

# IT Modernization Without Disruption

External Partners Play An Essential Role In Modernizing IT Environments With Mainframes

A FORRESTER CONSULTING THOUGHT LEADERSHIP PAPER COMMISSIONED BY ROCKET SOFTWARE, AUGUST 2024



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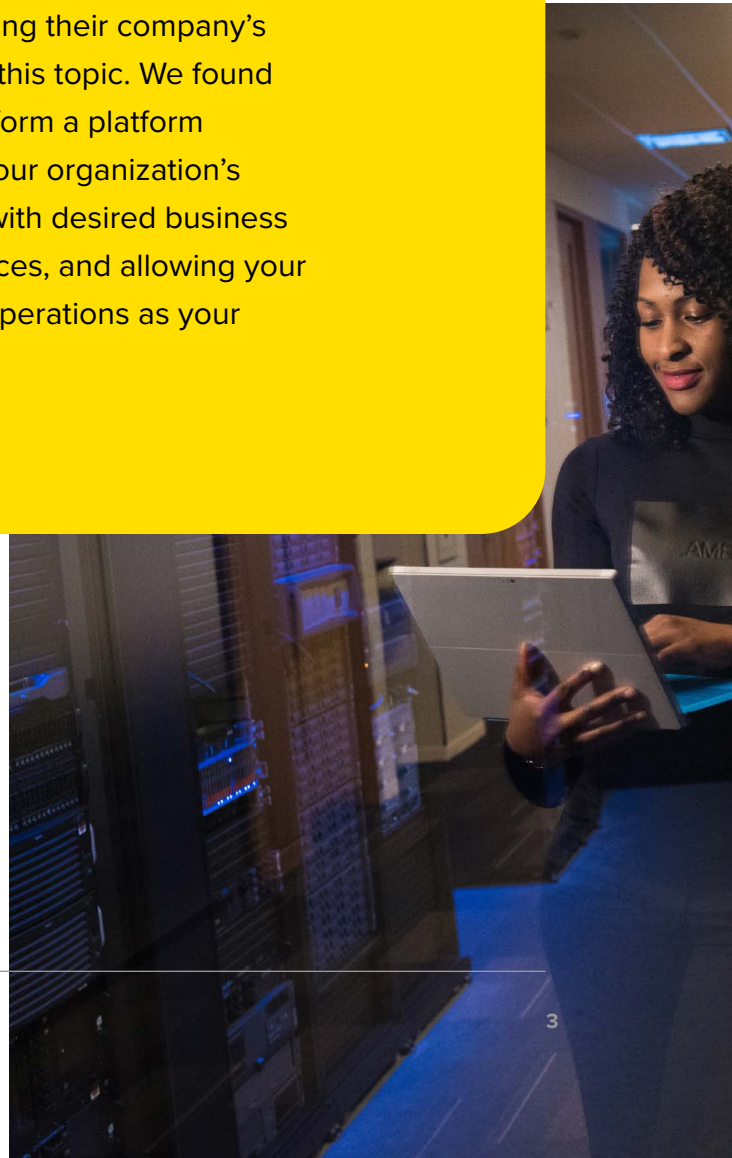
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## Executive Summary

IT modernization takes on many forms in today's rapidly evolving business landscape. Setting the right course can build capacity for your business, influence your industry, and reshape markets. And as any good IT or business leader knows, modernization is less about the technology deployed more about how that technology is strategically aligned to your business and the context it operates in. Moving your business from its current state to a future of possibilities requires the capabilities needed to increase the value of existing and potential technology investments, freeing your business to build innovation that sets it apart. Businesses need end-to-end tooling that embeds the expertise needed to complete their modernization journeys.

Rocket Software commissioned Forrester Consulting to evaluate IT modernization strategies involving the mainframe and the value external partners provide. Forrester conducted an online survey with 309 global decision-makers who are responsible for modernizing their company's IT environment involving the mainframe to explore this topic. We found that both expertise and capabilities are needed to form a platform for modernization. The right platforms accelerate your organization's transformation by aligning technology investment with desired business outcomes, improving use of new and old data sources, and allowing your organization to make progress without disrupting operations as your business modernizes.



## Key Findings

**Business transformation hinges on IT modernization, specifically for those with mainframes.** Organizational growth is imperative but is often stalled by disruption. Decision-makers view IT modernization as a critical component of business transformation, allowing organizations to innovate while remaining resilient. As a result, successful IT modernization strategies are tied to stronger technological and business outcomes. Organizations must improve IT resiliency, end-user experiences, and data access to achieve these results.

