MIT SMR CONNECTIONS

SURVEY RESEARCH REPORT

Generative AI for Data and Analytics:

How Early Adopters Are Reaping the Rewards

ON BEHALF OF: ThoughtSpot®

CONTENTS

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Introduction

Businesses are rapidly embracing generative AI, which has the potential to transform the way people work and make decisions across nearly every facet of business. Use of the technology **nearly doubled** in the first half of 2024, and while some organizations are still in the planning stages, others are moving ahead to explore generative AI's capabilities for everything from boosting productivity and sales to enhancing the customer experience, designing better products and services — and much more.

But for organizations currently deploying generative AI — the early adopters — the technology's greatest value appears to lie in its ability to analyze and improve strategic business decisions, a new survey shows. This report unveils the survey's key findings with an emphasis on what those early adopters are doing to lead the pack.

The global survey, conducted by MIT SMR Connections and its research partner Kadence International with sponsorship from ThoughtSpot, queried 1,000 data and business leaders at companies large and small, across a range of industries and geographies, to identify prevailing trends in using generative AI for analytics. It found that many early adopters are receiving encouraging results, with a majority seeing significant payback from their investments. These organizations have even higher expectations for ROI and revenue for the future, as they expand both the number and scale of their deployments.

Aside from their focus on analytics, organizations that are getting ahead with generative AI share common characteristics in terms of strategy, implementation, and collaboration. At the same time, they're encountering challenges such as aligning business and data leaders' priorities, dealing with data and model quality, and addressing security concerns.

This report covers early adopters' strategies, progress, challenges, and accomplishments, supplemented with insights from business and academic experts. Together, these components provide a snapshot of the state of generative AI in today's enterprises and a glimpse of the transformative future it offers to those who understand how to wield its power effectively.

Digging Into the Data

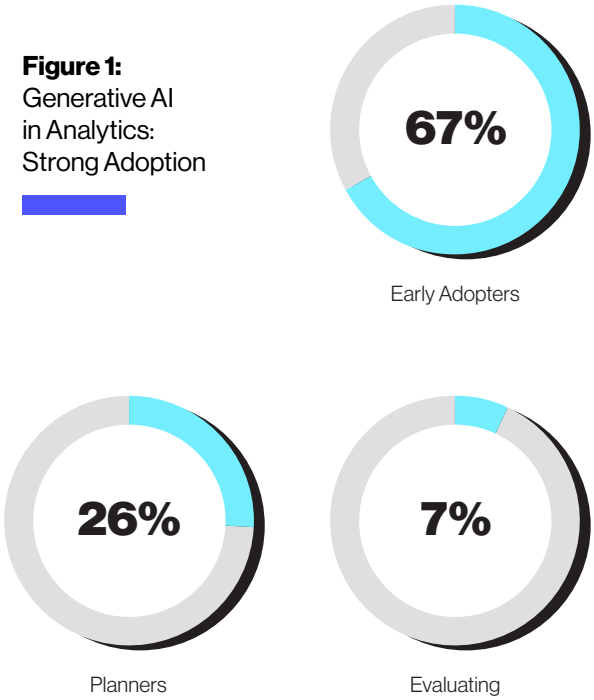
The survey gathered information from data and business leaders in technology, financial services, manufacturing, retail, construction, health care, and professional services. It found that 67% of those surveyed are early adopters. Another 26% of respondents haven't yet deployed the technology but expect to do so; we're calling this group "planners" in this report. Just 7% are still evaluating the technology. (Note: To gain a more relevant picture of why and how respondents are using generative AI for analytics, researchers screened out potential participants who indicated that their organizations aren't using the technology and have no plans to do so.)

Analysis of the survey data revealed that the early adopters, many of whom are already achieving demonstrable results, share several characteristics. Specifically, they:

1. Focus on deploying generative AI to **help executives and managers make better-informed decisions.**
2. Recognize the importance of **creating a clear strategy** for generative AI projects and closely tracking results and spending.
3. Have bullish expectations for **solid ROI and revenue generation.**
4. Work to build **strong partnerships** between their business and data teams.
5. Rely primarily on **third-party tools**, rather than attempting to develop generative AI technology in-house.
6. Understand the key **technical and organizational skills** they need for success.

We will examine each of these characteristics in detail.

Figure 1: Generative AI in Analytics: Strong Adoption



Early Adopter Characteristic No. 1: Focusing on Better Decision-Making

In the short term, early adopters are keen on using generative AI to improve data-driven insights; longer term, they're looking to use those insights to solve business problems, such as increasing sales and improving customer experience. (For an example, see: "**Ecolab: Using Generative AI to Boost Sales.**")

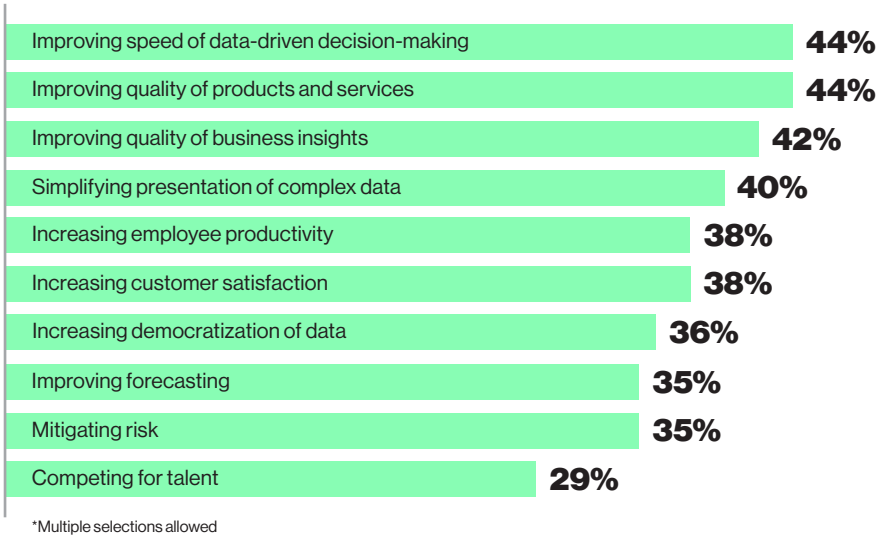
When it comes to recognizing the technology's transformational impact, the survey respondents are far from alone. Using generative AI for business decisions will soon become essential for success, according to the **World Economic Forum**. The organization notes that 40% of CEOs are already using generative AI to inform their decision-making, and states: "We think that future competitiveness may not only be about who has the most advanced AI, but also how this technology is used for strategic decision-making. This will ultimately influence the competitiveness of companies and countries in the age of AI."

