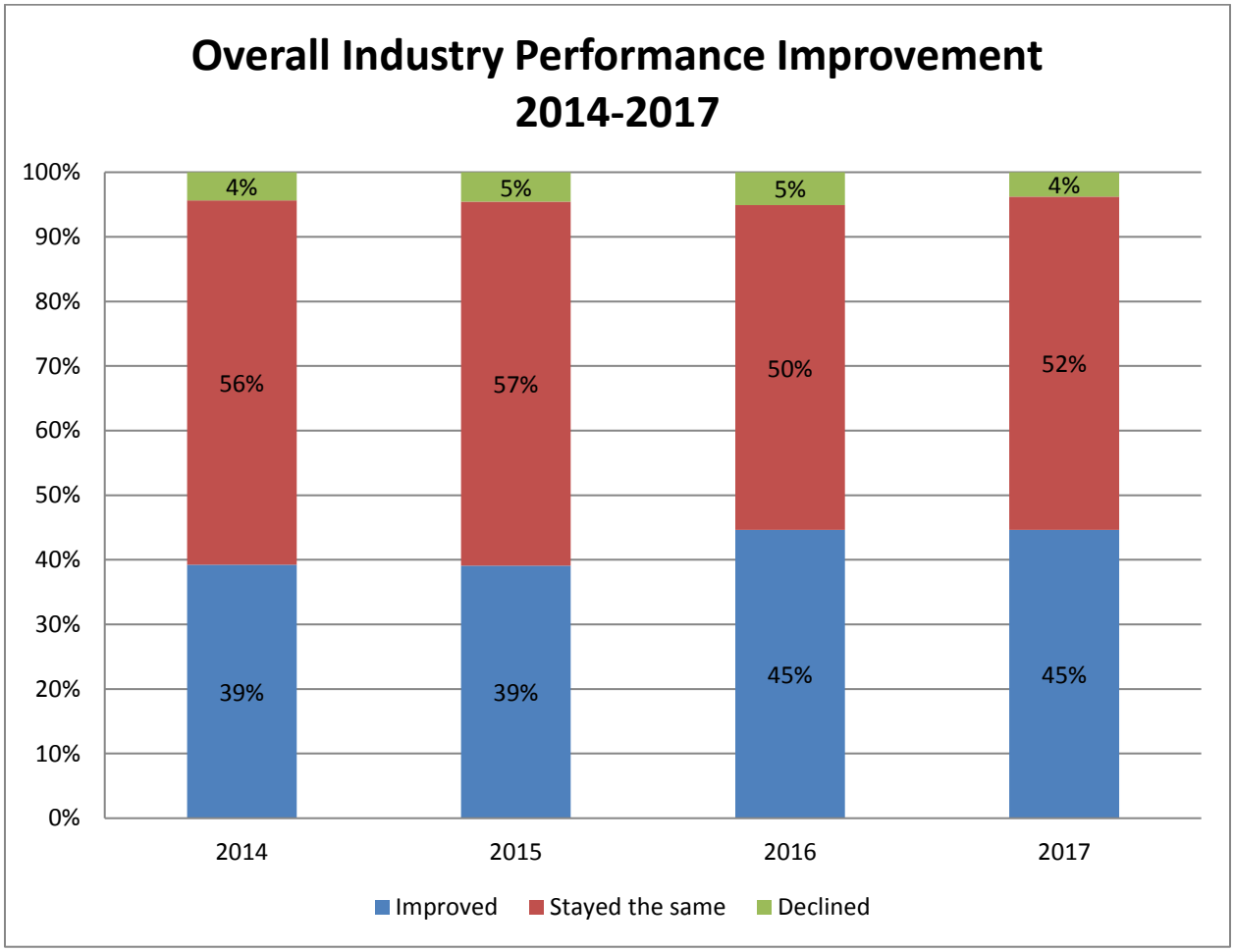


Figure 90 – Overall industry performance improvement 2014-2017

Vendor Ratings

Vendor Ratings

In this section, we offer ratings of business intelligence software vendors. We rated vendors using 33 different criteria, on a five-point scale for each. Criteria covered sales /acquisition experience (8 criteria), value for price paid (1), quality and usefulness of product (12), quality of technical support (5), quality and value of consulting services (5), whether the vendor is recommended (1), and integrity (1).

As we explore vendor performance in more detail, it is important to understand the scale we used in scoring the industry and vendors:

- 5.0 = Excellent
- 4.0 = Very good
- 3.0 = Adequate
- 2.0 = Poor
- 1.0 = Very poor

In 2016, we dispensed with market segmentation and now rely upon our Customer Experience and Vendor Credibility models as a means of presenting relative vendor ratings. As a result, we no longer include a peer average for individual vendor rating charts. Instead, this is replaced (where possible) with a year-over-year comparison for each vendor.

Based on our scoring methodology, all vendors performed at a level that is considered more than “adequate” for all criteria categories.

Please note that “average score” is the mathematical mean of all items included in vendor ratings. Each column in the chart represents a scale consisting of varying numbers of items (for example, "sales" is a scale consisting of eight items, while "value for price paid” is one item). As such, each column is weighted differently (based upon the number of items represented and the number of respondents rating those items) in calculating the overall average rating. The average score cannot be calculated by simply averaging across the subscale scores.

Business Intelligence Market Models

Starting in 2015, we developed two new models for examining and understanding the business intelligence market. Using quadrants, we plotted aggregated user sentiment into x and y axes.

Customer Experience Model

The customer experience model considers the real-world experience of customers working with BI products on a daily basis (fig. 96). For the x axis, we combined all vendor touch points—including the sales and acquisition process (8 measures), technical support (5 measures), and consulting services (5 measures) —into a single "sales and service" dimension. On the y axis, we plotted customer sentiment surrounding product, derived from the 12 product and technology measures used to rank vendors. On the resulting four quadrants, we plotted vendors based on these measures.

The upper-right quadrant contains the highest-scoring vendors and is named "overall experience leaders." Technology leaders (upper-left quadrant) identifies vendors with strong product offerings but relatively lower services scores. Contenders (lower-left quadrant) would benefit from varying degrees of improvement to product, services, or both.

User sentiment surrounding outliers (outside of the four quadrants) suggests that significant improvements are required to product and services.

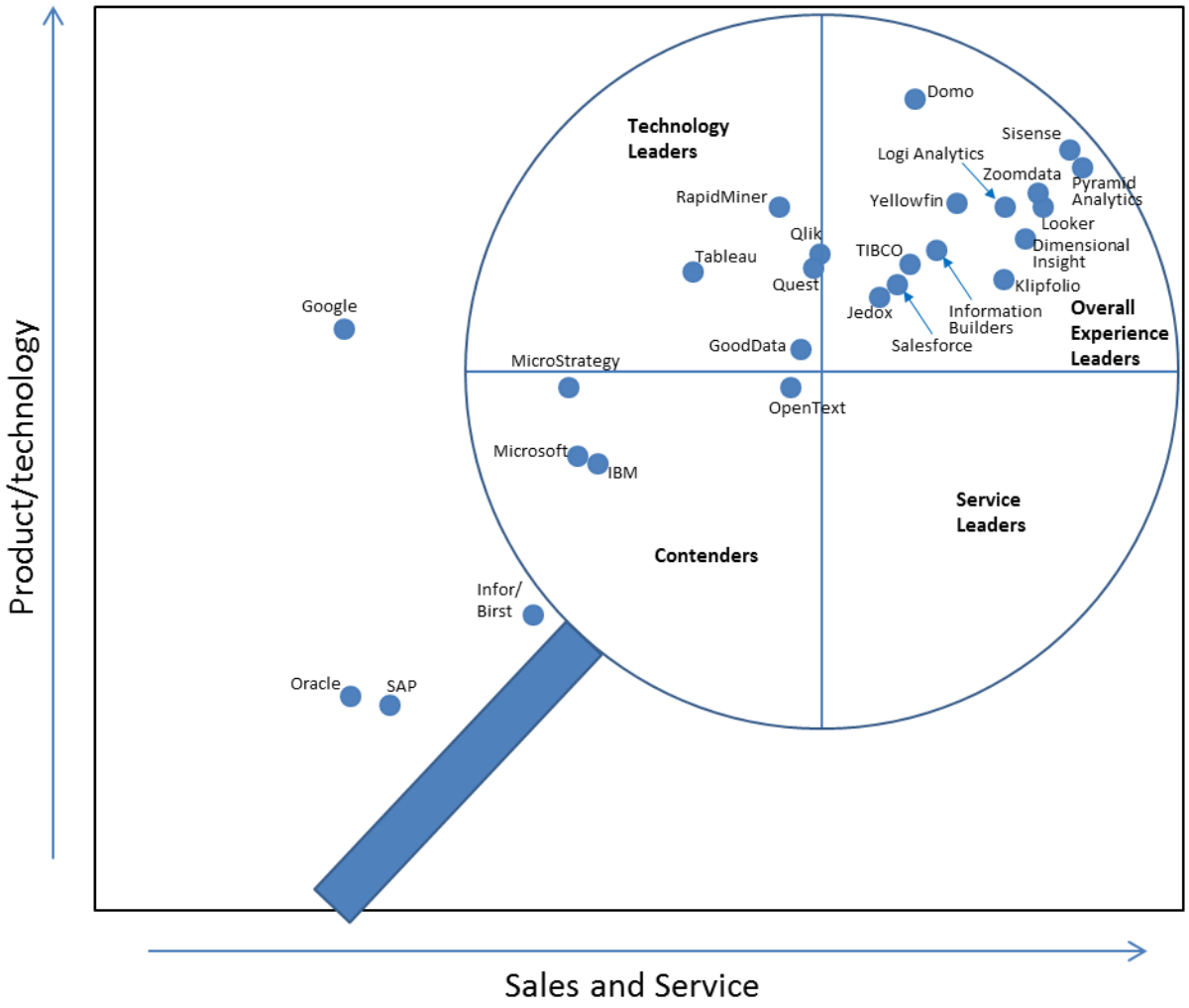


Figure 91 —Customer experience model

Vendor Credibility Model

The vendor credibility model considers how customers “feel” about their vendor (fig. 97). The x axis plots perceived value for the price paid. The y axis combines the integrity and recommend measures, creating a “confidence” dimension. The resulting four quadrants position vendors based on these dimensions.

The upper-right quadrant contains the highest-scoring vendors and is named “credibility leaders.” Trust leaders (upper-left quadrant) identifies vendors with solid perceived confidence but relatively lower value scores. Contenders (lower-left quadrant) would benefit by working to improve customer value, confidence, or both.

User sentiment surrounding outliers (outside of the four quadrants) suggests that significant improvements are required to improve perceived value and confidence.

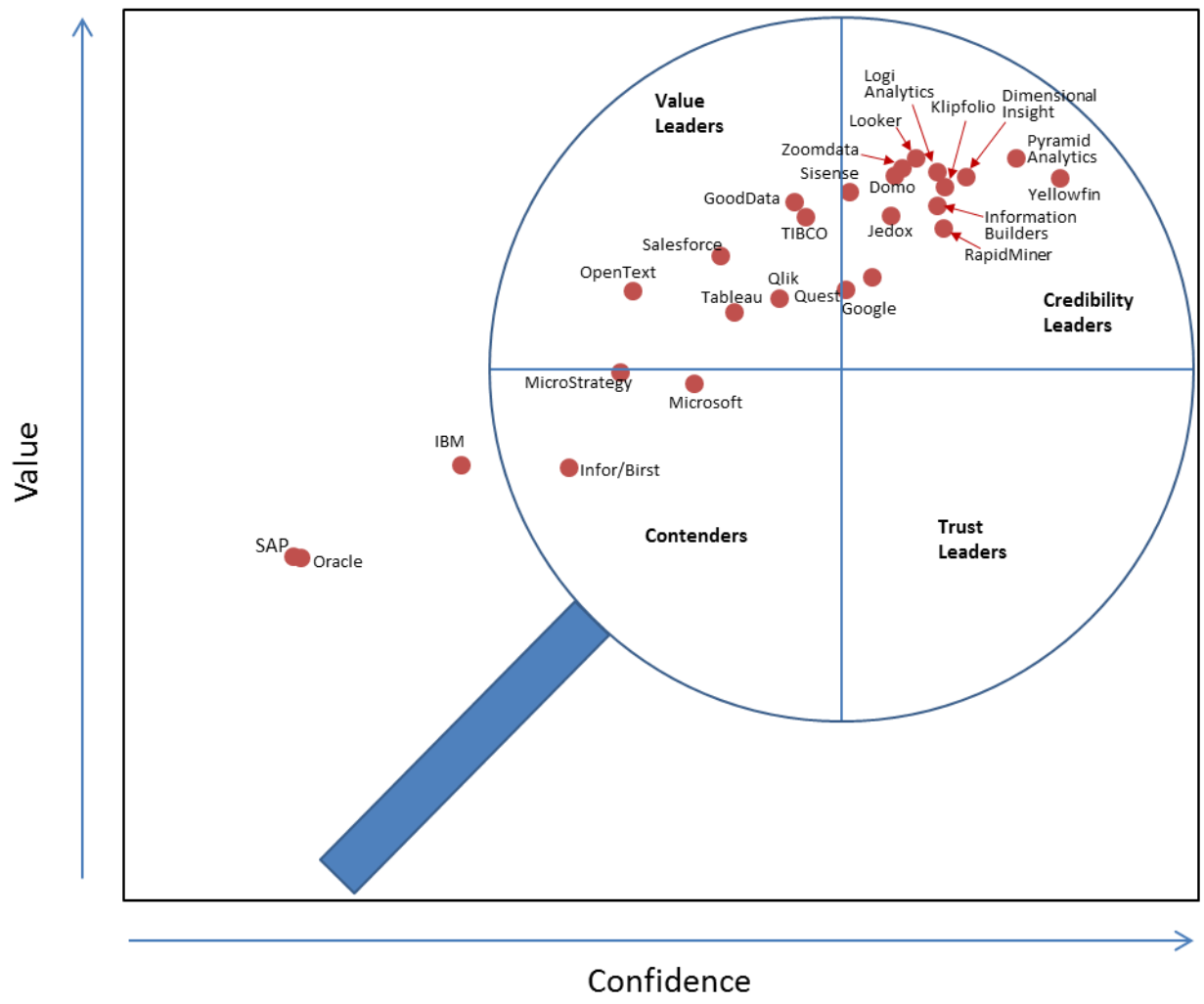


Figure 92 —Vendor credibility model

Detailed Vendor Ratings

In this section, we offer detailed vendor scores. Using our 33-criteria evaluation model (table 1), we compare each vendor's performance to their previous year's performance and to the average for all vendors (all records in the study population).

The detailed criteria are below. We added "clock" position information to assist in locating specific scores.