**Address IT modernization challenges, including application re-write projects, head-on.** Decision-makers reported that 18% of their organization's IT modernization strategy budgets are dedicated to modernizing and rewriting applications, yet 90% of rewrite projects are not successful the first time. Additionally, decision-makers must manage a lack of talent/skills, complex technology environments, and heightened security and risk concerns to reach goals. Organizations must invest in people, processes, technology, and partnerships.

**External partners with strong AI capabilities are critical for IT modernization strategy success.** External partners supplement internal shortcomings to ensure projects are delivered on time with a strong customer focus. Partners can also effectively provide the AI-powered capabilities needed to advance strategies efficiently. Decision-makers expect improved integration, scalability, and speed from their IT modernization efforts producing both internal and customer-facing benefits.



## Transform Your IT Environments To Transform Your Business

Enterprises face highly competitive markets and rapidly changing missions as technology enables competitors and new entrants to quickly build and scale new products, services, experiences, and business models.<sup>1</sup> Meanwhile, a difficult economy has forced many organizations to focus on efficiency and cost savings. This dynamic raises the expectations for IT teams to boost overall results — financial performance, mission objectives, customer and stakeholder engagement, market position, and innovation — while delivering within cost and operating constraints. Our study found that:

- **Organizations must grow and innovate while minimizing risk and disruption.** These goals chart a clear path of priorities for most decision-makers. Nearly 75% reported that improving the experience of their organization's customers was a top business objective over the next 12 months. Roughly seven in 10 decision-makers stated that within the next year, they have to meet measurable commercial growth targets, improve their organization's ability to innovate (including addressing AI-centric business capabilities), reduce enterprise risk, and increase operational resilience (e.g., avoid, withstand, or adapt to service outages, natural disasters, health crises, geopolitical instability, etc.).
- **IT modernization plays a critical role for these types of business transformation initiatives.** Sixty-nine percent of respondents stated that IT modernization is very or extremely important when it comes to helping their organization achieve its business objectives over the next 12 months. Survey respondents who are embarking on an IT modernization journey with mainframe environments, are either:
  - Modernizing applications on the mainframe and integrating them with replatformed or existing applications hosted on public clouds (56%).
  - Removing applications from the mainframe using various approaches and hosting them using cloud platforms and/or another distributed environment (27%).

- Transforming applications on the mainframe by implementing and exploiting the most modern features available on the platform (17%).

Regardless of their mainframe strategy, 74% have been on their IT modernization journey for more than a year as these complex efforts require significant coordination across the ecosystem given their impact on the business.



Successful IT modernization strategies are tied to both stronger technological and business outcomes.

- IT modernization efforts are led by IT but impact the enterprise.**

While half of decision-makers reported that IT leaders were the primary drivers of their organization’s IT modernization strategy, 42% said their strategy was being driven by the C-suite reflecting their importance to the business. Additionally, several functions (e.g., product teams, line of business, enterprise risk, etc.) have supporting roles or are at least consulted. As a result, successful IT modernization strategies are tied to both stronger technological and business outcomes, such as greater data integration and market growth. To achieve these business outcomes, decision-makers recognized that their organizations must improve IT resiliency, end-user experiences, and data access (see Figure 1).

**FIGURE 1**

### IT Modernization Strategy Primary Drivers

Improve IT reliability and resilience (e.g., improve availability/uptime, embrace resilience engineering practices)

**53%**



Improve IT capabilities to enhance stakeholders experience (e.g., employees, partners, and ultimate customers)

**51%**



Improve access to insights to unlock the value of data

**48%**



Base: 309 global decision-makers in charge of modernizing their company's mainframe

Note: Showing top 3 responses

Source: A commissioned study conducted by Forrester Consulting on behalf of Rocket, June 2024

## Prepare For IT Modernization Challenges

Decision-makers on IT modernization journeys must assess their organizations' maturity to better understand where their needs and greatest challenges are — particularly when it comes to modernizing with mainframe environments. There are several challenges that block IT modernization success and slow progress towards goals. These challenges significantly impact the business and must be addressed. Our study found that:

