Five Steps to a High-Performance Retail Supply Chain

A Guide to Reaching New Levels of Agility by Enhancing ERP Software with Cloud Technology

A GT Nexus White Paper
Executive Summary

Retailers are competing in a more complex supply chain environment than ever. Before the advent of cloud-based, collaborative technology and the emergence of intricate global supply chains, enterprise resource planning (ERP) software was established as the go-to supply chain system of record for large companies. This worked well when the majority of supply chain data was housed within a single enterprise; now, as retailers become more concerned with the information that lies outside of their four walls, the need for technology capable of working across a network of trading partners becomes undeniable.

The performance of traditional ERP software can be enhanced, allowing it to adapt to new pressures in the retail industry. By plugging legacy systems into cloud-based, collaborative supply chain networks, companies can make astute decisions on how to choose suppliers, manage inventory, serve customers, and remain competitive amidst volatile demand, fluctuating costs, and an increasingly demanding consumer base.

Extending the abilities of ERP accomplishes five major goals:

- It solves a problem that exists with EDI VANs wherein all trading partners are hardwired to each other through varied EDI standards and any changes to the connections are tedious, time-consuming, and expensive.
- It brings all of the supply chain data into a single location, normalizes it, and updates it instantly across a network of stakeholders.
- It pools resources and encourages collaboration among trading partners, leveraging the 80% of supply chain data that resides outside the four walls of a company and breaking them free of a silo mentality.
- It sheds light into the execution stage of the supply chain, where most retailers cannot see their in-transit activity and often lose crucial information on ETAs, order quantities, and inventory availability as a result.
- It promotes continuous innovation by allowing a trading community to crowdsource for best practices and share ideas for increasing efficiency.

Integrating cloud technology with an existing ERP system is faster and more economical than previous solutions. In doing so, retailers can create a space for their trading partners to communicate over a cloud-based platform and reach new levels of agility in the supply chain.
The Retail Playing Field is Vast, Complex, and Global

Retailers today are operating under a new set of rules. They are managing supply chains that are far more complicated and dealing with data sets derived from many trading partners and locations. These companies are being forced to reconsider their supply chain strategies as global conditions fluctuate and customer expectations rise to a higher standard of service.

The flatlining of recent retail sales coupled with a rapid shift in consumer buying behavior has led to an increasingly competitive environment for today’s retailers. Shoppers are demanding better service and more selection while sourcing is becoming increasingly complex and fragmented.

Innovative retailers are responding to these pressures in a number of ways:

1. Gaining visibility with a cloud-based network of trading partners
2. Embracing selling and fulfillment through multiple channels
3. Decreasing cycle times for new product introductions and general package development
4. Moving to private label programs for product differentiation and cost advantages
5. Sourcing from multiple vendors to lower supply chain risk
6. Focusing on SKU-level detail throughout the pipeline to ensure proper and timely allocation decisions

Manufacturing and sourcing decisions are more complex. When companies began to move production offshore en masse in the early 2000s, it was a straightforward reaction to the considerably lower cost of producing goods in newly attractive — most often Asian — regions. Now, with China’s production costs rising, many companies are choosing to relocate to ostensibly cheaper areas. Companies must factor in more than labor rates and raw materials; they must run intricate analyses to choose the best supplier base, balancing the need for cost reduction with supply chain efficiency and customer service.

Sourcing decisions are only half of the story. Emerging markets now present an ample opportunity for retail sales, but carry their own set of challenges (e.g., restrictive import taxes, inefficient distribution networks, and political instability). Their growing middle classes and young populations present a huge opening in the competitive playing field for companies that can conquer supply chain challenges. If a retailer can stay agile, it can capitalize on the demand for a better shopping experience in developing nations.

The only way to make informed decisions in the midst of these newfound global supply chain complexities is to amass and share data from outside a retailer’s four walls — from its trading partners — and use it to reach superior levels of supply chain agility. This can be done by extending existing legacy systems with cloud-based technology.

