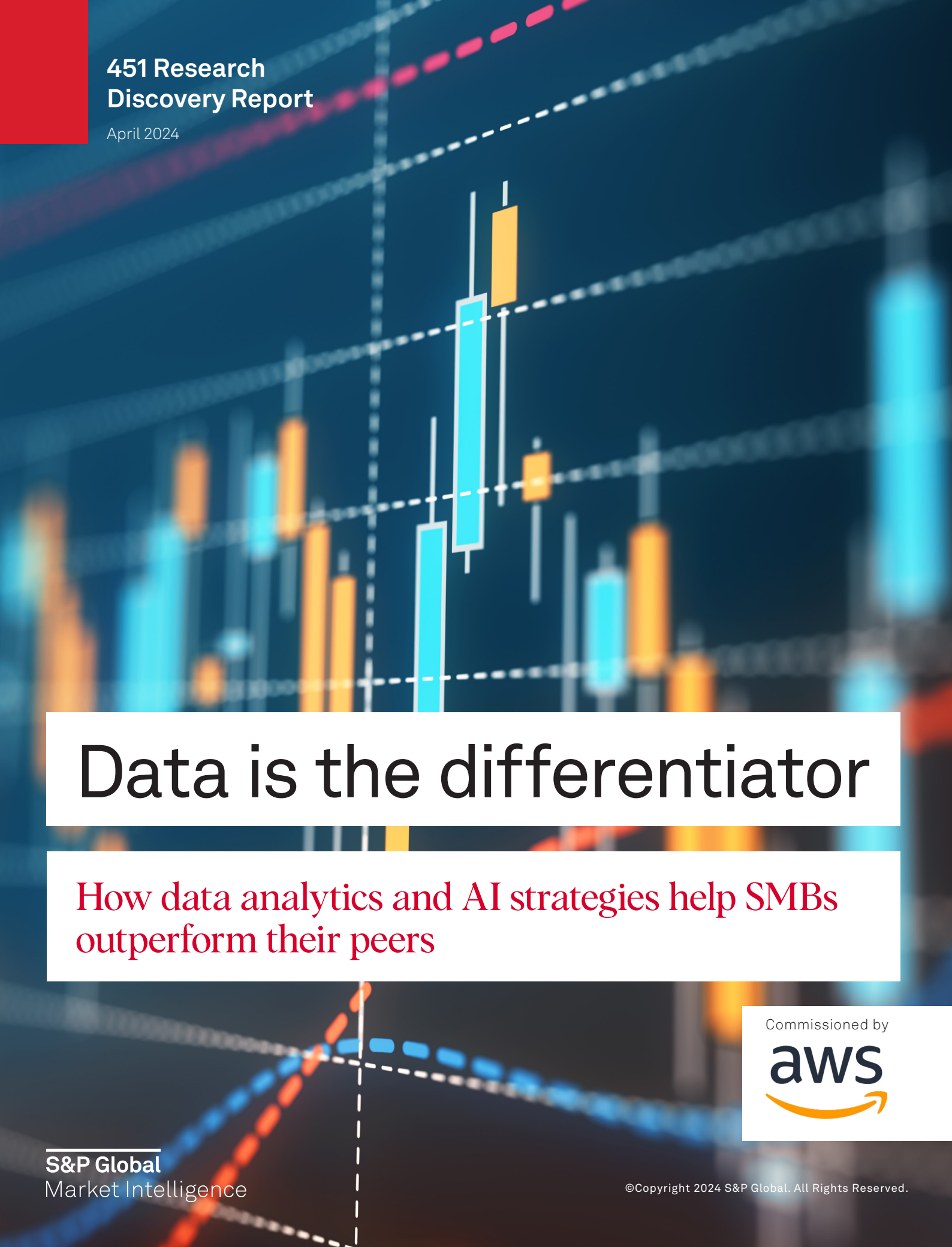

451 Research
Discovery Report

April 2024

Data is the differentiator

How data analytics and AI strategies help SMBs outperform their peers

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Introduction

Data is a catalyst that ignites new opportunities for growth and differentiation. When properly leveraged, data powers business processes, positively influences outcomes and helps companies achieve business goals. Data volume and gravity continue to increase at exponential rates due to several factors: the growing number of connected devices, mobile media generation, accessibility of affordable and easily scaled dynamic cloud compute/storage, the growth of big data and data analytics, and the data requirements central to AI adoption and use.

Small and medium-sized businesses (SMBs) are leveraging this accelerating data growth to improve business outcomes and create competitive advantages. In today's rapidly evolving digitally driven business environment, data is a differentiator, and SMBs are racing to keep pace with data requirements for technology innovation, especially in AI. SMBs recognize that data is arguably one of their greatest assets, and they are seeking to leverage it and become more data-driven in their decision-making processes. Data-driven companies craft a culture that treats data as strategic, implementing a comprehensive strategy to gather and act upon it to drive decisions and improve business performance. They effectively contextualize and democratize data for companywide use for major tactical and strategic decisions at the executive level and throughout business functions and operations.

Our research shows that not every organization is at the same level of data usage, and there are clear differences in SMB maturity. Data-driven maturity typically aligns with a company's level of IT spending, adoption of emerging technologies including AI, recognizing data impact on key business outcomes, and their ability to outperform their industry peers. SMBs that lack the insight, skills or resources to materially benefit from their data — even if they have access to emerging technologies — noticeably lag behind in data maturity. These companies are challenged to adopt technologies and invest in people and processes to become more competitive and drive desired business outcomes.

Artificial intelligence has emerged as a promising growth engine for companies of all sizes globally. SMBs that are data-driven and have mature data strategies are better suited to capture this growth by extracting greater value from AI since data acquisition, data management best practices for sourcing, standardization and analysis are critical to AI project success.

Research overview

The research objective of this study was to gain insight into the extent to which SMBs are using data to drive business decisions, as well as determine the impact that data strategy maturity has on company performance, and how data and emerging technologies such as AI are being deployed and leveraged to drive business outcomes.

Presented here are the key findings and research analysis identifying SMB investments, stage of data analytics/data strategy, AI deployment maturity, and the correlation between data-driven decisions, mature data strategy, and SMBs' performance and business outcomes. This research also provides visibility into the link between company success and technology investment, adoption and use, with details on AI adoption and the impacts across SMB business functions. The compelling key findings detailed below show that there is a strong correlation between a company's investments in people, processes and technology and its ability to become data-driven and outperform industry peers. Across all SMBs surveyed, companies were segmented into three identifiable data-driven groups:

- **Highly data-driven (19%):** Nearly all business decisions are data-driven
- **Mostly data-driven (54%):** Most business decisions are data-driven
- **Less data-driven (25%):** Some business decisions are data-driven

This segmentation presents clear distinctions regarding data use and maturity, as well as AI utilization and adoption differences across SMBs.

Key findings

- **Highly data-driven SMBs are almost twice as likely to financially outperform their peers.** Of the highly data-driven companies, 65% reported "significantly" or "moderately" financially outperforming their peers, whereas only 33% of less data-driven companies reported doing so.
- **Highly data-driven SMBs outperform less data-driven companies across every business outcome surveyed.** By a substantial margin (30+ percentage points), highly data-driven SMBs were more likely to report moderate to highly positive data-driven impacts across every business outcome surveyed, with the top three categories being customer satisfaction, revenue and process efficiency.
- **Highly data-driven SMBs have a more mature data strategy — which has a significant impact on financial performance — than those that are less data-driven.** More than twice the percentage (69%) of highly data-driven organizations reported having a modern comprehensive data strategy compared to those that are less data-driven (28%). This research shows that data strategy maturity has a significant impact on SMB financial performance: 60% of survey respondents who identified having a "comprehensive" data strategy reported financially outperforming their peers. By comparison, just 40% of those at the "defined" level of maturity and 24% of those still forming their data strategy reported financial outperformance.