In the survey, early adopters specifically singled out the technology's ability to speed data-driven decision-making, simplify the presentation of complex data, improve business insights, and improve the quality of products and services as key benefits **(see Fig. 2)**.

"Generative AI can support informed and strategic decision-making in a way that couldn't be done before," says Beena Ammanath, global head of the Deloitte AI Institute and a noted AI author and speaker. "It can help business leaders quickly understand complex data sets and use historical data to forecast future trends and simulate business scenarios. That allows leaders to anticipate and plan for market changes on a scale that was not previously possible."

Executives and employees know that making data-based decisions is important, but traditional methods of incorporating it are time-consuming and off-putting for many users, says Thomas H. Davenport, the President's Distinguished Professor of Information Technology and Management at Babson College and coauthor of, among other books, *All Hands on Tech: The AI-Powered Citizen Revolution* (John Wiley & Sons, October 2024).

Figure 2:
Early Adopters' Top Reasons for Using Generative AI in Analytics*



*Multiple selections allowed

Ecolab: Using Generative AI to Boost Sales

Ecolab, a multinational corporation that provides technology to help companies improve safety, health, and cleanliness, analyzes a lot of customer data. But the platforms it was using to do that were labor-intensive and time-consuming.

"We have business analysts, finance analysts, sales analysts — analysts across the spectrum — who spend a lot of time downloading data and wrangling it to try to come up with answers," says Marc Labelle, global director of the enterprise data office for Ecolab. "We wanted to shrink the time from question to answer."

Labelle and his team also wanted the company's analytics to yield more actionable results. "They tell you what happened yesterday," he says. "What people want to know is: 'What opportunities do I have today?'"

A pilot program using generative AI for analytics is helping the company achieve both of these goals. And the insights the technology is delivering could supercharge sales and customer service.

The pilot program uses generative AI and natural language processing, which allow analysts and salespeople to ask questions of their business data rather than manually manipulating and interpreting it in spreadsheets.

"You don't have to wrangle anymore. You just ask questions, and when you get a response, drill down," Labelle says.

The model uses predictive analytics to point managers and salespeople to potentially lucrative opportunities they wouldn't have discovered otherwise.

For example, the company provides several types of services to a global manufacturer client, including equipment cleaning, water recycling, pest control, and safety controls. "We likely do business with all of their plants, but every plant doesn't use services from all our divisions," Labelle says.

Instead of manually reaching out to individual customers and encouraging them to try Ecolab's other services, they were able to train the generative AI model on data about the client's operations and financial performance.

"We used advanced AI techniques to learn which plants are performing the best," Labelle explains. "Which one is producing products with the least pest issues? Which is saving the most on energy costs? Which is fulfilling the promises it made about water conservation? Then we determined what actions the other plants need to take to bring themselves up to that level."

By providing valuable information that can help its customers meet their goals, Ecolab stands to substantially improve its own financial performance — selling its services naturally, with less effort. "This is not something you can do with a traditional business intelligence platform," Labelle says.

Ecolab is also exploring generative AI for other use cases, he adds: "We're just getting started, but we think it could offer benefits in supply chain, finance, and entering new markets."

"Evidence shows that data-based decisions are more likely to be accurate and successful, but many businesspeople — especially those without technology backgrounds — don't always make use of it," says Davenport, who is also a fellow of the MIT Initiative on the Digital Economy. "Generative AI can change that by making data insights accessible to everyone."

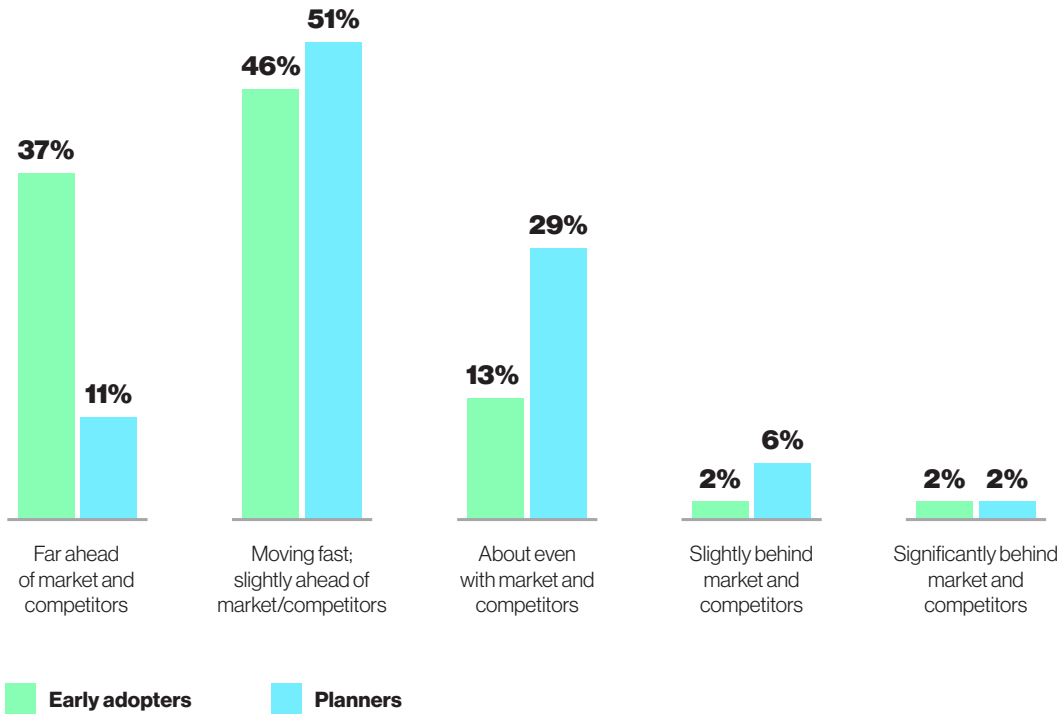
Generative AI can comb through internal and external databases and retrieve relevant information much faster than executives or knowledge workers could ever do on their own. And it enables people to find the answers they need by asking questions in natural language and exploring results in a conversation, instead of downloading information created by data experts, who may have lacked the business knowledge to make it helpful in practical situations. "I believe the use of natural language prompts will soon expand dramatically," Davenport says.