Table 1 - Detailed vendor rating criteria

- **Sales/acquisition experience** *(12 - 2 o'clock)*
  - Professionalism
  - Product knowledge
  - Understanding our business/needs
  - Responsiveness
  - Flexibility/accommodation
  - Business practices
  - Contractual terms and conditions
  - Follow-up after the sale
- **Value for price** *(3 o'clock)*
- **Quality and usefulness of product** *(3 - 7 o'clock)*
  - Robustness/sophistication of technology
  - Completeness of functionality
  - Reliability of technology
  - Scalability
  - Integration of components within product
  - Integration with third-party technologies
  - Overall usability
  - Ease of installation
  - Ease of administration
- **Quality and usefulness of product (continued)**
  - Customization and extensibility
  - Ease of upgrade/migration to new versions
  - Online forums and documentation
-
- **Quality of technical support** *(8 - 9 o'clock)*
  - Professionalism
  - Product knowledge
  - Responsiveness
  - Continuity of personnel
  - Time to resolve problems
- **Quality and value of consulting services** *(9 - 10 o'clock)*
  - Professionalism
  - Product knowledge
  - Experience
  - Continuity
  - Value
- **Integrity** *(11 o'clock)*
- **Whether vendor is recommended** *(12 o'clock)*

Dimensional Insight Detailed Score

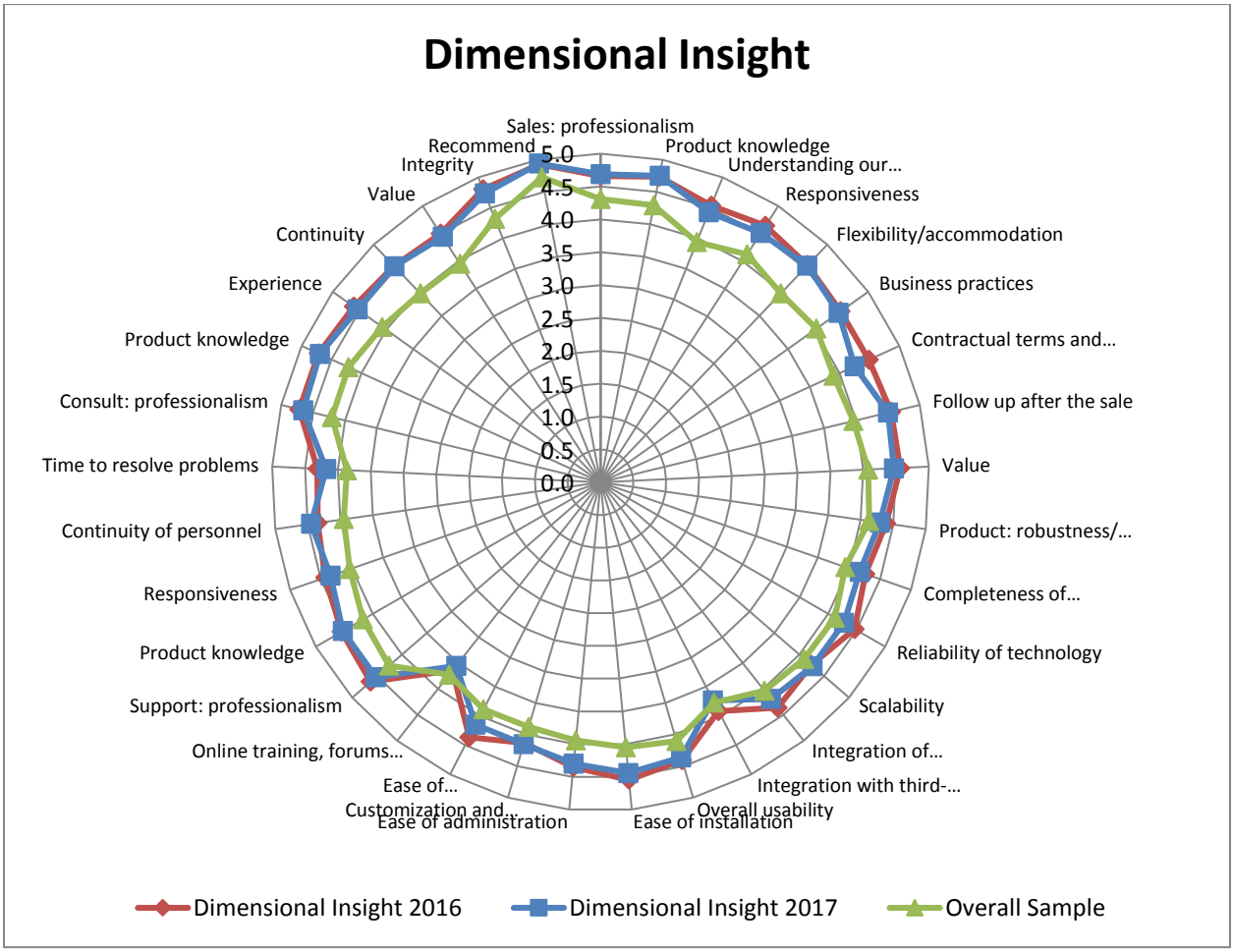


Figure 93 – Dimensional Insight detailed score

With scores well above the entire sample, Dimensional Insight is a consistent overall leader in both the Customer Experience and Vendor Credibility models and is best in class for sales product knowledge. It show key improvements in sales professionalism, product knowledge, product scalability, customization and extensibility, technical support, continuity of personnel, and recommend.

Domo Detailed Score

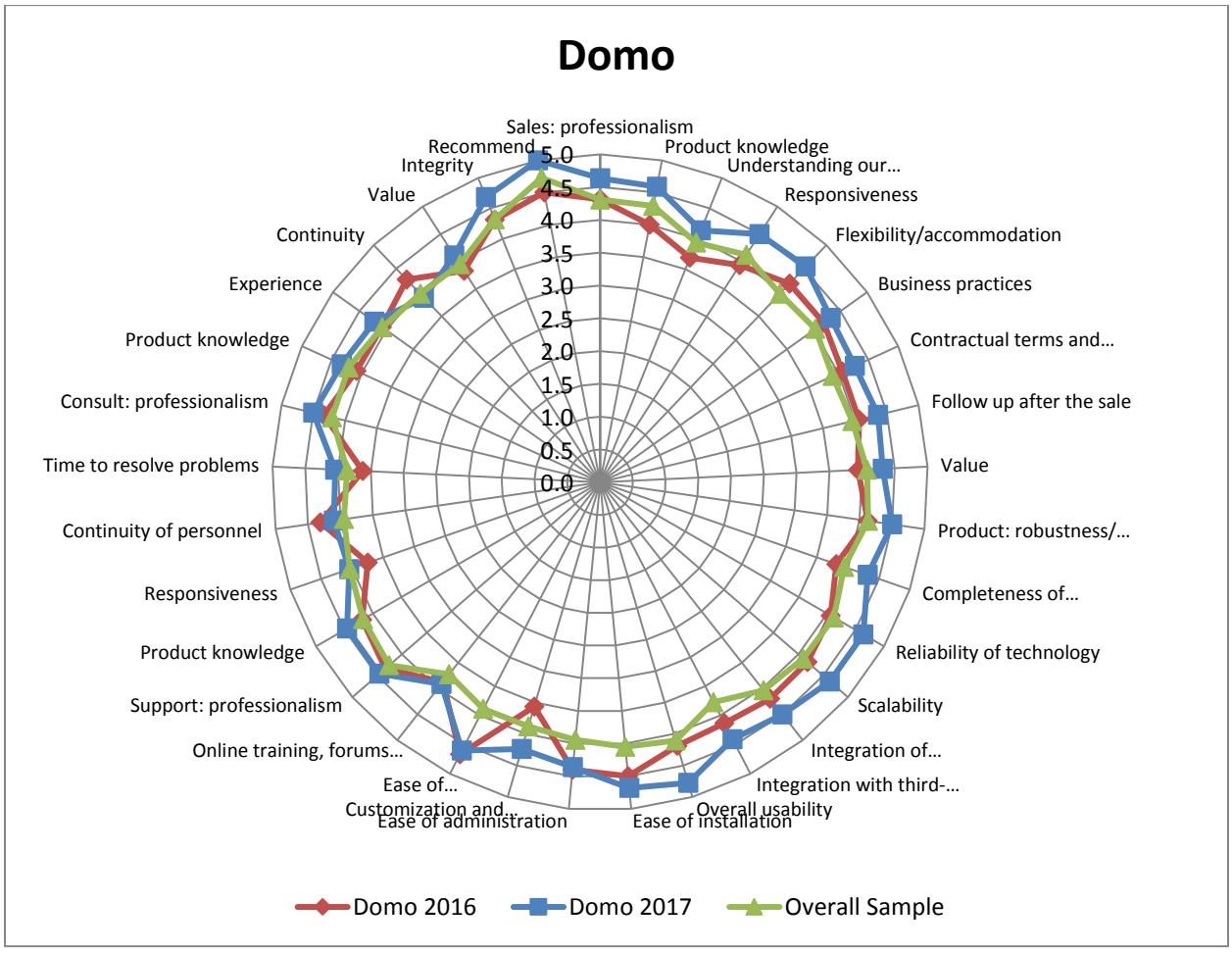


Figure 94 – Domo detailed score

In its second year of coverage, Domo's scores improved across the board for 2017. It is ranked as an overall leader in both the Customer Experience and Vendor Credibility models. It is best in class for product robustness, reliability of technology, scalability, integration of components within product, integration with third-party technologies, overall usability, ease of upgrade/migration to new versions, and has a perfect recommend score.

GoodData Detailed Score

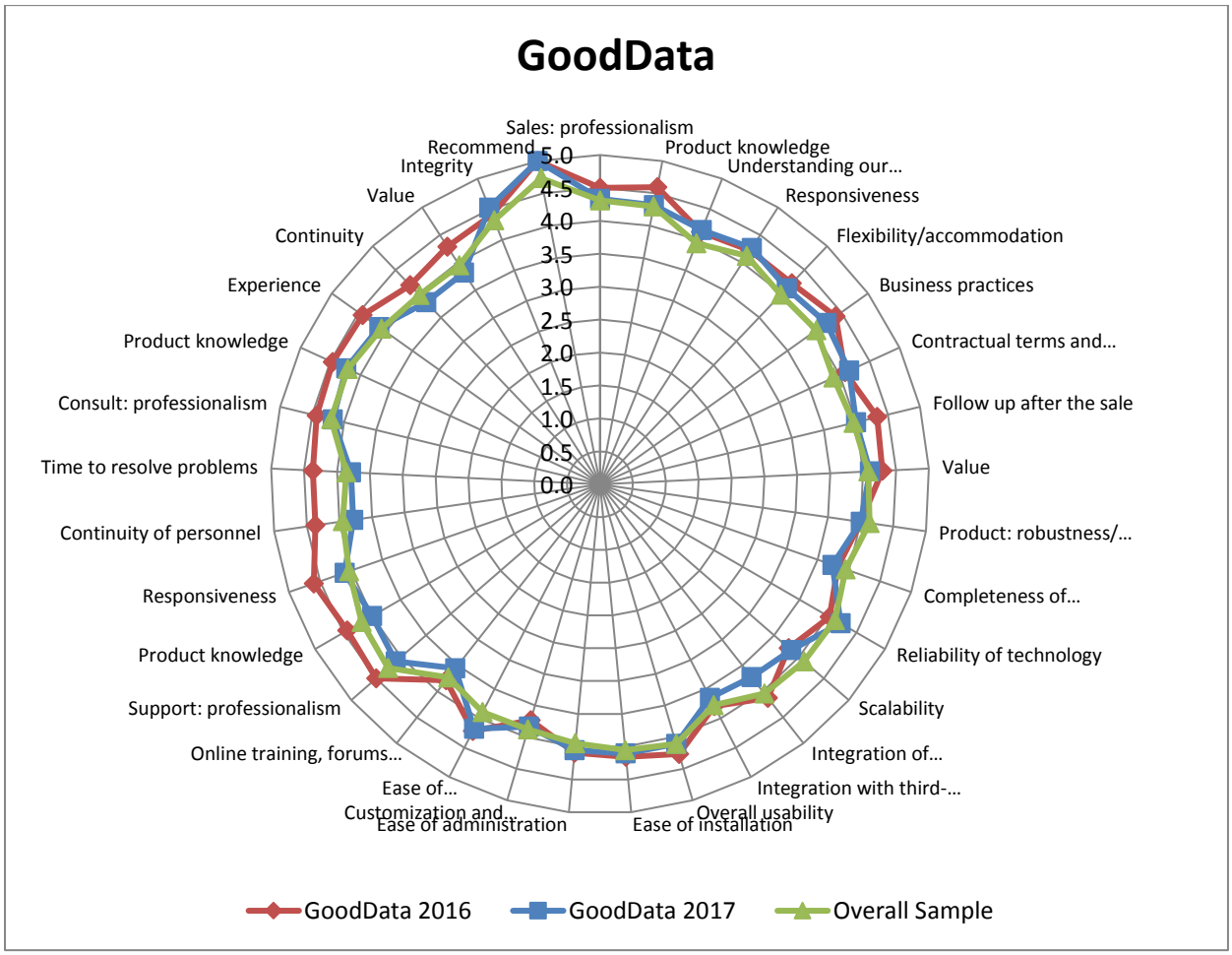


Figure 95 – GoodData detailed score

For 2017, GoodData is ranked as a Technology Leader in the Customer Experience Model and a Value Leader in the Vendor Credibility Model. It is generally in line with or above the overall sample for most measures and maintains a perfect recommend score.

Google Detailed Score

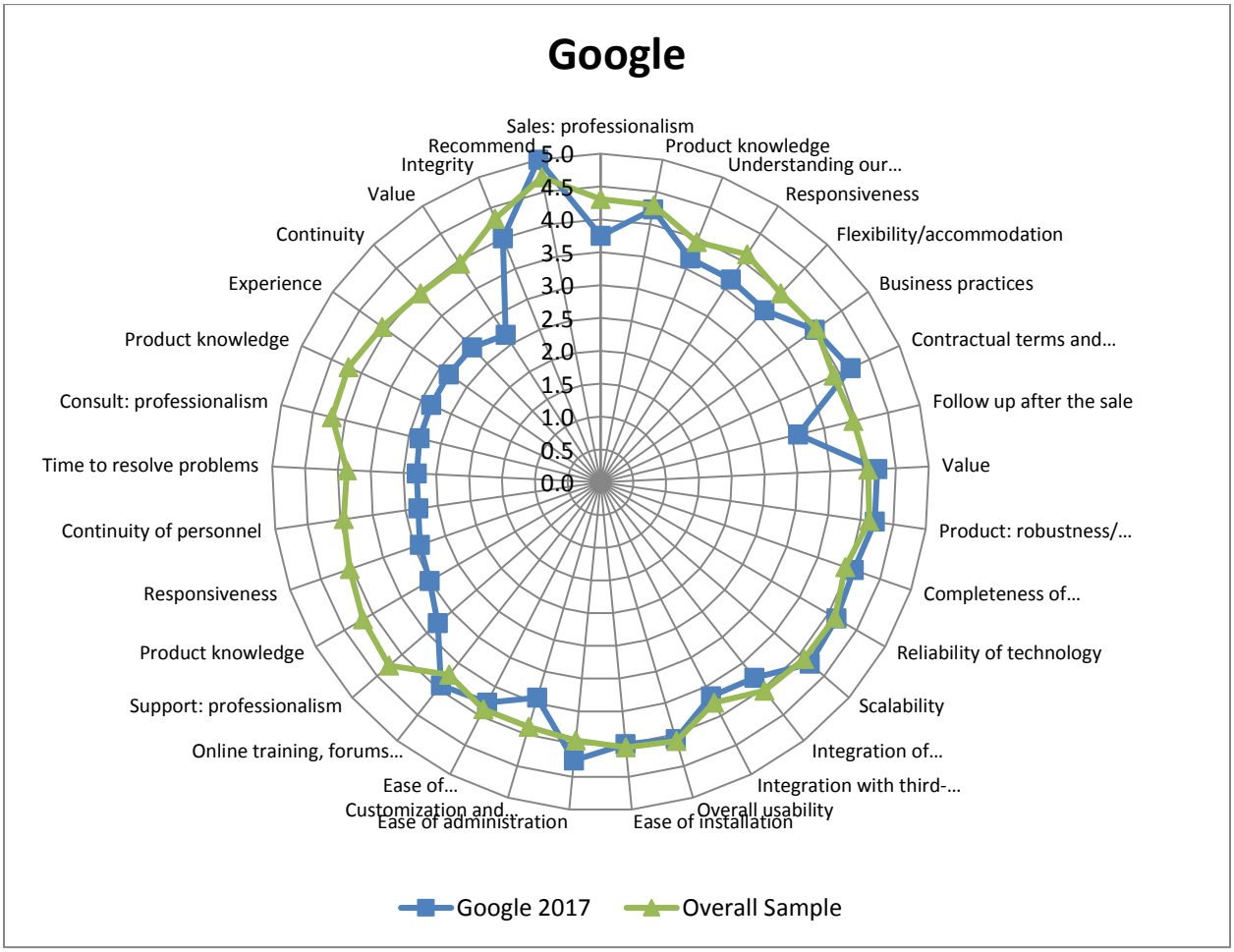


Figure 96 – Google detailed score

In its first year of inclusion, Google is generally in line with or slightly above the overall sample for product measures and value but well below most other measures—especially technical support and consulting services. It is considered an overall leader in the Vendor Credibility Model and has a perfect recommend score.

