Operations & Supply Chain Leaders' GenAI Adventures: Bridging the Knowledge Gap

The speed of generative AI (GenAI) development and adoption has been extraordinary. While several studies show high GenAI adoption rates for operations and supply chain, Russell Reynolds Associates wanted to better understand where these leaders are in their implementation journey, what actions they have prioritized, and where their teams are facing hurdles.

To accomplish this, we analyzed results from our H2 2023 Global Leadership Monitor, examining C-suite operations and supply chain leaders' views on and progress with GenAI implementation. We found that—while implementing GenAI is a strategic priority for most organizations—operations and supply chain teams are facing significant knowledge and skills gaps across organizational levels, which is hindering implementation efforts.

GenAI: A strategic priority backed by CEOs

GenAI is undoubtedly a strategic priority, and there is ample CEO support. According to an EY survey of 1,200 global CEOs in October 2023, 99% of the respondents are making or planning significant investments in GenAI, and 70% are accelerating investments to maintain a competitive advantage. To finance these investments, 69% of CEOs are reallocating capital from other investment projects or technology budgets, while 23% are securing new capital.[1] These commitments are reflected in planned budgets for 2024: according to a Gartner survey, chief supply chain officers are allocating a notable 5.8% of their budgets to

GenAI along with incremental employee spend to deploy this technology.[2]

However, for many organizations, the speed at which the market is responding to GenAI also poses an increased risk. C-suite operations and supply chain leaders are increasingly concerned about the risk of technological change to their organizations and feel less prepared to respond than a year ago (Figure 1). While these changes point to technologies more broadly, the rapid development of GenAI is likely a significant contributor to shifting sentiments.
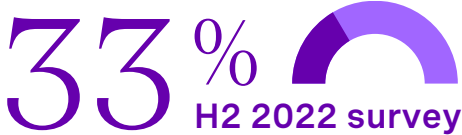
Figure 1: Technological change threat and operations and supply chain leadership preparedness
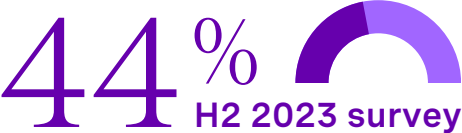
44% H2 2023 survey
Of C-suite operations & supply chain leaders rank technological change in the top 5 threats to their organization over the next 12 to 18 months (by mid 2025).
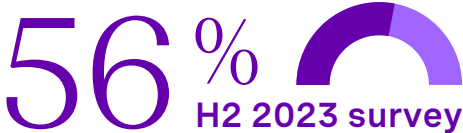
56% H2 2023 survey
Of C-suite operations & supply chain leaders believe their organizations are prepared to respond to technological change threat.
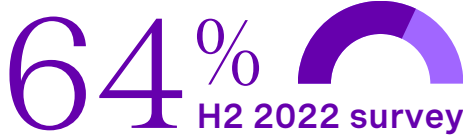
33% H2 2022 survey
Of C-suite operations & supply chain leaders rank technological change in the top 5 threats to their organization over the next 12 to 18 months (by mid 2024).