Planners also desire such advanced business-intelligence capabilities, but to a lesser extent. Of the planners, 38% are seeking to improve the speed of data-driven decisions or improve products and services, and 39% are seeking to improve business insights.

Early adopters believe that using generative AI for analytics has already moved them ahead of their competitors, and they expect that gap to widen as they move forward.

Figure 3:
Generative AI and Competitive Advantage

How respondents view their generative AI use in comparison to the market and their competitors:*



*Results reflect rounding.

Gaining a Competitive Edge

Making swift, data-backed decisions is an important competitive advantage. Early adopters believe that using generative AI for analytics has already moved them ahead of their competitors, and they expect that gap to widen as they move forward **(see Fig. 3)**.

Thirty-seven percent of early adopters see themselves as far ahead of the market and competitors, compared to just 11% of planners. And just 4% of early adopters consider themselves behind, compared with twice as many planners. These data points suggest that the longer planners wait to implement generative AI, the harder it will be for them to catch up with their peers.

In terms of industries, respondents most likely to describe themselves as being far ahead from a competitive standpoint work either in technology/telecom (34%) or financial services (33%), with others lagging significantly behind.

Early Adopter Characteristic No. 2: Developing Strategies, Solving Challenges, and Tracking Results

Early adopters realize they must align their AI and data strategies to their business strategies. That includes developing a coherent strategy for integrating generative AI, with 37% citing strategic considerations as among the top challenges they must manage **(see Fig. 3)**.

"Companies need to be very clear on why they want to use generative AI and determine where it can add the most value," Ammanath says.

"The possibilities of generative AI are very exciting, but creating a strategy will yield a better outcome," agrees Randy Bean, an author, speaker, and advisor to Fortune 1000 companies on data and AI leadership. "Organizations should decide which processes they need to change, how to change them, how to develop the skills to do that, and determine a realistic time frame. That doesn't mean slowing down; it means taking a thoughtful approach."

A thoughtful approach also includes addressing the challenges generative AI introduces. For both early adopters and planners, security considerations rank as a top concern, cited by 40% of each group **(see Fig. 4)**.

"You must have safeguards and guardrails in place to ensure that you have the right data governance and privacy controls in place and deliver customers the right information," Bean says. (For more practical advice, see "**Checklist: Getting Started With Generative AI for Analytics.**")

Though the responses are similar, strategic challenges are a bigger priority for early adopters than for planners, perhaps because

Figure 4:
Top 5 Challenges With Generative AI

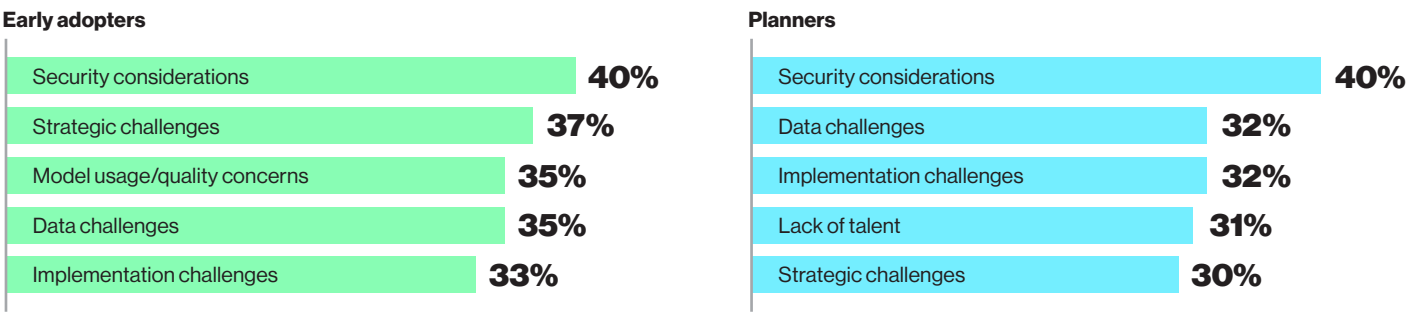
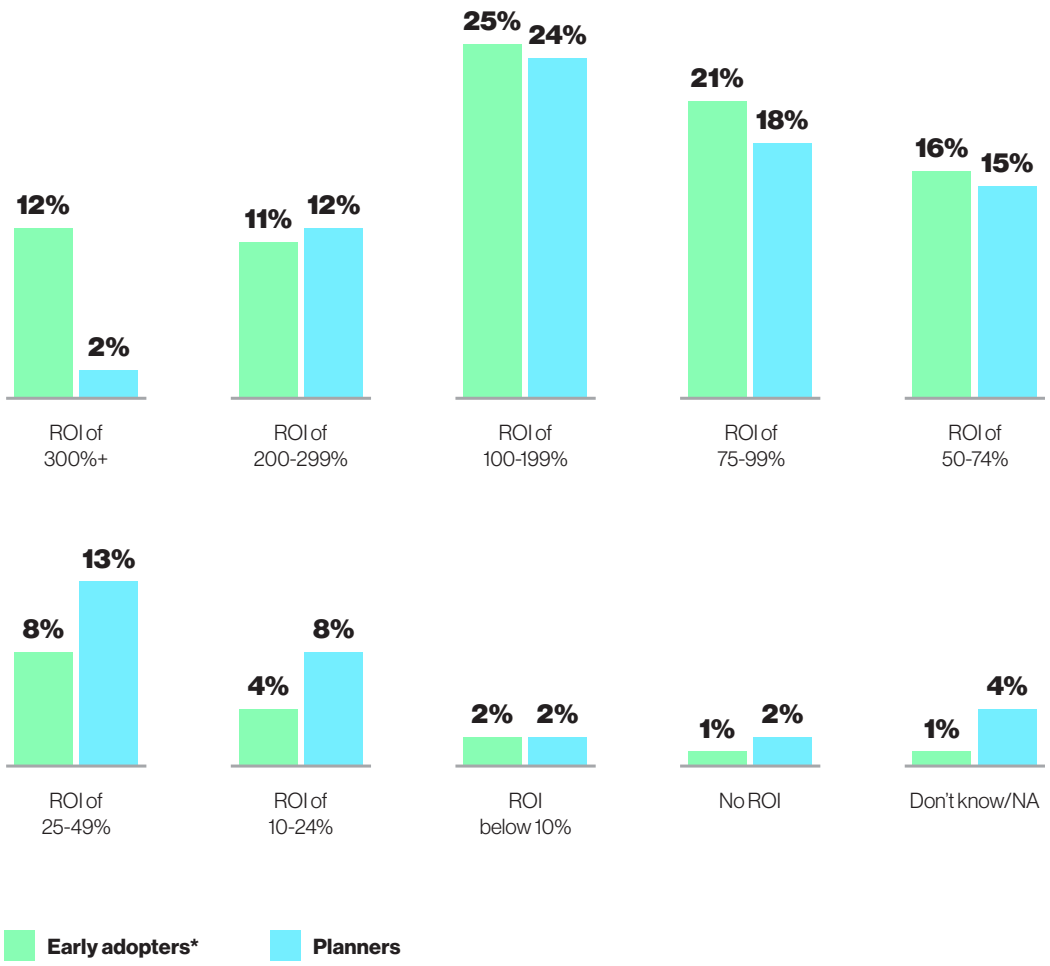