- **Application rewrite projects cost time and money.** Survey respondents said that on average, 18% of IT modernization strategy budgets are dedicated to modernizing and rewriting applications. However, over half of respondents reported that they have attempted at least six rewrite projects as part of their organization's cloud migration strategy due to multiple failures (see Figure 2). The significant number of failed rewrites implies a low tolerance of risk, though the fact that respondents continued to retry application rewrite projects shows the importance of modernization and the need for solutions to help their organizations modernize without disruption.
- **Decision-makers must address a web of interrelated challenges.** Concerns over security and risk block IT modernization strategy success the most according to 41% of respondents. Additionally, there are several related challenges to people, processes, and technology that impede IT modernization. Thirty-eight percent of decision-makers reported that their organization's lack of talent/skills was a barrier to their IT modernization strategy. Additionally, roughly one-third were challenged by complex integration strategies, while around 30% were burdened by inadequate software tools/platforms and the ungoverned use of new technology like AI (see Figure 3).

**51%**

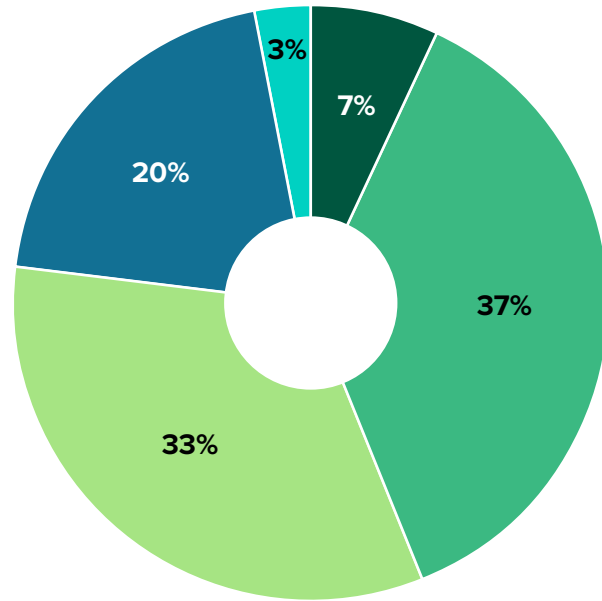
of decision-makers reported that they have attempted at least six mainframe application rewrite projects.



FIGURE 2

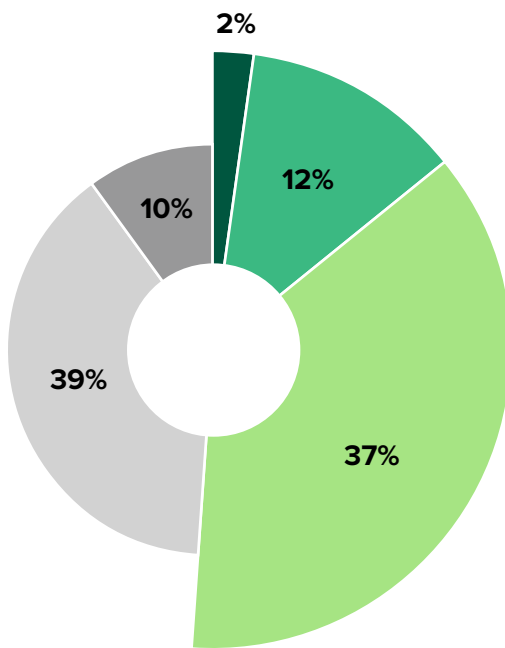
**“How often does your organization’s mainframe application rewrite projects fail as part of its cloud migration strategy?”**

- Never
- Rarely, if ever
- Sometimes
- Often
- Always



**“How many times has your organization attempted a mainframe application rewrite project as part of its cloud migration strategy?”\***

- Once
- 2 to 5 times
- 6 to 10 times
- 11 to 15 times
- More than 15 times



Base: 256 global decision-makers in charge of modernizing their company's mainframe by either modernizing applications on the mainframe and integrating them with replatformed or existing applications hosted on public clouds or removing applications from the mainframe using various approaches and hosting them using cloud platforms and/or another distributed environment

\*Base: 239 global decision-makers in charge of modernizing their company's mainframe by either modernizing applications on the mainframe and integrating them with replatformed or existing applications hosted on public clouds or removing applications from the mainframe using various approaches and hosting them using cloud platforms and/or another distributed environment where their mainframe application rewrite project has failed as part of its cloud migration strategy

Source: A commissioned study conducted by Forrester Consulting on behalf of Rocket, June 2024

