Hitachi Vantara

The State of BFSI Data Infrastructure in 2024

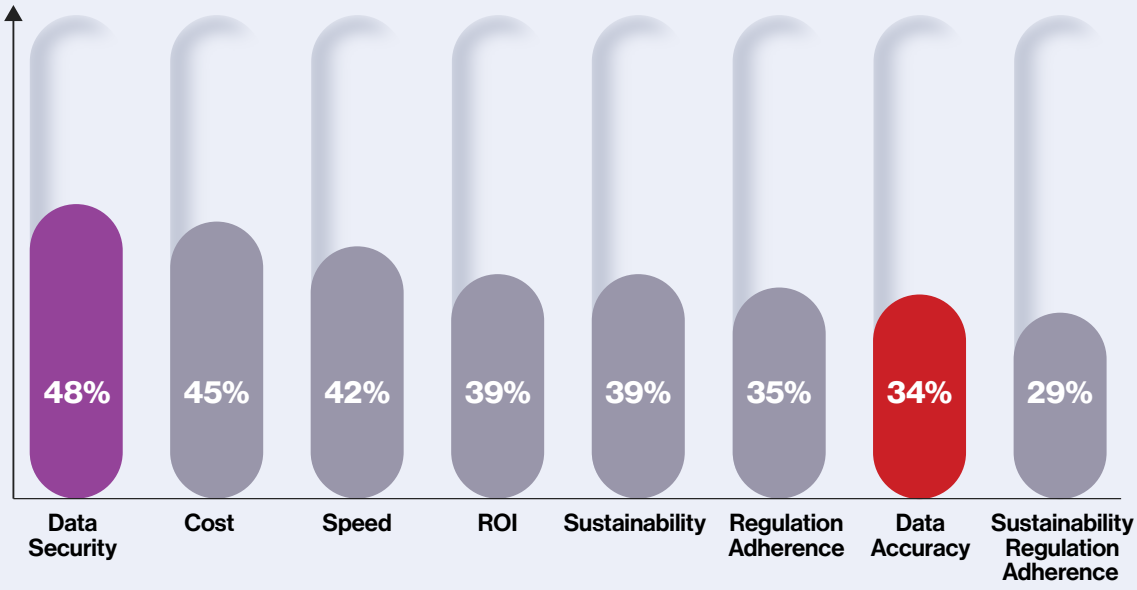
AI's Hidden Cost of Poor Data Quality

01
Introduction

As AI advances at breakneck speed, pushing traditional data infrastructure to its limits, businesses and their customers demand more from technology. How are IT leaders in the banking, financial services and insurance (BFSI) industries keeping up with this relentless pace?

IT decision-makers know quality data is crucial. More IT leaders point to data quality as a top three factor for successful AI implementation than any other element (38%). While 36% of BFSI IT leaders acknowledge data quality's importance, they often prioritize other factors over it when implementing AI, more so than leaders in other industries.

Organizations' Priorities for Successfully Implementing AI (Included in Top 3)



Half (48%) of IT leaders in the BFSI sector say security is a top priority when implementing AI. In fact, BFSI leaders (78%) are very confident that AI will benefit hackers more than cybersecurity defenders, with leaders concerned that external bad actors will use AI-enabled attacks to threaten the business. Internally, leaders are also concerned that an AI mistake will create an inability to recover data, or that a data breach will occur as a result of an AI mistake.

Although security confidence has improved from 2023 to 2024, the smallest margin of improved confidence was around third-party data infrastructure providers and their cybersecurity policies and practices, indicating an area where BFS leaders potentially feel more vulnerable.

What's surprising?

73% of IT leaders don't feel that a robust infrastructure is important for the success of past AI projects. This is shocking, since **infrastructure is the key to providing and collecting high-quality data sources — securely**.

"What's driving the adoption of AI in these firms? IT leaders didn't suddenly decide to prioritize AI. Rather, the push comes from the lines of business, the user community, and the customer base. The imperative originated outside of IT. Then they all came to the IT organization saying, 'we need an infrastructure to run all these models."

