



2021 Supply Chain Series

The Why, How & So-What of Inventory Visibility

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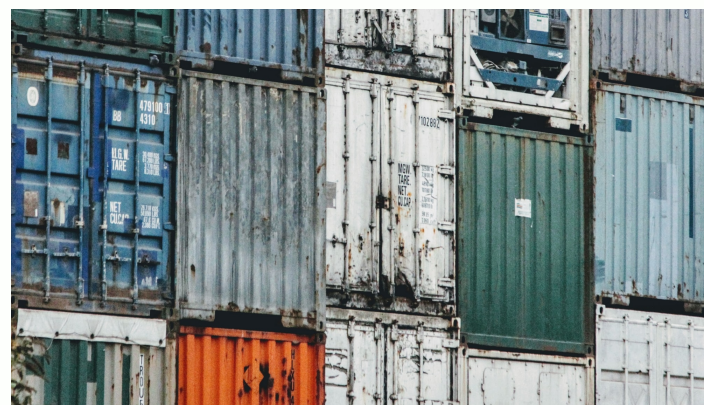
In 2020, a confluence of factors impacted global supply chains in fundamentally transformative ways.

Digital acceleration.



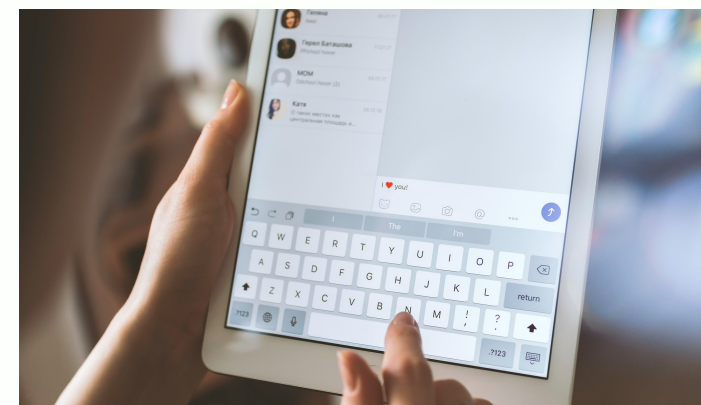
A multi-generational shift in eCommerce adoption has occurred in 2020. While COVID-19 acted as a catalyst for this change, and growth rates may slow in the coming quarters – this is not a reversible trend. A new baseline is in place for shopper behavior.

Supplier & supply disruptions.



From inventory locked in factories and stores during global lockdowns to multi-fold demand surges for essential items; from evolving global trade policies to smaller suppliers facing existential threats – the global supply chain has been reshaped.

Shopper imperatives.



The events of 2020 have impacted humanity in deep and transformative ways, including what we, as shoppers, value. Safety is the new experience table-stakes. Store-based experiences such as BOPIS and curbside pick-up are redefining convenience. And, shoppers demand total transparency – from product origin to order delivery.

A new economic reality.



Consumers and enterprises alike will have to contend with the long-term impact of high unemployment, shrinking GDP growth, and loss of consumer activity across sectors such as travel, hospitality and brick & mortar retail. Even as eCommerce growth offers retailers a rare silver lining, profitability concerns remain.

With so much having changed, the status-quo of the retail supply chain is unsustainable.

Processes and systems were not designed with today's reality in mind. However, before retailers define or refine their transformation roadmap, the year end offers a good opportunity to take stock and look ahead. To assist with this effort, Incisiv conducted a survey of retail executives to understand supply chain priorities, strategies, challenges and performance benchmarks. The survey was fielded between November 11, 2020 – December 3, 2020 across the US, EMEA and APAC.

Insights from Incisiv's research will be presented in a four-part series. Each part will focus on a specific, actionable theme to help retailers progress on their supply chain transformation journey.

- **The Why, How & So-What of Inventory Visibility (this eBook)**
- 4 Key Tenets of the Digital Supply Chain
- Omnichannel Fulfillment Imperatives
- The 2021 Digital Supply Chain Technology Outlook

253

executives surveyed

87%

Director level or above

50%

with annual revenue > \$1B

Unless stated otherwise, all data in this report is from the Incisiv 2021 Digital Supply Chain Survey.