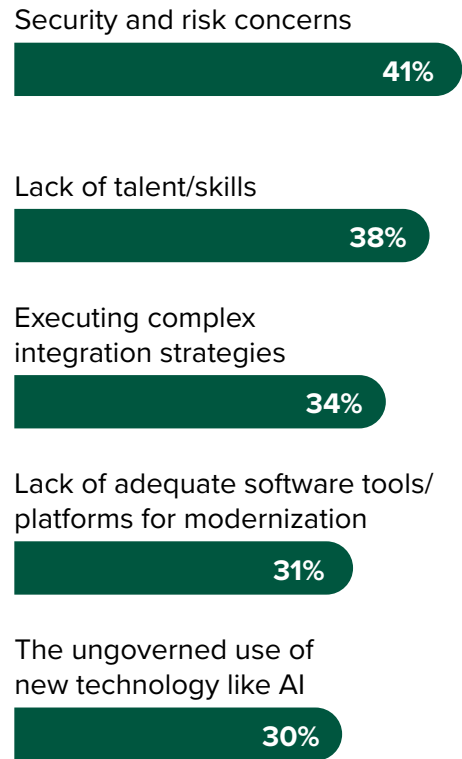


- **IT modernization challenges are disruptive to business.** IT modernization challenges reduce efficiency, impact internal and external strategic efforts, and are costly. From an efficiency standpoint, 44% of decision-makers stated that IT modernization challenges have led to delayed timelines and one-third reported that these problems yielded reduced productivity. From a competitive perspective, 38% of decision-makers said IT modernization challenges hurt their ability to recruit new talent, and 35% stated that these challenges reduce their organization's ability to compete. Profitability-wise, 40% reported that these challenges increased operating costs.

Organizations are investing in people, processes, technology, and partnerships to overcome these challenges (see Figure 4). Nearly 50% of respondents recognized the need for greater alignment between the business and IT, while just under half are upskilling and training their employees. On the spending side, roughly two out of five decision-makers were working through IT modernization strategy challenges by investing in new technologies to drive innovation and partnerships, which are essential for success.

**FIGURE 3**

### Main Barriers Blocking IT Modernization Strategies



Base: 309 global decision-makers in charge of modernizing their company's mainframe  
 Note: Showing top 5 responses  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Rocket, June 2024

FIGURE 4

“How is your organization working through the challenges it faces as part of its IT modernization strategy?”



Base: 309 global decision-makers in charge of modernizing their company's mainframe  
Note: Showing top 4 responses  
Source: A commissioned study conducted by Forrester Consulting on behalf of Rocket, June 2024

## Attain IT Modernization Goals With The Right Partners

IT modernization cannot be achieved without the right partnerships. Selecting partners on not just their tech capabilities but also how they align to your organization's strategic goals ensures their collaboration contributes to your business outcomes.<sup>2</sup> Structuring partnerships with a clear focus on organizational goals enables you to create solutions that address rapidly evolving internal and external customer needs. When it comes to IT modernization with mainframe environments, our study found that:

- **External partners are critical for IT modernization strategy success.** All the decision-makers we survey rely on a partner (e.g., hyperscaler, managed service provider, trusted software vendor, system integrator, or external consultant) for their transformation journey. External partners supplement internal shortcomings to ensure projects are delivered on time with a strong customer focus. However, the perceived value of external partners differs by organizational function. IT leaders value external partners for customer-facing benefits, while line-of-business leaders value them for resource benefits (see Figure 5).

