BlueYonder

E-Book

Profits Under Pressure:

How AI-enabled planning is improving/boosting your supply chain performance

Supply Chain Planning Is Under Unprecedented Pressure

It's business as (un)usual for manufacturers. Extreme volatility, regular supply decommits, inventory shortages, weather risks, and shipping delays have become part of the norm, at least for the time being. Lead times are still too long and the right people are hard to find. Moreover, supply chain data has amassed so exponentially that it has become more of a hurdle than a help. Instead, supply chain leaders run alone, solving challenges in their lanes without the view, input, or context to understand how their actions are impacting downstream and upstream teams. Here's how some of these challenges play out:

Lead Times Are Still Excessive

The average lead time for production materials has yet to come down to pre-pandemic levels.

Production Material Lead Times

100 Days
All-time high in July 2022 [1]

87 Days
Marginal improvement in August 2023 [1]

The Skills Shortage Has Gutted Planning Departments

The skills shortage that has incapacitated factories and warehouses has gutted planning departments too[2]. Where leaders previously had an army at their disposal to handle a constant barrage of increasingly complex and rapidly evolving disruptions and bottlenecks, they're now having to do much more with much, much less.

Data Volumes Are Approaching Unmanageable

Manufacturing supply chain data volumes are also increasing exponentially. Manufacturing is the most data-prolific industry in the world, generating an estimated 1.9 petabytes of data every year[3]. The data is getting so big that accurate scenario modeling will soon be impossible without the help of AI, and centralizing, managing, and moving it in a way that makes it even remotely worthwhile in the first place is getting more and more costly[4].

Demands Put on Planners Are Unsustainable

For manufacturers to remain competitive, protect margins, and retain customers, planners must deliver on-demand agility as well as quick, crystal-clear decision-making and sound strategic maneuvering. But they're being expected to do this with limited visibility of the effect they have up or downstream. Minimal visibility and sluggish, near-sighted planning horizons leave them on the permanent back foot.

60%
of supply chain planners are stressed and overworked [9]

40%
of planners' time is spent dealing with data quality issues [10]

66%
of planners cite the number of system applications as barriers to collaboration [11]

AI to the Rescue

A noble hero with the utopian promise of
efficiency, insight, and unimaginable capabilities?

AI promises to solve many challenges across the supply chain, including planning and forecasting within manufacturing. But with fractured data scattered across supply chain touchpoints and siloed teams solving their singular challenges in isolation without ever looking up, can AI go solo to solve what the manufacturing supply chain truly needs — connectivity?

Imagine You're a Physician…

A Metaphoric Analogy

By Angela Troccoli, Sr. Director Product Marketing, Blue Yonder

" In the world of healthcare, you'll have many doctors seeing to your health. You'll have a GP, dermatologist, an OB, and maybe an endocrinologist: all these different doctors — with varying tools, systems, and expertise — to care for you.

Now imagine if none of those doctors saw what each was doing to fix those different areas of your health.

Your GP could recommend treatment that conflicts with something your OB is working on, and your OB's work counteracts the treatment you're undergoing for something else.

The healthcare industry fixed this broken siloed approach with connectivity. Interoperability in healthcare is a requirement. All doctors who manage one patient's care must work and make decisions from a single source of patient record truth.

Our supply chains need help — they are on life support. There is a care team made up of planners, transportation managers, warehouse managers, executive leadership, and more. But without the harmonization of data, collaboration, or simply looking up from your siloed challenges, we can't expect AI to solve everything. AI is part of the treatment, but **interoperability is the sign of a healthy supply chain.** "

Cognitive Planning Is Greater Than the Sum of Its Smarts

If the goal is faster decision-making, higher margins, and happier customers, then measuring a team, data, or your AI capability in isolation is futile. The manufacturing industry requires a connected supply chain and a connected supply chain requires the harmonization of data. Then, finally, AI can leverage this single source of truth and help businesses beat the market, driving innovation and new opportunities.

AI

- Analyzes huge volumes of data

- Shrinks scenario analysis from hours to minutes

- Surfaces insights faster and explains its own reasoning

Connectivity

- Operational workflows are synchronized

- Changes made in one team are immediately visible to another

- Effortless collaboration in real-time based on single shared view of data and processes

Data

- Single source of truth across all systems

- Unified data means a unified team

- Single pane of glass that eliminates blind spots

How Blue Yonder's Cognitive Solutions Transform the Status Quo

The Future Is Here

The old way of planning in manufacturing is obsolete. AI-enabled planning is the future, and it is here. And just in time, too. In the current climate of dramatic uncertainty in supply and demand, planners need new tools to stabilize operations, protect and grow revenue, and weather increasingly unpredictable customer demands and expectations.