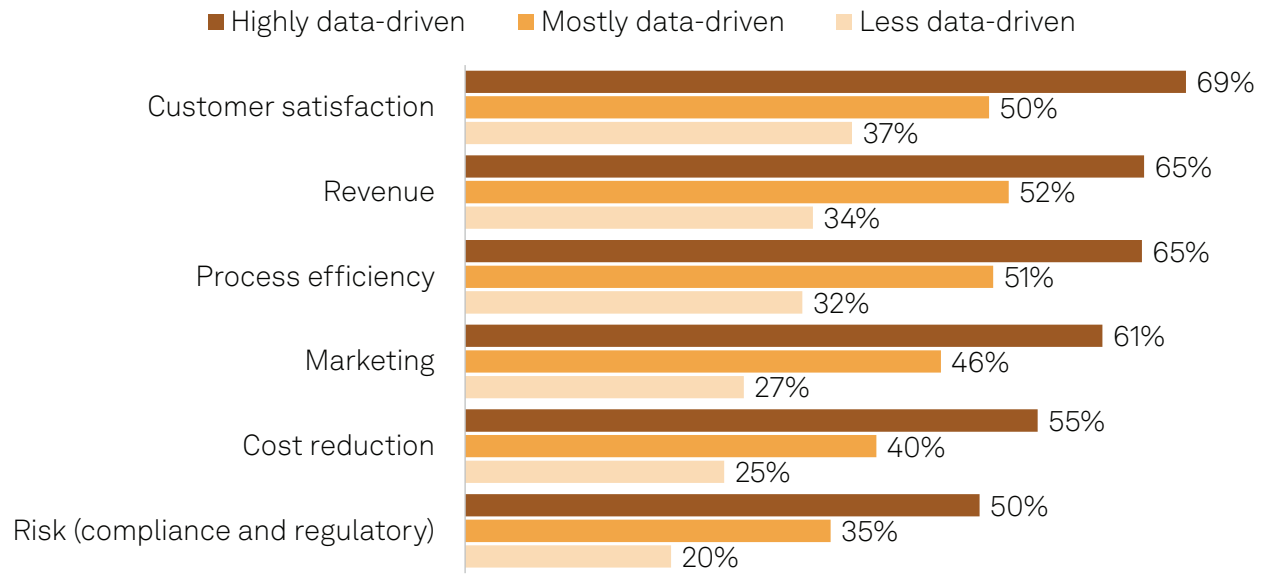
- **Highly data-driven SMBs reported having a more mature AI strategy than less data-driven companies.** Of the total SMBs surveyed, 24% identified as being in the advanced stage of maturity. Nearly double that percentage (44%) of highly data-driven SMBs reported being at this stage, and these companies far outpaced less data-driven SMBs, where only 14% reported being at the advanced stage of AI strategy maturity. A significantly higher percentage of companies (36%) with a modern comprehensive data strategy are at the advanced stage of AI strategy maturity, while only 9% of companies with no data strategy are at the advanced level.
- **Highly data-driven SMBs are adopting AI at almost twice the rate of less data-driven companies.** Respondents from highly data-driven SMBs indicated that they are not only adopting and using AI at a higher rate but are also using it more extensively than less data-driven companies. The three business functions identified as having the greatest AI adoption/use by highly data-driven SMBs were customer satisfaction/customer experience, IT operations and cybersecurity, and content creation and data analysis.
- **Highly data-driven SMBs are more likely to use AI extensively within IT operations and cybersecurity (52%), content creation and data analysis (53%) and marketing and advertising (41%) than less data-driven companies.** Respondents from highly data-driven SMBs are using AI within IT operations and cybersecurity to detect security threats and analyze communications for phishing attempts and for uptime reliability, management and remediation. The percentage of highly data-driven respondents currently deploying AI within each of these use cases is at least 10 percentage points higher than for those within less data-driven companies. Highly data-driven SMBs are also using AI within marketing and advertising for personalization, customer segmentation and contact center, at greater rates than less data-driven companies.
- **Highly data-driven SMBs reported substantially greater positive impacts from AI than less data-driven companies across every business outcome surveyed (process efficiency, marketing, market share, revenue, customer satisfaction, cost reduction and risk).** Highly data-driven companies reported significant positive impact from AI on business outcomes — across the seven business outcomes surveyed, 48%-57% of this group said outcomes were moderately to highly increased. Meanwhile, on five of the seven outcomes, 21% or fewer of the less data-driven companies saw positive impact. This is a 30-percentage-point difference for less data-driven SMBs, which validates that a more mature data strategy and data-driven decisions coupled with AI investment, adoption and use, yields substantially more positive AI-related business impacts.

The value and importance of being a data-driven company

Of all companies surveyed, 77% indicated that data will be "somewhat to significantly more important" to decision-making in the next two years. An even larger share of highly data-driven companies expect to perform moderately to significantly better over the next 24 months, and all respondents reported expecting a positive upward trend. Almost all (98%) of the respondents to this study indicated that at least "some" of their business decisions are data-driven, meaning decisions are informed or influenced by data. As expected, some companies reported using data to inform more of their business decisions than others. Across the 2,362 SMBs surveyed, companies clearly segmented into three identifiable data-driven groups: **highly data-driven** organizations (19% of respondents) indicated that "nearly all" of their business decisions were influenced by data; **mostly data-driven** organizations (54% of respondents) reported "most" of their business decisions were data-driven; and **less data-driven** organizations (25% of respondents) reported only "some" business decisions were data-driven.

Of the highly data-driven respondents, 65% reported that their organization "significantly" or "moderately" financially outperformed their peers, versus only 33% of less data-driven respondents. Highly data-driven SMBs also reported realizing more positive impacts from data on their business outcomes. Impact varied by business function and directly correlated to the company's degree of data-driven decision-making. Across the six functions surveyed, a much greater percentage of highly data-driven companies (50%-69%) reported moderately to highly positive outcomes (see Figure 1). Across the three business functions most impacted, about two-thirds of highly data-driven respondents indicated that data is having a positive impact on customer satisfaction (69%), revenue (65%) and process efficiency (65%). In addition, more than half (50%-61%) of this highly data-driven group said that their data-driven decision-making has a moderately to highly positive impact on cost reduction (55%), risk (50%) and marketing (61%). Figure 1 also shows that, among less data-driven companies, the top category for moderately to highly positive outcomes was customer satisfaction at 37%, and the lowest was risk at 20%.

Figure 1: Moderately to highly positive data-driven decision-making impacts on current business functions



Q. To what extent is your organization's current data-driven decision-making contributing to the following outcomes?
Base: All respondents (n=2,362).
Source: S&P Global Market Intelligence 451 Research data analytics custom survey, 2023.