Game-Changing Forces in Retailing

- New product categories
- Rising production costs
- Growth of emerging markets
- Complicated shipping routes
- Foreign regulation
Zara Embraces Fleeting Fashion

“This business is all about reducing response time. In fashion, stock is like food. It goes bad quick.” José María Castellano, Inditex chairman, backs up his quote with an ultra-lean supply chain.

In A Coruña, Spain, an army of over 200 designers work to stock Zara shelves with cutting-edge trends. The team can afford to crank out fashions at mind-boggling rates, thanks to the just-in-time approach the company has adopted. Unlike its competitors, who typically take at least three months, Zara can capture designs from the runway and have them in stores in two weeks.

Zara employs a vertically integrated approach (60% of merchandise and 40% of fabrics are produced in-house) that allows it to be particularly agile. Often clothes arrive undyed and are adapted to fashion changes mid-season; designers take cues straight from store recommendations. Shipments are small and frequent, stockouts are welcome, and markdowns are half the volume of any competitor.

One caveat: because Zara has a Euro-centric supply chain, regional disruptions pose a risk. Luckily, this can be mitigated by having an agile supply chain platform that allows for quick reallocation and response to demand fluctuation through supply chain visibility.

Step 1: Getting the Right Gear — Knowing the Limits of ERP Systems and Extending them with Cloud

Understanding the Traditional ERP Footprint

ERP software has commonly been an efficient way to manage data within a single enterprise. With ERP, data flows back and forth between a company’s different locations through a hardwired connection. If asked to sketch out their ERP solution, most corporate IT departments will evoke an image of a single, global solution. Delving deeper, however, one might find a complicated footprint marked by several software packages and many EDI standards. This is often the result of a multi-year rollout plan coupled with the inevitable replacement, removal, or addition of suppliers and store locations; changes can require many months of adjustments.

**FIGURE 1:** The traditional ERP footprint can be inconsistent and inflexible.
EDI VANs and the Missing Pieces of the Supply Chain Puzzle

For nearly forty years, companies have been buying business software and electronic data interchange (EDI) enablement technology to help them connect the dots. EDI VANs enable secure and robust electronic file exchange between partners, but they leave the heavy lifting of rationalizing, linking, and creating a complete supply chain picture to each of the many stakeholders in a modern commerce network.

These technologies, which began their life before the internet was born and well before business outsourcing and globalization became all-defining mega trends, have proven inadequate in giving companies visibility and control over the hundreds of vital business processes that will make or break them in the new era. Without a network in the cloud, the view of the supply chain will always be incomplete.

Step 2: Implementing Cloud Technology — the Superfuel that Yields an Agile, Competitive Supply Chain Platform

Most retailers need to be agile, responsive companies. They require the ability to scale up, switch partners, change sourcing and selling regions, respond to disruptions, and segment their supply chain strategies based on individual product lines.

Cloud Seamlessly Shares Data across a Trading Community

When an ERP system is coupled with cloud technology, the combined solution brings about a radical breakthrough in tackling data and visibility voids. It allows data from the ERP system to be normalized and shared across a network, inverting the traditional EDI hub equation by moving the data processing and linking logic from the spokes to the central hub itself — from this, the entire value chain community gains a single version of supply chain truth. Data is no longer lost outside of the four walls of the enterprise; it is shared and updated across a collaborative supply chain platform.

ERP Shortcomings: Multisourcing and Supply Chain Risk

Many retailers are beginning to source from multiple suppliers to fight the risk of supply chain disruption and take advantage of various labor rates and production costs around the world. The cost of constantly rewiring an ERP system to accommodate the ever-evolving vendor base in this case would be overwhelming. These retailers are turning to the cloud for an economical way to maintain a high-functioning network of trading partners.