[See detailed survey methodology and demographics](#)



01 | The Why

Inventory visibility is axiomatic to
future retail excellence.

Retailers' top customer experience and operational excellence use-cases all rely on inventory visibility.

Retailers' customer experience priorities in 2021 are focused on improving shopper convenience and transparency.

Retailers' top 5 customer experience priorities for 2021

1. Innovating new customer experiences (such as BOPIS and Curbside Pick-Up) quickly
2. Offering shoppers greater visibility into store inventory online
3. Providing more accurate delivery or pick-up times
4. Offering shoppers more accurate deliver-by estimates
5. Improving order status transparency

While retailers reacted quickly to sudden changes in the macro environment, having to adopt a "duct tape" approach has left crippling gaps in their processes and systems.

Retailers' top 5 supply chain operational priorities for 2021

1. Accessing enterprise-wide inventory to fulfill demand anytime, anywhere
2. Improving forecast accuracy in uncertain environments
3. Improving profitability of omnichannel operations
4. Re-allocating inventory to preserve cash
5. Reducing out-of-stock inventory

What is inventory visibility?

Though an accepted industry term, inventory "visibility" is a bit of a misnomer. It is not just about inventory being visible, but about it being available and actionable to any internal or external end-point.

Retailers must assess inventory visibility across the following three dimensions:

Velocity.

Do you have real-time access to inventory?

Veracity.

Is inventory data accurate, and do you trust decisions based on it?

Viability.

Is inventory available and actionable across all channels and touchpoints?

Without inventory visibility retailers are flying blind into the unknown, and will lose both customer loyalty and margin.

Flying blind.

Retailers will continue to struggle without complete visibility and control of inventory across their supply chain.

72% of retailers

do not have a single view of inventory.

69% of retailers'

store and service associates do not have access to enterprise-wide inventory.

A patchwork of systems.

Rather than address fundamental technology architecture issues, most retailers have cobbled together a patchwork of systems.

1 in 3 retailers

do not combine online and store inventories.

3 in 4 retailers

believe current efforts do not adequately prepare them for future supply chain disruptions.

Flawed execution.

This, in turn, has led to an increase in execution errors and a less than ideal customer experience.



2,510 shoppers rated their recent curbside pick-up experience an average 3.53 stars (out of 5).

Source: Incisiv & Manhattan Store Study, 2020

82% of retailers

experienced an increase in order fulfillment errors in Q3 2020 compared to Q3 2019.

Margin erosion.

Increased operational complexity and a lack of decision-making sophistication means retailers are bleeding precious margin.

Profitability of orders fulfilled from stores reduced for

79% of retailers

in Q2 2020 vs Q1 2020.

Source: Incisiv & Manhattan Store Study, 2020

Historically, retailers' inventory visibility investments have lagged their intent.

The lack of inventory visibility has been a perennial retail challenge. The disruptions caused by COVID-19 only served to highlight the lack of progress retailers have made over the years despite similarly stating it as a strategic priority.

- "Improving inventory visibility" **has appeared as a top-3 supply chain priority** in Incisiv's Annual Supply Chain study for the past 3 years
- **Retailers' inventory visibility maturity has reduced** from 2018 to 2020 (from 9% of retailers assessed as "industry leaders" in 2018 to 6% in 2020)



Will this time be different, and retailers make real progress?

Conditions are ripe for retailers to make advances in improving inventory visibility.

- **Alignment between business and technology teams** has improved dramatically on the issue, both citing it as their top supply chain priority for the first time
- In 2020 **twice as many C-suite respondents** said improving inventory visibility is "very important" compared to 2019.

However, for transformation to take hold, enterprises need an incremental roadmap that helps them achieve big outcomes with smaller first steps.