Across every business function, a significantly higher proportion of highly data-driven companies (30+ percentage points more than less data-driven companies) reported that they performed better in 2023 than 2022. We analyzed the responses for each business function and calculated the delta between highly data-driven and less data-driven companies:

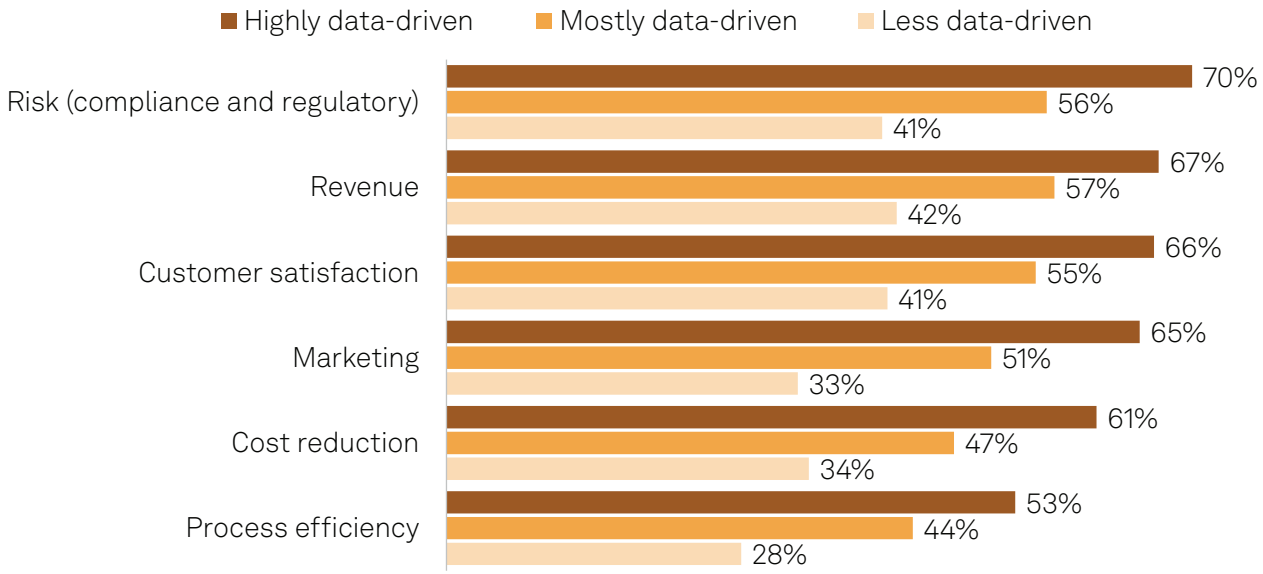
- Customer satisfaction: 69% to 37% with a delta of 32 percentage points
- Revenue: 65% to 34% with a delta of 31 percentage points
- Process efficiency: 65% to 32% with a delta of 33 percentage points
- Marketing: 61% to 27% with a delta of 34 percentage points
- Cost reduction: 55% to 25% with a delta of 30 percentage points
- Risk: 50% to 20% with a delta of 30 percentage points

The business outcome with the greatest difference in the percentage of companies reporting positive impact was in marketing, where there was a 34-percentage-point differential.

Data-driven decisions often tie closely to customer and other revenue-driving insights. When properly leveraged, accessible, up-to-date and accurate data can contribute to massive cost-saving initiatives such as achieving process efficiencies through identifying duplicated efforts or cost reductions from limiting underutilized resources.

Looking forward two years at business outcomes, all respondents projected an increase in positive impacts (see Figure 2); however, highly data-driven companies (53% to 70% across outcomes) remain well out in front of less data-driven companies, with a surprising increase in positive impact on risk (compliance and regulatory) across all three data-driven segments.

Figure 2: Moderately to highly positive data-driven decision-making impacts on business outcomes forecast in two years



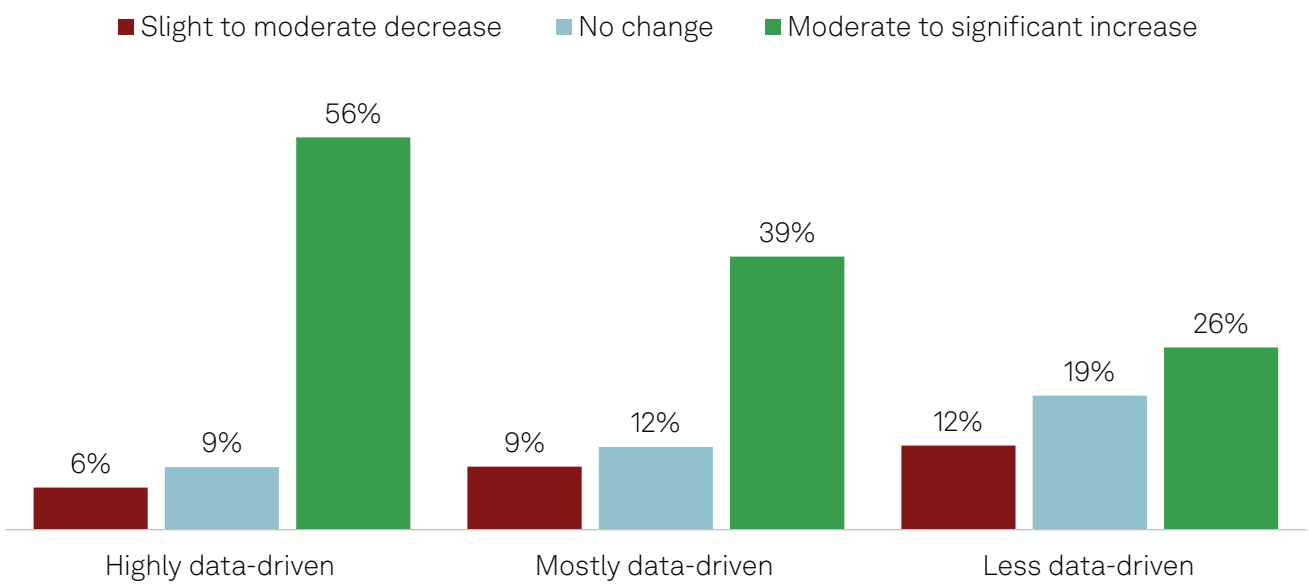
Q. Looking ahead two years, to what extent do you anticipate that your organization's use of data in its business decision-making will contribute to the following outcomes?
Base: All respondents (n=2,362).
Source: S&P Global Market Intelligence 451 Research data analytics custom survey, 2023.

Data strategy/maturity and AI maturity

The research verifies that data-driven SMBs have deployed the capabilities needed to leverage data in ways that influence business decisions and positively impact business outcomes. It is apparent that highly data-driven SMBs are doing things differently than less data-driven companies. They are making specific investments in technology and processes that are enabling "nearly all" of their business decisions to be data-driven, which for many leads to superior business performance and, consequently, peer outperformance. Our survey results show that highly data-driven companies spend significantly more on IT as a percentage of revenue than less data-driven SMBs. Almost half (47%) of highly data-driven companies spend 9% or more of their annual revenue on IT, whereas almost three-quarters (74%) of less data-driven companies spend 8% or less on IT.

Broadly speaking, over the last two years, spending on IT trended up for 77% of those surveyed. A larger share of respondents from highly data-driven SMBs significantly increased their investment compared with less data-driven companies (see Figure 3). Over the next 12 months, an even greater share of respondents from highly data-driven organizations (85%) expect to increase their investment in IT versus those that are less data-driven (76%).

Figure 3: Spending over the last 24 months correlated by the level of data-driven decision-making



Q. Over the last 24 months, did your organization's total spending on information technology increase, decrease or stay the same?
Base: All respondents (n=2,362).
Source: S&P Global Market Intelligence 451 Research data analytics custom survey, 2023.