64% H2 2022 survey
Of C-suite operations & supply chain leaders believe their organizations are prepared to respond to technological change threat.
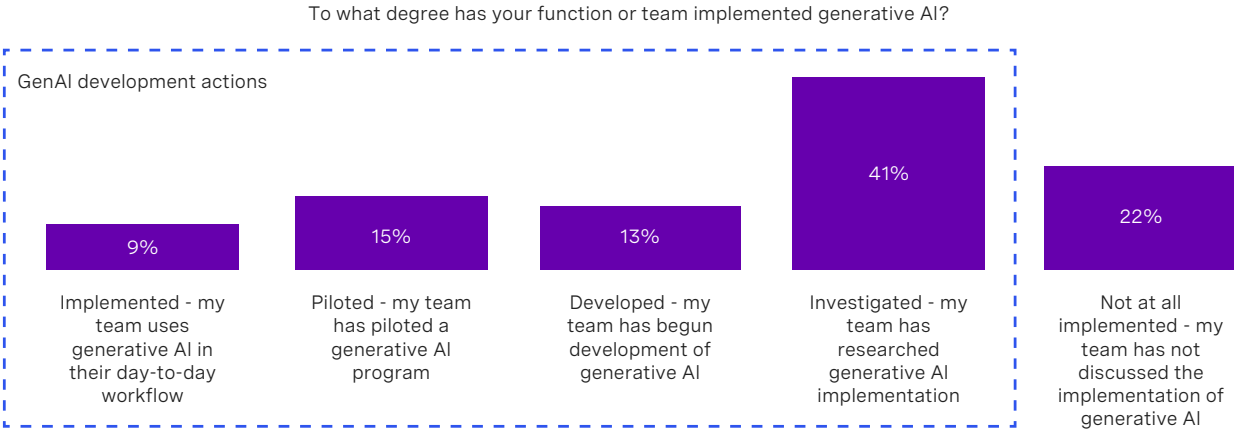
Russell Reynolds Associates' H2 2023 Global Leadership Monitor, N = 150 (H2 2023), N = 86 (H2 2022) C-level Operations and Supply Chain leaders.

From exploration to implementation: Mapping the GenAI journey

Our Monitor shows that 78% of operations and supply chain teams have taken at least one step towards implementing GenAI. While these adoption rates may seem high at the surface, only a small segment (9%) of these organizations have fully implemented a GenAI solution and are using it in their day-to-day workflow. Most leaders (41%) are still in the investigation phase (Figure 2).

Figure 2: Where are operations and supply chain functions in their GenAI implementation journey?

To what degree has your function or team implemented generative AI?

GenAI development actions

9%	15%	13%	41%	22%
Implemented - my team uses generative AI in their day-to-day workflow	Piloted - my team has piloted a generative AI program	Developed - my team has begun development of generative AI	Investigated - my team has researched generative AI implementation	Not at all implemented - my team has not discussed the implementation of generative AI

Russell Reynolds Associates' H2 2023 Global Leadership Monitor, N = 47 C-level Operations and Supply Chain leaders.

While the majority of operations and supply chain organizations are still in the early stages of their GenAI journey, there are several organizations working on solutions driving significant efficiency and quality improvements. Examples of those include Wendy's, Mercedes-Benz and Carrefour:

- **Wendy's** fast-food chain has partnered with Google to automate its drive-through service, which takes up to 80% of all its food orders. The goal is to streamline the ordering process with GenAI-powered chatbots and reduce drive-through lines. This is not an easy task—these tools must understand unique terms, phrases and acronyms customers use, different dialects and accents, changes in orders, and extraneous noise—but test results has been favorable. According to Wendy's Chief Information Officer, Kevin Vasconi, "it's at least as good as our best customer service representative, and it's probably on average better."[3]

- **Mercedes-Benz**, the German automaker, started testing ChatGPT in its production process, including quality management, in July 2023. Within its factories, ChatGPT will introduce a voice-based interface that enables employees without programming backgrounds to utilize data analysis tools and assess process production data. Following a successful pilot, the firm plans to roll out ChatGPT in its manufacturing sites globally.[4]

- **Carrefour**, a European retailer, is leveraging GenAI and process mining to transform its procurement processes. In a successful proof of concept, the company has implemented ChatGPT to streamline the comparison of procurement quotes, leading to significant efficiency improvements. Tasks that previously took 30 minutes are now taking only 10 minutes to complete. [5]

Closing the gap: Overcoming knowledge and skill barriers in GenAI implementation

As with every emerging trend, there are challenges. Our Monitor shows poor data quality, knowledge and skills, and data security as top barriers to GenAI implementation (Figure 3). These are evident to leadership: only 17% of surveyed C-suite operations and supply chain leaders believe their organization has employees with the right technical skills required to implement generative AI solutions. And like Doug McMillon, Walmart CEO, put it, "ultimately, the power of generative AI or any technology is only as good as the data that powers it."[6] Given that the cost of implementation is a low ranking barrier (only 29% selected), implementation budget doesn't seem to be a concern for most operations and supply chain leaders.