IBM Detailed Score

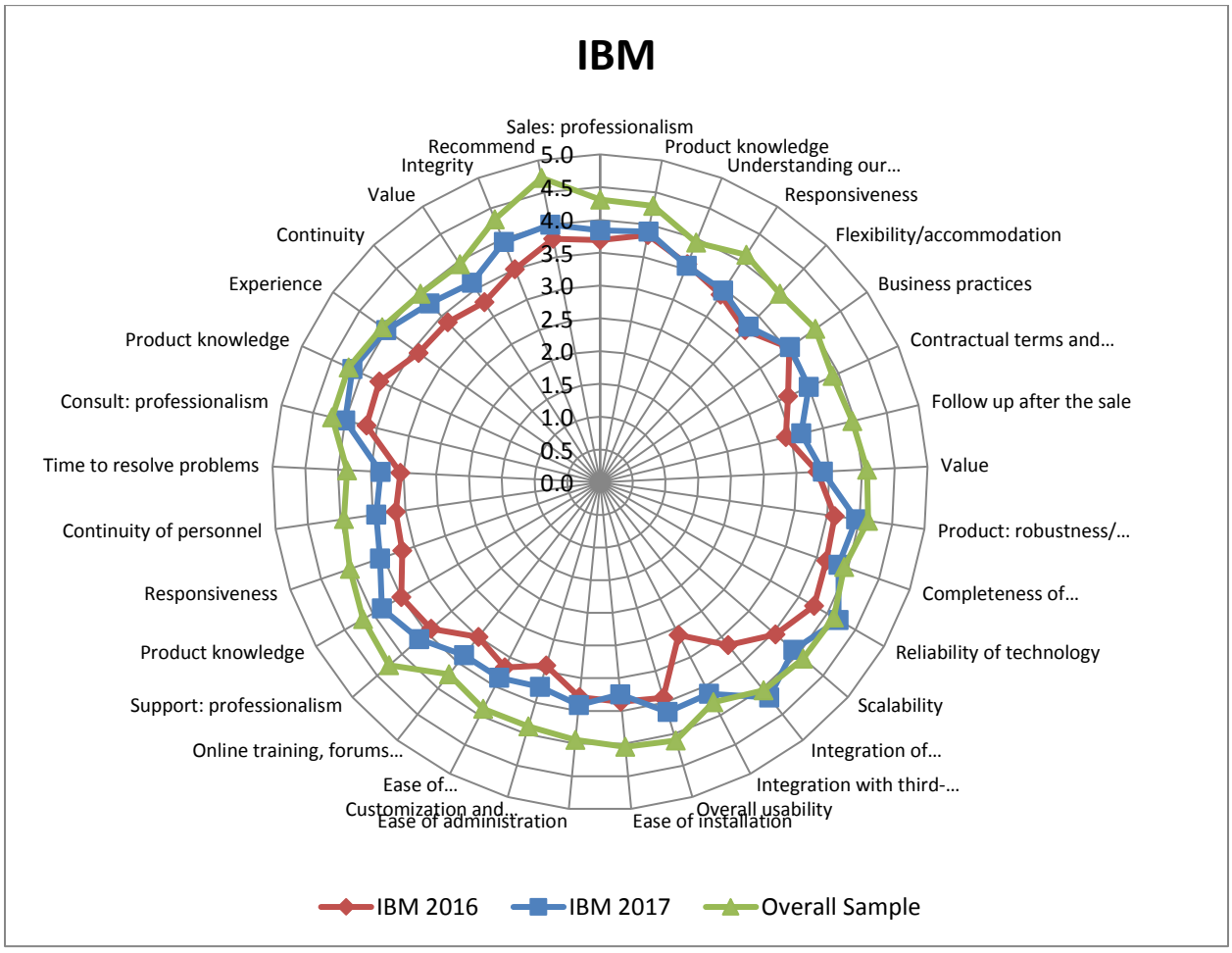


Figure 97 – IBM detailed score

Although below the overall sample, for 2017, IBM shows key improvements across virtually all measurement categories including sales, value, product, and consulting. It is considered a contender in the Customer Experience Model.

Infor Detailed Score

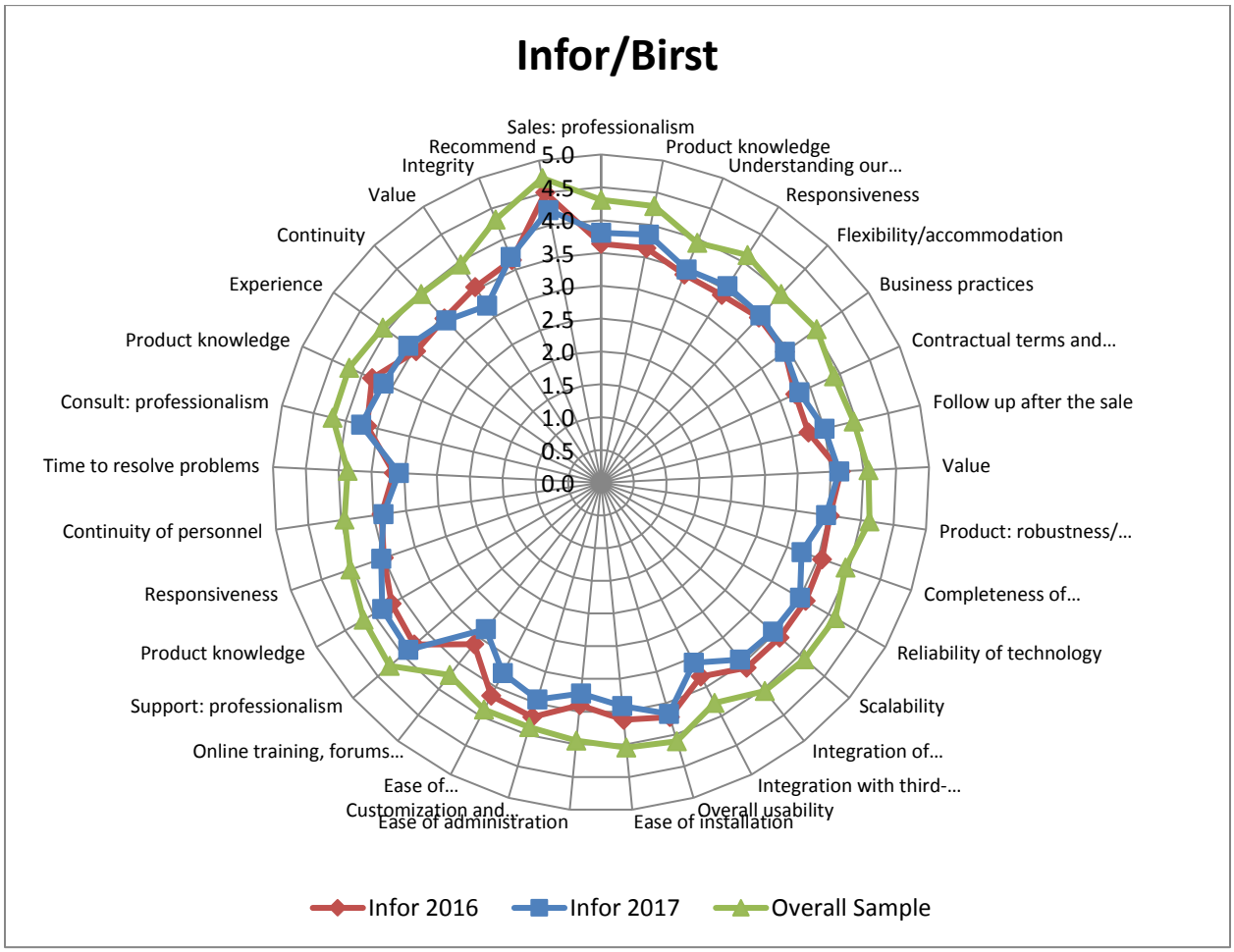


Figure 98 – Infor detailed score

For 2017, with Infor's acquisition of Birst, we combined both sets of scores under Infor. In general, Infor/Birst's scores are below the overall sample with key improvements across all sales measures and technical support. Infor is considered a contender in the Vendor Credibility Model.

Information Builders Detailed Score

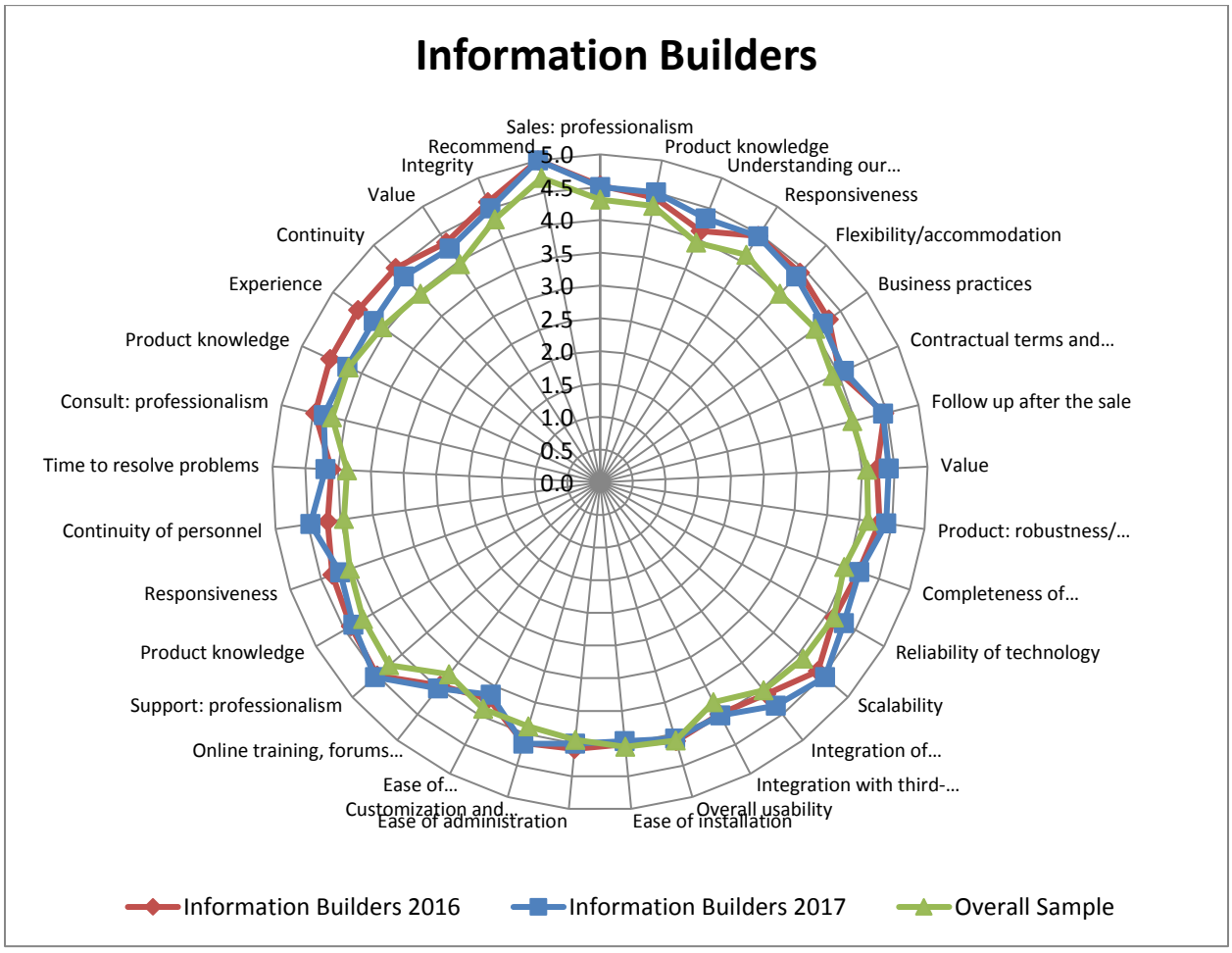


Figure 99 – Information Builders detailed score

With scores consistently above the entire sample, Information Builders is an overall leader in both the Customer Experience and Vendor Credibility models. For 2017, it shows key improvements in sales product knowledge, understanding business/needs, contractual terms and conditions, product robustness/sophistication of technology, completeness of functionality, reliability of technology, scalability, integration of components within product, integration with third-party technologies, customization and extensibility, online training, forums and documentation, technical support continuity of personnel, and time to resolve problems. It maintains a perfect recommend score.

Jedox Detailed Score

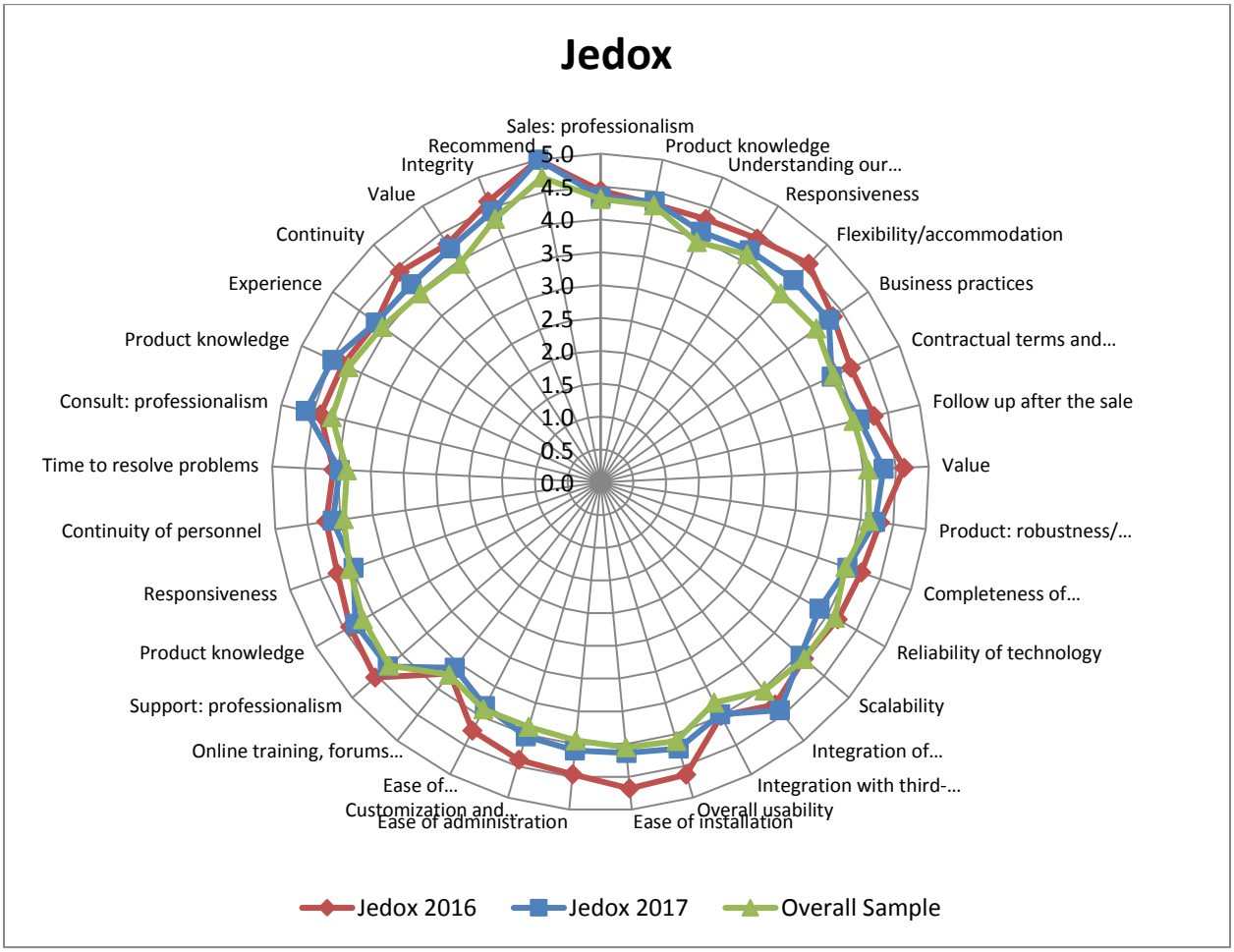


Figure 100 – Jedox detailed score

For 2017, Jedox remains an overall leader in both the Customer Experience and Vendor Credibility models. It scores generally above the overall sample for most measures and shows key improvements in sales product knowledge, product integration, consulting professionalism, product knowledge, and experience. It maintains a perfect recommend score.

Klipfolio Detailed Score

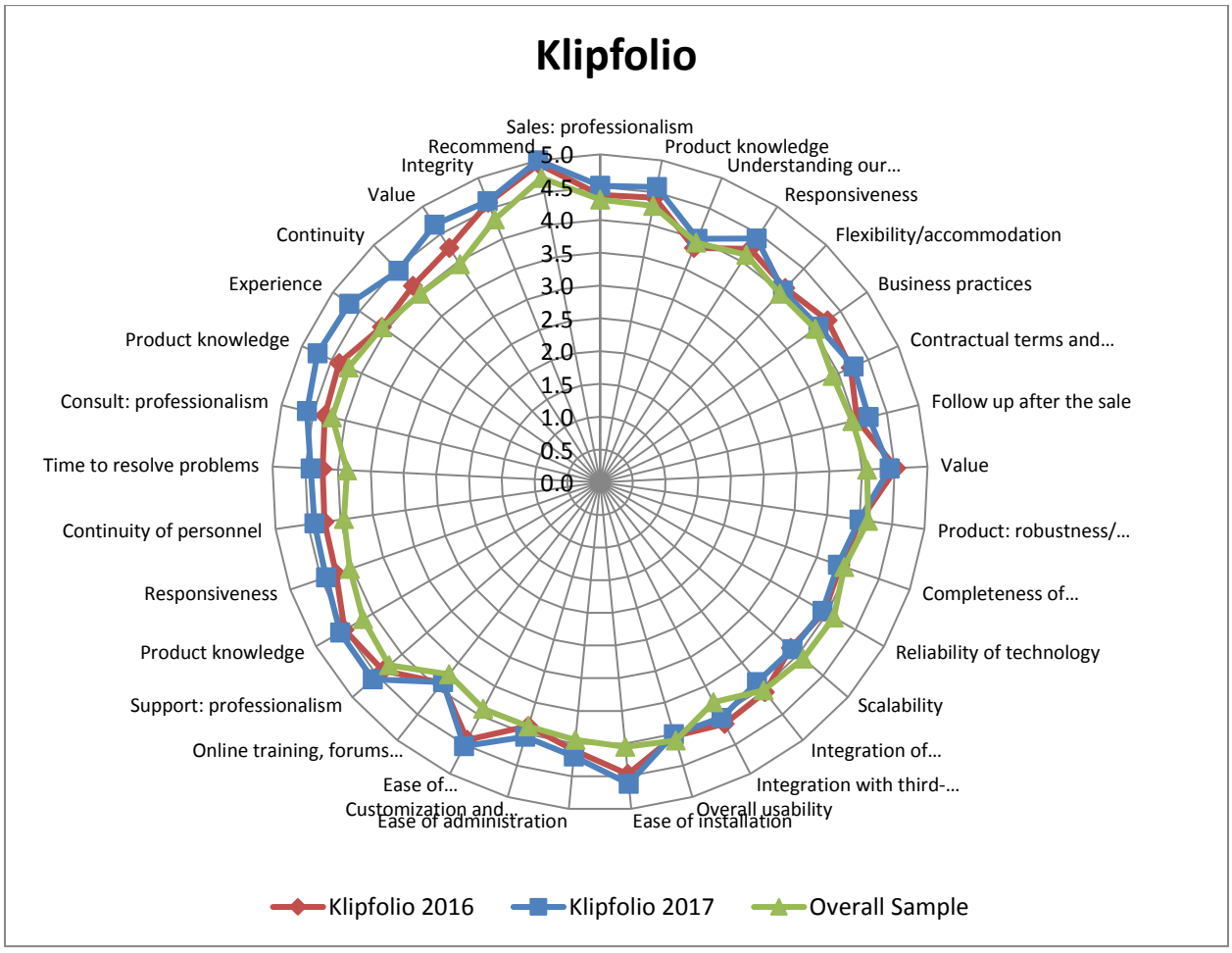


Figure 101 – Klipfolio detailed score

With scores consistently above the overall sample, Klipfolio is an overall leader in both the Customer Experience and Vendor Credibility models. It shows year-over-year key improvements in sales, technical support, consulting services, integrity, and recommend measures.