Figure 5:
Positive Outlook for ROI

How respondents expect their generative AI investments to pay off over three years:



*Percentages reflect rounding.

planners have yet to adopt generative AI strategies. Early adopters are also more concerned about model usage and quality, with just 25% of planners citing that issue as a challenge — and it's not even the planners' "top 5 challenges" list.

More than a third of both groups are concerned about data challenges — and rightly so, Davenport says: "Data integration, data preparation, and data management are the most important factors for being successful with generative AI. Organizations should work on getting their data in order before getting started."

Data modeling and data skills are discussed further under "Early Adopter Characteristic No. 6," below.

Tracking spending and ROI is essential for making progress with generative AI, and that's an area where early adopters are clearly ahead. Forty-one percent say they have very robust capabilities in place for measuring generative AI's financial performance, compared with just 15% of planners.

Early adopters are also doing more tracking of nonfinancial metrics, including measuring generative AI's success in increasing the speed and accuracy of decisions, improving customer experience and satisfaction, and identifying areas in the company that need improvement. (For an example, see: "**Verizon: Tracking Generative AI Results**")

Early Adopter Characteristic No. 3: Establishing Bullish Expectations for ROI and Revenue Generation

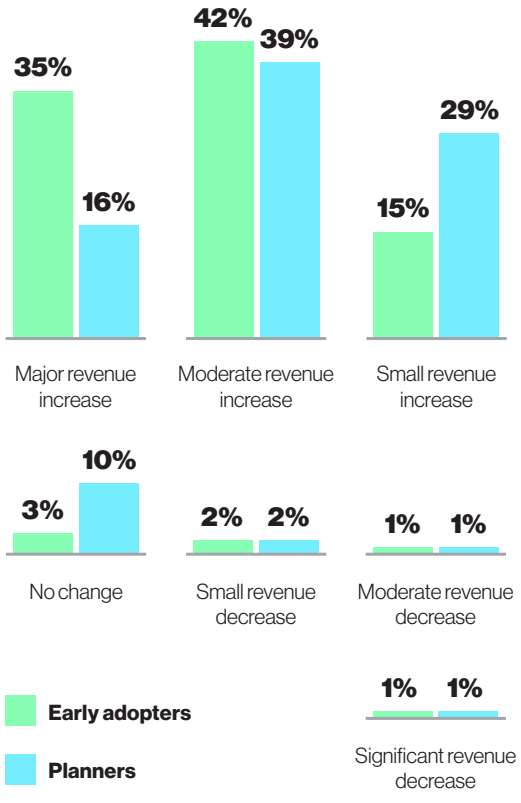
Many early adopters are seeing impressive results from generative AI deployments and have high expectations for ROI and revenue. Nearly half of early adopters (48%) expect investment returns of 100% or more over three years, compared to 38% of planners **(see Fig. 5)**.

Twelve percent of early adopters expect to see an ROI of 300% or more, compared with just 2% of planners. Almost all the survey respondents expect investments to at least pay for themselves, with fewer than 1% of early adopters and just 2% of planners expecting to see no ROI.

Both groups also said they expect revenue to increase as a result of generative AI deployments. But compared to planners, more than twice as many early adopters expect that increase to be major **(see Fig. 6)**.

Figure 6:
Strong Financial Forecast

How respondents expect generative AI to impact financial performance:*



*Percentages reflect rounding.

Verizon: Tracking Generative AI Results

Tracking results is essential for success with generative AI, but what does that look like in practice? Verizon's experience provides an instructive example.

Verizon is especially meticulous about tracking results. The telecom giant created a center of excellence to evaluate potential ROI for all generative AI proposals and measure the success of projects that get the green light.

"Every use case must go through the center of excellence to make sure it will produce ROI," says Anil Kumar of Verizon.

For starters, the telecom company, uses a variety of metrics to measure results. "In some cases, generative AI creates operational savings or improves productivity. In others, it may generate revenue from a new product idea," Kumar says.

Once a project is launched, the company tracks its progress over time. For example, a code-generating application took two or three months for users to get accustomed to, but after six months, it is creating a 10% to 15% improvement in productivity.

A content-generating application for marketing is also getting strong results. "It used to take three to four weeks going back and forth with an agency to create marketing emails. Now it takes a couple of days," Kumar says. The company makes sure that a human reviews the content before sending it to customers — an important safeguard for the evolving technology.

In one of its largest deployments, the company is measuring how much time a chatbot can shave off the current three-to-six-month training period for its 40,000 customer service agents. The next step may be implementing and tracking a voice recognition system that deciphers customer questions and sends answers to agents, who will no longer need to spend time typing in queries.

"More use cases are popping up in customer service, customer relations, sales, network management, and other areas all the time," Kumar says. "We are definitely going to increase our generative AI investments. But on the other side, we are going to see considerable cost savings."

Companies measure revenue increases in different ways, depending on how it is achieved.

"We have several calculations for ROI," says Anil Kumar, vice president of data and AI engineering for Verizon. "In some cases, it will be based on productivity gains or operational savings. In other cases, it will be from incremental revenue. Other times, it may be from a new product idea."

