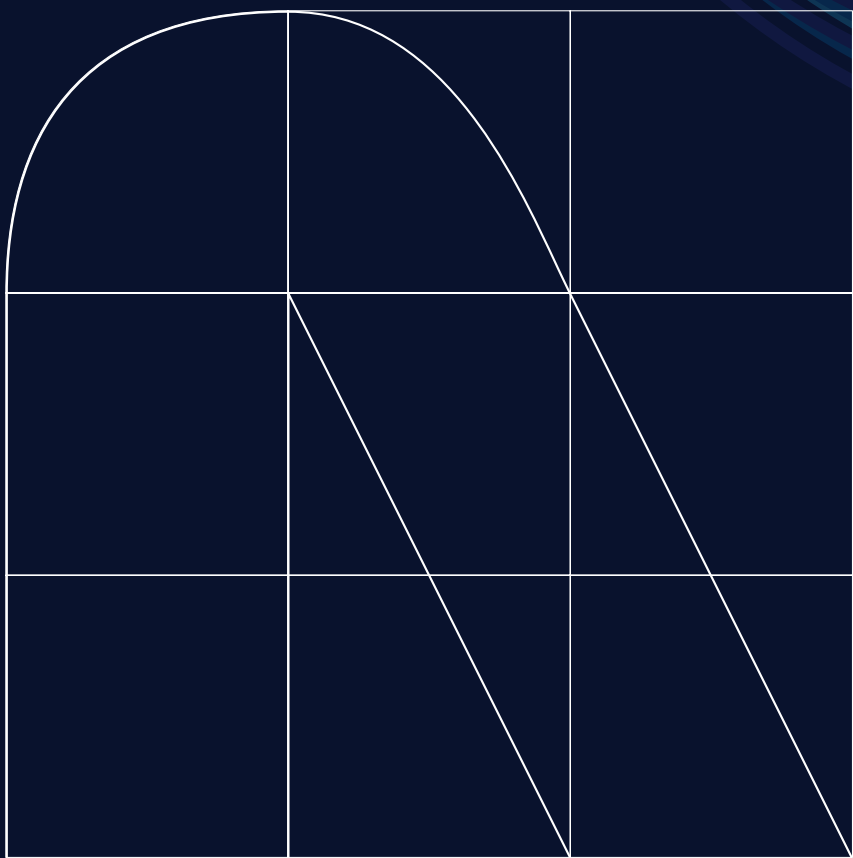
NTT DATA Perspective

Digital dexterity and the coming business resilience paradigm shift

And what manufacturers should do to prepare



We all know what business resilience means, but do we know what it looks like?

Almost all senior executives (97%) in global organizations consider business resilience as very or somewhat important. However, less than half (47%) believe their organizations are sufficiently resilient today.[1] And the source of that insufficiency is clear, with leaders pointing to evolving technology and the lack of needed talent cited as the two top barriers.[2]

Business resilience is, broadly, how well an organization can respond and adapt to change.[3] But, within the manufacturing ecosystem, the specific characteristics of resilience are constantly evolving. This means the standard for exceptional business resilience is ever-changing. So is the point where resilience becomes a competitive advantage. In this piece, we'll highlight the trends that'll shape the future of resilience in manufacturing. And suggest proactive steps manufacturers can take now to prepare for the upcoming shift.

Manufacturers should begin preparing now for a new normal in which:

- Digital transformation is a thing of the past because digital dexterity has become universal
- Business resilience is inextricably tied to an organization's overall digital dexterity
- All business leaders — not only IT leaders — can intuitively assess the capabilities and performance of their technologies as well as they do that of their employees

The evolving landscape of business resilience

Today, business resilience often relies on static models that reflect past events. This method is increasingly outdated, as recent, more intense disruptions have shown. Moving forward, a fresh approach is necessary. Before considering what'll need to change, it's helpful to envision what's to come.

It's clear that manufacturers will continue to face disruption, be it geopolitical, economic, social, environmental or technological. These challenges will impact all areas: from product development, market entry and supply chain management to resource availability and overall competitiveness. Preparing for such multifaceted disruptions means you can't merely base strategies on existing patterns.

Instead, successful readiness will require anticipating a future where dynamic digital resilience forms the bedrock of a manufacturer's strategy. The roots of this mindset are in place today. A recent Forbes article observed that "digital transformation is switching from traditional targets such as driving profits, revenue or growth toward building resilient businesses."[4] The culmination of this trend is that by 2030, the concept of digital transformation will most likely be redundant. Digital integration that enables business resilience will simply be universal.