On the other hand, retailers relying on one or two key suppliers to fuel their supply chains might expect to survive on a hardwired ERP system. However, when factoring in the risk of natural or man-made supply chain disruptions, cloud is still essential in allowing companies to react quickly and keep costs of last minute orders and expedited shipments to a minimum.
Cloud Acts as a Control Tower for Supply Chain Activities

Stakeholders in lengthy, global supply chains need a single technology to automate dozens of interlinked commercial processes like purchase-to-pay, order fulfillment and logistics, transportation planning and execution, and global inventory control. The only way to achieve this kind of command over supply chain activity is through cloud-based collaboration platforms; they not only serve as the means by which companies rapidly exchange detailed, high quality data with their external partners, they become control towers that enable rapid sense and response activities across the broader business network.

Cloud Implementation is Cheaper and Faster

Because cloud services are pay-as-you-go — with monthly subscription fees taking the place of heavy, up front investments and major capital outlays down the road for maintenance and upgrade costs — many companies are turning to this technology as a way to extend the usefulness of their ERP system. According to IDC Research, cloud spending by today’s IT leaders is expected to increase over the year for 63% of the survey’s respondents.

Cloud technology can also be implemented more quickly. While ERP implementation can take years, followed by continuous maintenance and updates at the cost of the manufacturer, the process of connecting a company’s existing software to a cloud-based solution is relatively easy. The physical rigidity of ERP systems is replaced by an easily scalable, up-to-date network that can adapt quickly to changing supply chain requirements.

Step 3: Working Together — Leveraging Data from Outside the Four Walls with an All-Star Team of Trading Partners

An estimated 80% of supply chain data today is created and housed by organizations outside of the retailer’s four walls. A far cry from the industry of decades ago — where a company produced, shipped, and sold over a simple roadmap and owned most of the equipment and labor involved — the modern enterprise operates as a network of companies and often outsources major business operations such as procurement, manufacturing, logistics, financial settlement, and IT. Fortunately, the arrival of cloud-based technology provides a way to collect and share data from these various organizations and use it to address all of the questions a retailer should be able to answer regarding its supply chain.
### TABLE 1: In today’s supply chain, crucial data comes from many sources.

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<tr>
<th>TRADING PARTNERS</th>
<th>DATA THEY CONTROL</th>
<th>QUESTIONS IT ANSWERS</th>
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| Suppliers        | • When inventory is assembled, shipped, and expected to deliver.  
                  • Information on SKUs and product counts. | • Does the shipment that’s coming match the PO?  
                  • Completeness of the order (all colors, all sizes, packing factors).  
                  • Is the product coming on time?  
                  • Quality of the manufacturing process-checks? |
| Carriers         | • Completion of milestones.  
                  • Location of in-transit shipments.  
                  • Passage through ports and customs. | • How do the carriers perform against each other?  
                  • How often are on-time, in-full shipments delivered? |
| 3PLs             | • Time, location, and contents of their shipments. | • What is the potential for collaborating on partial shipments and other logistics operations? |
| Consolidation centers | • Arrival of shipments to center.  
                      • Quantities being packed into outgoing truckloads. | • How will other inbound shipments affect delivery to a particular store? |
| Customs          | • Taxes or fees paid at borders.  
                  • Regulatory requirements.  
                  • Documentation. | • How will costs at customs affect total landed cost? |
| VMI warehouses   | • Arrival of shipments to the warehouse. | • How are the vendor-managed products affecting the other product lines? |
| N-tier suppliers | • When inventory is assembled, shipped, and expected to deliver. | • How much lead time will need to be added to total manufacturing time? |
| Distribution Centers | • Information regarding product destined for the facility.  
                         • Prioritization to need.  
                         • Labor, equipment needed.  
                         • Scheduling. | • What order do I work my shipments?  
                         • What labor do I need to process my orders?  
                         • How to improve customer service by managing the inbound flow? |

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**Step 4: Finishing the Last Lap — Visibility through the Execution Stage**

The last stretch of a product’s journey is often shrouded in darkness. An enterprise’s planning strategy will cover a large portion of the route, driven by a complicated formula based on expected demand; however, if the formula proves to be inaccurate, little can be done on the execution side to meet unexpected requirements.