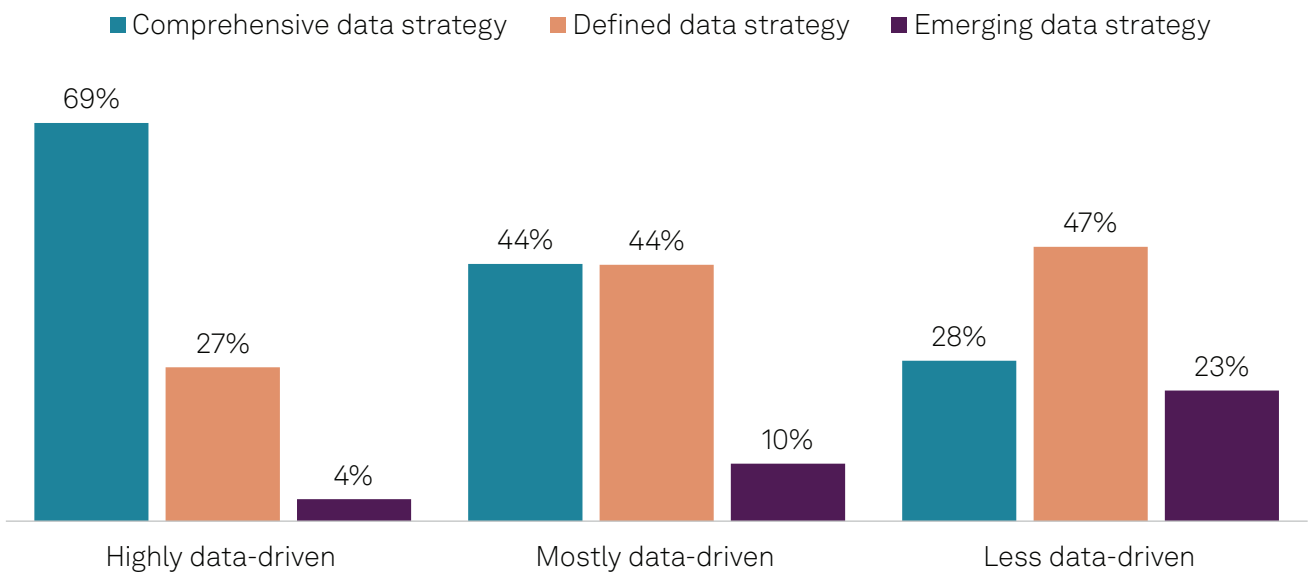
Data strategy maturity

Although increased spending is a positive indicator, it is only one part of the data-driven journey. In addition to higher IT spending, investments in processes, specific technologies, people (skills and talent) and company culture and data strategy play a role in enabling SMBs to be highly data-driven and outperform their peers. Highly data-driven companies have developed modern comprehensive data strategies and incorporated these strategies into their business culture and operational practices. These highly data-driven companies have fostered a collaborative business environment with a reliance on data for strategic and operational purposes together with top-down imperatives for data-driven innovation.

As part of this study, we asked respondents to characterize their current stage of data strategy maturity. A "comprehensive" data strategy is the most mature classification and describes a culture that widely and frequently leverages data for strategic and operational decisions and has top-down imperatives for data-driven innovation. A "defined" strategy is one in which data imperatives have been defined but lack cross-company cohesiveness, and companies do not consistently rely on data to drive confidence in decision-making. Organizations in the emerging stage of maturity have no defined data strategy and lack commitment from senior management to invest in data capabilities, but they have identified key data challenges and are piloting various technologies and processes on an ad hoc basis.

Across all SMBs surveyed, 45% identified having a modern comprehensive data strategy; however, as Figure 4 shows, 69% of highly data-driven companies — more than twice the percentage of less data-driven SMBs (28%) — classified their data strategy as comprehensive, indicating they are using data to inform nearly all of their business decisions.

Figure 4: Current stage of SMB data strategy maturity correlated by data-driven segments



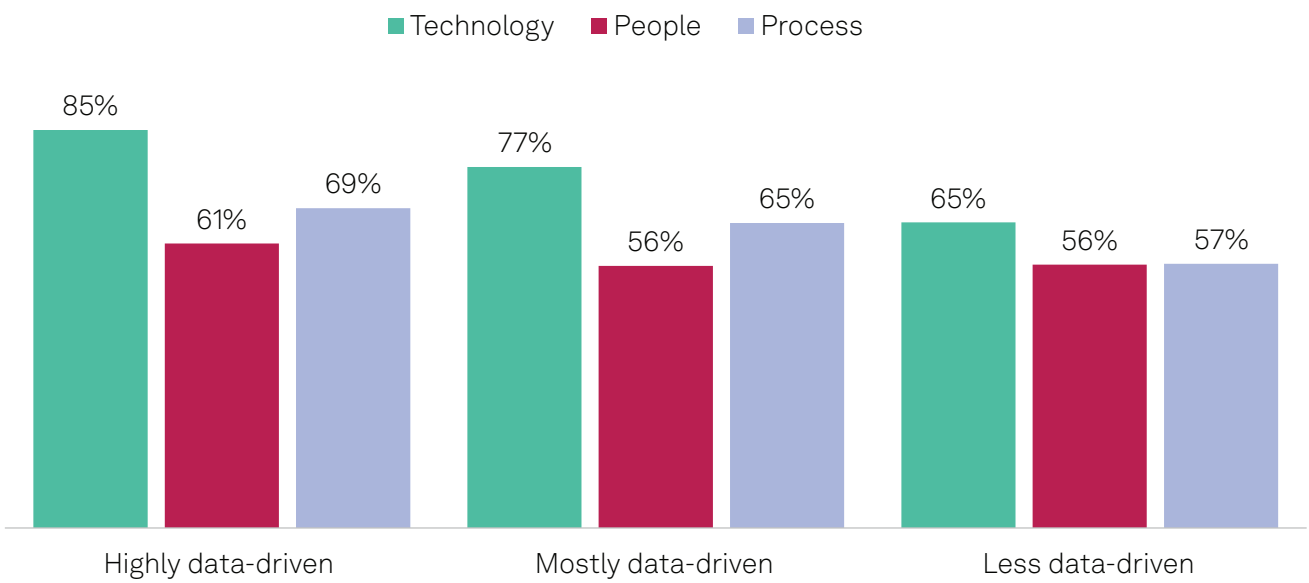
Q. As it relates to your organization's data strategy, which of the following best characterizes your current stage of maturity?
Base: All respondents (n=2,362).
Source: S&P Global Market Intelligence 451 Research data analytics custom survey, 2023.

Companies that are less data-driven were much more likely to classify their data strategy as "defined" or "emerging." Looking ahead two years, 71% of highly data-driven companies projected they will have a "comprehensive modern data strategy ingrained in company culture with top-down imperatives around data-driven innovation," compared to less data-driven companies at only 39%.

The study data also identified that over the last two years, SMBs that have a more mature data strategy have made greater investments in people, processes and technology than those that are less mature. And these investments, which we outline in greater detail below, put in place capabilities and processes that promote and incentivize more confident use of data in their decision-making.

A larger share of highly data-driven SMBs (85%) invested in data technologies than those that are mostly data-driven (77%), and those that are less data-driven lag well behind (65%). Figure 5 shows that the investment in people was similar across all SMBs; however, in technology and process investments, there were clear differences between highly data-driven companies and those that are less data-driven, especially within capabilities that drive and promote data understanding and usage.