Generative AI can also boost revenue by improving existing products and services. For example, it can suggest design enhancements to products, hyper-personalize marketing, improve customer service, or suggest more effective sales strategies. All of these efforts can help the business attract and retain more customers.

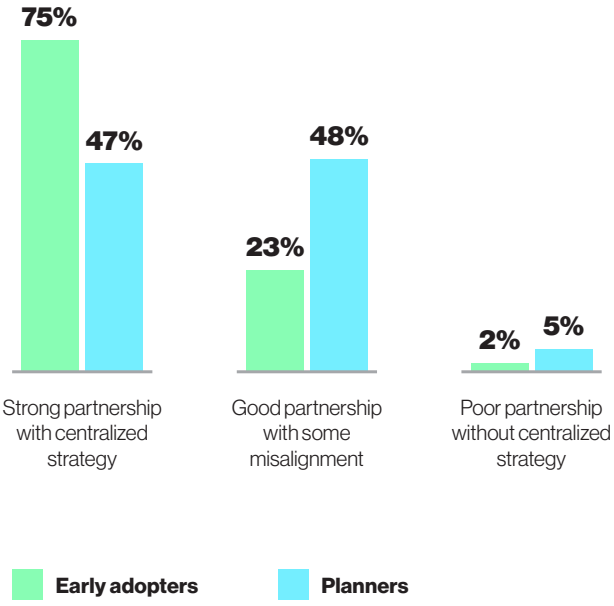
When it comes to cutting cost, generative AI can improve productivity by automating routine tasks in supply chain management, customer support, and other areas, experts say.

Early Adopter Characteristic No. 4: Building Strong Business-Data Partnerships

To obtain results from generative AI, organizations must develop clear and consistent lines of communication between their business teams and data teams, which need to be aligned on a common execution strategy.

Figure 7:
Current Business-Data Team Alignment

How respondents view their current business-data team partnerships:



Early adopters have made much more progress in aligning their business and data teams, with 75% saying those teams have strong partnerships and a centralized strategy. Fewer than half (47%) of planners said the same.

"Generative AI isn't just an IT or data project. It's going to be driving strategic value for the business, so you need to establish an environment of collaboration, continuous learning, and mutual respect," Ammanath says.

It's incumbent on the data team to forge relationships with the business to drive business value — not the other way around, Bean says: "If data people don't have a strong partnership with the business, the organization won't derive full value from data analytics." And unless generative AI is tied to specific sources of business value, companies run the risk of creating backlash and frustration.

Early adopters have made much more progress in aligning their business and data teams, with 75% saying those teams have strong partnerships and a centralized strategy. Fewer than half (47%) of planners said the same **(see Fig. 7)**.

Nevertheless, nearly a quarter of early adopters (23%) admitted to experiencing some misalignment — a problem faced by 48% of planners.

Both groups believe their partnerships will improve over the next year, as generative AI is further incorporated into their data strategies. But while more than half of early adopters expect significant improvement, only about a quarter of planners (26%) shared their optimism **(see Fig. 8)**.

Better alignment can't happen unless both business and data teams extend themselves a bit beyond their current comfort zones, says Sam Ransbotham, professor of business analytics at the Carroll School of Management at Boston College.

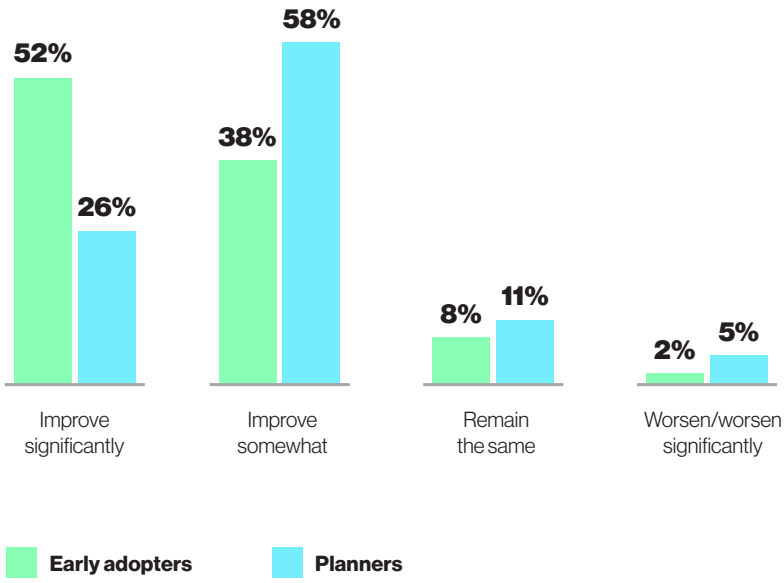
"Data teams need to do a better job of explaining their work in terms business teams can understand. And business teams need to gain a better grasp of technical complexity so that they can understand what the data teams are doing," he says. "If you do both of those things, you'll narrow the gap."

There are many ways of bringing business and data teams closer. For example, Deloitte provides AI fluency training for its employees. "Generative AI is going to be in every nook and corner of your business, so it's important for everyone to understand the basics and speak the same language," Ammanath says.

Verizon created three different types of generative AI training for its workforce: a high-level, daylong session for executives, a more

Figure 8:
Future Business-Data Team Alignment

How respondents expect their business-data team partnerships to change in the future:



in-depth workshop for mid-level managers, and a two-week deep dive for developers, to make sure they are grounded in the tools and platforms they will need to develop use cases. So far, the company has trained thousands of its more than 100,000 employees, and it plans to extend training to the rest over the next year or so.

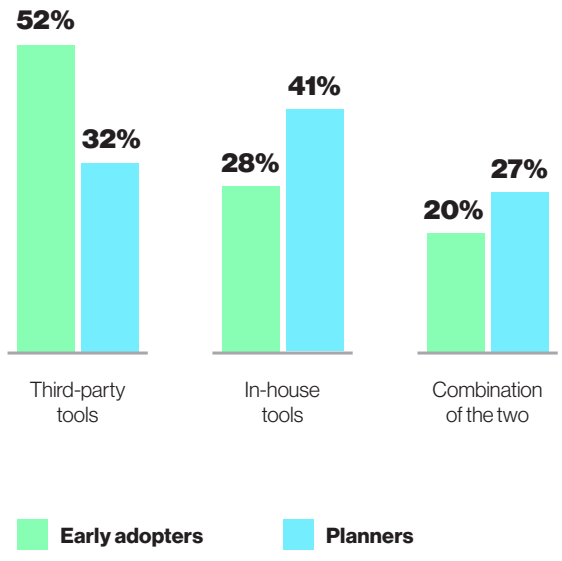
"We realized early on that we needed to bring in the whole organization to be successful with generative AI," Kumar says.