Mark Katz
CTO of Financial Services
Hitachi Vantara

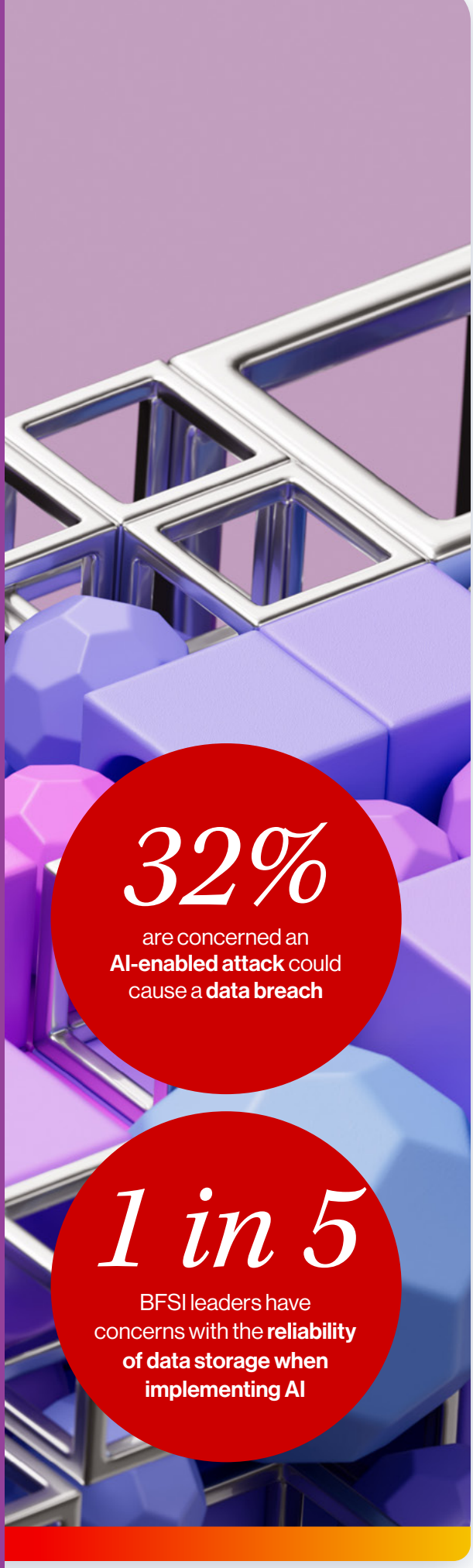
With business leaders demanding AI results, many are rushing implementation. BFSI organizations are focused on ROI and sustainability equally, with accuracy of AI implementation being their second-to-last priority.

This pressure may explain why most organizations implement AI and test as they go, rather than taking a more measured approach through sandbox testing. However, while this "move fast and break things" strategy may be useful in the short-term, it's unlikely to pay dividends in the long-term for the BFSI industry. Interestingly, some BFSI organizations (40%) are conducting regular AI audits to explain model outputs, suggesting that this select group of industry visionaries is likely one step ahead of the game when it comes to developing useful insights and proving real ROI.

27%

of BFSI organizations **do not** review data for quality and accuracy

Data Accuracy as a Top Priority by Industry



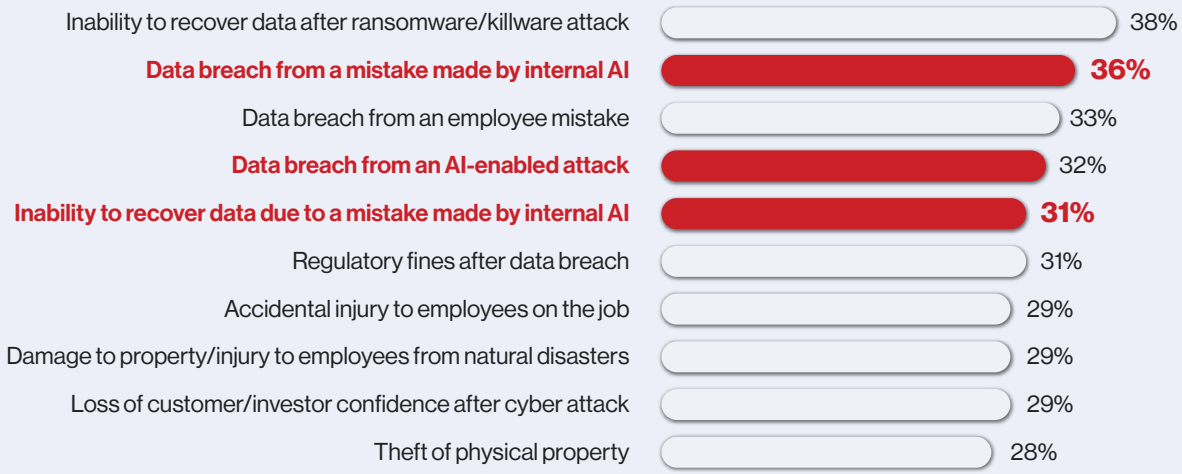
By rushing ahead with AI without focusing on accuracy, IT leaders risk sabotaging AI's long-term potential.

