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Why Digital Supply Chain is **the New Normal in Retail**

White Paper

Introduction

As we leapfrog towards the Industry 4.0 era, it's imperative to remove inefficiencies in the procurement, supply, and distribution of products. This is critical for optimizing operations and redirecting spends and efforts towards more strategic directions.

In a recent study, analysts at McKinsey found that efficient supply chains can make a $70 million difference in earnings before tax (EBT) and unlock $85 million as cost reduction, for a $10 billion organization. That's why investment in supply chain innovation is fast approaching a tipping point with spends snowballing, in the last five years.

So, what are the core technologies powering the digital supply chain? How do they resolve long-standing challenges in the retail sector? Not surprisingly, the five technologies that sit at the top of the pack are automation, predictive analytics, artificial intelligence, IoT, and driverless vehicles/drones.

At Zensar, we are committed to helping our clients, in retail (as well as in other sectors), reimagine their supply chains to be in line with Industry 4.0 principles. This means building state-of-the-art platforms that leverage IT systems to power operational decisions:

Challenges in Retail and Why Digital Supply Chain is the Answer

The retail sector has reached a critical point. Spurred by the exponential rise in e-commerce and the gradual dominance of a handful of global players, the number of people shopping online is steadily growing, adding pressure to retail supply chains to fulfill orders on time and at scale. Black Friday and Cyber Monday are both a testimony to this increasing trend and the pressure brought upon retailers during the holiday season. The success or failure of Black Friday and Cyber Monday shopping period is largely dependent on how effective the supply chain of the retailer is. The retailer needs to have end-to-end visibility on the complete supply chain, omnichannel fulfillment channels in place, realistic delivery commitment and sound logistics that does not drop the ball on last minute product promotions.

The digital supply chain is enabling digital natives to provide the best customer experience. For example, Amazon is able to accomplish feats like last mile delivery and the same-day delivery services by leveraging the digital supply chain efficiently. Rolls-Royce's TotalCare ® program, guaranteeing an aircraft engine's availability, along with HP's Instant Ink program, ensuring printers stay online, have been possible because these companies are willing to invest in digital supply chain innovation. Overall, a robust supply chain, well integrated with IT systems and digital technologies, is a must-have for every retailer who plans to stay ahead now and in the future. Today's enterprises (both brick-and-mortar chains and e-commerce players) must go the extra mile in order to stay ahead of the competition. Specifically, they cannot afford the following three inefficiencies arising from legacy era supply chain:

1. Operational pain points

The supply chain model at work has a direct impact on retail operations. Given that this function occupies a large portion of investment, it is essential to ensure profitability and sustainable margins. Also, the lack of visibility among different channels will lead to siloed operations across the supply chain network. As a result, the retailer struggles to scale up operations and pivot toward new business areas.

Consider how traditional multi-channel retailers pick up only 35-40% of items from suppliers, relying on the supplier to furnish the rest. This makes centralized control extremely difficult. In contrast, Amazon not only picks up 90% of items with its own freight network, thus saving costs, and is able to track & trace capabilities through Advance Shipping Notice technology (ASN).

2. Poor stakeholder experience

Customer experience is now a buzzword for retailers all over the world, and this definition extends to internal stakeholders as well. Employee engagement, seamless channel partner onboarding, and insights into end-consumer expectations are vital to keeping the retail engine running smoothly.

By leveraging digital technologies such as mobile, retailers can provide a better experience to supply chain stakeholders and ensure maximum loyalty and minimal business interruption. And as expected, the enterprise mobility market in retail is poised for impressive growth at 25.78% CAGR between 2018 and 2023.

3. Sub-par fulfillment speed and flexibility

Challenges at the supply side will inevitably have a trickle impact on the order fulfillment stage. This is particularly true for today's omnichannel world where retailers are expected to connect with customers on a platform of their choice, bringing the same level of fulfillment speed, accuracy, and efficiency.

Consequently, making the right purchasing and forecasting decisions is the biggest challenge when it comes to fulfillment for multi-channel retail, with almost 1 in 4 enterprises struggling with this issue. Without a digital supply chain, it is nearly impossible to keep up with dynamic demands while offering customers the flexibility they require.