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Harnessing digital dexterity for business resilience

In a world where business resilience is fully digital, the leaders will be those with superior digital skills. Digital dexterity will permeate all manufacturing operations: from the shop floor and supply chain management to client interactions. Such universal digital expertise will be the new bar for business resilience that companies must reach.

To prepare for that future, there needs to be a pivotal shift from conventional operations management to a digital-first approach. Because, at its core, digital dexterity hinges on the seamless integration of data, automation and artificial intelligence (AI) across all business functions. Today, the goal is to begin embedding digital elements in every operational aspect. Come 2030, what we now regard as digital capabilities should be fundamental business functions. This shift promotes technology from a mere tool to a strategic enabler.

However, it's essential to note that digital dexterity isn't about specific technologies, such as hyperautomation, augmented reality (AR) or data analytics platforms. It's about the ongoing commitment to innovation. Short-term tech solutions should give way to cultivating lasting capabilities. Only then will these digital skills, turned business functions, truly fortify business resilience.

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> **"By 2030, business resilience strategies will be a balanced blend of top-down and bottom-up approaches.**

Expertise in digital operations is invaluable here. Collaborating with partners skilled in digital operations can provide insightful guidance. Achieving digital dexterity requires a solid, digital-first operational framework. This blueprint will guide businesses, providing the agility and adaptability essential for lasting resilience.

It's vital to weave digital operations into your overarching business strategy now. NTT DATA's Innovation Index for 2023 found that more than half of executives feel integrating modern technology into existing processes is one of the top three most important approaches to managing global disruption.[5] However, integration is complex. It requires a holistic strategy, starting with selecting and mastering the right technologies. The goal is to elevate them from mere tools to genuine business assets, reminiscent of how companies once incorporated enterprise resource planning (ERP) solutions. Now, the emphasis is on mastering AI and other cutting-edge technologies, seamlessly integrating them into current structures.

The intersection of digital dexterity, workforce development and proactivity

The heart of a manufacturer's digital dexterity is its workforce. Yet the 2023 Innovation Index shows that today, 43% of organizations (3x the amount compared to our 2021 report) lack employees with the needed data and analysis skills to use data effectively.[5] Realizing the full value of a business's data more readily will be key in the years to come. Preparing your workforce for digital dexterity isn't a short-term target; it's a long-term imperative. Nurturing talent proactively will fortify business resilience, not only for the present but for the foreseeable future.

In practical terms, you should make sure every employee open to embracing innovative technologies gets a chance to do so. Concurrently, you'll attract new talent with essential skillsets. This blended workforce will bring diverse experiences and aspirations, and your organization must be equipped to fulfill them.

By meeting these needs, businesses can foster a ground-up, decentralized approach to business resilience. Encouraging the workforce to spearhead and cultivate initiatives organically will resonate more with employees across the board.

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> **"By 2030, leaders will need the business and technology acumen to view their digital assets with the same acuity as they do their human workforce.**

The goal isn't to discard top-down strategies but to enrich them with grassroots projects. Embracing a philosophy of continuous, incremental enhancements — even if it's a 1% improvement daily — can compound over time.

Even as you prepare now for a more blended workforce, our understanding of workforce will shift. Just as you wouldn't overlook the contributions of human staff, you should direct similar attention toward digital assets. That is, you should view assets such as AI as essentially another employee with a defined role. Recognizing how each digital component aligns with company objectives aids precise planning, enhancing business resilience.

It's essential for business leaders to adopt the mindset of technology experts, and vice versa. As technologies like AI gain prominence in manufacturing, leaders should be well-acquainted with them. Recognizing and assessing the quality of the contributions of AI algorithms should be as intuitive as understanding the roles of planners, transaction managers or factory supervisors.

Unlocking success in business resilience

Digital dexterity paves the way for rapid adaptation to change, ensuring minimal disruptions and sustained operations — helping organizations develop:

- **Anticipatory skills.** Advanced digital tools empower businesses to foresee supply chain disruptions or market shifts, facilitating proactive strategies.
- **Swift decision-making.** With the capability to process large datasets swiftly, digital tools facilitate timely and informed decision-making. This, in turn, augments operational resilience.
- **Unified operations.** Full-fledged digital operations mean integrated operations, providing fluid information exchange across teams and aiding efficient coordination during disruptions.
- **Data-driven strategies.** Digital processes supply the insights needed for informed decisions at every organizational level, reinforcing resilience.
- **Workforce optimization.** Employees proficient with digital tools can better adapt to changes, amplifying business resilience.
- **Market acumen.** Digital tools track market and consumer trends. They help businesses recalibrate marketing plans, production timelines or product designs responsively.
- **Transparent supply chains.** Digital tools grant better visibility into supply chains. This facilitates the early spotting of challenges and fosters nimble reactions, which strengthen resilience.