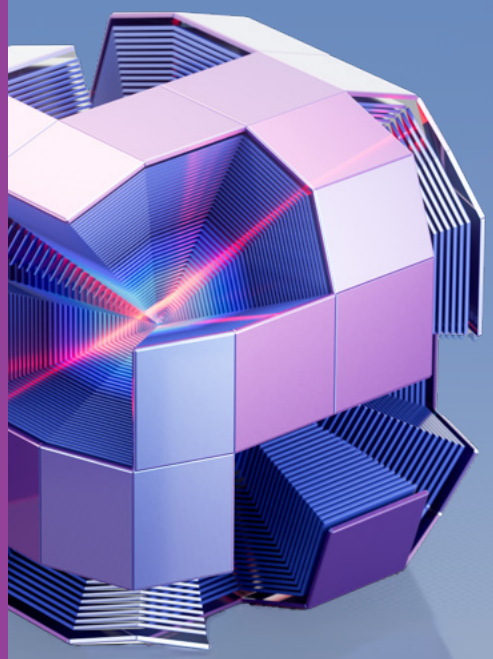
While most BFSI organizations have a strategy to address AI-adoption risks like intellectual property leaks, about 1 in 3 organizations have no strategy for explaining model outputs, and no strategy for non-compliance-related reputation risks. This lack of strategy creates liability, for example, if AI provides old market data; or erodes trust, such as when a customer can't distinguish between human-generated and AI-generated content.

> **"The business model in financial services is inherently tied to trust. Reputational harm is a significant risk, and so in our industry, the interaction between security and accuracy is a critical and complex challenge. For instance, if a chatbot inadvertently discloses sensitive information that was included in the training data, that will have serious repercussions. Or say the cost of a wrong answer, a hallucination, if someone were to act on it, raises all sorts of questions about liability?"**
>
> **Mark Katz**
> CTO of Financial Services
> Hitachi Vantara

With so much on the line, BFSI IT leaders are responding. Nine in 10 (88%) are confident their employees are using AI safely, 14% higher than the average across sectors. Plus, the majority of BFSI organizations do have a strategy for addressing AI security vulnerabilities.

Top Security Concerns of BFSI IT Leaders





A standout in the BFSI sector is the immediate focus on sustainability. 39% say sustainability is a top 3 priority, 18% higher than the global average. In a well-regulated industry, IT leaders understand that sustainability regulations will impact the technology. Even so, 69% say they are focused on getting the technology right before addressing ethical concerns.

To fully harness AI's potential and ensure security, BFSI leaders need a robust data infrastructure. This infrastructure should empower IT leaders to manage security risks and comply with sustainability regulations, all while maintaining high-quality data access for AI practitioners across the organization.

"Financial services organizations are highly cautious about sharing their proprietary data. They still often prefer to keep it on premises. However, this approach presents challenges in maintaining and scaling infrastructure. One of the major impacts is on sustainability. It's becoming an unavoidable consideration."

Mark Katz
CTO of Financial Services
Hitachi Vantara

02

The Hitachi Vantara POV: AI Demands Fresh Ground

Our research uncovers a glaring truth: IT leaders know data quality is crucial for AI success. But concerns like security are too urgent to ignore, and ROI is suffering.

It's time to rethink AI's foundation. AI's brilliance demands more from its infrastructure. Instead of having to choose between conflicting priorities, BFSI organizations need a unified system that does it all.

It must be **robust and scalable**.
Prioritize **high-quality data**.
Ensure **tight security**.
Enforce **total data governance**.
Integrate **sustainability**.
All at once.