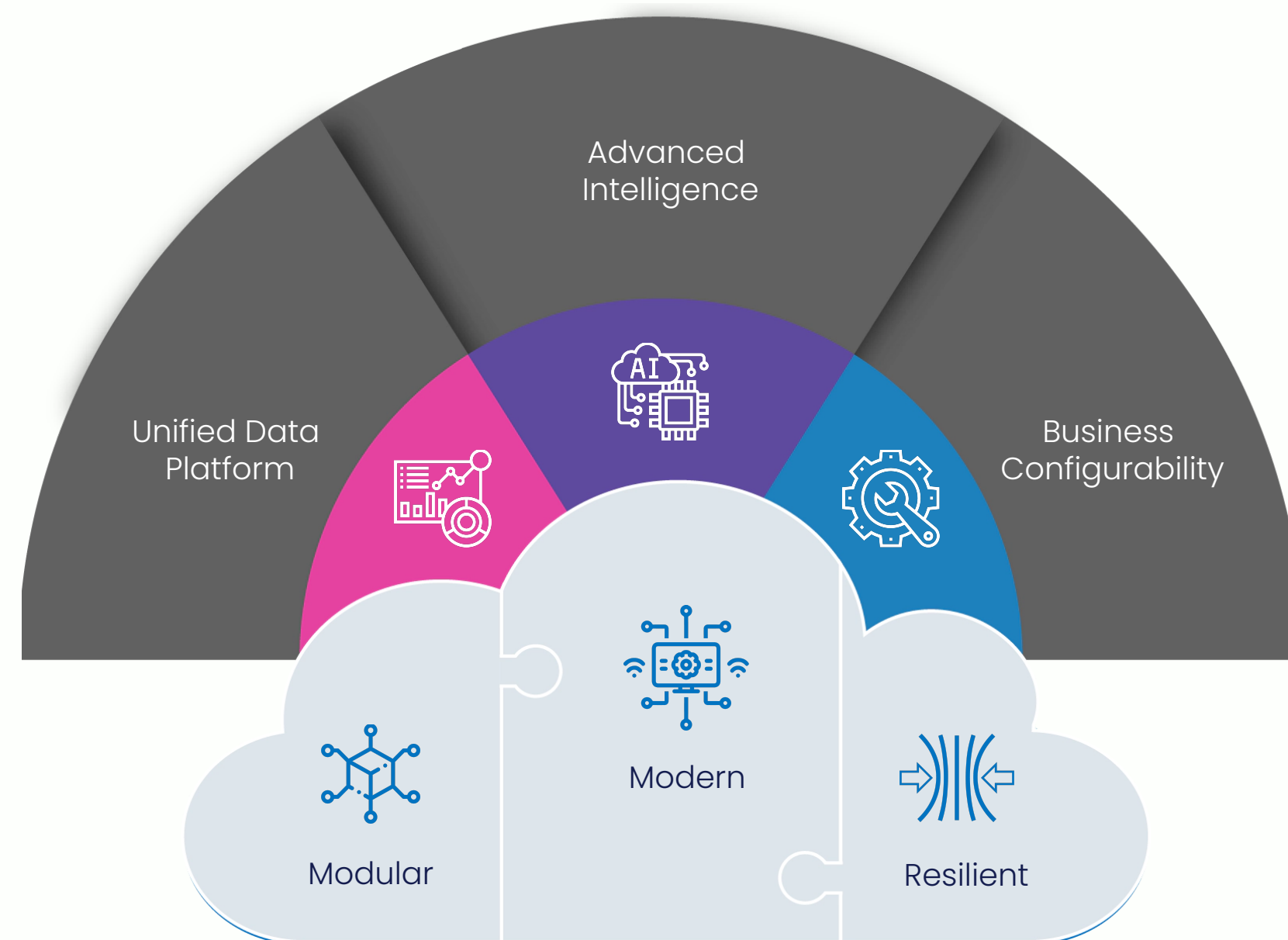
02 | The How

A guide to improving inventory visibility.

As retailers consider investments in improving inventory visibility, they must consider important functional and technology drivers.

This framework will help retailers prioritize key capabilities needed to address the perennial inventory visibility conundrum.

- **Functional Flywheel**
Retailers must prioritize three key capabilities in their inventory visibility platform.



- **Technology Foundation**
Retailers must enable inventory visibility through a solid technology foundation.