Figure 3: Top 10 barriers in GenAI implementation for C-suite operations and supply chain leaders

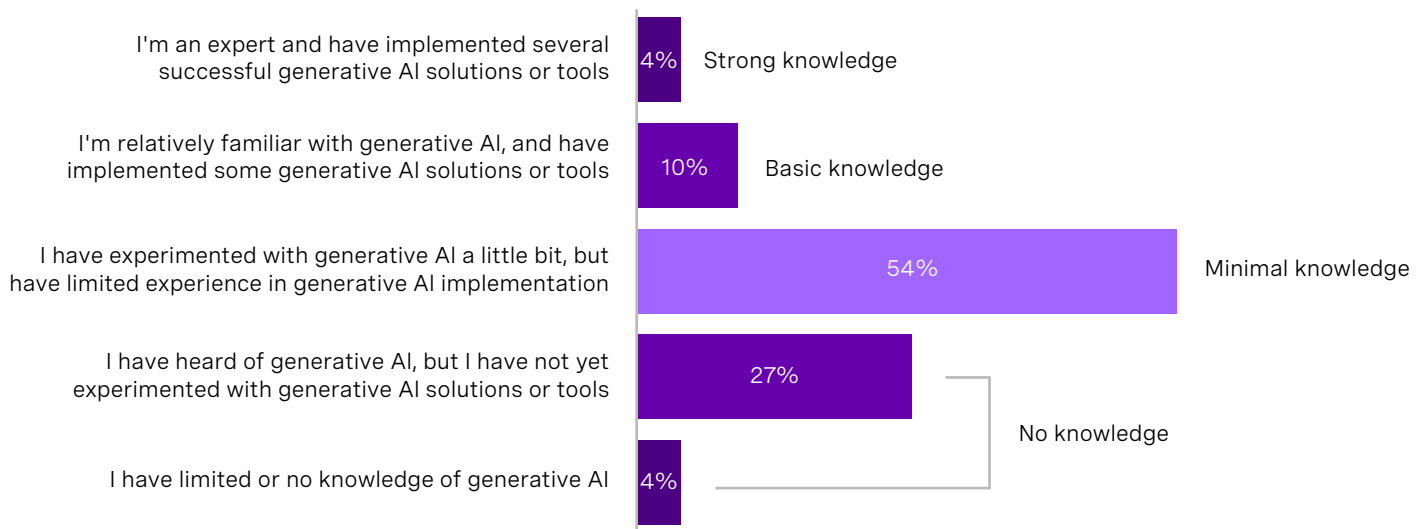| Barrier	%
Poor data quality within the organization	59%
Knowledge and expertise	50%
Data security privacy	49%
Technical skills	49%
Data governance, compliance, and legal	45%
Resistance to change from employees/workforce	45%
Time and resources	38%
Integration with existing systems	37%
Training and development	30%
Cost of implementation	29%

Source: Russell Reynolds Associates' H2 2023 Global Leadership Monitor, N = 47 C-level Operations and Supply Chain leaders.

This knowledge and skills gap applies equally to C-suites. While 72% of these operations and supply chain leaders believe a strong understanding of generative AI will be a required skill for future C-suite members, only 14% have a basic to strong knowledge of the technology (Figure 4). Given that 85% of surveyed C-suite operations and supply chain leaders have minimal to no knowledge about GenAI, majority of leaders are making decisions about this technology without properly understanding it.

Figure 4: How C-suite operations and supply chain leaders describe their familiarity and knowledge around generative AI?

I'm an expert and have implemented several successful generative AI solutions or tools	4% — Strong knowledge
I'm relatively familiar with generative AI, and have implemented some generative AI solutions or tools	10% — Basic knowledge
I have experimented with generative AI a little bit, but have limited experience in generative AI implementation	54% — Minimal knowledge
I have heard of generative AI, but I have not yet experimented with generative AI solutions or tools	27%
I have limited or no knowledge of generative AI	4%

No knowledge

Source: Russell Reynolds Associates' H2 2023 Global Leadership Monitor, N = 50 C-level Operations and Supply Chain leaders. Due to rounding, total does not sum to 100%.