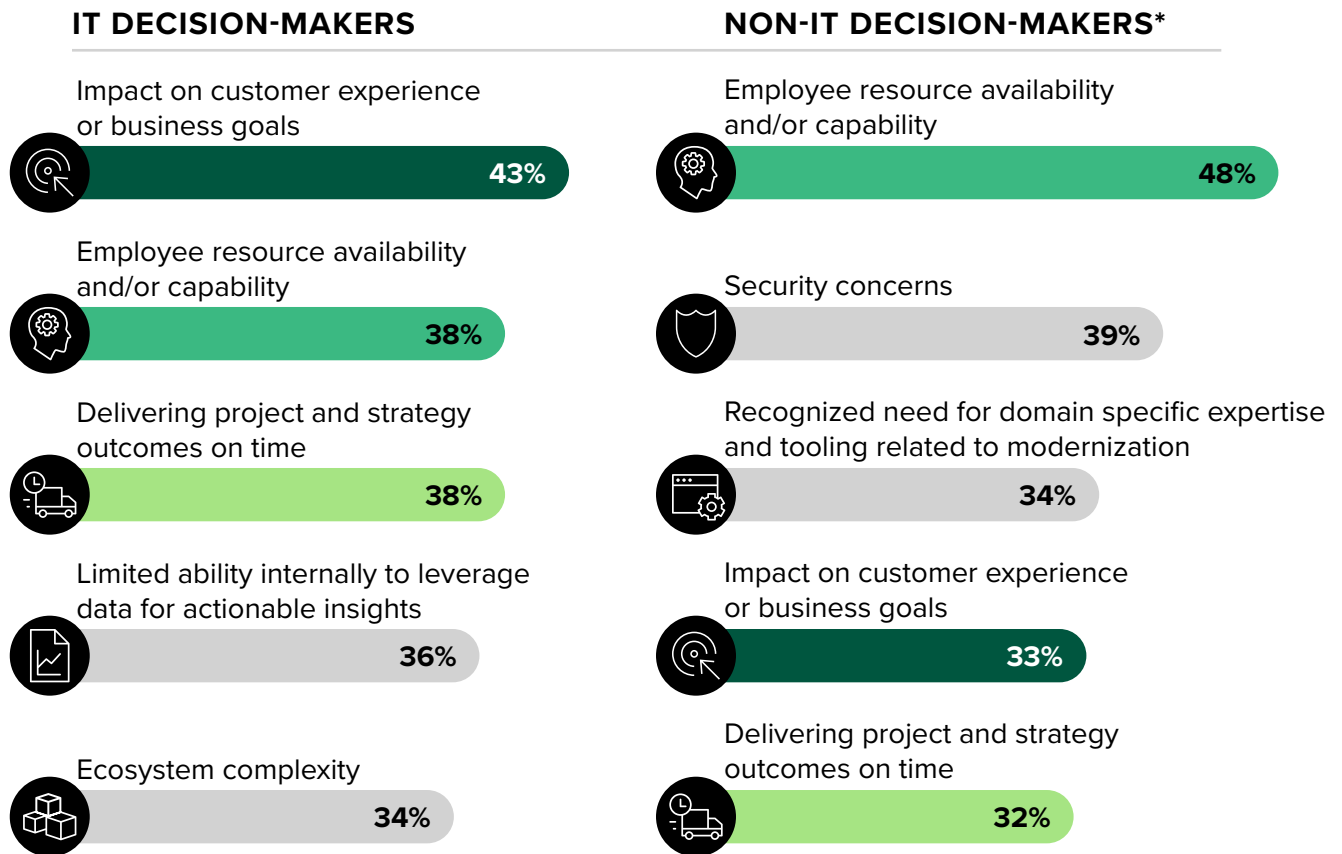
IT modernization partners bring specific expertise across all aspects of the technology environment including data and applications; business risk and protection; and platform, product, and business technology. Seventy percent of respondents or more believed it's important for external partners to provide capabilities such as:

1. Code and data modernization (83%).
2. DevOps continuous integration and continuous delivery (CI/CD) (79%).
3. Open-source compliance (78%).
4. Agile apps and low-code (75%).
5. Structured and unstructured data management (74%).
6. Vulnerability management (71%).
7. AI and automation (70%).

This establishes clear criteria for IT and business leaders looking to invest in external partners for their IT modernization efforts.

**FIGURE 5**

## Primary Reasons For Leveraging External Partners For IT Modernization



Base: 230 global IT decision-makers in charge of modernizing their company's mainframe

\*Base: 79 global non-IT decision-makers in charge of modernizing their company's mainframe

Note: Showing top 5 responses for each decision-maker type

Source: A commissioned study conducted by Forrester Consulting on behalf of Rocket, June 2024