A single source of real-time, accurate inventory data that unifies internal and external customer demand signals.

Inventory data must become an enterprise-wide, channel-agnostic asset.

eCommerce and store operations executives access inventory data from different systems at **1 in 3 retailers**.

Broader customer demand signals need to be considered during supply chain planning.

96% of retailers use at least two internal data sources (such as past sales, or price and promotions) in their supply chain planning. But, **only 8%** also use at least two external sources (such as weather or traffic).

Make it easier to on-board new suppliers without compromising CX.

47% of IT decision-makers say **slow partner on-boarding** negatively impacts revenue opportunities.

Source: Cleo 2020 Study

Retailers' inventory visibility investments must **unify internal and external data**, and support **key use-cases** through these critical capabilities.

Provide a single view of inventory across channels and touchpoints.

Unify a single view of inventory across the supply chain, and enable role-based access across business functions.

Combine multiple data sources, internal and external, for richer insights.

Sense and predict supply chain demand and disruptions by enriching your own data with intent and context signals.

Provide plug-and-play convenience for partners, regardless of their maturity.

Use standards-based APIs and business-friendly tools to accelerate new partner on-boarding and extend inventory visibility deeper into the supply chain.

Enterprise-grade artificial intelligence to enrich and automate critical supply chain decisions.

Retailers must be able to respond to macro and micro changes quickly.

73% of retailers are not satisfied with their ability to adjust forecasts quickly in response to new conditions (such as COVID-19).

Improving profitability of supply chain operations is key to growth and survival.

81% of retailers do not consider the cost of markdown or stockout in their fulfillment optimization decisions.

Business user adoption is key successful supply chain transformation.

47% of business executives "strongly agree" that artificial intelligence tools need greater trust and transparency for increased adoption.

Retailers' inventory visibility investments must **enrich, enhance and automate decision-making** and support **key use-cases** through these critical capabilities.

Use artificial intelligence to predict and automate key supply chain tasks.

Include or integrate with machine learning models across a variety of supply chain and merchandising use-cases.

Perform multi-factor, non-linear optimization.

Optimize supply chain decisions at a more granular level (e.g. forecasting to a day x SKU level, or optimizing fulfillment decisions while balancing cost and experience parameters).

Business-user friendly tooling and experience.

Offer best-in-class visualizations, dashboards, scenario simulators and results explainers to help business users trust and use AI tools more easily.

Enable business agility through flexible configurability based on evolving business needs.

Inventory visibility is a shared priority across business functions.

Improving inventory visibility is the #1 priority for business executives across supply chain, merchandising and omnichannel / eCommerce roles.

COVID-19 may recede, but supply chain disruptions will continue to occur.

41% of retailers say their current supply chain technology prevents them from responding to supply chain disruptions quicker.

Retailers must be in lock-step with changing shopper expectations.

3 in 5 retailers do not show in-store inventory on their eCommerce product display page (PDP).

Source: Incisiv Digital Maturity Benchmarks, 2020

Retailers' inventory visibility investments must enable rapid innovation and business agility by supporting key use-cases through these critical capabilities.

Support a variety of use-cases across supply chain, merchandising and digital.

Allow the enterprise to start anywhere, grow anyhow in their use of inventory data by enabling a range of use-cases (forecasting, replenishment, fulfillment etc.).

Provide complete configurability of inventory business rules.

Be able to move inventory across channels, segments or retail partners, and optimize inventory safety stock in real-time.

Enable rapid development of new experiences atop inventory data.

Enable internal IT and external partners to access inventory data "as-a-service" to enhance existing or new experiences.

In addition to enabling the functional flywheel, retailers' inventory visibility platform should be built on a solid technology foundation.

Technology leadership in inventory visibility will deliver a significant competitive advantage to retailers. Retailers must prioritize technology investments that help them simplify their transformation roadmap, lower implementation risks, increase business user adoption, and ensure high performance when they need it most.

Modular

Adopt a cloud-native microservices architecture, allowing maximum flexibility while lowering cost and risk.