While data quality and security are crucial to address, notable knowledge and skill gaps across organizational levels increase implementation risks and prevent operations and supply chain functions from fully benefiting from the momentum. Establishing training and development at all levels and investing in reskilling and hiring should be a priority. According to Boston Consulting Group, the effort devoted to business and people transformation—including activities such as business process redesign, change management, upskilling, and leadership development—will likely be greater for generative AI versus traditional AI implementation.[7]

Schneider Electric embraced a human-centric approach in their GenAI transformation, involving stakeholders company-wide from the start. Through 56 workshops over four weeks, they engaged over 200 internal stakeholders from 15 functions. Experts in AI and technology collaborated with business executives to raise awareness, co-create opportunities, and inspire employees.[8]

Driving success in GenAI implementations: Prioritizing knowledge and skills across employees and leadership

While there are early adopters, the majority of operations and supply chain organizations are still in the initial stages of their implementation journey. Additionally, these organizations are facing several barriers, including a notable knowledge and skills gap. With this in mind, CEOs and C-suite operations and supply chain leaders should consider the following:

- **Cultivate and attract talent**: Investing in employee training and development plans focused on GenAI will enable existing employees to upskill and adapt to the changing technological landscape. Additionally, expanding responsibilities among existing roles and talent can help distribute the workload and foster a culture of innovation and collaboration. In addition to training and development, operations and supply chain functions should prioritize recruiting. The competitive market for GenAI skillsets poses a challenge—particularly within operations and supply chain, which may not receive the same level of strategic recognition as other functions.

- **Address the knowledge gap among senior leaders:** It is evident that there is a lack of knowledge and skills

when it comes to GenAI, and many C-suite operations and supply chain leaders feel uncomfortable with the technology, which hinders its implementation. To overcome this, organizations should invest in educational initiatives to provide these leaders with the necessary understanding and confidence to drive GenAI development in their functions.

- With only 4% of C-suite operations and supply chain leaders identifying as GenAI experts, recruiting executives with necessary knowledge and skills is going to be a challenge. The successful implementation of GenAI requires leaders who can make educated decisions about this technology and/or guide and oversee implementation. **Partnering with an executive search firm can help identify and attract top talent with the necessary combination of skills and experience.**

By addressing knowledge gaps, cultivating talent, and strategically acquiring skilled employees and executives, organizations can navigate the challenges and capitalize on the opportunities presented by GenAI across their operations and supply chains.

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References

1. EY. November 8, 2023. CEOs bet big on generative AI to gain competitive edge despite hurdles to adoption and M&A challenges. https://www.ey.com/en_ie/news/2023/11/ceos-bet-big-on-generative-ai-to-gain-competitive-edge-despite-hurdles-to-adoption-and-m-a-challenges

2. Gartner. January 10, 2024. Gartner Survey Shows Half of Supply Chain Organizations Plan to Implement GenAI in the Next 12 Months. https://www.gartner.com/en/newsroom/press-releases/2024-01-10-gartner-survey-shows-half-of-supply-chain-organizations-plan-to-implement-genai-in-the-next-twelve-months

3. Angus Loten. May 9, 2023. Wendy's, Google Train Next-Generation Order Taker: an AI Chatbot. The Wall Street Journal. https://www.wsj.com/articles/wendys-google-train-next-generation-order-taker-an-ai-chatbot-968ff865

4. Kate Magill. July 19, 2023. Mercedes-Benz brings ChatGPT to factories. Supply Chain Dive. https://www.supplychaindive.com/news/mercedes-benz-chat-gpt-auto-factories/688355/