Figure 5: Investment in processes, people and technology by data-driven segments

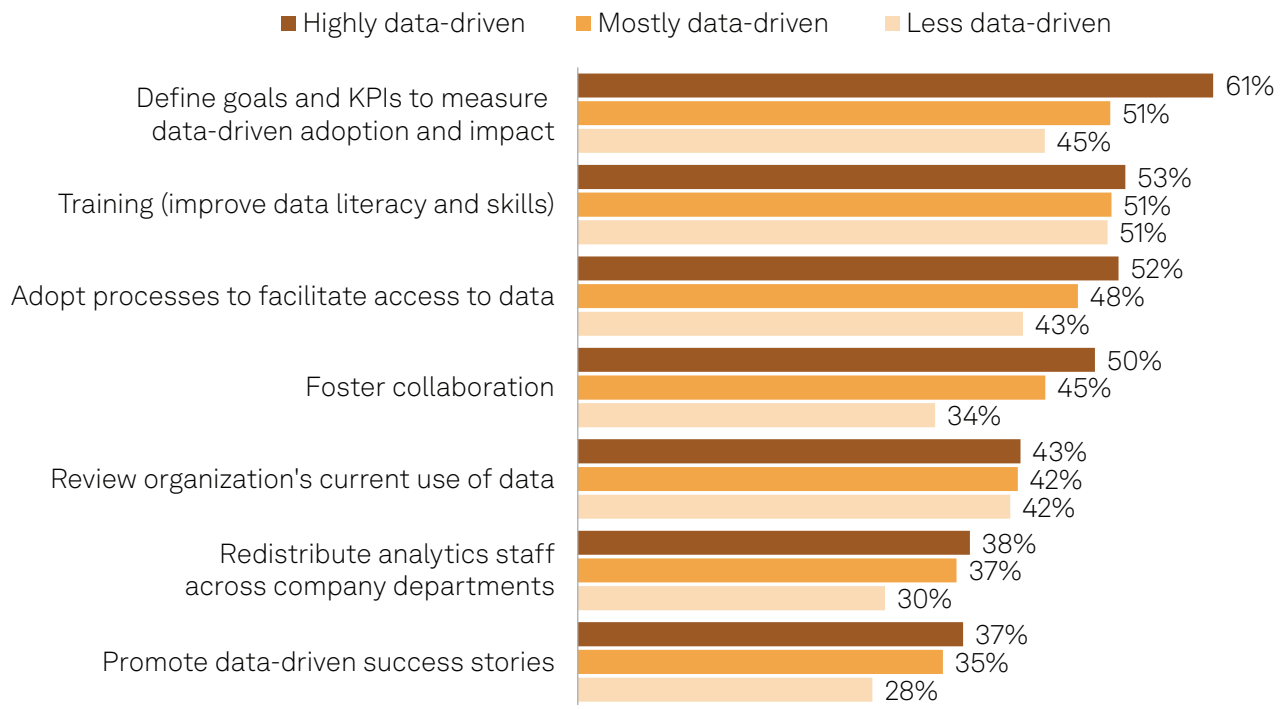


Q. Looking back two years, as it relates to your data capabilities, which of the following people, process and technology actions has your organization invested in?
Base: All respondents (n=2,362).
Source: S&P Global Market Intelligence 451 Research data analytics custom survey, 2023.

Over the last two years, highly data-driven SMBs (45%) have been more apt to invest in technologies that enable a common understanding of data than less data-driven companies (34%). They were also more likely to invest in technologies that increased trust, accuracy, quality lineage and governance than less data-driven SMBs.

These highly data-driven companies (69%) have also invested more heavily in their processes than less data-driven SMBs (57%). And it's not just more investment; they have a greater focus on processes that not only facilitate access to data but incentivize and encourage business decision-makers to use the data when making decisions. Survey data shows that a greater share of highly data-driven companies (61% compared to 45% of less data-driven companies) are investing in processes that define goals and key performance indicators to measure the adoption and impact of data-driven decision-making, help facilitate access to data, and foster collaboration between data owners, providers, operators and customers (see Figure 6). Looking forward two years, the survey results show less data-driven companies investing slightly more in processes, but they remain behind the mostly data-driven companies in process investment.

Figure 6: Process investments in organizational improvements



Q. You stated you invested in process: organizational improvements (processes, goals and KPIs, etc.) in the last two years. As it relates to your data capabilities, which of the following did you invest in?
Base: Respondents whose organization invested in process/organizational data capabilities in the past two years (n=1,502).
Source: S&P Global Market Intelligence 451 Research data analytics custom survey, 2023.

All SMBs reported investing in people by hiring more data-proficient staff members. However, highly data-driven companies are hiring chief data officers or similar data-oriented executive leadership at a higher rate (66%) than less data-driven companies (47%).

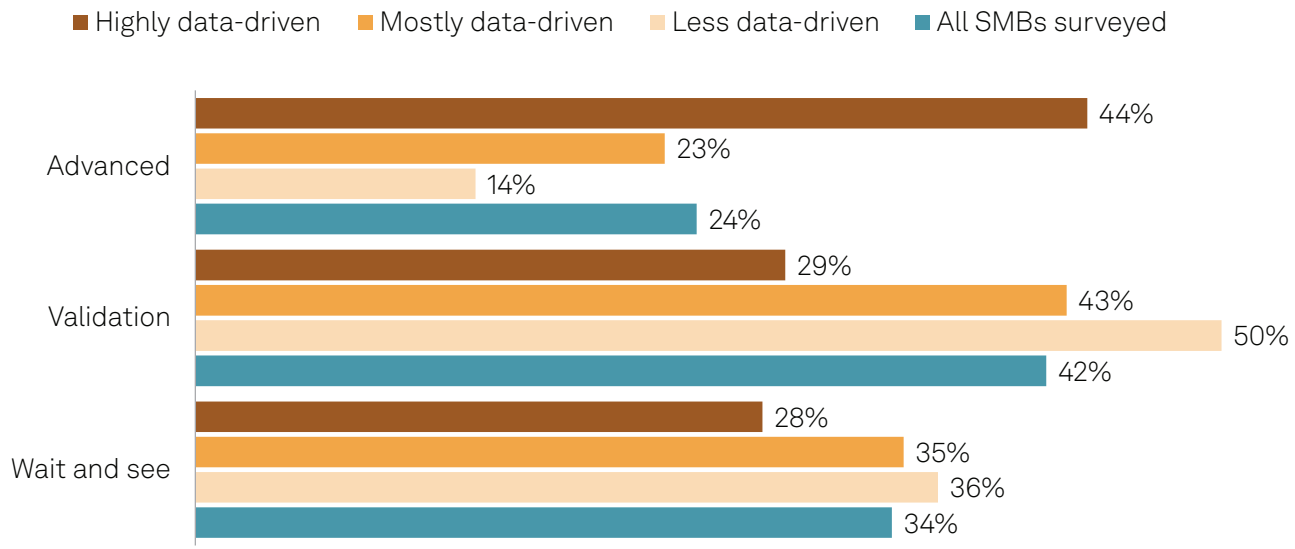
AI strategy/maturity and generative AI (GenAI)

Three stages of AI maturity surfaced from survey-takers' responses to AI-related questions:

- **Advanced (24% of respondents):** These respondents identified their companies as being in the "accelerated" or "transformational" phases of deployment. These SMBs have surpassed preliminary maturity stages and are in the midst of deployment phases, adopting AI into many or most of their day-to-day functions, accelerating and transforming the business on a daily basis. They have built AI into the DNA of their businesses, having scaled it across several business departments and processes, creating substantial value for their clients and other stakeholders.
- **Validation (42% of respondents):** These respondents identified their companies as being in the "experimenting" or "operational" phases of deployment. The greatest proportion of respondents were in this early-deployment "validation" phase that included experimentation where they were actively engaged in proofs of concept and pilots. This stage also included some organizations with experimental use cases that had some limited operational deployment and/or were deploying AI for some day-to-day functions.
- **Wait and see (34% of respondents):** These respondents indicated their companies were concerned, skeptical or motivated to engage with AI but not executing on AI projects. These respondents were generally risk-averse regarding AI and showed little to no initiative to implement their AI projects anytime soon, even if they had some level of interest.