Logi Analytics Detailed Score

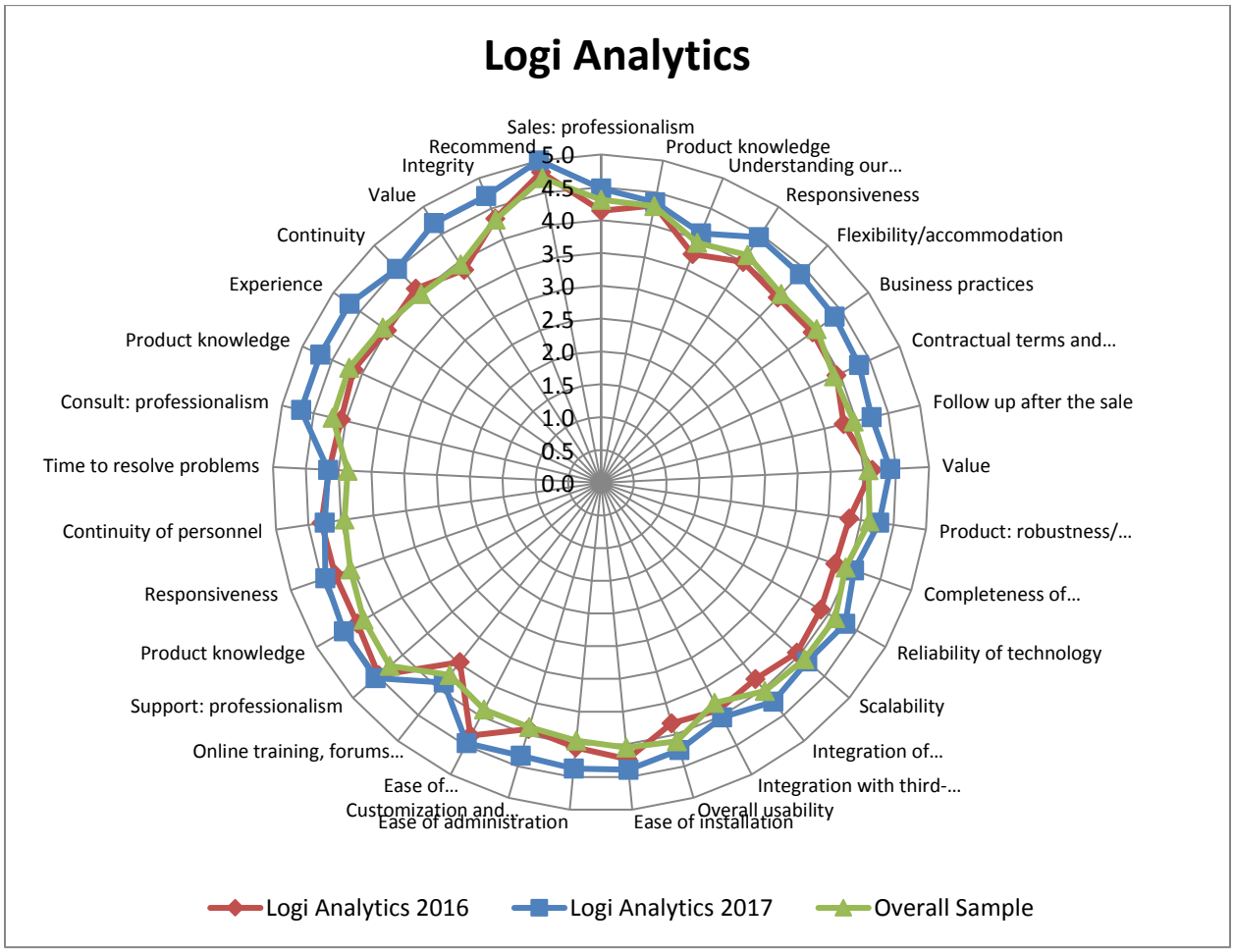


Figure 102 – Logi Analytics detailed score

For 2017, Logi Analytics is an overall leader in both the Customer Experience and Vendor Credibility models. It shows significant improvements across all categories of measurement, including sales, value, product, technical support, consulting services, and integrity. It is best in class for product customization and extensibility, and consulting experience and value. It has a perfect recommend score.

Looker Detailed Score

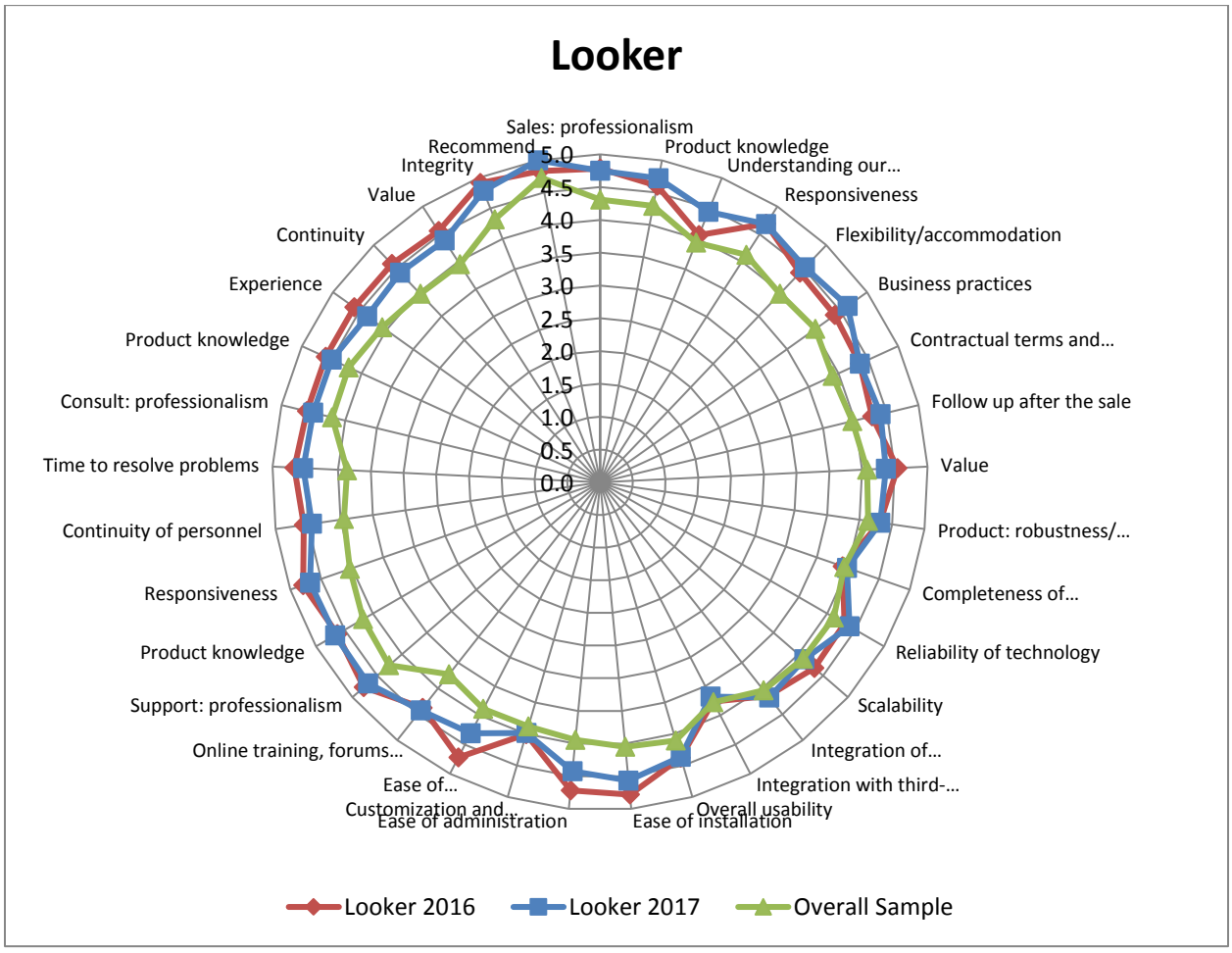


Figure 103 – Looker detailed score

For 2017, Looker is ranked as an overall leader in both the Customer Experience and Vendor Credibility models. It again scores significantly above the overall sample for virtually all measures and was best in class for sales professionalism, understanding business/needs, business practices, contractual terms and conditions, product online training, forums and documentation, and integrity. It maintains a perfect recommend score.

Microsoft Detailed Score

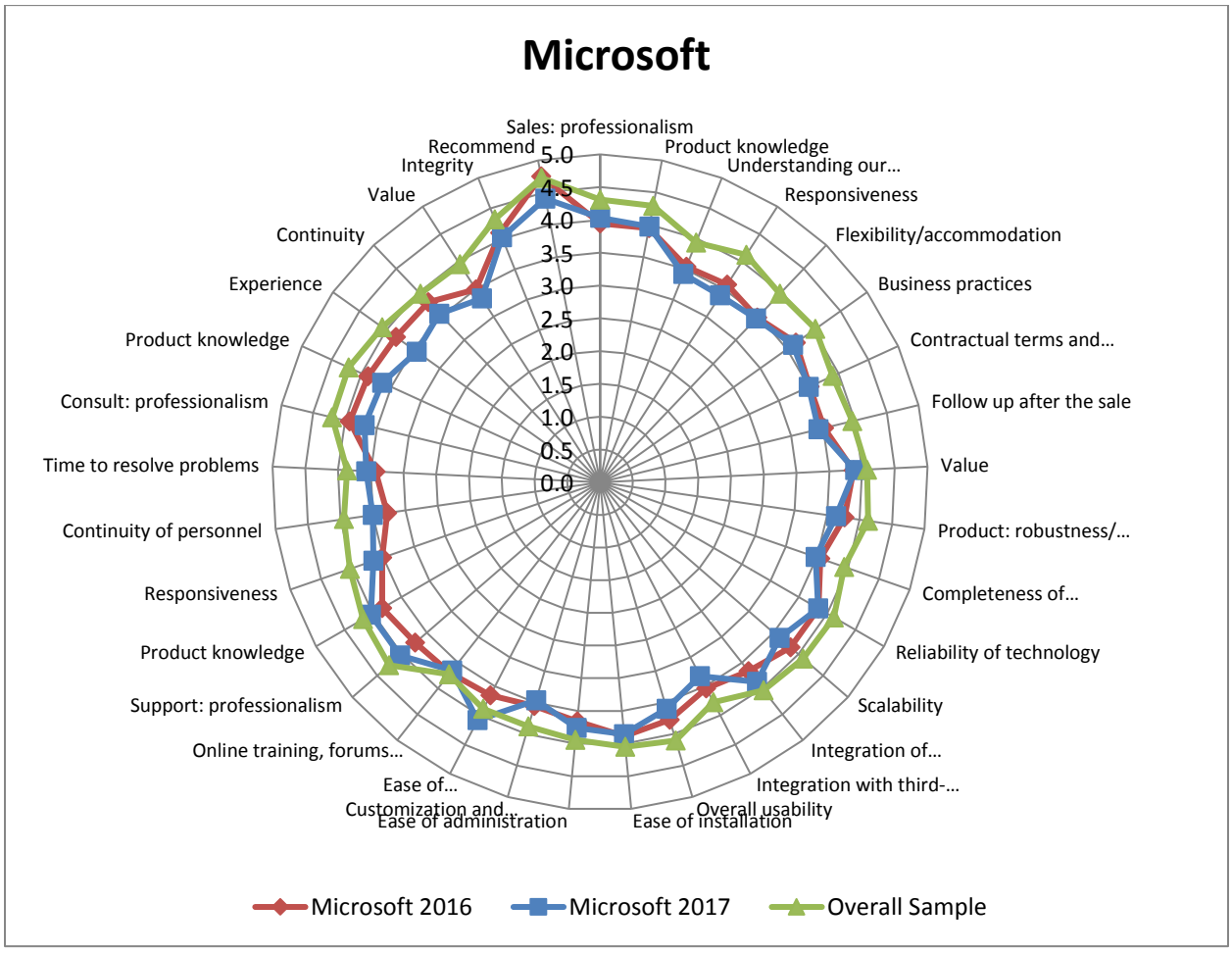


Figure 104 – Microsoft detailed score

With scores generally below the overall sample, Microsoft is a contender in both the Customer Experience and Vendor Credibility models. It shows key improvements for 2017 in overall value and technical support.

MicroStrategy Detailed Score

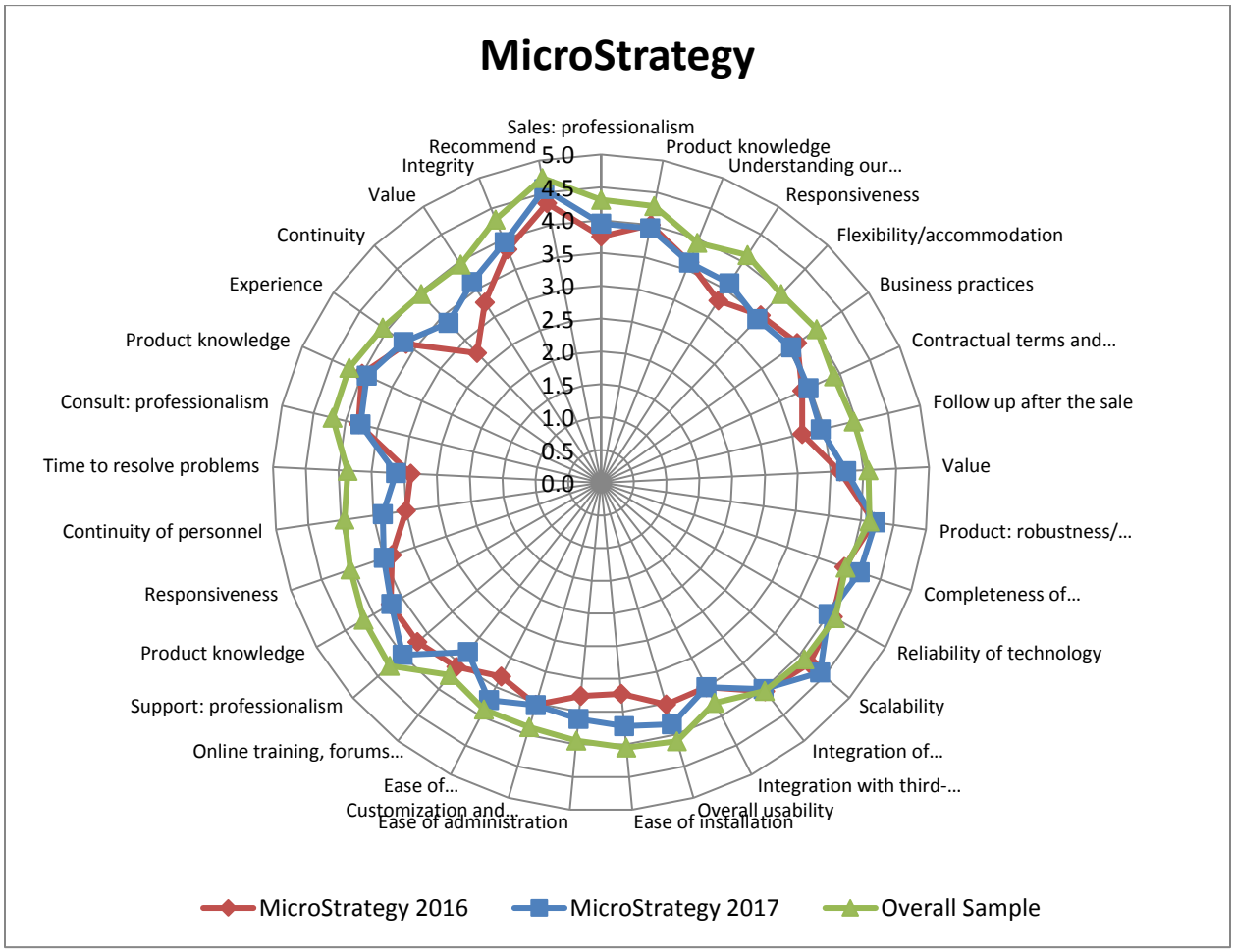


Figure 105 – MicroStrategy detailed score

MicroStrategy's overall score improves in 2017, and it is now a contender in the Customer Experience Model and a Value Leader in the Vendor Credibility Model. It shows key improvements across most categories of measurement including sales, value, product, technical support, consulting services, integrity, and recommend.