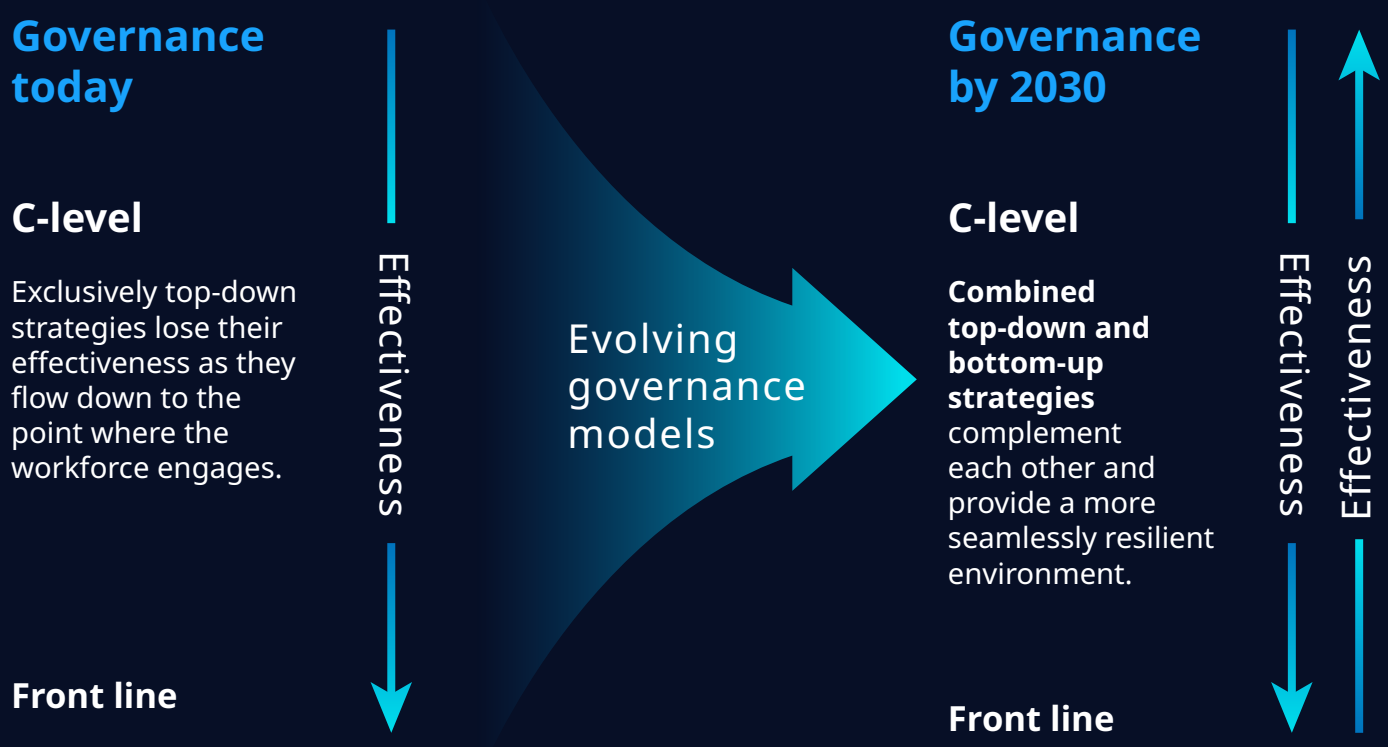
Examples are plentiful. They range from businesses using AI to anticipate supply chain issues to those employing real-time analytics to discern consumer preferences and finetune marketing approaches. The unifying factor is that digital strategies empower companies to adapt with agility, reinforcing their resilience.

The capabilities stemming from technology should be universally implemented by 2030. This will be the catalyst for persistent enhancements in business resilience. While governance and strategic direction will continue to play pivotal roles, they'll require evolution. High-level objectives will remain vital, but they shouldn't strictly define technological initiatives. A more fluid governance model that embraces initiatives from diverse organizational levels is essential. Let's delve into this transition.

Business resilience strategies will shift from being predominantly top-down to a balanced blend of top-down and bottom-up approaches. The Harvard Law School Forum on Corporate Governance observes that current trends in global corporate governance have already begun to deprecate purely top-down governance, questioning board effectiveness and CEO performance in governance.[6]

This shift acknowledges that traditional top-down strategies sometimes miss their mark as they cascade through an organization. What we'll see is a method that's more encompassing, rooted and unified across different organizational tiers.