As might be expected, a substantially higher percentage of highly data-driven SMBs are further along their AI maturity journey, and these companies are adopting AI at higher rates (see Figure 7). While 24% of all respondents reported being at the "advanced" stage of AI maturity, 44% of highly data-driven companies are at this advanced stage, significantly outpacing mostly data-driven companies (23%) and far outpacing less data-driven SMBs (14%). Almost a fifth (19%) of highly data-driven companies indicated that AI is built into the "DNA of their business" and that it is a value generator for their clients, whereas only 3% of less data-driven SMBs identified this "transformational" level of AI use.

Figure 7. Stage of AI maturity across data-driven SMBs



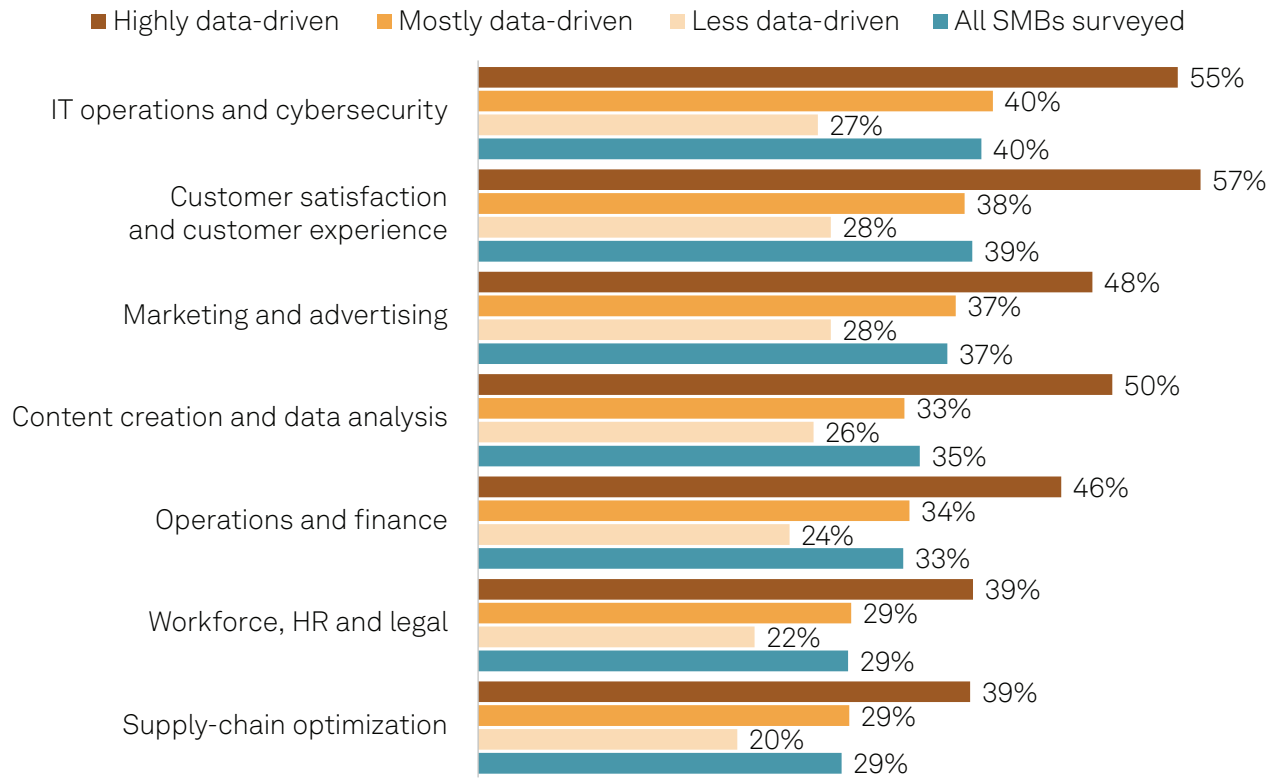
Q. As it relates to the use of AI within the business, what stage would you place your organization?
Base: All respondents (n=2,362).
Source: S&P Global Market Intelligence 451 Research data analytics custom survey, 2023.

The validation stage is where the largest proportion of companies lie; 42% of all SMBs surveyed are in this stage, 50% of less data-driven, 43% of mostly data-driven and 29% of highly data-driven. The wait-and-see stage breaks down into 34% of all surveyed and 36% of less data-driven, 35% of mostly data-driven and 28% of highly data-driven companies. The immense organizational change and value attainment from deploying AI across business functions will require a highly data-driven organization experienced in technology-driven transformations. The race from wait-and-see and validation stages to advanced will escalate in urgency as those leveraging AI accelerate and transform their businesses and widen the gap with their industry peers.

AI adoption and deployment

Survey respondents identified their adoption and use of AI across critical business functions. Results show that adoption and use rates were fairly consistent, varying between 29% and 40% across all respondents. However, when we analyze this by data-driven segments, highly data-driven SMBs are adopting AI at about twice the rate of less data-driven companies across all surveyed business functions. Figure 8 shows the three functions identified as having the greatest AI engagement by highly data-driven SMBs are customer satisfaction/customer experience (57%), IT operations and cybersecurity (55%), and content creation and data analysis (50%).