OpenText Detailed Score

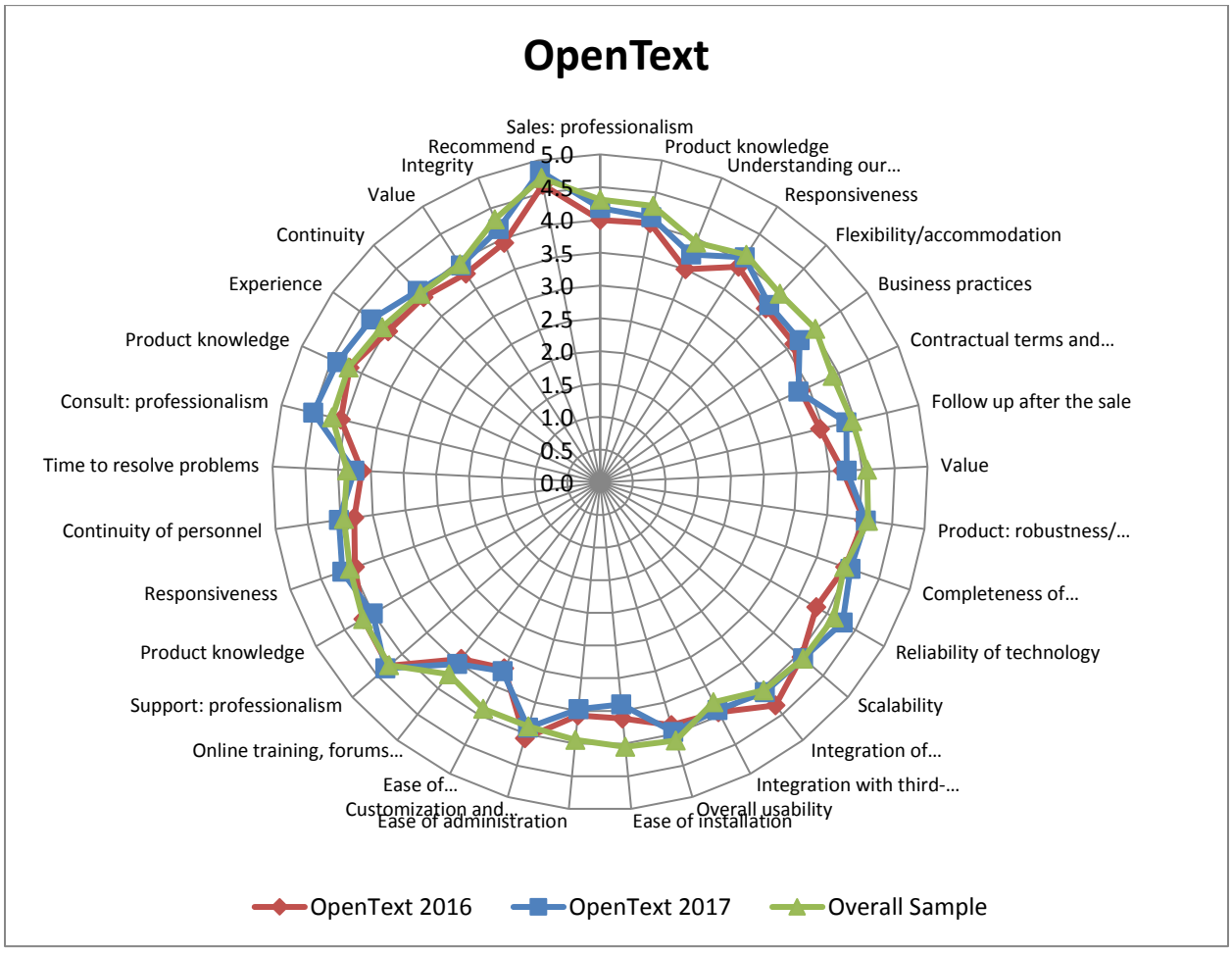


Figure 106 – OpenText detailed score

For 2017, OpenText has across-the-board improvements and is a contender in the Customer Experience Model and a Value Leader in the Vendor Credibility Model. It shows increased scores for all categories of measurement including sales, value, product, technical support, consulting services, integrity, and recommend.

Oracle Detailed Score

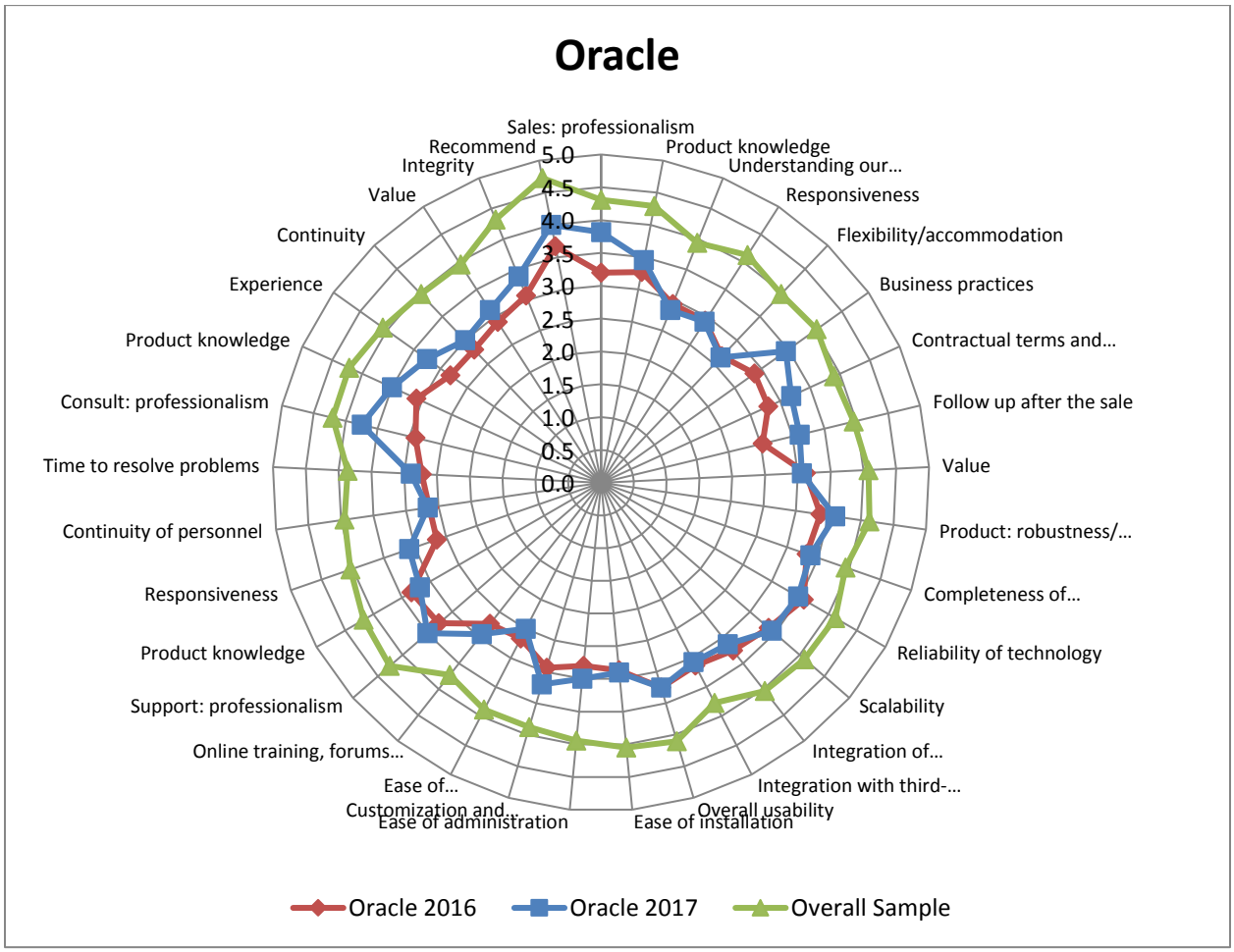


Figure 107 – Oracle detailed score

Although generally below the overall sample, Oracle's scores improved in 2017 with key improvements in most categories of measurement including sales, product, technical support, consulting services, integrity, and recommend.

Pyramid Analytics Detailed Score

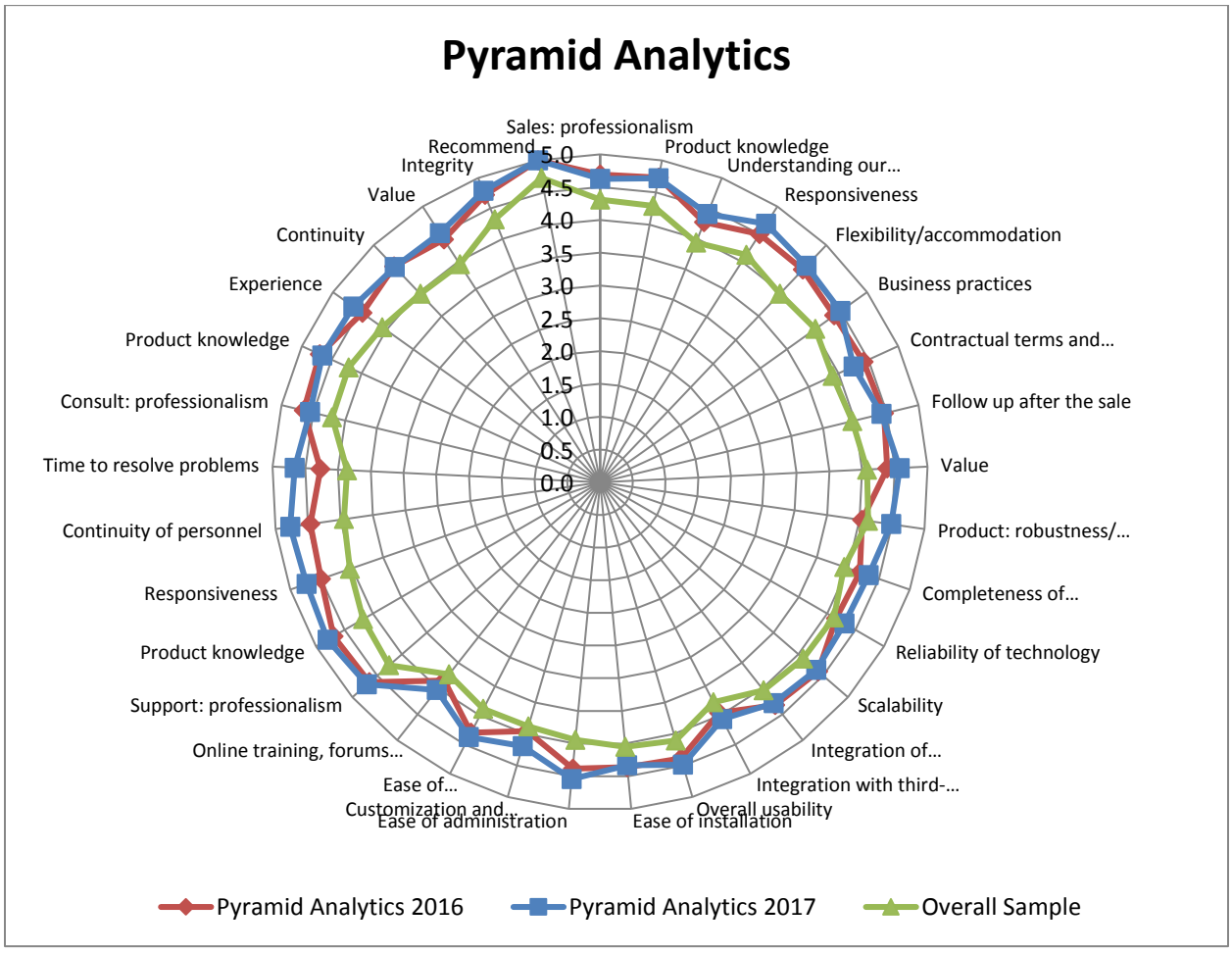


Figure 108 – Pyramid Analytics detailed score

With scores consistently above the overall sample, Pyramid Analytics is an overall leader in both Customer Experience and Vendor Credibility models. For 2017, it shows key improvements compared to 2016 in virtually every category of measurement including sales, value, product, technical support, consulting and integrity. It is best in class for sales business practices, product completeness, technical support product knowledge, responsiveness, continuity of personnel, time to resolve problems, and integrity. It maintains a perfect recommend score.

Qlik Detailed Score

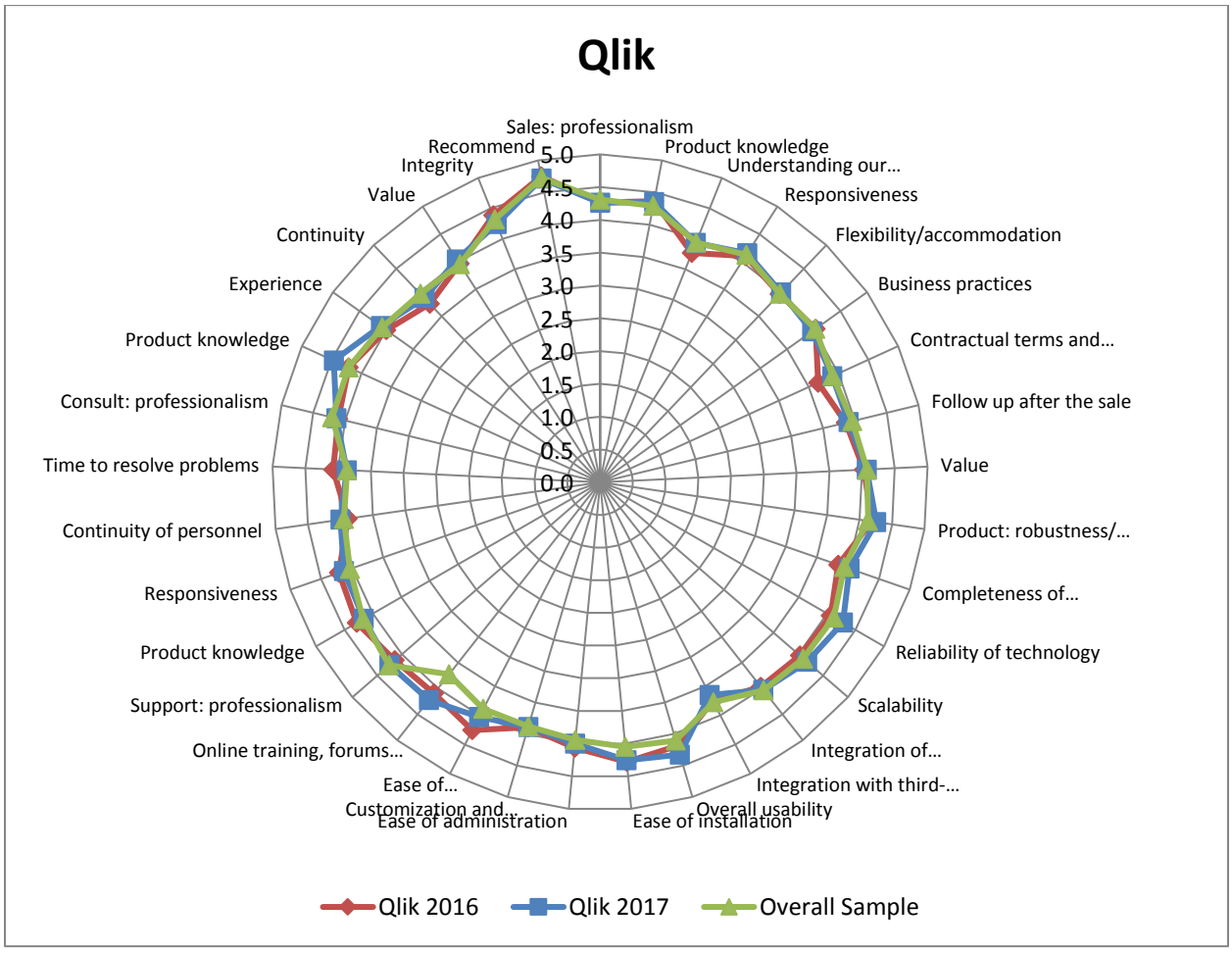


Figure 109 – Qlik detailed score

Generally in line with or somewhat above the overall sample for virtually all measures, Qlik is a Technology Leader in the Customer Experience Model and a Value Leader in the Vendor Credibility Model. It shows improvements for 2017 across most categories of measurement including sales, value, product, and consulting services.