Early Adopter Characteristic No. 5: Relying Primarily on Third-Party Tools

Early adopters are the keenest on using third-party generative AI tools for analytics. More than half of that group are currently deploying and/or planning to adopt such tools, compared with 32% of planners **(see Fig. 9)**. Fewer than a third of early adopters

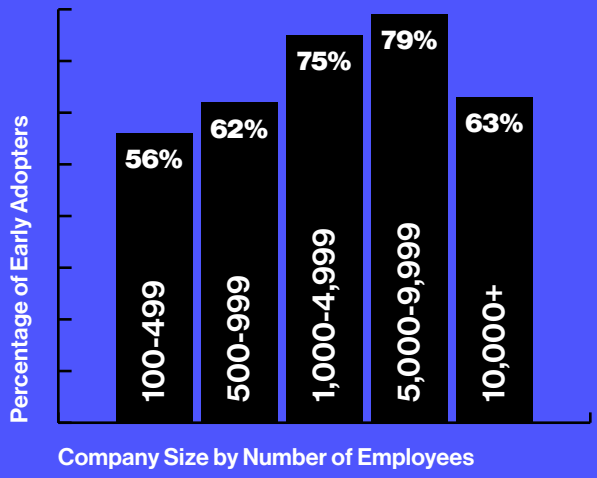
Figure 9:
Generative AI Tools: Buy or Build?

Tools that respondents are using or expect to use:



Data Snapshot:
Different Company Sizes, Different Speeds

Midsize-to-large organizations are adopting generative AI for analytics faster than their larger and smaller counterparts, according to the survey.



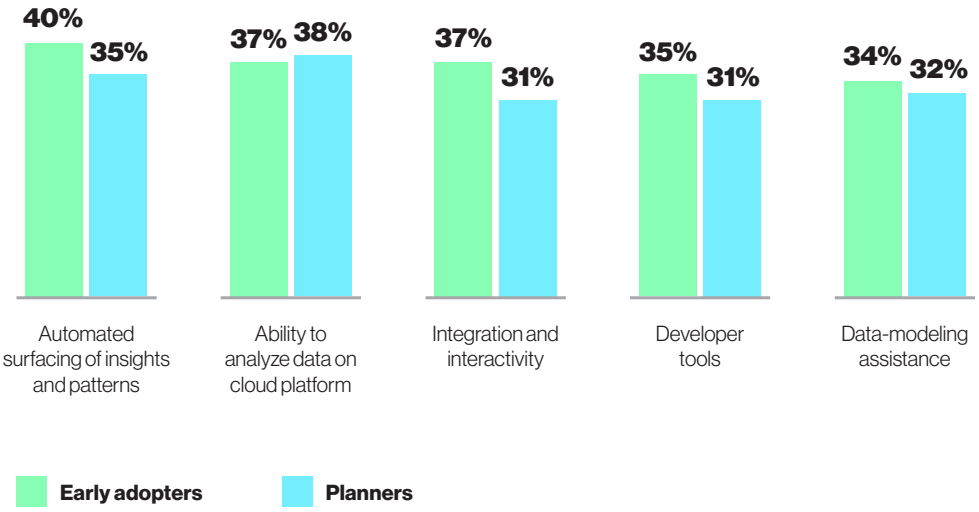
Bigger companies may be out in front simply because they have more resources. But some smaller companies may catch up quickly, experts say: Typically, they're working with smaller amounts of data and aren't hampered by legacy systems.

Meanwhile, the largest and smallest businesses clearly have different reasons for adopting the technology. Early adopters at the largest businesses identify their top three priorities as improving business insights (cited by 59%), improving products and services (54%), and improving customer satisfaction (48%).

Meanwhile, early adopters at the smallest companies are also interested in improving products and services (32%), but they cite as higher priorities improving the speed of decision-making (36%) and improving productivity (34%).

Figure 10:
Generative AI Tools: Key Capabilities*

Capabilities that respondents consider most important in generative AI tools:



*Multiple selections allowed

prefer developing in-house generative AI tools for analytics, with 20% using or planning a combination of externally and internally developed applications.

"Buy-versus-build is a crucial decision in the generative AI world," Ammanath says. "Building in-house obviously takes more time and diverts resources that could be going to the core business."

That's especially true for large language models, which require significant resources and specialized skills to build and can take months to train. "Training a large language model from scratch is out of reach for most organizations," Ransbotham says. "The amount of computing power it takes is overwhelming for all but the largest companies."

Still, some companies may want to build highly customized solutions that don't yet exist in the market, or that require the use of highly sensitive data — for example, a patient diagnostic tool.

Companies that want to create new solutions can either build them in-house or partner with a vendor. If they decide to use a vendor, it's critical to ask about that company's controls for data privacy and security, according to experts interviewed for this report. Respondents understand the importance of those two issues, having ranked them as high priorities.

Early adopters and planners are looking for similar capabilities from generative AI tools, including the ability to analyze data to reveal patterns and insights and help developers with complex tasks, such as data modeling and integrating solutions **(see Fig. 10)**.

"Being able to integrate new tools into existing systems is crucial," Ammanath says. "Teams need to have the skills to ensure seamless application and maximize the tools' ability to drive business value."

Because generative AI tools are still evolving, companies must also have the flexibility to adapt as new iterations are introduced. Many are currently exploring several types of tools for different purposes.

Through research, trial, and error, organizations can learn which tools are most effective for their use cases and employees.

Early Adopter Characteristic No. 6: Obtaining the Right Skills for Generative AI Deployment

Both early adopters and planners recognized the need for key technical skills for creating or customizing generative AI solutions, and both cited data modeling as the most important **(see Fig. 11)**.

These findings suggest that organizations currently deploying generative AI are more acutely aware of its technical requirements. That puts them in a better position to seek out the talent they need, particularly for high-level data skills, which are often expensive and hard to come by.

Before they can start using sophisticated data tools, however, organizations must build a strong data foundation by organizing and consolidating their data, making sure it's free from errors and inconsistencies and available to the people who need it.

