

What's Next for Manufacturing?

By Sath Rao
Director Digital Solutions for Manufacturing
Industry Solutions Marketing
Hitachi Vantara



POINT OF VIEW

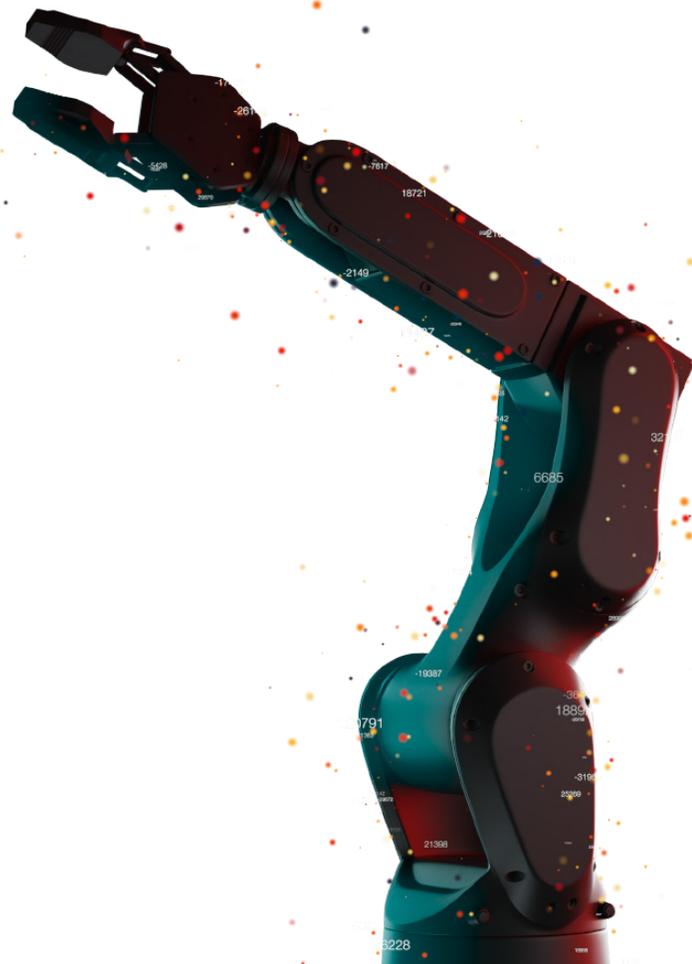
Lessons from the Pandemic for the Next Normal

The pandemic has brought about several fundamental changes that will have far reaching consequences. Getting ready for the next normal will require a reexamination of investment and transformation paradigms by CxOs and transformation leaders. Do you continue to examine use cases by aligning them with organizational value and financial returns or instead based on your organizations intelligent manufacturing maturity stage, pick transformation themes and then challenge your teams to align use cases that will help you be better prepared for the Next Normal? New challenges and thematic shifts require new perspectives and paradigm changes.

From the immediate panic to pragmatic response, the manufacturing industry is coming to terms with a reassessment of the transformation imperative. Starting with responses that were “break glass in case of emergency” oriented rapid fixes there is clear need now to examine “break data silos” and “breaking into a Digital First” approaches.

To be better prepared for the Next Normal, traditional approaches will require rewiring. Manufacturing organizations have to rethink how they will approach investment decisions. Technology is more than ever before a strategic lever for both transformation and cost optimization. Operational innovation and incremental change are the corner stones but a new approach to evaluate investment not based on use case return-on-investment (ROI) alone but also that align with the themes of Resilient Operations, and Refactor Innovation Factory and Reimagine Workspaces & Workforce will be critical.

This point-of-view is increasingly being supported by the analyst community and manufacturing leaders.



Resilient Operations

Business agility and the associated ability to respond to both supply and demand shocks is fundamentally accelerating the need for Information Technology (IT) and Operational Technology (OT) convergence. As business pivots to new business models and becomes more customer-centric, CxOs will have to shift budgets to fund transformation initiatives on the OT side as well. Automating workflows, architecting a smart analytics architecture and orchestrating teams to work together to appreciate constraints and drive industrial manufacturing maturity is paramount. The ability to flex manufacturing production, and dynamically adjust schedules in line with the emerging reality will require new insights. Resilience is more important than productivity. Digital Kaizen (good change) approach which leverages instrumentation and connectivity, and machine learning for continuous improvement will also be critical. Traditional approaches are quickly being replaced by digital approaches that include analytics for operations.

Recommendation:

Funding change during a crisis tends to follow a quick “fix and done” approach. It is beneficial to triage and also examine a full-panel assessment of what is needed to fix data silos and relevant-time assessments of operational performance metrics. Not everything needs to be real-time. Challenge teams to break large requirements into critical use cases that tie back to emerging transformation themes. Roll-out a financial justification of how each-use case can pay for the next. Common goals and incentives for IT/OT can reduce friction. Consider deputing people between IT & OT departments to foster better understanding and deliver on shared goals.

Refactor Innovation Factory

The current pandemic has quickly brought the spotlight back to supply-chain reshoring, rewiring and supervisory control-tower approaches that are focused on not only cost reduction and optimization but that also allow redundancies and the ability to innovate. Accelerating digital innovation must now include supply-chain as well as connected operations and customer experiences. Cloud providers are also innovating on cyber security and providing AI-powered applications that improve the organization's ability to drive data-driven decisions. The product-to-services transition has accelerated. New business models and pricing approaches also necessitate agility for manufacturing operations. Edge-to-cloud deployments, automated workflows and software-as-a-service are increasingly becoming central to innovation.