Figure 8. Current adoption/use of AI across key business functions

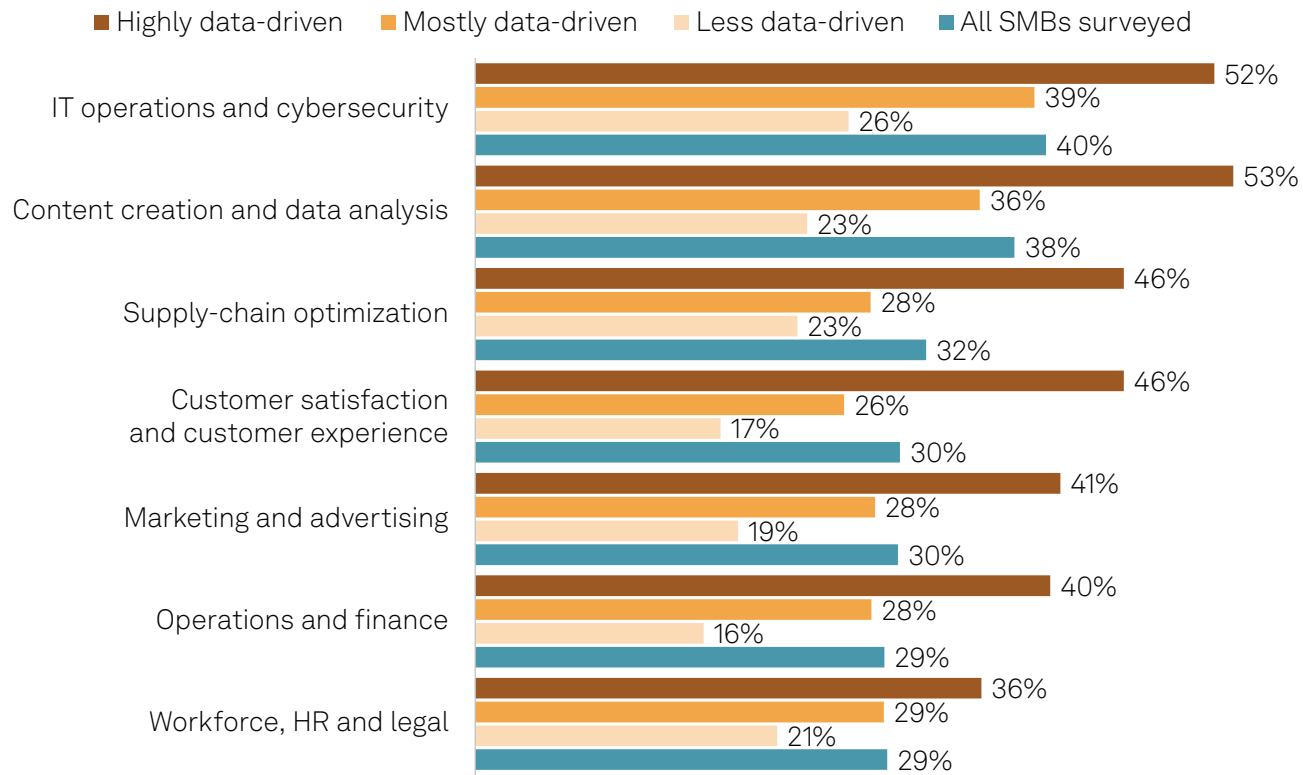


Q. Which of the following best describes your organization's adoption/use of AI across the following business functions?
Base: All respondents (n=2,362).
Source: S&P Global Market Intelligence 451 Research data analytics custom survey, 2023.

Graphing the business functions in descending order of use by all SMBs reveals a similar order of adoption across data-driven segments; however, the highly data-driven companies have apparent priorities: Across business functions, the usage and pilot percentages among highly data-driven companies range from 57% down to 39%. The less data-driven companies not only show lower adoption but also less variation across functions — ranging from only 28% down to 20%. This indicates a failure of less data-driven companies to prioritize investment and execution; this trend is reflected in their reported extent of AI use and impact below.

Respondents ranked the extent to which they use AI across business functions as "limited" (piloting, experimental), "moderate" (used but not critical) or "extensive" (critical part of the function). At least twice the proportion of highly data-driven SMBs reported that they use AI extensively across six of the seven business functions surveyed (only workforce, HR and legal was closer) compared with less data-driven companies (see Figure 9). For highly data-driven companies, the top three business functions remained the same as in adoption and use; however, content creation and data analytics (53%) changed places with customer satisfaction/customer experience (46%) as the most extensively used, and supply-chain optimization (46%) moved up to tie customer satisfaction.

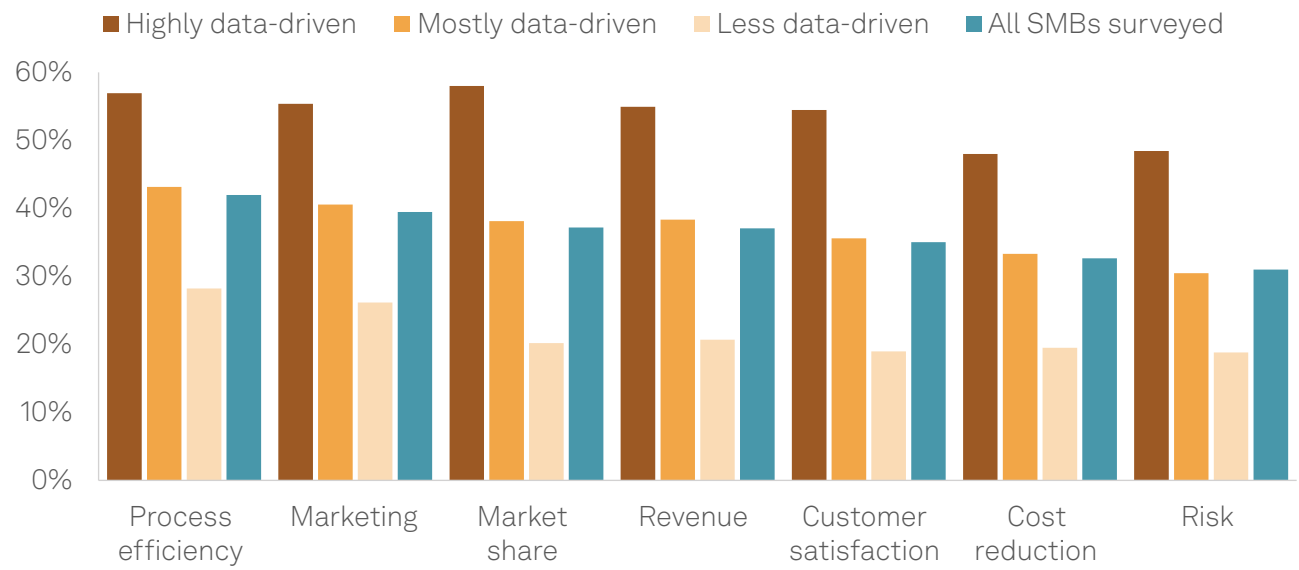
Figure 9: AI used extensively as a critical part of the business function



Q. To what extent are you currently using AI within each business function?
Base: All respondents (n=2,362).
Source: S&P Global Market Intelligence 451 Research data analytics custom survey, 2023.

We also asked respondents to gauge the impact of AI on business outcomes. They identified whether these business outcomes were slightly, moderately or highly increased, decreased or there was no change. As seen in Figure 10, highly data-driven companies reported positive impact from AI (outcomes moderately or highly increased) at twice the rate of less data-driven companies across every business outcome surveyed. Specifically, for highly data-driven SMBs, the research shows positive impact from AI on process efficiency (57%), marketing (55%), market share (58%), revenue (55%), customer satisfaction (54%), cost reduction (48%) and risk (48%). Among less data-driven companies, in five of the seven business outcomes surveyed, 21% or fewer reported positive AI impact, which follows the AI usage reporting as these companies lag well behind their highly data-driven peers in AI deployment, use and, consequently, value obtained.

Figure 10: Moderately to highly positive AI impact on business outcomes



Q. To what extent is your organization's current use of AI contributing to the following business outcomes?
Base: All respondents (n=2,362).
Source: S&P Global Market Intelligence 451 Research data analytics custom survey, 2023.

These responses demonstrate that highly data-driven companies are adopting AI at a greater rate, using it across business functions more extensively and substantially improving business outcomes with the use of AI.

Generative AI

This survey did not explicitly query respondents regarding GenAI. However, natural language processing, chatbots and machine learning will have a dramatic impact on SMBs' performance as AI is being woven into applications and SaaS offerings they utilize, according to 451 Research's Voice of the Enterprise: AI & Machine Learning, Use Cases 2024 survey. GenAI is projected to have an unprecedented effect on employee performance and customer support in the very near future. For example, in customer interactions, it is projected to enable more personalized customer experiences, directly impacting customer satisfaction, by responding with tuned knowledge specific to company products and customer issues. The days of the interactive voice response telling the customer to "say or press 1 for ..." are truly numbered as natural language interactions replace these antiquated phone trees, and SMBs decrease the costs of customer support while increasing customer satisfaction.

GenAI will dynamically route customers to the exact manual page required to assemble a product or diagnose an error code and walk the customer through resolution, as well as connect issues with new sales opportunities to upsell, cross-sell and offer extended warranties. Marketing and sales departments are already leveraging GenAI for text, images and video production for blog posts, email, direct mail and web content creation, dramatically decreasing the time and cost of media generation. The rate at which these capabilities are advancing has shocked many commercial content creators and will continue to accelerate.

GenAI also adds a new dimension to low-code and no-code application development as software is being built with natural language prompts without requiring programming, software architecture or database knowledge. These examples only scratch the surface of the broad range of business functions that could employ GenAI as a workforce multiplier to positively impact SMBs' revenue and margins.