Embrace an open architecture that uses RESTful APIs to turn inventory data into "inventory-as-a-service", enabling easy data access, integration and extensibility.

Make transformation simpler by reducing the need for re-deployment by working atop existing technology infrastructure.

Modern

Deliver consumer-grade user experience for supply chain business users, enhancing application adoption and use.

Use visualizations and transparent result explanations to allow business users to better understand and trust AI decisions.

Device, OS, platform and form-factor agnostic – ensuring rapid innovation even across complex stakeholder ecosystems.

Resilient

Process massively large amounts of data rapidly based on real-time triggers, enabling improved simulations, forecasts and (re)optimization.

Deliver consistently high performance, enabling hassle-free operations during peak-load.

Offer enterprise-grade security, from encryption to role-based access.

03 | The "So-What?"

Inventory visibility drives experience and business outcomes across the retail value chain.

From improving demand forecasts to optimizing order fulfillment, inventory visibility has a wide-ranging impact due to its importance and applicability across the retail supply chain.

While we've highlighted a few business outcomes here, each retailer must develop a nuanced business case aligned with specific aspects of their transformation.

Forecast Accuracy

Improved inventory visibility can help drive more accurate forecasts, especially crucial for new items, short life-cycle products or slow moving inventory.

- **Reduce forecasting errors** by 30% to 50% from conventional approaches.
- **Lost sales due to product unavailability** can be reduced by up to 65 %.
- With AI, **overall inventory reductions** of 20 to 50 % are feasible.

Source: McKinsey, Artificial Intelligence: The Next Frontier

Save-the-Sale

A US specialty retailer **increased sales** by \$100 million in the first year of offering shoppers access to enterprise-wide inventory by combining store and online inventories.

Source: Incisiv's Omnichannel Leaders' Circle

Fulfillment Optimization

Greater inventory visibility and intelligence enables smarter fulfillment choices, optimizing for both customer experience and business goals (such as profitability). For instance, rather than shipping an online order from the node closest to the shopper, retailers' fulfillment optimization should consider:

- The impact of the item weight on handling and shipping cost
- Any potential shipment delays due to capacity at a specific node
- True shipment cost based on real data from the carrier (rather than assumed shipment cost based on distance)
- Potential for stockout at a particular node vs. markdown avoidance at another node

Retailers can expect 6% – 12% **reduction in shipping cost**, among a host of other benefits.

Source: Incisiv's Omnichannel Leaders' Circle

Inventory visibility is no longer just an operational excellence priority for retailers; it is an existential necessity.

Improving inventory visibility has been an oft-stated strategic priority for retailers. It is time they made real progress.

The framework outlined in this report offers a starting point. We invite you to dive deeper and continue the conversation.

SURVEY METHODOLOGY

Incisiv conducted a hybrid online + Computer Aided Telephonic Interview (CATI) survey of 253 global retail executives.

Respondent Distribution by Role

Technology	37%
Supply Chain	31%
Digital / Omnichannel	18%
Store Operations	14%

Respondent Distribution by Region

USA	59%
EMEA	21%
APAC	20%

Respondent Distribution by Annual Revenue

\$100 MM - \$499 MM	13%
\$500 MM - \$1 B	38%
\$1 B - \$2.5 B	27%
\$2.5 B +	23%

Respondent Distribution by Level

Manager	13%
Director	28%
VP / SVP	38%
EVP / C-Level	21%



ABOUT INCISIV

Incisiv is a peer-to-peer executive network and industry insights firm for consumer industry executives navigating digital disruption.

Incisiv offers curated executive learning, digital maturity benchmarks and prescriptive transformation insights to clients across the consumer and technology industry spectrum.

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Google Cloud provides organizations with leading infrastructure, platform capabilities and industry solutions. We deliver enterprise-grade cloud solutions that leverage Google's cutting-edge technology to help retailers operate more efficiently, adapt to changing consumer needs and drive business innovation. Customers in more than 150 countries turn to Google Cloud as their trusted partner to solve their most critical business problems. For more information on how **Google Cloud's** offerings can help you transform your supply chain reach out to your enterprise sales representative or **contact us** today.