Quest Statistica Detailed Score

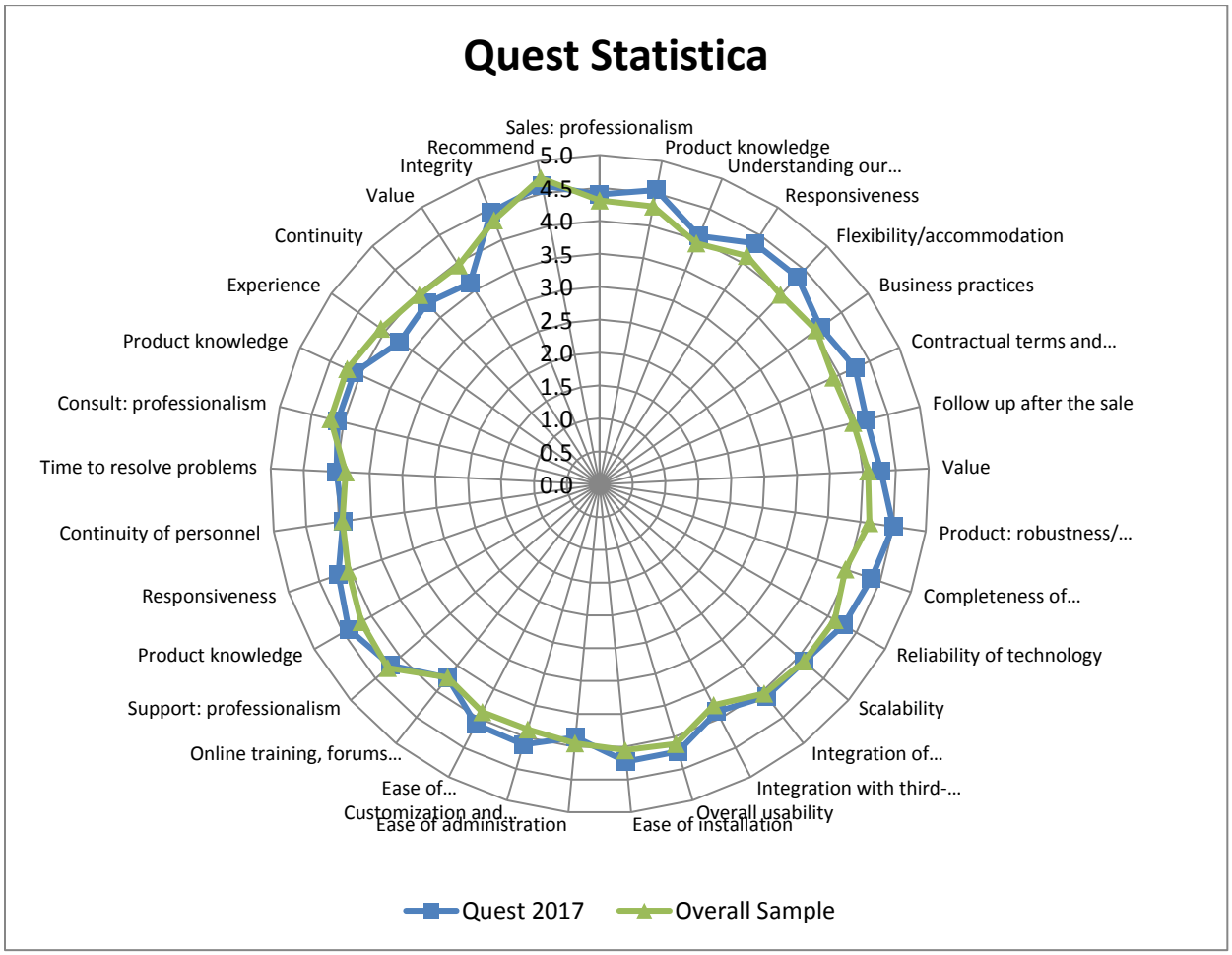


Figure 110 – Quest Statistica detailed score

With scores generally above or in line with the overall sample, Quest Statistica is a Technology Leader in the Customer Experience Model and an overall leader in the Vendor Credibility Model.

RapidMiner Detailed Score

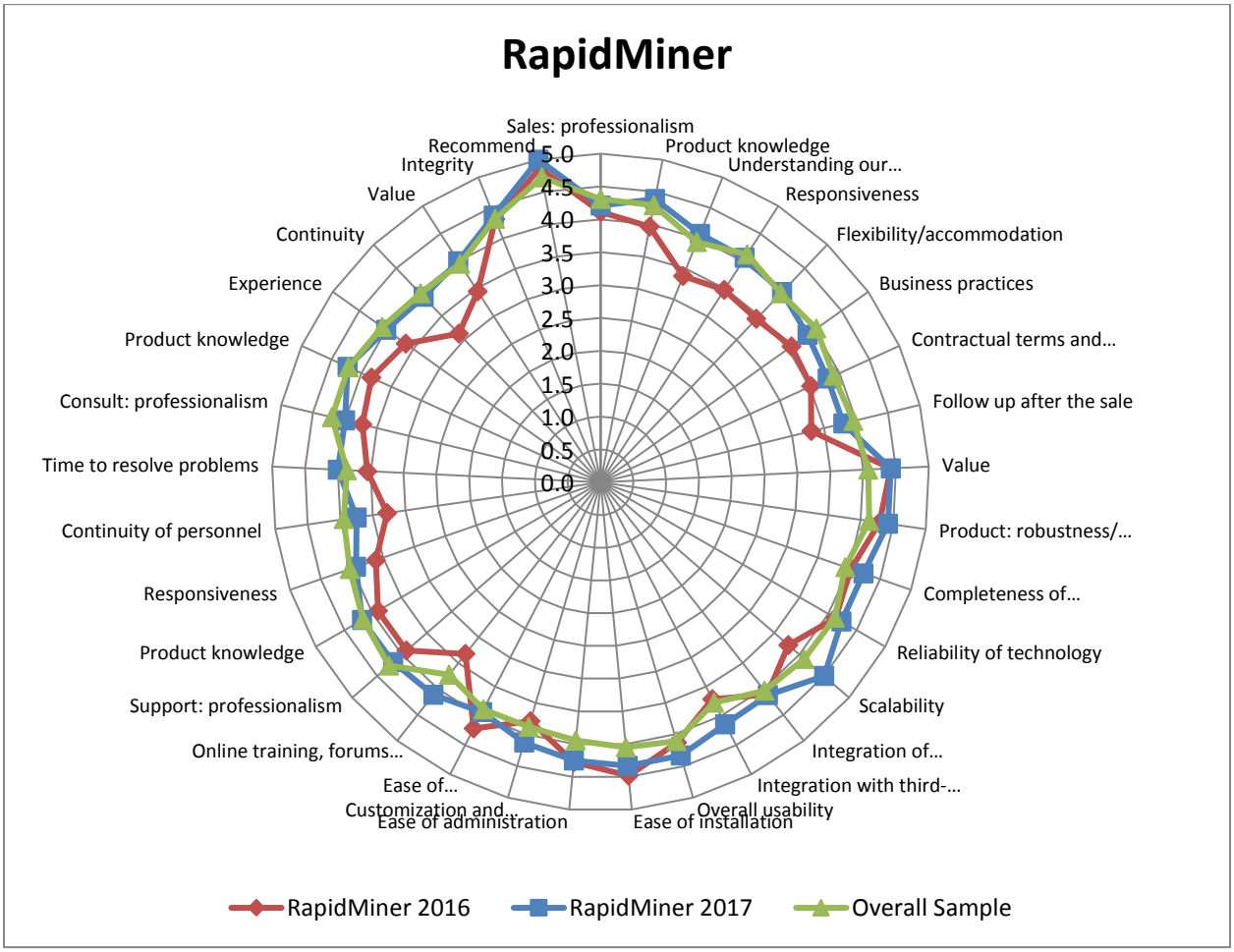


Figure 111 – RapidMiner detailed score

For 2017, RapidMiner shows key improvements versus 2016 and is a Technology Leader in the Customer Experience Model and an overall leader in the Vendor Credibility Model. Its scores increased across all categories of measurement including sales, value, product, technical support, consulting services, integrity, and recommend.

Salesforce Detailed Score

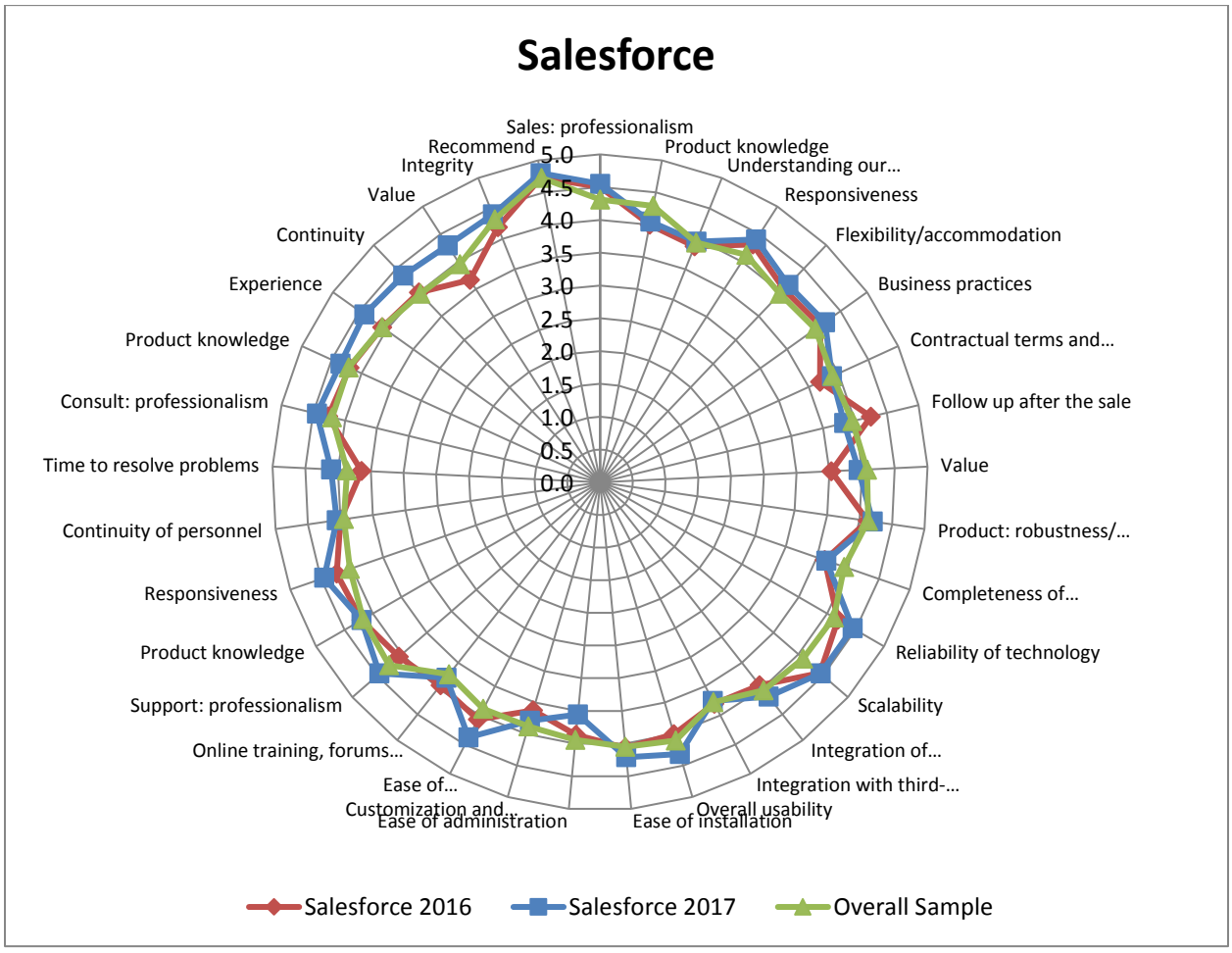


Figure 112 – Salesforce detailed score

Since last year, Salesforce made great strides and is now an overall leader in the Customer Experience Model and a Value Leader in the Vendor Credibility Model. It shows key improvements all categories of measurement including sales, value, product, technical support, consulting services, integrity, and recommend.

SAP Detailed Score

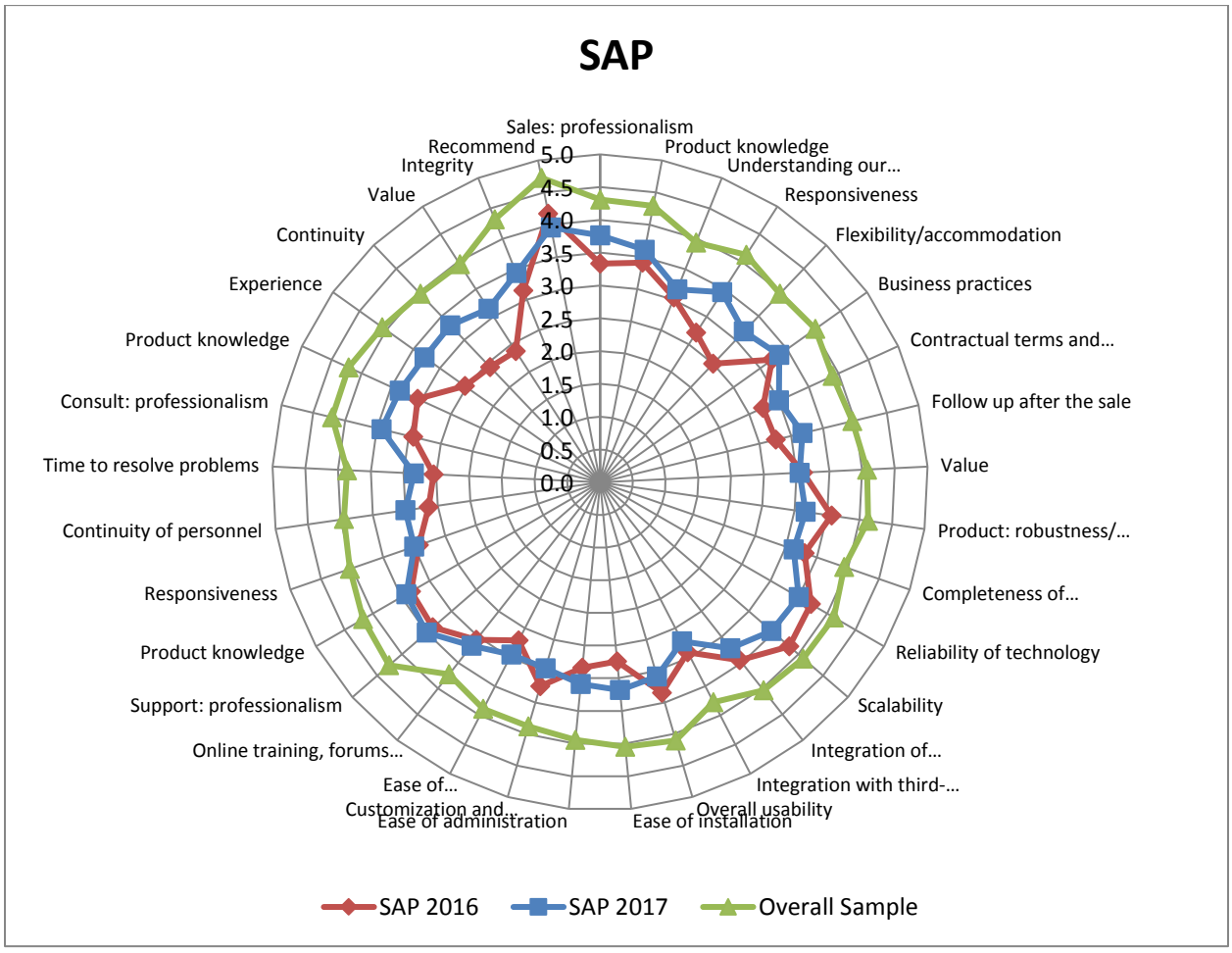


Figure 113 – SAP detailed score

Although consistently below the overall sample, SAP shows ongoing and significant improvements in most categories of measurement including sales, technical support, consulting, and integrity.