Barriers to AI adoption

The key takeaways regarding AI-related challenges are that SMBs are extremely concerned about AI security and that a shortage of qualified personnel and relevant skills is slowing AI adoption. Looking across all respondents, almost half (48%) identified security as either the first- or second-ranked challenge keeping them from getting to the next stage of AI maturity. The concern with the second-highest percentage of top-two rankings was lack of skilled personnel (43%) followed closely by skills shortage at 42%. Data quality was the fourth highest concern with 41% ranking it as first or second. Legal concerns and company culture tied for fifth place at 37%. It is interesting that almost half (47%) of respondents put model bias in the fourth or fifth ranking with only slightly more than a third (35%) indicating that model bias is one of their top two concerns. It turns out that model bias is much less of a challenge than security, according to survey respondents.

Conclusions

As the pace of technology adoption and deployment among SMBs has increased in recent years, it has become evident that some companies are progressing more rapidly than others. These companies reported finding greater financial success and indicated that they are achieving more positive business outcomes.

These survey results show that SMBs that have a more mature data strategy and are aggressively pursuing technology and process investment and adoption to become data-driven are outperforming their industry peers. The survey data also indicates that SMBs are investing in AI and plan to continue to invest at an increasing rate. Almost half of all respondents said they plan to use AI across business-critical use cases within the next 24 months. Highly data-driven companies are early AI adopters and are investing in AI at a faster pace. They also use AI more extensively across business functions and plan to continue to do so. Consequently, these outperforming SMBs leverage their mature data strategy and realize more significant positive impacts from AI on their businesses.

This research paints a clear distinction between the performance of companies that are pursuing modern comprehensive data-driven business strategies and aggressively investing in, adopting and using technology and data-driven processes, and those that are not. The performance gap will continue to widen for those less data-driven companies that neglect to establish a strong data foundation to enable data-driven decisions and power their AI efforts, and they will face significant business challenges and market pressure from peers. Although less data-driven companies may recognize the value of data, they must also increase their data strategy efforts and invest in and implement the technology and processes required to elevate their data-driven decision-making.

SMBs that have implemented a modern data-driven culture where the impacts compound and are visible in key business outcomes across the organization will continue to accelerate performance gains. In today's increasingly competitive and digitally driven global marketplace, the companies that wield their own data most effectively will outdistance their industry peers.

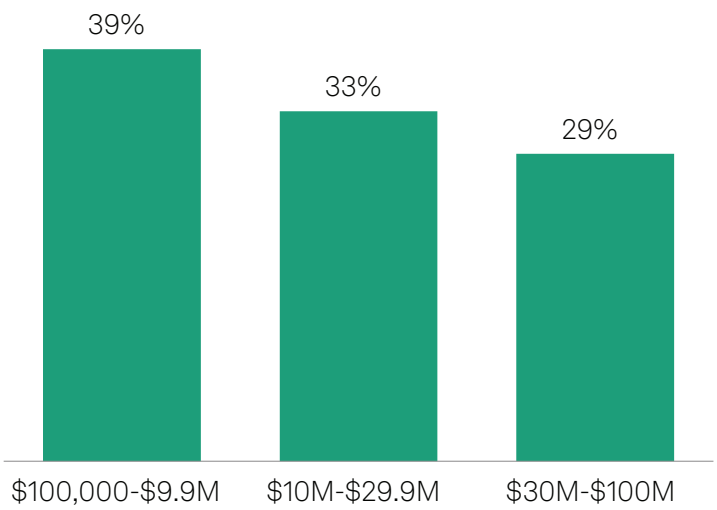
Research methodology

In late 2023, S&P Market Intelligence 451 Research conducted a web-based survey of 2,362 small and medium-sized businesses globally across representative countries in North America, Latin America, Europe and Asia-Pacific: Australia 6%, Brazil 8%, Canada 5%, France 6%, Germany 10%, India 16%, Japan 5%, Korea 6%, Mexico 8%, UK 9%, US 21%.

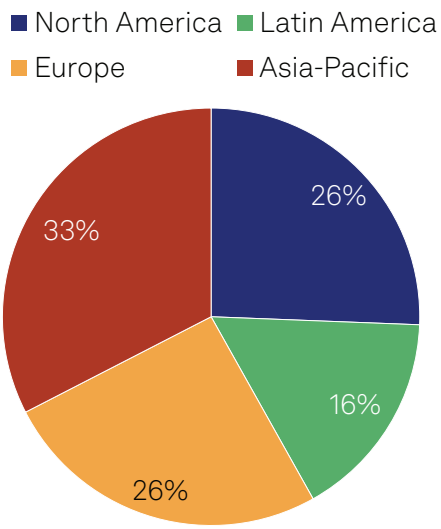
All survey respondents were screened for being generally or highly knowledgeable about their organization's data and how it is used to inform business decision-making. Respondents were also screened to ensure they had at least a cursory knowledge of the AI technologies in use or in plan, that their company is currently using or planning to use cloud services, and they were formally involved in business planning within their organization. This report also draws on contextual knowledge of additional research conducted by S&P Global Market Intelligence 451 Research.

Firmographics — Revenue, regions, industries

Company annual revenue



Regions surveyed



Base: All respondents (n=2,362).
Source: S&P Global Market Intelligence 451 Research data analytics custom survey, 2023.

Respondents were from a wide variety of SMBs with employee counts ranging from single digits up to 1,499 and with an annual revenue between $100,000 and $100 million. Company revenue ranged from $100,000 to $9.9 million (42% of respondents), $10 million to $29.9 million (28% of respondents) and $30 million to $100 million (30% of respondents). The survey questions were focused on data and artificial intelligence. Respondents were asked questions related to spending, adoption, maturity and impact of use and investment in AI and data on various business functions and outcomes. Industries covered were:

Advertising & marketing	6%
Automotive	6%
Consumer packaged goods	5%
Education	3%
Energy	4%
Financial services	11%
Games	3%
Government	2%
Healthcare & life sciences	3%
Industrial	10%
Manufacturing	6%
Media & entertainment	4%
Nonprofit	2%
Power & utilities	3%
Semiconductor	2%
Sports	2%
Telecom	2%
Travel & hospitality	7%
Other	20%

About the authors

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Bobby Clay is a senior consulting analyst and manager at S&P Global Market Intelligence. He is focused on cloud, datacenter, generative AI and metaverse technologies and has a unique mix of technical and business skills with more than 30 years of industry experience. Having led both engineering and marketing teams at Fortune 100 companies and held executive roles in multiple startups, Bobby has created companies and led and managed teams in designing, building and deploying networks, as well as productizing networking products, mobile applications and cloud solutions.

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David Immerman is a consulting analyst at S&P Global Market Intelligence 451 Research. He is responsible for executing on a range of custom research initiatives and development of thought leadership across technology sectors including industrial IoT, digital transformation, edge computing, AI/machine learning and fintech, among others, and verticals such as manufacturing and automotive. Previously, David ran competitive intelligence for a supply chain risk management software startup. He spent nearly four years at PTC providing thought leadership and market research on technologies and trends in manufacturing.

About this report

A Discovery report is a study based on primary research survey data that assesses the market dynamics of a key enterprise technology segment through the lens of the "on the ground" experience and opinions of real practitioners — what they are doing, and why they are doing it.

About S&P Global Market Intelligence

At S&P Global Market Intelligence, we understand the importance of accurate, deep and insightful information. Our team of experts delivers unrivaled insights and leading data and technology solutions, partnering with customers to expand their perspective, operate with confidence, and make decisions with conviction.

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