For many companies, that's a tall order. When asked about their greatest overall data challenges, early adopters and planners alike cited — among other issues — costs, lack of needed skills, and data accuracy, cleanliness, and accessibility.

> **"With generative AI, it's more important than ever to exercise human judgment. AI can only do what it's told, based on teachings and computer instructions."**
>
> **RANDY BEAN**
> AUTHOR AND ADVISER TO FORTUNE 1000 COMPANIES ON DATA AND AI LEADERSHIP

Davenport isn't surprised by the data-related concerns. "Organizations have been struggling with data silos for years," he notes. Data inconsistency is another big problem — one that directly affects generative AI accuracy, he adds.

"Say you want generative AI to tell you about recent trends in sales of a detergent product in the southeast U.S.," Davenport continues. "Six different databases may define that region six different ways. Your data and metadata need to be standardized and accurate to provide meaningful results."

Data Snapshot:
Different Leadership Roles, Different Outlooks

Not surprisingly, data leaders appear to be further along with using generative AI for analytics than their business counterparts, according to the research. Seventy-eight percent of data executives reported that they're already using the technology, compared to 58% of business leaders.

In addition, data leaders are clearly more optimistic about the technology's potential to positively impact their organizations' financial performance in the next year. Seventy-eight percent of that group project "major" or "moderate" revenue increases from the use of generative AI for analytics, compared to 60% of business leaders.

The findings underscore another important theme from the survey: the importance of ensuring that data and business leaders are aligned in their approach to using generative AI, including how they measure success.

Consultant Eric Siegel, author of *The AI Playbook* (MIT Press, 2024), says many AI projects fail because leaders overemphasize technical metrics. "Instead, the focus should be on business metrics — such as revenue, profit, savings, and number of customers acquired," he wrote in **a recent article** for *MIT Sloan Management Review*.

"These straightforward, salient metrics gauge the fundamental notions of success," and, he adds: "They're core to building a much-needed bridge between business and data science teams."

Keeping a Human in the Loop

Because generative AI is a new technology that can produce unexpected results, it's also essential that people monitor its output and make changes as necessary, experts say.

"With generative AI, it's more important than ever to exercise human judgment," Bean says. "AI can only do what it's told, based on teachings and computer instructions."

Even when instructions are correct, programmed responses can sometimes miss nuances a human would pick up. As an example, Bean describes a company that tried using generative AI to present an offer to a job candidate.

"So that's the offer?" the displeased candidate asked.

"Yes, that's the offer," the AI replied, and went on to fill in the details.

"It didn't realize the person was really saying, 'This offer stinks, and what can be done about it?'" Bean explains.

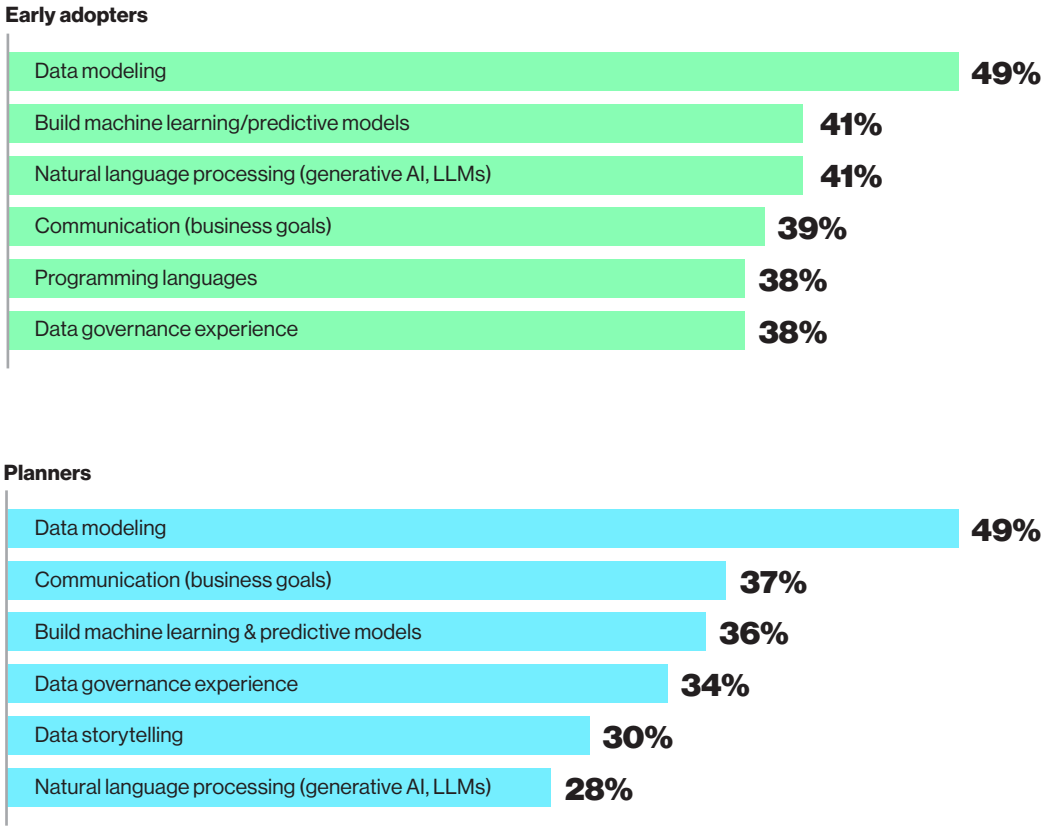
Having humans review AI-generated content provides opportunities to correct mistakes and avoid problematic use cases. Researchers are also developing ways to have generative AI source its information and explain its decisions (explainable AI, or XAI), which will promote trust and enable humans to correct errors or misinterpretations closer to the source.

In the meantime, as training models incorporate more data, they are learning to take on a host of increasingly complex capabilities.

"In the future, people will have many AIs performing tasks for them, giving them time for higher-level reflection," Bean says. "Everybody will be like a CEO."