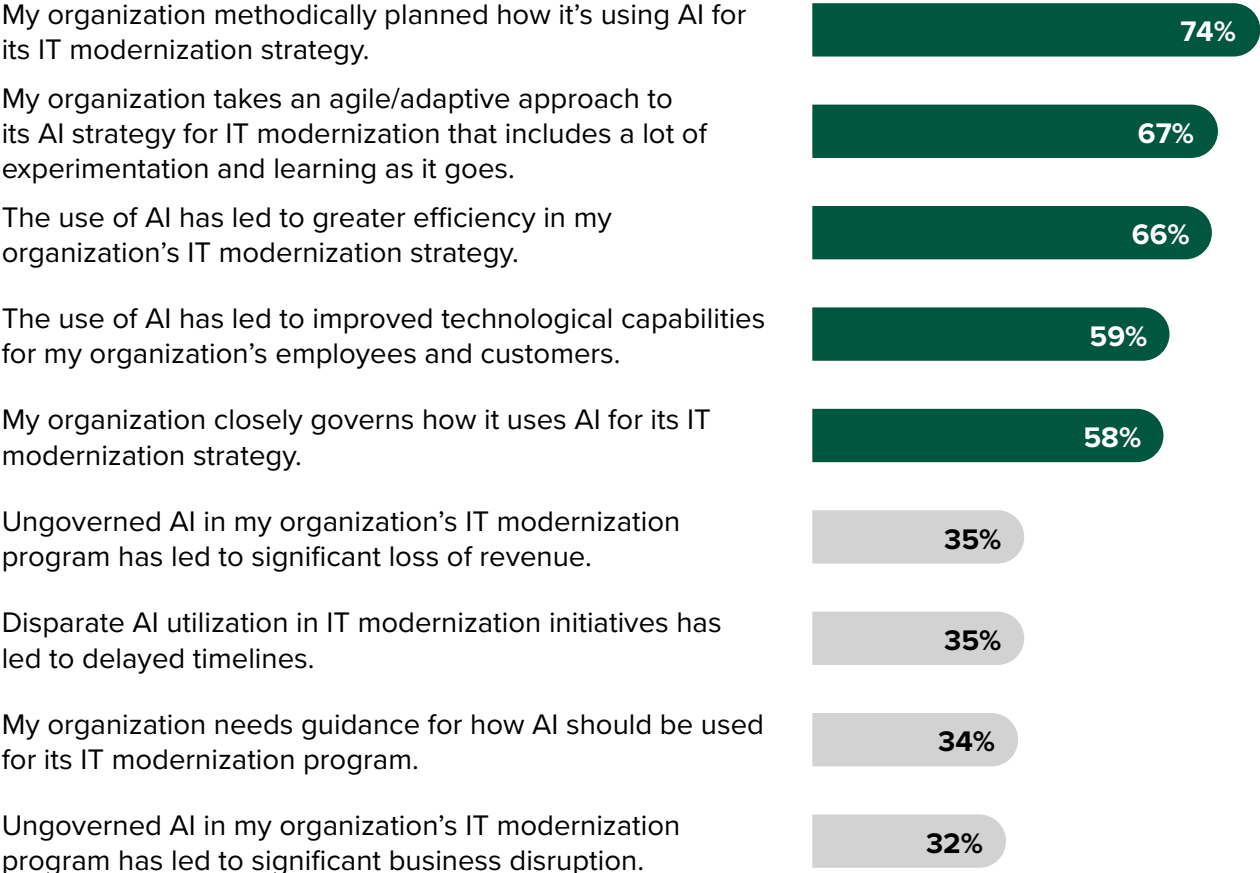
- AI is vital to IT modernization and must be factored into partner considerations.** Most respondents reported that their organization has successfully implemented AI for their IT modernization strategy involving the mainframe. Top current AI use cases included automating applications and/or code analysis (52%); code translation, transformation, and generation (45%); and data transformation or synthetic data creation

(39%). Successful implementations have led to improved efficiency and technological advancements for roughly 60% of respondents or more; however, roughly one-third have been burdened by their AI implementations. These implementations have been troubling and costly leading to revenue loss, delayed timelines, and general business disruption (see Figure 6). Thus, it is critical to ensure external partner AI capabilities are aligned with organizational needs/goals.

**FIGURE 6**

**“How strongly do you agree with the following statements about the role AI has played in your organization’s IT modernization plans?”**

(Showing “Somewhat agree” and “Strongly agree”)



Base: 292 global decision-makers in charge of modernizing their company's mainframe that use AI  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Rocket, June 2024

## IT MODERNIZATION HELPS ORGANIZATIONS BECOME FIT FOR THE FUTURE

To win in highly competitive and dynamic environments, organizations must build IT strategies that deliver business success. This is what Forrester calls high-performance IT: the pursuit of continuously improving business results through technology.<sup>3</sup> High-performance IT starts with the belief that IT isn't just a support function, but a strategic partner that actively contributes to business success. To achieve this level of maturity, decision-makers are focused on several outcomes that advance their IT strategy. Our study found that:

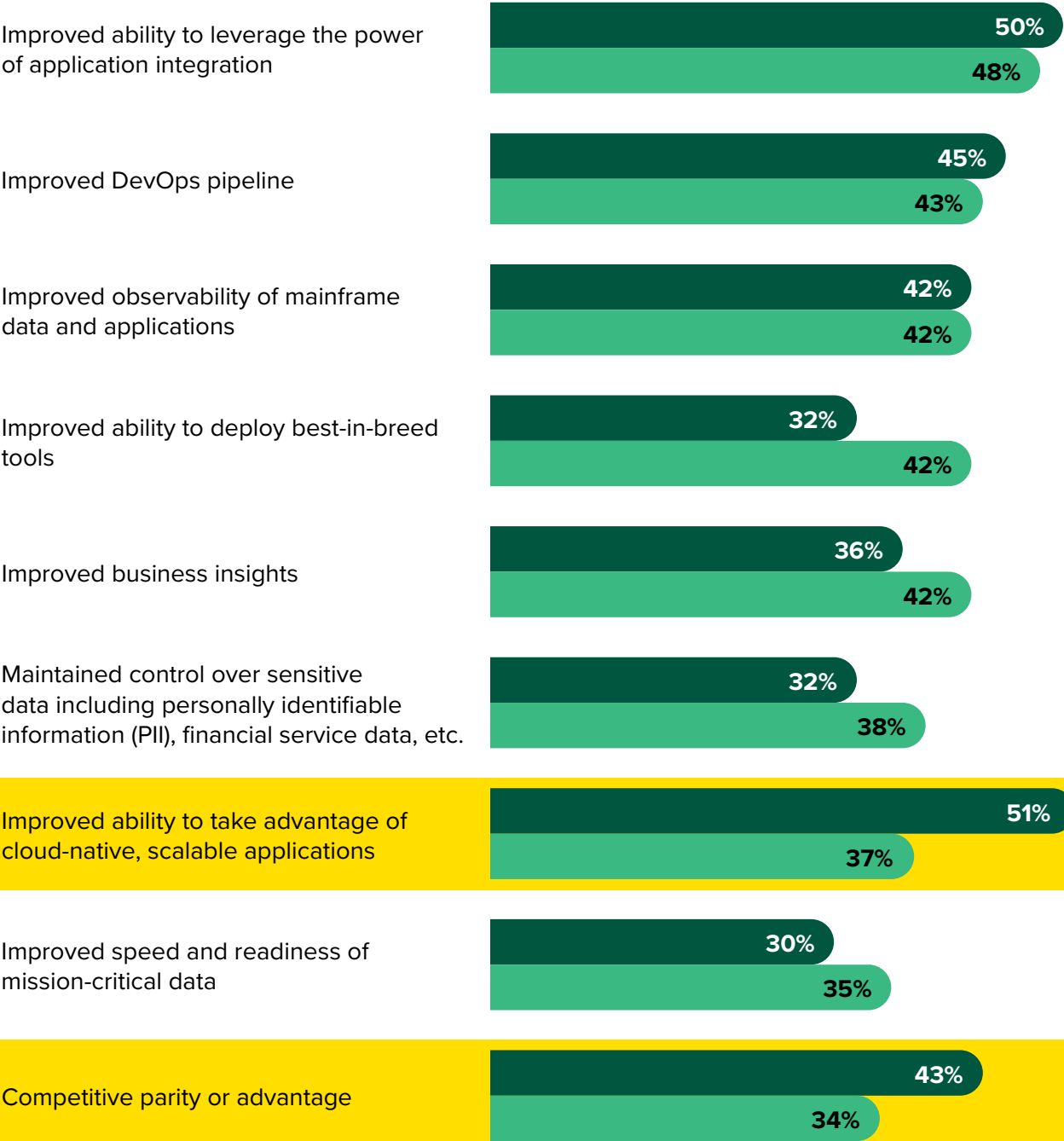
- **Greater integration, scalability, and speed are key outcomes to achieve through IT modernization efforts.** The top outcome expectations/experiences that decision-makers emphasized were improved ability to leverage the power of application integration (50%); improved ability to take advantage of cloud-native, scalable applications (48%); and improved DevOps pipelines (i.e., better quality and faster velocity) (44%). Interestingly, outcome expectations/experiences differ by maturity. For example, 51% of those whose organization has been on its IT modernizing journey for more than one year selected “improved ability to take advantage of cloud-native, scalable applications” as a top desired outcome versus 37% of beginners who reported the same. Experienced IT modernization decision-makers were also more likely to select “competitive parity or advantage” as a top outcome compared to beginners. These insights demonstrate how those with greater maturity are making IT modernization a more strategic advantage for their business (see Figure 7).