SiSense Detailed Score

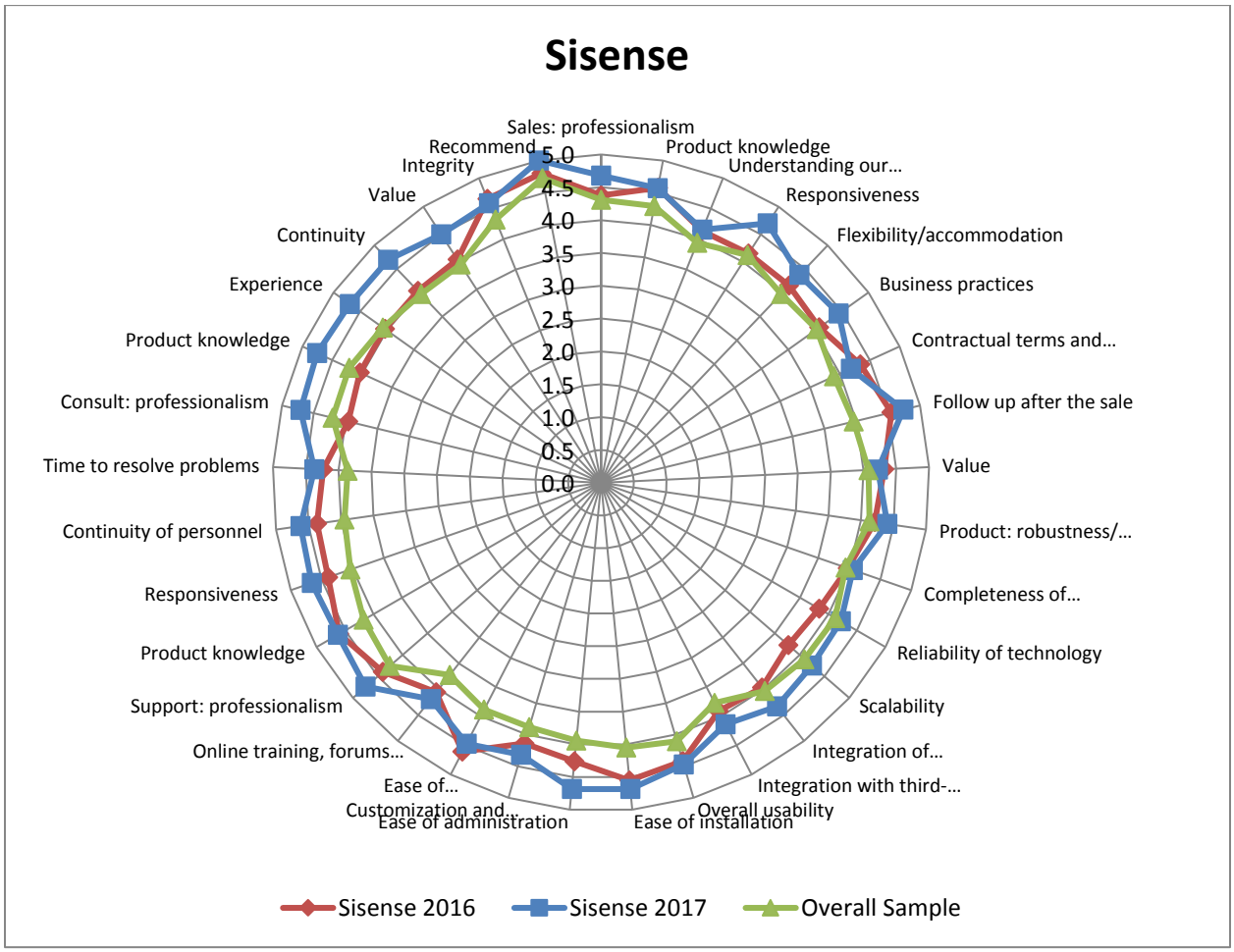


Figure 114 – Sisense detailed score

With scores consistently above the overall sample, Sisense is an overall leader for both Customer Experience and Vendor Credibility models. Its overall score rises again in 2017 with key improvements across virtually all categories of measurement including sales, product, technical support, and consulting services. It is best in class for sales responsiveness, follow up after the sale, product ease of installation, ease of administration, technical support professionalism, consulting professionalism, product knowledge, and continuity. It has a perfect recommend score.

Tableau Software Detailed Score

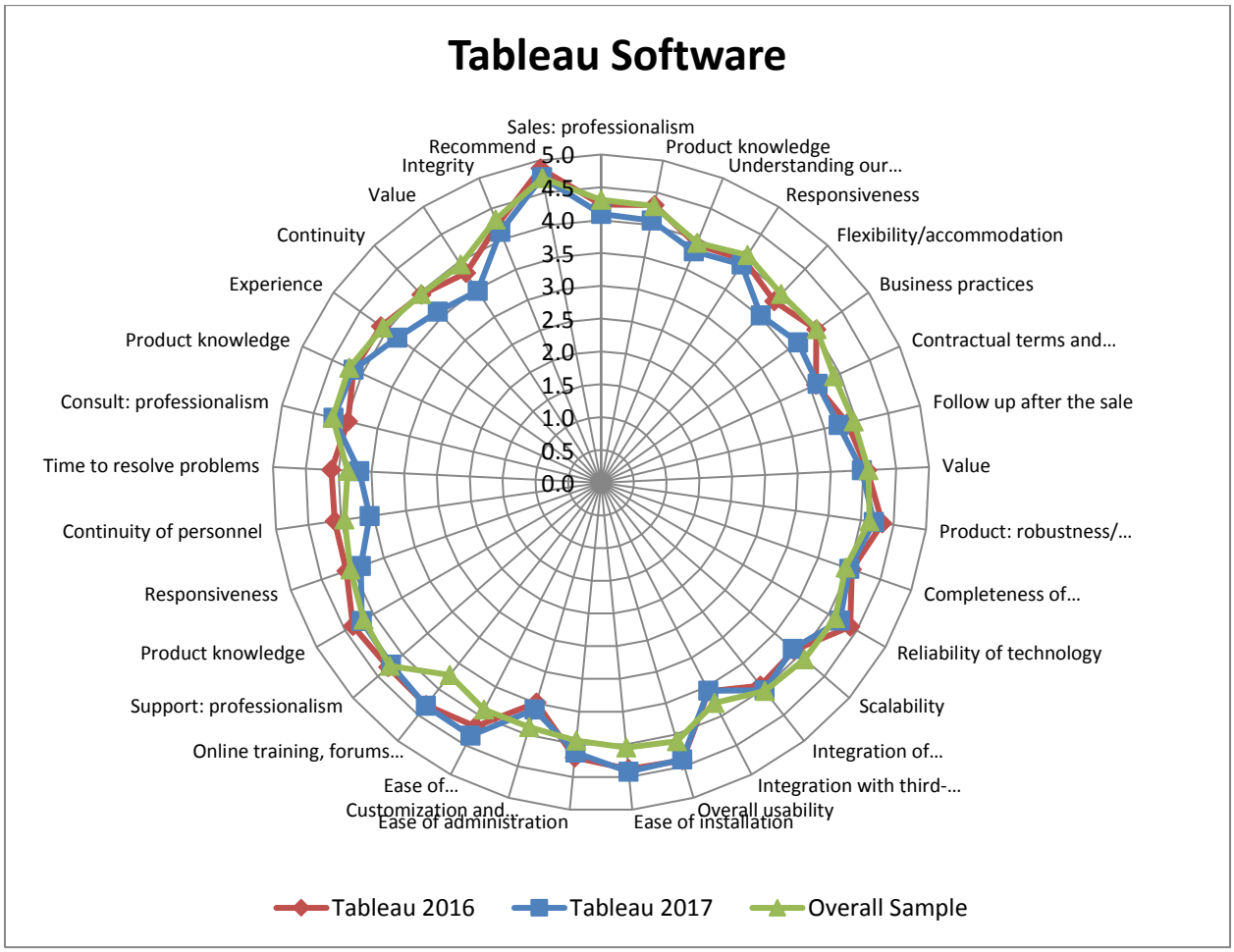


Figure 115 – Tableau Software detailed score

With scores generally above or in line with the overall sample, Tableau Software is a Technology Leader in the Customer Experience Model and a Value Leader in the Vendor Credibility Model. For 2017, it shows improvements in sales contractual terms and conditions, integration of components within product, customization and extensibility, ease of upgrade/migration to new versions, online training, forums and documentation, consulting professionalism, and product knowledge.

TIBCO Software Detailed Score

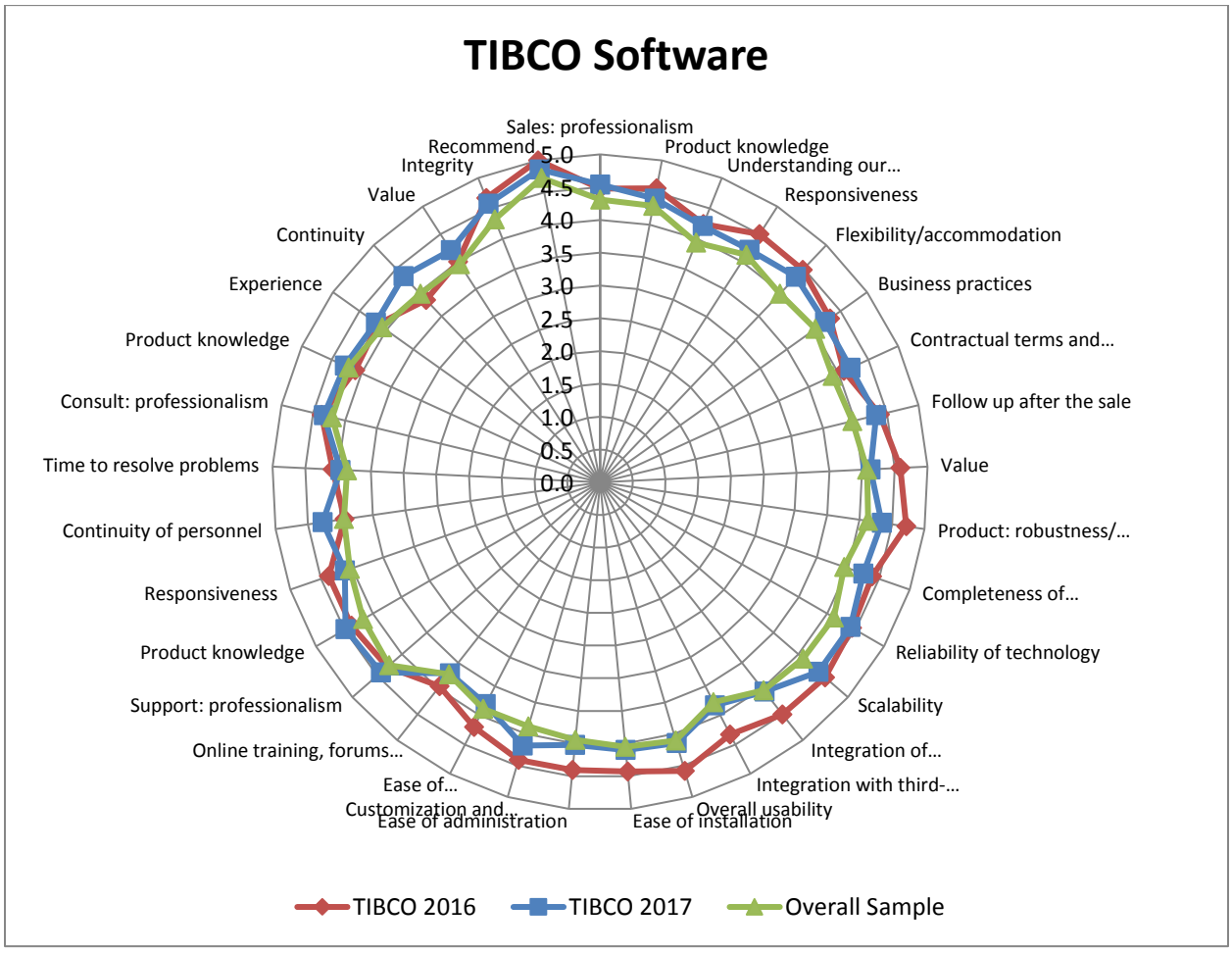


Figure 116 – TIBCO Software detailed score

With scores consistently above the overall sample, TIBCO Software is an overall leader in the Customer Experience Model and a Value Leader in the Vendor Credibility Model. For 2017, TIBCO shows improvements in sales contractual terms and conditions, technical support professionalism, product knowledge, continuity of personnel, consulting product knowledge, experience, continuity, and value.

Yellowfin Detailed Score

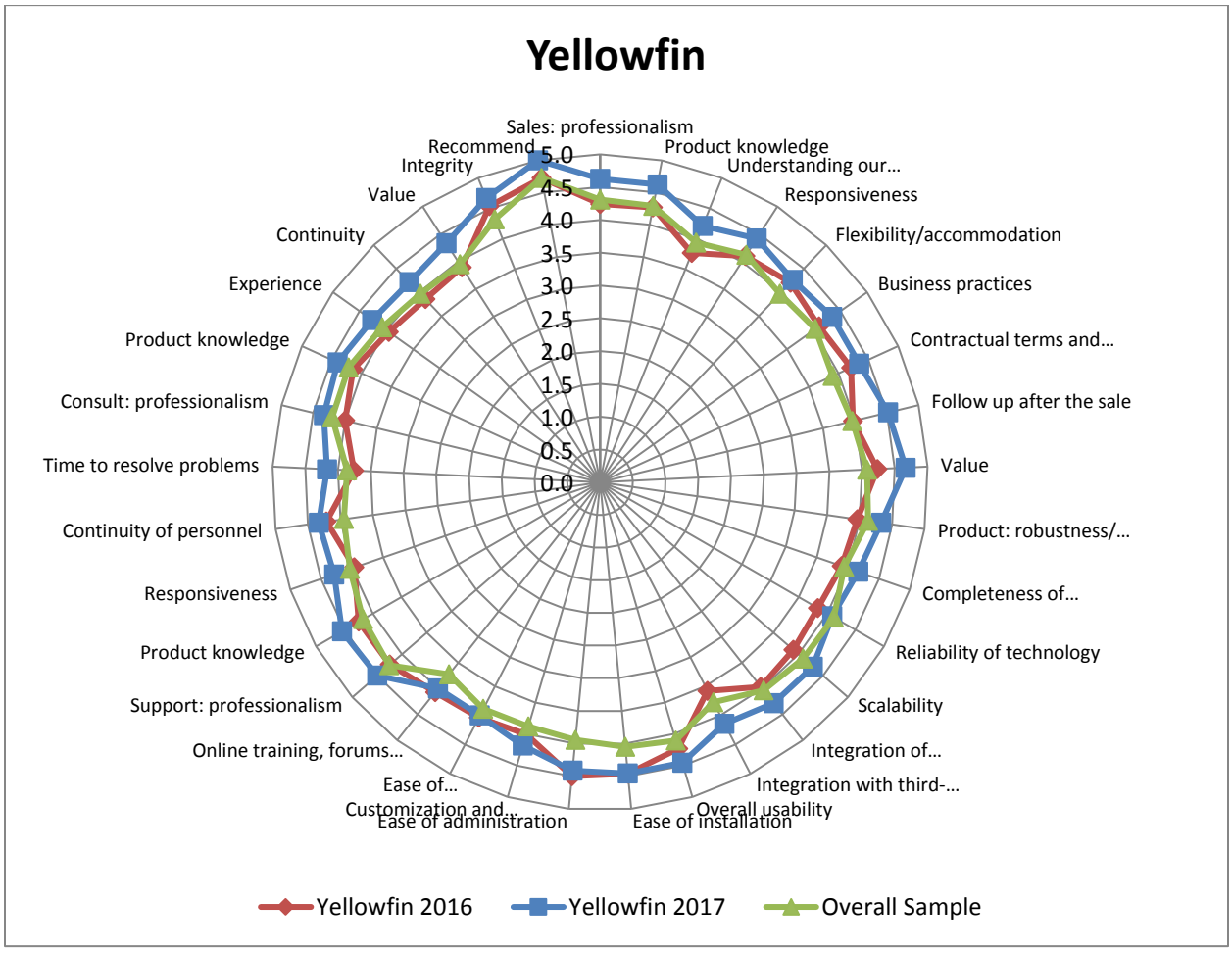


Figure 117 – Yellowfin detailed score

For 2017, Yellowfin is an overall leader in both the Customer Experience and Vendor Credibility models. It shows key improvements across most categories of measurement including sales, value, product, technical support, consulting services, integrity, and recommend. It was best in class for value and has a perfect recommend score.