Figure 11: Technical Skills: Top Priorities*

Skills respondents consider most critical for effective use of generative AI in analytics:



*Multiple selections allowed

Checklist: Getting Started With Generative AI for Analytics

Here are some tips that experts suggest to avoid headaches when using generative AI for analytics and to gain maximum value from your deployments:

- ✓ **Align your generative AI strategy with** your business strategy. Develop and regularly update a timeline for deployments. Focus on business intelligence to drive decisions that can generate ROI and increase revenue.
- ✓ **Establish a center of excellence** or dedicated team to evaluate proposed generative AI projects. This group will examine how such projects might improve productivity, support new capabilities, save money, generate revenue, or provide other benefits — and track the results. Strive to staff the center or team with a representative mix of business, technical, and data specialists.
- ✓ **Develop a robust measurement framework** for gauging the return on your generative AI investments.
- ✓ **Build and maintain strong partnerships** between your business and data teams. Collaborate regularly on projects, making sure that everyone on both teams speaks the same language.
- ✓ **Document the technical skills required** to run effective generative AI models and develop training programs in-house or seek help from partners.
- ✓ **Determine what tools are required** to best support generative AI development and deployment: third-party, in-house, or a combination of the two.
- ✓ **Eliminate data silos** to provide everyone in the organization access to those tools.
- ✓ **Get your data house in order.** After all, AI is only as good as the information you feed it.
- ✓ **Protect your data** with strong privacy, security, compliance, and access controls.
- ✓ **Always keep humans in the loop** to ensure quality and accuracy.

Data Snapshot:
Different Places, Different Priorities

Survey respondents' reasons for adopting generative AI for analytics vary somewhat from region to region. Fully 51% of early adopters based in the Asia-Pacific Japan (APJ) region — specifically, those with organizations headquartered in Australia, New Zealand, India, or Japan — identify improving customer service and satisfaction as a top priority. So do 43% of those from Europe and the U.K.

But 48% of early adopters from the United States and Canada cite increasing data-analyst efficiency as the most important reason for adopting the technology. For those respondents, boosting customer service and satisfaction ranks a distant second, cited by 35%.

The stronger emphasis on data-analyst efficiency may simply reflect the fact that the United States has invested the most in AI over the past five years — more than $548.5 billion in the past five years, according to ***Homeland Security Today*** — and is also home to many of the top generative AI companies.

Conclusion: The Path to Generative AI Success

In the next few years, generative AI will have a profound effect on organizations in nearly every industry — whether or not they actually use it. Companies that incorporate the technology into their business decisions stand to gain insights that can help them expand to new markets, boost sales, improve products and services, or create entirely new revenue-generating opportunities that lift them far above competitors. Some are already realizing these benefits, making it increasingly difficult for those standing on the sidelines to catch up.

But rushing into haphazard deployments won't end well. Instead, leaders who create strategies to maximize the technology's value for their organization, foster collaboration between business and data teams, employ the right tools and partnerships, and closely track generative AI spending and impact are the most likely to achieve far-reaching and long-lasting results. ●

SPONSOR'S VIEWPOINT

Using Generative AI to Tackle Business Challenges and Create Real Value

Cindi Howson is an analytics and business thought leader and expert who specializes in meeting business needs with technology. As chief data strategy officer at ThoughtSpot, she advises major clients on data and AI strategy and best practices for becoming a data-driven organization, influences the company's product strategy, and interviews the industry's top data and analytics leaders on *The Data Chief* podcast.

We are at a seminal moment in history when generative AI is poised to transform business models and humanity itself. The data and analytics industry has spent a disproportionate amount of time and money — more than $100 billion annually — to collect data that has, until now, been locked away in the hands of experts. Generative AI is poised to change that — for some. The differences between analytics leaders and laggards have never been more stark.

Many of the early generative AI use cases focused on using generative AI for communicating — for instance, putting bots on top of troves of PDFs and textual data — or for creating content such as images, slides, and code. Using generative AI on top of structured corporate data holds promise, but given the constraints of large language models in terms of math, hallucinations, privacy protection, and defining specific time periods, there are limitations to how far this technology can go alone. You may tolerate hallucinations in AI-generated recipes, but it's obviously not acceptable when it comes to analyzing sales numbers or employee performance reviews.

> **"With generative AI, you have the opportunity to deliver a data strategy that helps people solve real-world challenges while delivering unprecedented value."**

ThoughtSpot®

Data, digital, and business leaders must unite to seize the generative AI opportunity. They need to work collaboratively to align their data and AI strategies to their organizations' business strategies and prioritize use cases for the technology. ThoughtSpot sponsored an MIT SMR Connections survey and this resulting report to provide you with industry insights and best practices to increase your chances of success. The research findings can also help you benchmark your organization's efforts.

With generative AI, you have the opportunity to deliver a data strategy that helps people solve real-world challenges while delivering unprecedented value. Fully 48% of early adopters of generative AI for analytics expect greater than 100% ROI over three years, according to the survey.

But success isn't inherent. In this quickly evolving era of data and analytics, it's easy for fear of failure, hallucinations, and messy data to sabotage the best intentions. Complacency may feel safer, but it only furthers the widening gap, jeopardizing both your business and your career. I encourage you to assess the differences between the early adopters and those still in the planning stage and to use that information to guide your own AI-powered analytics implementation.

Methodology

MIT SMR Connections conducted a global online survey, sponsored by ThoughtSpot, that drew responses from 1,000 data and business leaders from companies of various sizes in a broad range of industries and locations. Kadence International fielded the survey in the spring of 2024. We examined the data based on respondents' roles, geographical locations, company size, and other factors. To provide a rich context for discussion of the quantitative research results, we interviewed several authors, academics, consultants, and industry practitioners. These individuals provided insight into current trends and future priorities about the use of generative AI for data and analytics.

Demographic Information

Roles*

All respondents were C-suite, SVP, VP, or director-level executives.

Data Leaders:	**45%**
Non-Data Leaders:*	**55%**

*Non-data leaders include executives in finance, go-to-market, IT, marketing, operations, product engineering, and sales roles.

Organization Size*

100-499:	**19%**
500-999:	**26%**
1,000-4,999:	**30%**
5,000-9,999:	**16%**
10,000+:	**10%**

*Results reflect rounding.

Top Industries*

IT/tech/software/telecom:	**34%**
Financial services:	**18%**
Manufacturing:	**8%**
Retail:	**7%**
Construction and retail:	**6%**
Health care:	**5%**
Professional services:	**5%**

*Remainder divided among other industries

Headquarters Location

U.K., Europe*:	**37%**
U.S., Canada:	**31%**
Australia, New Zealand, India, Japan:	**29%**
Other:	**3%**

*France, Germany, Netherlands, Sweden, Switzerland, U.K.

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