Regardless of maturity, IT modernization efforts must produce both internal and customer-facing benefits to be considered successful. Decision-makers are evaluating the success of their programs on improved operational efficiency (51%); improved customer experience (45%); reduced security, risk, and compliance issues (43%); increased employee productivity (41%); and increased business and technology agility (40%).

FIGURE 7

### Top IT Modernization Strategy Outcomes

● Already modernizing ● Just started



Base: 309 global decision-makers in charge of modernizing their company's mainframe  
Note: Showing top 8 responses  
Source: A commissioned study conducted by Forrester Consulting on behalf of Rocket, June 2024

## Key Recommendations

Businesses must address IT modernization to remain competitive. Successful firms use technology to augment reach, serve customers better, and operate more efficiently. However, modernizing is a risk when not leveraging the right tools, partners, and workers to do the job.

Forrester's in-depth survey of business and technology leaders responsible for IT modernization with mainframe environments yielded several important recommendations:

### **Align modernization efforts to business needs and outcomes.**

Successful modernization efforts are those that reinforce and support the business. Metrics for success should be metrics understandable by the business and give a tangible way for everyone to assess the success or failure of a particular modernization project.

### **Decide how you want to modernize.**

Does your organization have the capabilities to execute a migration on its own? Does it need to? As a leader, you will need to decide whether your team needs to learn to be modernizers or whether the process of transforming your organization's systems should be completed with an external partner. Answering this question will help you decide who your partners will be and affect the scale and speed of your particular project.

### **AI, automation, and advanced observability make modernization faster and more scalable.**

State-of-the-art AI tooling accelerates the retirement of technical debt, allowing you to inspect existing code or environments and identify issues and problems. It also helps your modernization team transform workloads. Building visibility into your organization's environments with new observability platforms helps find problems early and avoid failures — keeping your modernization effort on track.

### **Reduce risk with experienced partners.**

Partners bring a wealth of external experience about what other firms have done to address different issues that may come up as part of your organization's modernization. These relationships can be in many forms from a hands-on consulting or service partner to platform-focused software vendors.



## Appendix A: Methodology

In this study, Forrester conducted an online survey of 309 global decision-makers in charge of modernizing their company’s mainframe to explore IT modernization strategies and the value provided by external partners. Survey participants included decision-makers in IT, IT security, operations, and others. Respondents were offered a small incentive as a thank-you for time spent on the survey. The study began in May 2024 and was completed June 2024.

## Appendix B: Demographics

COUNTRY	
United States	31%
Canada	20%
United Kingdom	14%
Japan	7%
Australia	6%
Germany	6%
France	6%
Italy	4%
New Zealand	4%
The Netherlands	4%

INDUSTRY	
Healthcare	16%
Financial services and/or insurance	16%
Manufacturing and materials	15%
Retail	15%
Transportation and logistics	8%
Energy, utilities, and/or waste management	8%
Government	8%
Education and/or nonprofits	7%
Telecommunications services	7%

COMPANY SIZE	
1,000 to 4,999 employees	30%
5,000 to 19,999 employees	41%
20,000 or more employees	29%

TITLE	
C-level executive	11%
Vice president	11%
Director	36%
Manager	42%

REVENUE	
\$500M to \$999M	10%
\$1B to \$5B	56%
>\$5B	34%

MAINFRAME ENVIRONMENT (MIPS)	
0 to 49,999 MIPS	26%
50,000 to 99,999 MIPS	61%
100,000 or more MIPS	24%

POSITION	
IT	49%
IT security	25%
Operations	15%
Finance/accounting	7%
Human resources/training	3%

Note: Percentages may not total 100 due to rounding.

## Appendix C: Supplemental Material

### RELATED FORRESTER RESEARCH

[Tackle The Overwhelming Challenge Of Mainframe Modernization](#), Forrester Research, Inc., February 29, 2024.

[Select The Best Mainframe Modernization Approach For Your Enterprise](#), Forrester Research, Inc., February 21, 2024.

## Appendix D: Endnotes

<sup>1</sup> Source: [Master Seven Priorities To Achieve High-Performance IT](#), Forrester Research, Inc. February 12, 2024.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

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