The Benefits of AI-Enabled Planning for Manufacturers

From increased supply chain resilience to boosted revenue and higher margins, early adopters of AI-enabled planning in manufacturing are already seeing undeniably positive impacts.

Higher Growth

2%
increase in revenue [12]

1.5%
increase in gross margin [12]

More Savings

50%
reduction in costs and expenses [12]

30%
increase in savings through one-time inventory reduction [12]

Better Performance

75%
average improvement in planner efficiency [12]

12%
improvement in forecast accuracy [12]

AI Is Proliferating Fast in the Manufacturing Supply Chain

Why Early Adopters Win Big, and the Rest Get Left Behind
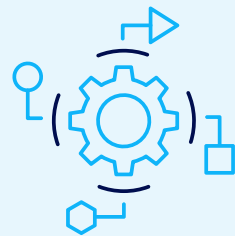

$3.6 - $5.6 trillion

in potential value to be unlocked for supply chain management and manufacturing industries, according to McKinsey.[5]

93%

of manufacturers believe AI will be pivotal for growth and innovation in the industry[6].

50-90%

transformative planner efficiency gains with use of Cognitive Planning, as per Blue Yonder research.

66%

of respondents to this McKinsey survey saw revenue increase from AI adoption, with 16% reporting a revenue increase of over 10%[7].

41%

of manufacturers surveyed by DigitalCommerce360 say they plan to invest in AI in 2024. 70% say in the near future[8].

Is It Time To Switch?

The best time to switch to AI-enabled planning for manufacturing was yesterday, but if you're a beat behind, never fear — time-to-value is rapid, deployment is non-disruptive, and composable solutions make it easy to roll out AI-enabled planning at your own pace.

Use the table on the next page to help inform your decision:

Here's What You're Facing:	Here's What You Want:	Here's How You Get There:
problems with stockouts, excess inventory, and balancing volatile and unpredictable supply and demand.	a way to deliver just enough, just in time, minimizing waste and maximizing customer satisfaction.	seamless collaboration, easy access to real-world data, and faster insights.
a days-long planning horizon and fixed planning run cadences that make it difficult to react quickly to changes in demand, supply, promotions, and more.	to compress the planning horizon from days to minutes, maximizing agility and responsiveness.	replace batch processes with event-driven decisioning, reducing data movement and data latency.
siloed and sequential planning approaches managed by mixed tools and systems.	orchestrated, collaborative planning approaches that maximize outcomes across all functions.	single data source across planning and execution solutions, bringing together disparate teams for centralized decisioning and action.
majority of time spent in manually-intensive work — managing data, setting up use cases, algorithms, manual overrides, and more.	the ability to easily run limitless scenario plans in minutes that result in optimized recommendations.	unconstrained computing power and powerful AI & ML that can be easily extended to match your own business realities.

How Do I Know if My Business Is Ready for AI-Enabled Planning?

At this stage, the chances are — you don't. But as pioneers in the industry, Blue Yonder experts have the experience and know-how to help you find out.

Get in Touch →

A Blue Yonder expert will help you assess your planning maturity and develop a way forward — no obligation.

Learn More About AI-Enabled Planning:

Learn more about Blue Yonder's Cognitive Solutions

Get more must-haves for supply chain resilience

Explore the benefits of cognitive planning

References:

1. "2024 Manufacturing Industry Outlook", Deloitte.

2. "Partner Perspectives: The Role of AI in Digital Transformation", online discussion, Buck Gevashish, Chris Burchett, Sridhar Ramaswamy.

3. McKinsey Global Institute

4. "It's Time to Unlock Our Supply Chains", Duncan Angove.

5. McKinsey Technology Trends Outlook 2022

6. Deloitte Survey on AI Adoption in Manufacturing

7. "The State of AI in 2023: Generative AI's Breakout Year", McKinsey

8. "The Road to AI in Manufacturing is Twisting and Turning", Digital Commerce 360

9. Supply Chain Leaders Survey, Blue Yonder

10. "Data Performance Management is Essential to Prove Data's ROI", Forrester

11. "Value Untangled: Accelerating Radical Growth Through Interoperability", Accenture

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