Recommendation:

On-prem is important for certain applications, data types and regulatory requirements, but the acceleration to edge-to-cloud deployment is inevitable. Cloud migration benefits far outweigh the initial “lift and shift” and application modernization challenges. Consider unique strength of partners to help rescale innovation in a multicloud world. Operational innovation will require a culture that rewards risk-taking and learning. Investments in AI-enabled smart analytics architecture enables creation of repeatable and reusable use cases. Economies of learning is more important than economies of scale.

Reimagine Workspaces & Workforce

The big learning from the pandemic has been that every organization has to focus now on digital health and safety. This is important to ensure safe manufacturing, maintain employee morale, and mitigate social risks. Remote operations and automation will be the norm and man-machine collaboration have to be front and center of such transitions. Increasing use of video and 3D LiDAR to monitor social distancing and employee health will be required. Privacy and cybersecurity concerns have to be factored into operations. The ability to retrain workers while using a judicious mix of automation and robotics will redefine workforce initiatives. Skills and “know how” retention will require virtual and augmented reality applications. The convergence of these forces of change will require the designation of smart spaces in manufacturing operations. These smart spaces will enable collaboration and orchestration of humans, machines and data not just for safety but also for new use cases enabled by 5G, video and 3D LiDAR technologies.

Recommendation:

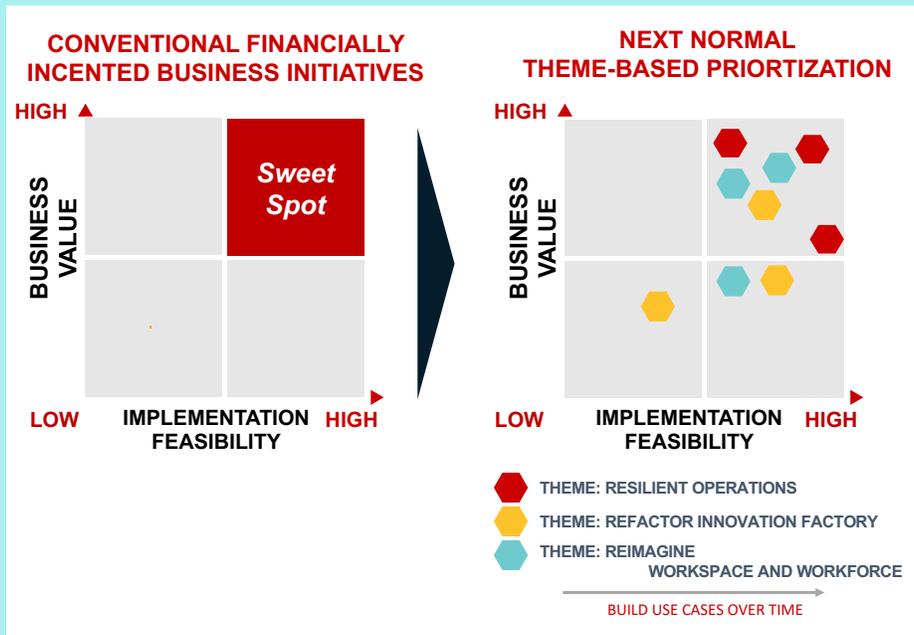
Advanced analytics now includes the capability of video analytics, 3D LiDAR and advanced sensors. Smart spaces are effective enablers of human, machine and conventional and collaborative robotics. Refactoring workforce for the new requirements of safe operations and leveraging learning of AI and ML will have significant cost benefits. This will also enable customer benefits, better quality and increased throughputs.



40%

By 2023, because of IT/OT technology convergence, asset-intensive industrial companies will allocate 40% of their development budgets to operational technology and digital service.

Explore IDC Industry Spotlight on A Road Map for IT/OT Convergence and Data-Driven Decision Making. [Download the Whitepaper.](#)



Reevaluate Conventional Financially Incented Use Case Evaluation with a Transformation Theme Based Approach for the Next Normal

CxOs and transformation leaders have traditionally relied on robust investment criteria, with hurdle rates and tie-backs to corporate digital transformation agenda. There is focus on picking low hanging fruits where the implementation feasibility and the business value are both high. Preparing for the “Next Normal” will require thinking through a new rationale of theme-based approach of accelerating the transformation but also readying the organization for disruptions ahead.

Each organization has its own unique circumstance and based on the stage of its maturity in the intelligent manufacturing journey, will need to harness use cases under the 3 Rs themes of Resilient Operations, Refactor the Innovation Factory and the Reimagine Workspace and Workforce. CxOs and leaders need to challenge teams to examine use cases that fit into these “Next Normal” themes that can also drive transformative outcomes. These themes define not only new value but will also be pivotal to gain the edge for the future.

It is critical to understand the art-of-the-possible, benefit from an outside-in perspective, and a proven vision-to-value approach. Hitachi Vantara has 110+ years of OT experience and 60+ years of IT experience and has partnered with the manufacturing industry to deliver successfully on this approach. Hitachi Vantara’s Manufacturing Practice accelerates your readiness for the “Next Normal” and brings the lessons from our own journey at Hitachi’s Omika Works to gain the WEF Global Lighthouse Network status.

Schedule time with our manufacturing subject-matter experts and ask for an Intelligent Manufacturing Maturity Assessment for your operations.

 [Learn more.](#)

We Are Hitachi Vantara

We guide our customers from what’s now to what’s next by solving their digital challenges. Working alongside each customer, we apply our unmatched industrial and digital capabilities to their data and applications to benefit both business and society.

Hitachi Vantara



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

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