5. Bill Detwiler. December 22, 2023. Retailer Carrefour is transforming procurement with a process approach to generative AI. Celonis. https://www.celonis.com/blog/retailer-carrefour-is-transforming-procurement-with-a-process-approach-to-generative-ai/

6. Roberto Torres. August 21, 2023. Walmart's AI push prioritizes customer experience, personalization. Retail Dive. https://www.retaildive.com/news/walmart-AI-customer-experience/691263/#:~:text=from%20your%20inbox.-,Walmart%27s%20AI%20push%20prioritizes%20customer%20experience%2C%20personalization,CEO%20Doug%20McMillon%20said%20Thursday

7. Vinciane Beauchene et al. November 8, 2023. Schneider Electric's Journey to a Generative AI Future. BCG. https://www.bcg.com/publications/2023/energy-management-company-journey-to-generative-ai-future

8. Vinciane Beauchene et al. November 8, 2023. Schneider Electric's Journey to a Generative AI Future. BCG. https://www.bcg.com/publications/2023/energy-management-company-journey-to-generative-ai-future

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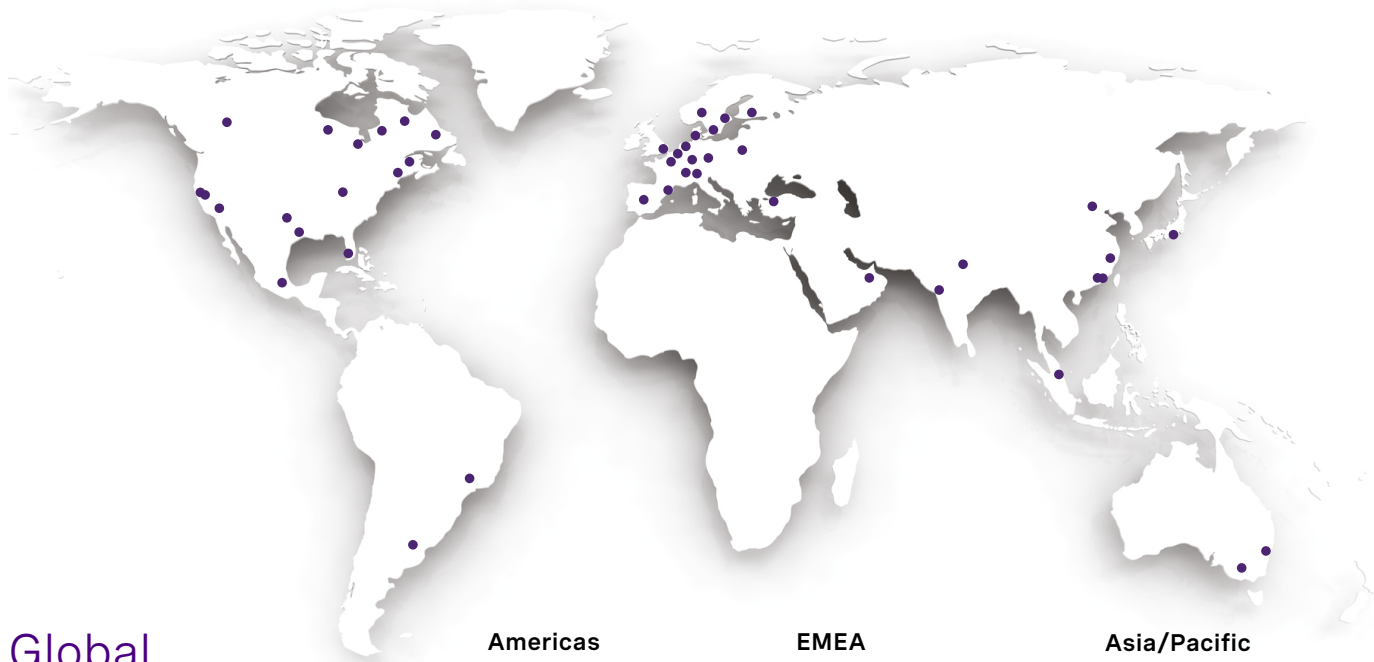
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