Focus is needed on all these aspects, all the time. Neglect any, and you'll be left scrambling to catch up. Left in the dust. Or worse — facing the **steep cost of rebuilding stakeholders' trust**.

Prioritize Complete, High-Quality Data From the Start

AI models are only as good as the data they're trained on. Poor data quality means poor AI performance.

Good data quality rests on the foundations of a robust data infrastructure. Consider hybrid cloud environments to manage data while balancing cost, access, and security requirements.

How good is good enough with data quality?

When implementing AI, BFSI IT leaders ranked having high enough quality AI training data as their second highest concern (35%). If data quality is a widespread issue, restrict AI models to only use data that has been rigorously screened.

The organization's entire data system doesn't need to be perfect. To begin with, only the data used to build AI models and test the outputs needs to be fit for purpose. IT leaders can create a secure sandbox to test use cases with curated data they know and understand.

Gen AI is one of the foremast AI technologies being used by BFSI organizations today, especially in automating communications. Customer feedback and sentiment, for example, is analyzed with AI models to help develop products and increase customer satisfaction. Interestingly, 70% of organizations believe a clear use case or objective ensures the eventual success of an AI project.

Experiment Responsibly

As with any new technology, IT leaders need to experiment to realize the potential of GenAI and more traditional AI. Two out of five BFSI IT leaders (42%) said they are building AI skills through experimentation. However, without considering the impact and mitigating pitfalls, this strategy risks failure before it can succeed.

To overcome this knowledge gap, 67% are working with partners to help implement AI. Discovery programs delivered by experienced experts can identify the most valuable AI use cases, assess data readiness, determine ROI, and create a strategic roadmap for successful AI implementation. Overall, organizations feel that a top benefit of working with a partner is "creating future-proof structures."

Leveraging these resources can align ROI expectations and drive better outcomes across the business.