This shift entails a transition from solely vertical strategies to comprehensive horizontal integration. Such a transformation will seamlessly assimilate diverse contributions across organizational levels. However, achieving this extensive change demands tight coordination and alignment. This is especially true among key leadership roles like the chief business officer, chief digital officer, chief information officer and chief technology officer. These leaders will need to synergize, concentrating on shared objectives rather than isolated challenges.



Truly embracing digital dexterity

Digital dexterity won't be important exclusively to tech enthusiasts. It'll become a foundational trait of all successful leaders. Even now, the Harvard Business Review points specifically to CEOs,[7] while CIO Magazine cites the entire C-suite,[8] as needing to achieve digital dexterity. Neglecting to grasp its significance is akin to sidelining a crucial business component.

Approaching 2030, we predict a stronger congruence between business and technological strategies, championed by leaders proficient in both realms — in essence, digital maestros. Such alignment will foster a robust and streamlined manufacturing sector, giving you a competitive edge in an intricate business landscape.

Let's be unequivocal: Adapting is non-negotiable. Overlooking the potential value of digital assets poses a tangible business risk. Leaders must grasp the function and performance of each technological component, gauging if it's excelling or lagging, and contextualize its contribution.

In the digital-rich milieu of the future, such insights will be indispensable. Just as executives are attuned to human workforce efficiency, they'll need analogous comprehension of their digital assets' metrics. Understanding, for instance, the reliability and trustworthiness of an AI algorithm can significantly influence decision-making. Business isn't strictly binary.

Final reflections

By 2030, the manufacturing realm will undergo a profound metamorphosis, leaning into a synergized approach to business resilience. This approach will be buttressed by adaptable tech solutions, an agile governance structure and an organization's digital prowess. Emphasis will pivot to result-driven strategies, possibly using a bimodal or trimodal approach. This not only targets optimal enablement but also champions autonomy in problem-solving. Equipping the workforce with the right tools — and confirming their expertise in them — is paramount.

About the author

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Siva Gurupackiam is an experienced professional who's passionate about applying technology to support business transformation in a highly dynamic industry ecosystem. He has over 25 years of global experience and a demonstrated history of working in the manufacturing and IT industry. Siva has held leadership roles managing industry strategy and solutions, profit and loss, client relationships, technology solutions, delivery and sales, as well as offering portfolio and merger integration. He has a mechanical engineering degree and hails from a strong steel manufacturing and ERP background. Siva's experience spans across multiple industry segments, including automotive, industrial, consumer durables, telecom, pharma, medical devices and high-tech.

Sources

1. SAS. “Resiliency Rules Report.” 2023. https://www.sas.com/content/dam/SAS/documents/corporate-collateral/brochures/en-resiliency-rules-113364.pdf
2. Control Risks. “Global Resilience Report.” 2023. https://www.controlrisks.com/-/media/corporate/files/campaigns/global-resilience-survey/2023-global-resilience-report-control-risks.pdf
3. ISO. “Security and resilience — Guidelines for organizational resilience.” ISO/DIS 22316. https://www.iso.org/obp/ui/#iso:std:iso:22316:dis:ed-1:v1:en
4. Bernard Marr. “Permacrisis: Resilience Emerges As Key Focus For Digital Transformation In 2023.” February 2, 2023. Forbes. https://www.forbes.com/sites/bernardmarr/2023/02/03/permacrisis-resilience-emerges-as-key-focus-for-digital-transformation-in-2023
5. NTT DATA. 2023 NTT DATA Innovation Index. November 2023. https://us.nttdata.com/en/insights/innovation-index
6. Sydney Carlock, Sean Quinn, and Diana Lee Teneo. “2023 Proxy Season Review: Institutional Investor Expectations in a Divided World.” Harvard Law School Forum on Corporate Governance. November 13, 2023. https://corpgov.law.harvard.edu/2023/03/10/global-corporate-governance-trends-for-2023/
7. Dan Graves. “Today’s CEOs Need Hands-On Digital Skills.” Harvard Business Review. November 26, 2021. https://hbr.org/2021/11/todays-ceos-need-hands-on-digital-skills
8. Esther Shein. “Building digital fluency in the C-suite and beyond.” CIO Magazine. September 11, 2023. https://www.cio.com/article/651526/building-digital-fluency-in-the-c-suite-and-beyond.html

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