Zoomdata Detailed Score

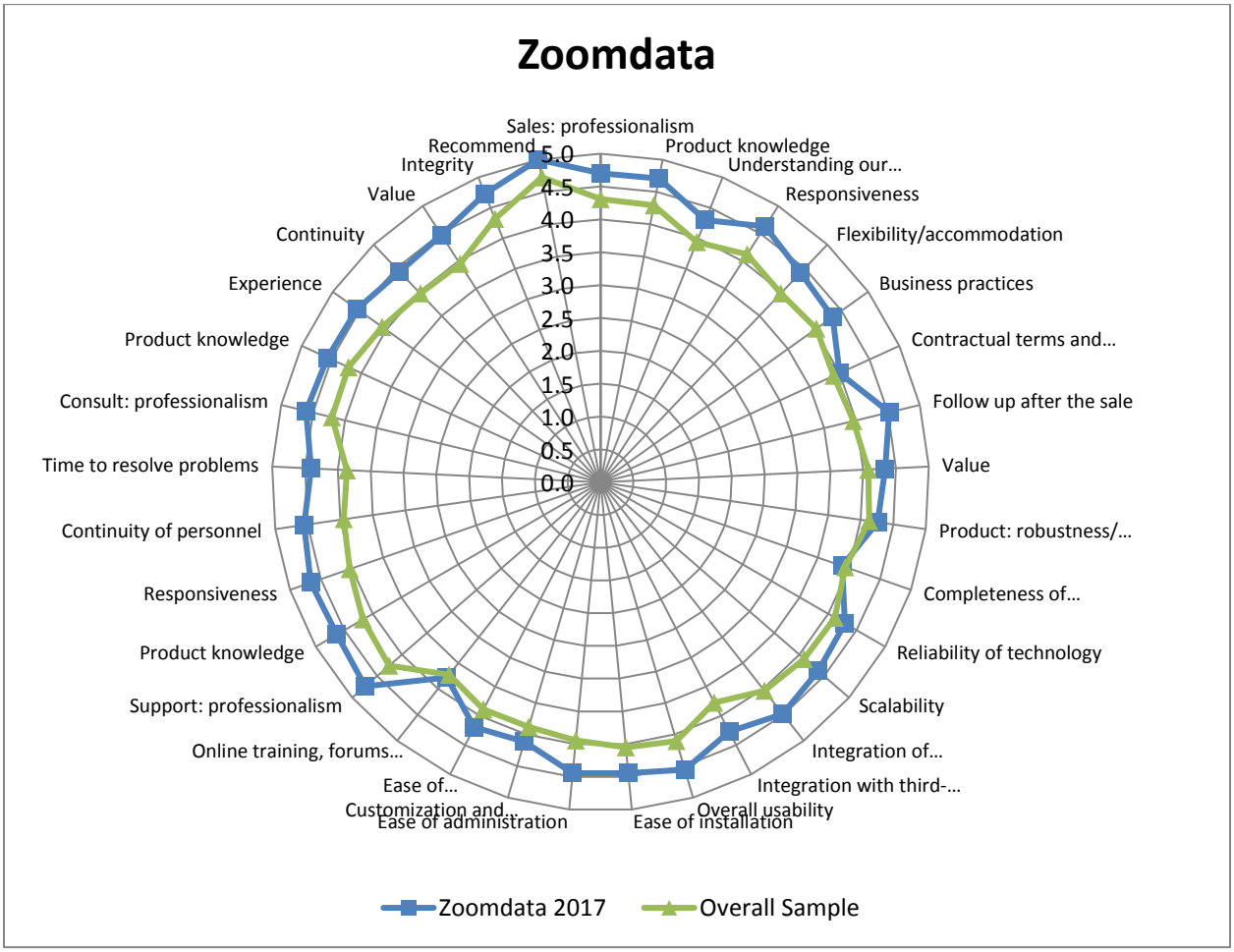


Figure 118 - Zoomdata detailed score

In its first year appearing in this report, Zoomdata shows scores above the overall sample for every measure in all categories. It is an overall leader in both the Customer Experience and Vendor Credibility models and has a perfect recommend score.

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- IoT Intelligence™
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- Natural Language Analytics
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Dresner Advisory Services - 2017 Wisdom of Crowds Survey Instrument

Please enter your contact information below

First Name*: _____

Last Name*: _____

Title: _____

Company Name*: _____

Street Address: _____

City: _____

State: _____

Zip: _____

Country: _____

Email Address*: _____

Phone Number: _____

URL: _____

May we contact you to discuss your responses and for additional information?

( ) Yes

( ) No

3) What major geography do you reside in?*

( ) North America

( ) Europe, Middle East and Africa

( ) Latin America

( ) Asia Pacific

Please identify your primary industry*

( ) Advertising

( ) Aerospace

( ) Agriculture

( ) Apparel & accessories

( ) Automotive

( ) Aviation

( ) Biotechnology

( ) Broadcasting

( ) Business services

( ) Chemical

( ) Construction

( ) Consulting

( ) Consumer products

( ) Defense

( ) Distribution & logistics

( ) Education (Higher Ed)

( ) Education (K-12)

( ) Energy

( ) Entertainment and leisure

( ) Executive search

( ) Federal government

( ) Financial services

( ) Food, beverage and tobacco

( ) Healthcare

( ) Hospitality

( ) Insurance

( ) Legal

( ) Manufacturing

( ) Mining

( ) Motion picture and video

( ) Not for profit

( ) Pharmaceuticals

( ) Publishing

( ) Real estate

( ) Retail and wholesale

( ) Sports

( ) State and local government

( ) Technology

( ) Telecommunications

( ) Transportation

( ) Utilities

( ) Other - Please specify below

Please type in your industry

_____

How many employees does your company employ worldwide?

( ) 1-100

( ) 101-1,000

( ) 1,001-2,000

( ) 2,001-5,000

( ) 5,001-10,000

( ) More than 10,000

What function do you report into?*

( ) Business Intelligence Competency Center

( ) Executive management

( ) Faculty (Education)

( ) Finance

( ) Human resources

( ) Information Technology (IT)

( ) Manufacturing

( ) Marketing

( ) Medical staff (Healthcare)

( ) Operations

( ) Research and development (R&D)

( ) Sales

( ) Strategic planning function

( ) Supply chain

( ) Other - Write In

Please specify the function that you report to:

_____

Does your organization have a Chief Data Officer or Chief Analytics Officer in place?

	For less than 1 year	**1 -3 years**	**3 - 5 years**	**More than 5 years**	**Don't have one**
Chief Data Officer	( )	( )	( )	( )	( )
Chief Analytics Officer	( )	( )	( )	( )	( )

To what function do these CDO or CAO roles report?

	CEO	**CFO**	**CMO**	**CIO**	**Other**	**Not Applicable**
Chief Data Officer	( )	( )	( )	( )	( )	( )
Chief Analytics Officer	( )	( )	( )	( )	( )	( )

How much impact has the Chief Data Officer had within your organization?

0 _____[__]_____ 100

How much impact has the Chief Analytics Officer had within your organization?

0 _____[__]_____ 100

Please respond to the following statement: "My organization considers our Business Intelligence initiatives a success."

( ) Completely agree

( ) Agree somewhat

( ) Disagree somewhat

( ) Disagree

What has been the key to your success with Business Intelligence?

_____

_____

_____

_____

How do you determine BI success?

[ ] Return on investment (ROI) model

[ ] User feedback/satisfaction

[ ] Customer feedback/satisfaction

[ ] Numbers of deployed users

[ ] System/application activity

[ ] Other - Write In: _____

[ ] Other - Write In: _____

What have been the obstacles to success with Business Intelligence?

_____

_____

_____

_____

How do you measure failure with BI?

[ ] User feedback

[ ] Cost/Return on investment

[ ] Limited adoption

[ ] Lack of usage

[ ] Other - Write In: _____

[ ] Other - Write In: _____

This year our budget for Business Intelligence / analytics is:

( ) Increasing over last year

( ) Decreasing over last year

( ) Staying the same as last year

Percentage of BI/analytics budget spent on new software purchases

0 _____[__]_____ 100

Percentage of BI/analytics budget spent on software maintenance

0 _____[__]_____ 100

Percentage of BI/analytics budget spent on software subscription services

0 _____[__]_____ 100

Percentage of BI/analytics budget spent on external consulting services

0 _____[__]_____ 100

Which function drives your Business Intelligence initiatives?

	Always	**Often**	**Sometimes**	**Rarely**	**Never**
Operations	( )	( )	( )	( )	( )
Competency Center/Center of Excellence	( )	( )	( )	( )	( )
Sales	( )	( )	( )	( )	( )
Finance	( )	( )	( )	( )	( )
Research and Development (R&D)	( )	( )	( )	( )	( )
Information Technology (IT)	( )	( )	( )	( )	( )
Human Resources	( )	( )	( )	( )	( )
Supply chain	( )	( )	( )	( )	( )
Executive management	( )	( )	( )	( )	( )
Marketing	( )	( )	( )	( )	( )
Manufacturing	( )	( )	( )	( )	( )
Strategic planning function	( )	( )	( )	( )	( )

What does your organization expect to achieve with Business Intelligence?

	Critical	**Very important**	**Important**	**Somewhat important**	**Unimportant**
Better decision-making	( )	( )	( )	( )	( )
Growth in revenues	( )	( )	( )	( )	( )
Improved operational efficiencies	( )	( )	( )	( )	( )
Enhanced customer service	( )	( )	( )	( )	( )
Increased competitive advantage	( )	( )	( )	( )	( )

Who are the targeted consumers of Business Intelligence within your organization?

	Primary	**Secondary**	**Not targeted**
Executives	( )	( )	( )
Middle managers	( )	( )	( )
Line managers	( )	( )	( )
Individual contributors and professionals	( )	( )	( )
Customers	( )	( )	( )
Suppliers	( )	( )	( )

What percentage of all employees have access to Business Intelligence solutions?

	Under 10%	**11 - 20%**	**21 - 40%**	**41 - 60%**	**61 - 80%**	**81% or more**
Today	( )	( )	( )	( )	( )	( )
In 12 months	( )	( )	( )	( )	( )	( )
In 24 months	( )	( )	( )	( )	( )	( )
In 36 months	( )	( )	( )	( )	( )	( )

Please choose one of the following to describe the state of data governance in your organization.

( ) Data as "truth" - A common view of enterprise data is available with common application of data, filters, rules, and semantics

( ) A common view of enterprise data is available. However, parochial views and semantics are used to support specific positions

( ) Consistent data is available at a departmental level. Conflicting, functional views of data causes confusion and disagreement

( ) We have multiple, inconsistent data sources with conflicting semantics and data. Information is generally unreliable and distrusted

How do people in your organization take advantage of insights learned from Business Intelligence solutions?

( ) “Closed loop” - Information is shared, teams work to process it and act in a timely fashion. No formal boundaries

( ) Ad hoc (informal) action on insights across functions

( ) Uncoordinated/ parochial action (sometimes at the expense of others)

( ) Insights are rarely leveraged

Please indicate the importance of the following technologies to your Business Intelligence strategy and plans.

	Critical	**Very important**	**Important**	**Somewhat important**	**Not important**
Ability to write to transactional applications	( )	( )	( )	( )	( )
Advanced visualization	( )	( )	( )	( )	( )
Big Data (e.g., Hadoop)	( )	( )	( )	( )	( )
Cognitive BI (e.g., Artificial Intelligence-based BI)	( )	( )	( )	( )	( )
Collaborative support for group-based analysis	( )	( )	( )	( )	( )
Complex event processing (CEP)	( )	( )	( )	( )	( )
Dashboards	( )	( )	( )	( )	( )
Data catalog	( )	( )	( )	( )	( )
Data discovery	( )	( )	( )	( )	( )
Data mining,	( )	( )	( )	( )	( )

advanced algorithms, predictive					
Data storytelling	( )	( )	( )	( )	( )
Data warehousing	( )	( )	( )	( )	( )
Edge computing	( )	( )	( )	( )	( )
Embedded BI (contained within an application, portal, etc.)	( )	( )	( )	( )	( )
End-user "self-service"	( )	( )	( )	( )	( )
End-user data preparation and blending	( )	( )	( )	( )	( )
Enterprise planning / budgeting	( )	( )	( )	( )	( )
Governance	( )	( )	( )	( )	( )
In-memory analysis	( )	( )	( )	( )	( )
Integration with operational processes	( )	( )	( )	( )	( )

Internet of Things (IoT)	( )	( )	( )	( )	( )
Location intelligence / analytics	( )	( )	( )	( )	( )
Mobile device support	( )	( )	( )	( )	( )
Natural language analytics (natural language query/ natural language generation)	( )	( )	( )	( )	( )
Open source software	( )	( )	( )	( )	( )
Prepackaged vertical / functional analytical applications	( )	( )	( )	( )	( )
Reporting	( )	( )	( )	( )	( )
Search-based interface	( )	( )	( )	( )	( )
Social media analysis (Social BI)	( )	( )	( )	( )	( )
Software-as-a-Service and cloud computing	( )	( )	( )	( )	( )

Streaming data analysis	( )	( )	( )	( )	( )
Text analytics	( )	( )	( )	( )	( )
Video analytics	( )	( )	( )	( )	( )

How many Business Intelligence products are currently used in your organization today?

( ) Don't know

( ) 1

( ) 2

( ) 3

( ) 4

( ) 5

( ) 6

( ) 7

( ) 8

( ) 9

( ) 10 or more

Please select one vendor to rate

( ) 1010data

( ) Adaptive Insights

( ) ADVIZOR Solutions

( ) Alpine Data Labs

( ) Alteryx

( ) Amazon (i.e., QuickSight)

( ) AnswerRocket

( ) arcplan (Longview)

( ) BIME (Zendesk)

( ) Birst

( ) Board

( ) ClearStory Data

( ) Cubeware

( ) Datameer

( ) DataRPM

( ) Datawatch (Panopticon)

( ) Dimensional Insight

( ) Domo

( ) Dundas

( ) FICO

( ) GoodData

( ) Google Analytics

( ) IBM

( ) iDashboards

( ) InetSoft

( ) Infor (Lawson)

( ) Information Builders (IBI)

( ) Izenda

( ) Jedox

( ) Jinfonet/JReport

( ) Klipfolio

( ) KNIME

( ) Lavastorm

( ) Logi Analytics

( ) Looker

( ) Microsoft

( ) MicroStrategy

( ) Narrative Science

( ) OpenText (Actuate)

( ) Oracle

( ) Panorama

( ) Pentaho

( ) Phocas

( ) Predixion Software

( ) Pyramid Analytics

( ) Qlik

( ) RapidMiner

( ) Salesforce.com

( ) SAP

( ) SAS Institute

( ) Sisense

( ) Solver

( ) Statistica

( ) Tableau

( ) TARGIT

( ) ThoughtSpot

( ) TIBCO

( ) Yellowfin

( ) Yseop

( ) Zoomdata

( ) Other - Write In: _____

Please specify the product name and version for the selected vendor

_____

How long has this product been in use in your organization?

( ) Less than 1 year

( ) 1 - 2 years

( ) 3 - 5 years

( ) 6 - 10 years

( ) More than 10 years

How many users currently use this product?

( ) 1-10

( ) 11-50

( ) 51-100

( ) 101-200

( ) 201-500

( ) More than 500

How would you characterize the sales/acquisition experience with this vendor?

	Excellent	Very good	Adequate	Poor	Very poor	Don't know
Professionalism	( )	( )	( )	( )	( )	( )
Product knowledge	( )	( )	( )	( )	( )	( )
Understanding our business needs	( )	( )	( )	( )	( )	( )
Responsiveness	( )	( )	( )	( )	( )	( )
Flexibility/accommodation	( )	( )	( )	( )	( )	( )
Business practices	( )	( )	( )	( )	( )	( )
Contractual terms and conditions	( )	( )	( )	( )	( )	( )
Follow up after the sale	( )	( )	( )	( )	( )	( )

How would you characterize the value for the price paid?

( ) Great value (well exceeded expectations)

( ) Good value (somewhat exceeded expectations)

( ) Average value (met expectations)

( ) Poor value (fell short of expectations)

( ) Very poor value (fell far short of expectations)

How would you characterize the quality and usefulness of the product?

	Excellent	Very good	Adequate	Poor	Very poor	Don't know
Robustness/sophistication of technology	( )	( )	( )	( )	( )	( )
Completeness of functionality	( )	( )	( )	( )	( )	( )
Reliability of technology	( )	( )	( )	( )	( )	( )
Scalability	( )	( )	( )	( )	( )	( )
Integration of components within product	( )	( )	( )	( )	( )	( )
Integration with third-party technologies	( )	( )	( )	( )	( )	( )
Overall usability	( )	( )	( )	( )	( )	( )
Ease of installation	( )	( )	( )	( )	( )	( )
Ease of administration	( )	( )	( )	( )	( )	( )
Customization and extensibility	( )	( )	( )	( )	( )	( )
Ease of upgrade/migration to new versions	( )	( )	( )	( )	( )	( )
Online training, forums and documentation	( )	( )	( )	( )	( )	( )

How would you characterize the vendor's technical support?

	Excellent	Very good	Adequate	Poor	Very poor	Don't know
Professionalism	( )	( )	( )	( )	( )	( )
Product knowledge	( )	( )	( )	( )	( )	( )
Responsiveness	( )	( )	( )	( )	( )	( )
Continuity of personnel	( )	( )	( )	( )	( )	( )
Time to resolve problems	( )	( )	( )	( )	( )	( )

How would you characterize the vendor's consulting services?

	Excellent	Very good	Adequate	Poor	Very poor	Don't know
Professionalism	( )	( )	( )	( )	( )	( )
Product knowledge	( )	( )	( )	( )	( )	( )
Responsiveness	( )	( )	( )	( )	( )	( )
Continuity of personnel	( )	( )	( )	( )	( )	( )
Time to resolve problems	( )	( )	( )	( )	( )	( )

How would you rate the "integrity" (i.e., truthfulness, honesty) of this BI vendor?

( ) Excellent

( ) Very good

( ) Adequate

( ) Poor

( ) Very poor

( ) Don't know

Did this vendor's overall performance improve, remains the same or decline from last year?

( ) Improved

( ) Stayed the same

( ) Declined

Would you recommend this vendor/product?

( ) I would recommend this vendor/product

( ) I would NOT recommend this vendor/product

Please enter any additional comments regarding this vendor and/or its products

_____

_____

_____

_____