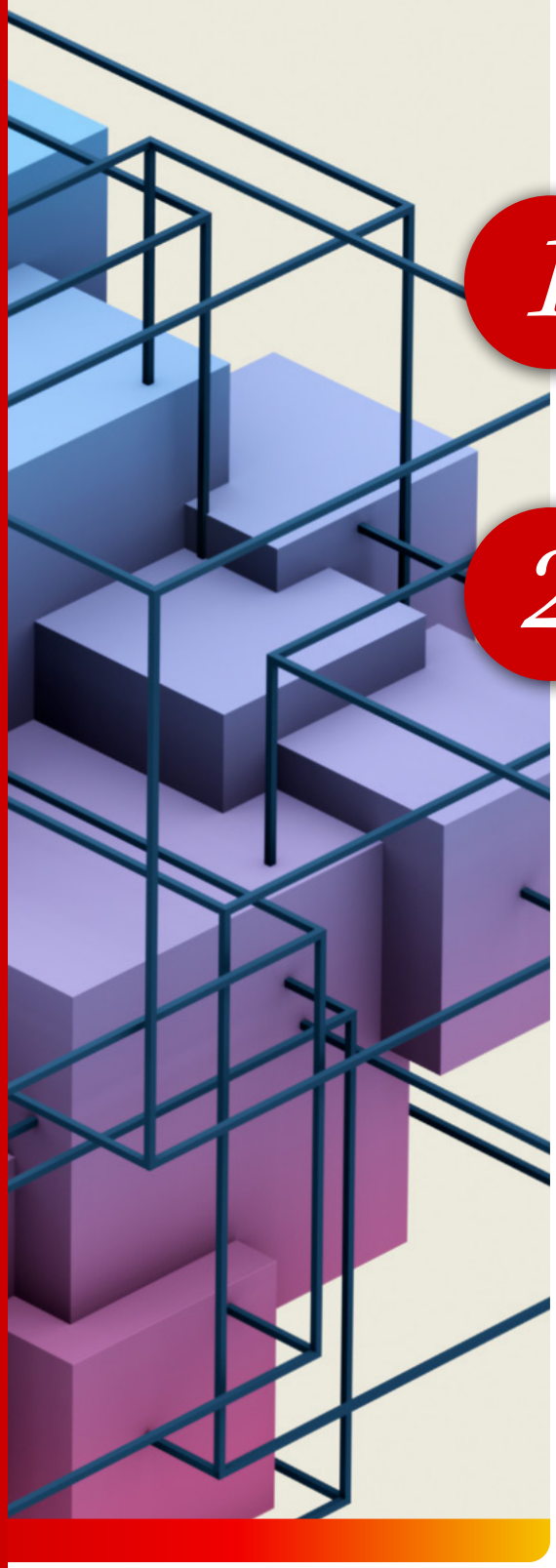
2 in 5

BFSI IT leaders are building AI skills through experimentation

Implement Sustainable Solutions at Every Step in the Stack

With one in three organizations concerned over sustainability regulation as it relates to AI implementation — especially in industries that are highly regulated, like BFSI — it's important to think green at every level of the value chain:

- Consider the consequences of **sustainability legislation**, now and in the future.
- **Hire the right talent** with knowledge of sustainable AI implementation.
- Closer to home, optimize **software and applications** to run efficiently, reducing processing power and data accessibility.
- Understand when AI is the correct tool for the job. This requires **strategic decision-making t**hat can free up resources.
- IT leaders must integrate sustainable thinking into their infrastructure, applications, models, data practices, and strategies right from the start.



Stay Current With Security Best Practices

1

Create and implement effective policies

As AI touches more areas of the organization, bring in diverse resources to build robust policies and procedures. Implement training to set appropriate expectations and requirements for IT staff, business leaders and non-IT employees. Combat risks in the most vulnerable areas of AI adoption, like explaining model outputs and potential reputation or trust risks.

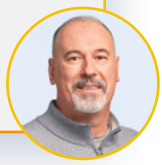
2

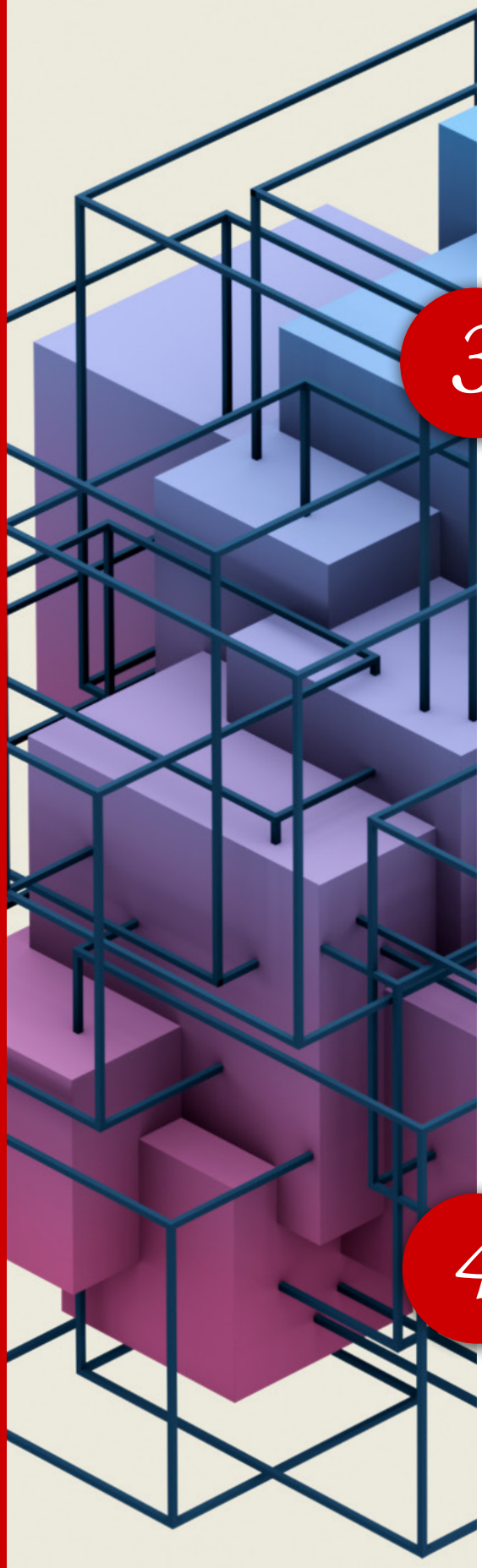
Data resilience across all vectors of risk

How will your organization recover when something goes wrong? Consider fallbacks and rollbacks. When hardware or software fails, what are the redundancy systems that will take over? When data gets corrupted, tainted or attacked, how can you roll back storage and AI models to mitigate the impact?