An ERP system loses visibility into the most crucial time in the retail cycle — days before it reaches the store. Stores rely on in-transit visibility to stock their shelves with what the consumer wants; updated sales data can save millions in revenue.

Cloud extends the ERP system’s planning abilities into the execution stage, where quick judgment calls based on real-time visibility data can save millions in revenue.
lead to the need to reroute items to where they are expected to sell. Lack of visibility into inventory can lead to costly stockouts, excessive markdowns, and diminished customer service. A retailer on a cloud-based supply chain platform will have this visibility, thus overcoming challenges in the execution stage. They will have a clear view of supplier performance and the ability to easily change vendors by plugging them into their dynamic network of trading partners.

Execution data is especially meaningful when dealing in emerging markets. Planning cycles for foreign investment are often as short as one to three years, and complex scenario planning can only account for so much of the demand in a new region. As retailers react to changes in the competitive environment by entering new or developing regions, they must launch products with little or no information on past sales. When sales and operations planning becomes unsuitable for a company that is running solely on an ERP system, they can plug into the cloud to gain a better understanding of the uncharted territory.

The Volatile Retail Market
Demand driven by fickle consumer behavior, fashion trends, and clever marketing is less predictable and therefore harder to pin down in the initial planning stages of inventory management.

Entering an Emerging Market: A Headache or a Breeze?
A US retailer currently manufactures upscale handbags in India, sourcing leather from Italy and selling the finished product domestically.

The company decides there is a viable consumer market in the UAE for the handbags after calculating demand based on per capita GDP growth, median income, and availability of comparable products. However, their current footprint only allows them to ship the finished product from India to the US and back to the UAE, forcing them to pay for two shipping routes for each product delivery.

In order to allocate product directly from India to the UAE, they need a 3PL partner, a warehouse in India, a re-evaluation of freight costs, and connections to each of their new partners.

Does the retailer allow costs of shipping to eat into their profit margins in the UAE or pay for months and months of rewiring of their existing system to connect to new partners? Or, do they onboard to a network of global suppliers and partners, dynamically allocating goods based on the new UAE demand and shortening lead times by shipping directly to the new market?

It all depends on whether the company chooses to integrate its existing ERP system into the cloud.

Step 5: Continuously Innovating to Remain Competitive
On a cloud-based trading network participants can share best practices, normalize data, and come up with new supply chain efficiencies that are instantly shared across the platform. This is the “network effect” — that is, the exponential positive effect a process improvement can have on the power of the entire network.
By extending their ERP data into the cloud, retailers have the opportunity to benefit from process improvements made by their partners and help to establish better community standards. Some examples of innovation may include the following:

- Setting milestones at which pre-production partners must mark events (e.g., fabric availability, component supplies available, in-line inspection, packing inspection)
- Understanding lead, transit, and dwell times from any port to any other port based on a collective service understanding of all the participants in the cloud
- Creating standards of excellence to improve service, costs, and data quality for all partners

In order to become leaders in their industries, retailers must maintain a strategy of constant improvement and innovation — these efforts are supported by collaboration in the cloud.

A Winning Combination

ERP software is essential in managing internal business processes. Cloud platforms are indispensable in managing a global network of external trading partners. They were born of a different era and built on different assumptions; however, when bound together, they create a centralized supply chain nervous system that can process huge amounts of data and bring to the forefront a clear picture of global logistics activity.

Retailers must embrace the evolution of cloud technology if they want to make the ample improvements necessary to compete in this dynamic, increasingly complex industry. Cloud-based supply chain networks provide a way to take the functions of legacy ERP systems and extend them in a way that facilitates collaboration across an entire community of trading partners, paving a way to prosperity in the elaborate, highly volatile world of global retail.