"If you're using internal documents, source code, images, or presentations, do you have the rights to that? Is there a simple way to trace the data sources you trained your AI with it? Maybe it was some source code you don't have the rights for, or maybe it's tainted with a viral GPU license. That's now problematic. We're building a data-time-machine that can isolate the training data at particular model versions so that you can recover from issues like this."

Octavian Tanase
Chief Product Officer
Hitachi Vantara





3

Reduce complexity

57% of IT leaders are trying to protect public, private, on-premises, and hybrid cloud environments simultaneously. The cloud has rapidly stretched the threat surface, creating more potential vulnerabilities.

> **"We have data centers that have private cloud environments, and then we have production workloads in four different public cloud environments. The Azure, AWS, GCP and Oracle Cloud Infrastructure, all over the place. Fun! I get to secure them all."**
>
> **CISO**
> Global financial services company
> USA

More than ever, vulnerability testing and management are necessary to reveal weaknesses in configurations or application design. Uniformly managed hybrid cloud environments reduce complexity and allows for more complete vulnerability management. Data security and processing tasks can even be automated for greater simplicity across hybrid cloud solutions.

As well as better security, unified data platforms also provide a robust infrastructure. Data can be easily tagged and virtualized to identify data that's ready for AI training, and time to insight is faster as data flows easily across applications, on-prem or in the cloud, through a simple, single data solution.

4

Predict bad actors

78% of BFSI IT leaders think AI will benefit hackers more than cybersecurity defenders. Although bad actors are leveraging AI and technology, these tools are also being considered for protection and security. 40% of BFSI IT leaders expect AI to identify risks and enable recovery.

Even should bad actors make it through the layers of protection, immutable, encrypted, and AI powered self-healing storage ensures backup data is always available and secure.

Pick the Right Tool for the Right Job

AI, specifically GenAI, is the latest, and greatest technology. It has applications and use cases in previously unimaginable areas. That doesn't mean it's always the right tool for the job. If you want to add up a few numbers, a calculator will perform better— It's more reliable, well-tested for security, and uses much less computing power. Be selective in the areas where AI is applied.

Define AI Success: The Power of Use Cases and KPIs

Finally, understanding and agreeing with business units on what you want to achieve with AI is crucial to success. Good department collaboration (40%) was the only marker that BFSI IT leaders said was more important than good data quality (36%) for successfully implementing AI.

Currently, 69% of BFSI IT leaders say they define use cases for AI rather than experimenting on everything. Along with use cases, key performance indicators (KPIs) must be identified to align the whole business on what success looks like. Leverage partners with AI knowledge to help establish guidelines and build AI — a common tactic, with about one in three organizations reaching out to such partners.

69%

of BFSI IT leaders **define use cases for AI** rather than experimenting

"From the outset, business and IT leaders must be aligned and fully invested in what constitutes 'Return on Data.' Clear use cases that align with a consistent business strategy and are enabled by a concrete data foundation will set you up for success. AI for AI's sake is not a successful strategy, but AI can be a powerful tool to accelerate your strategy. So, plan and execute wisely."

Simon Ninan
SVP of Business Strategy
Hitachi Vantara

The End of the Beginning

As much as AI has excited the world's imagination, we are only just scratching the surface. BFSI organizations that want to lead the way must lay good foundations of scalable, sustainable, and secure data infrastructure. The trustworthy data that AI depends upon to change the world can only be achieved by unwavering attention to quality throughout the organization.

Build AI for BFSI →

Hitachi Vantara

About Hitachi Vantara

Hitachi Vantara is transforming the way data fuels innovation. A wholly owned subsidiary of Hitachi, Ltd., we're the data foundation the world's leading innovators rely on. Through data storage, infrastructure systems, cloud management and digital expertise, we build the foundation for sustainable business growth.

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Corporate Headquarters
2535 Augustine Drive
Santa Clara, CA 95054 USA
hitachivantara.com | community.hitachivantara.com

Contact Information
USA: 1-800-446-0744
Global: 1-858-547-4526
hitachivantara.com/contact