Traditional Supply Chains Versus Digital:4 Areas of Differentiation

The new supply chain model isn't just marked by increased reliance on digital technologies. This new model uses Industry 4.0 systems as a lever for creating better experiences, data-driven decisions, and cross-channel connectivity, transforming how every stakeholder on the retail value chain operates. Here are four vital areas of differentiation and value add between the two models.

1. The responsiveness of service

According to the traditional framework, a supply chain is an internal support function, relegated to operating without hyper-connectivity. This leads to a chronic lack of flexibility, making it impossible for retailers to answer dynamic demands. For example, change requests in the preferred channel for order fulfillment are difficult to accommodate, resulting in lost opportunities.

A digital supply chain, on the other hand, is positioned as a business service function. As per Industry 4.0 principles, it is part of a connected retail ecosystem and can perform end-to-end operational alterations to meet customer needs. A great example is Zara, a global retailer that manages to export items 24/7/365, owing to its vertically integrated supply chain and daily customer insights collection.

2. The possibility of driving sales from user interactions

Because of its siloed nature and the absence of analytics, traditional supply chains cannot offer personalized services or upsell their products. It is driven solely by the nature of production and static customer requirements.

Instead, a digital supply chain rewires operations based on targeted customers and their projected needs. Led by advanced analytics, it can automatically scale capabilities and allocate resources to provide seamless support. Today, retailers who regularly practice upselling can obtain 70-95% of the profits from this source, and this is also 68% more affordable than onboarding new customers. However, without a robust supply chain, companies would not be able to keep up with the fresh demand generated by upselling.

3. Integration and collaboration between channels

The traditional supply chain is defined by its siloed mode of operation, with each channel assigned individualized KPIs. Inventory is also maintained independently, without any collaboration or sharing of resources. The digital supply chain offers a smarter alternative, taking advantage of its connected nature to encourage cross-channel collaboration.

Upstream and downstream channel partners are integrated to form a single source of data, standardizing processes and uncovering new ways to understand the customer. French multi-channel retailer La Redoute was able to leverage channel integration to create accurate audience profiles, and drive a 50% uptick in sales.

4. A data-driven value chain

Expectedly, a traditional supply chain will limit visibility into and control of operational data as information is housed in multiple fragmented systems. It becomes challenging to use this data for business decisions, as there is no holistic picture available. Digital supply chains replace this with end-to-end system integration and 360-degree transparency.

Retailers can collect data across upstream and downstream channels, achieve transparency, process unstructured data (big data), and deploy predictive analytics for smarter decisions. A leading retailer based out of the UK built a customized analytics model that would study demand data to suggest the optimal inventory plan. By accurately forecasting demand volumes, the company could increase product availability by 8%.

So, how can retail enterprises modernize their supply chains to achieve these benefits? Zensar adopts a non-linear approach that places the customer at the center of the digital supply chain.

What Does Transitioning to Digital Look Like?

To lay the groundwork for a digital supply chain, retailers must take a greenfield approach and first outline their digital vision. The next step is to identify the supply chain's role in this digital blueprint, defining the nature of digital experience to be provided to the customer and other stakeholders. At this stage, there is a need to balance efficiency gains with new revenue opportunities.

Following this, organizations must align their current operating model to the to-be-achieved supply chain framework. As multiple silos and independent data structures will come under a unified governance plan, careful alignment of operations to the high-level digital vision is a must-have. Once these two elements have been aligned, it becomes possible to zero in on the specific technologies and systems that will be part of the supply chain transformation journey.

Finally, investments in digital technology are prioritized, based on near-term and long-term targets. For instance, a retailer looking for a high degree of customization may choose to invest in a microservices-based architecture instead of opting for an out-of-the-box solution. On the other hand, if time-to-market is the top priority, a turnkey solution could be a smarter idea. These strategic decisions form the bedrock of Industry 4.0 readiness for any retail supply chain:

- Demand forecasting and planning will be embedded with predictive analytics and big data support to monetize the unstructured data flowing in from Industry 4.0 systems
- Order management will acquire omnichannel capabilities, propelled by a microservices architecture for maximum flexibility
- Stakeholder experience interfaces including customers, suppliers, and service providers will witness a massive overhaul with an eye on omnichannel collaboration
- Warehouse management systems will be fitted for AR/VR compatibility, also introducing robotic processes to shrink manual efforts

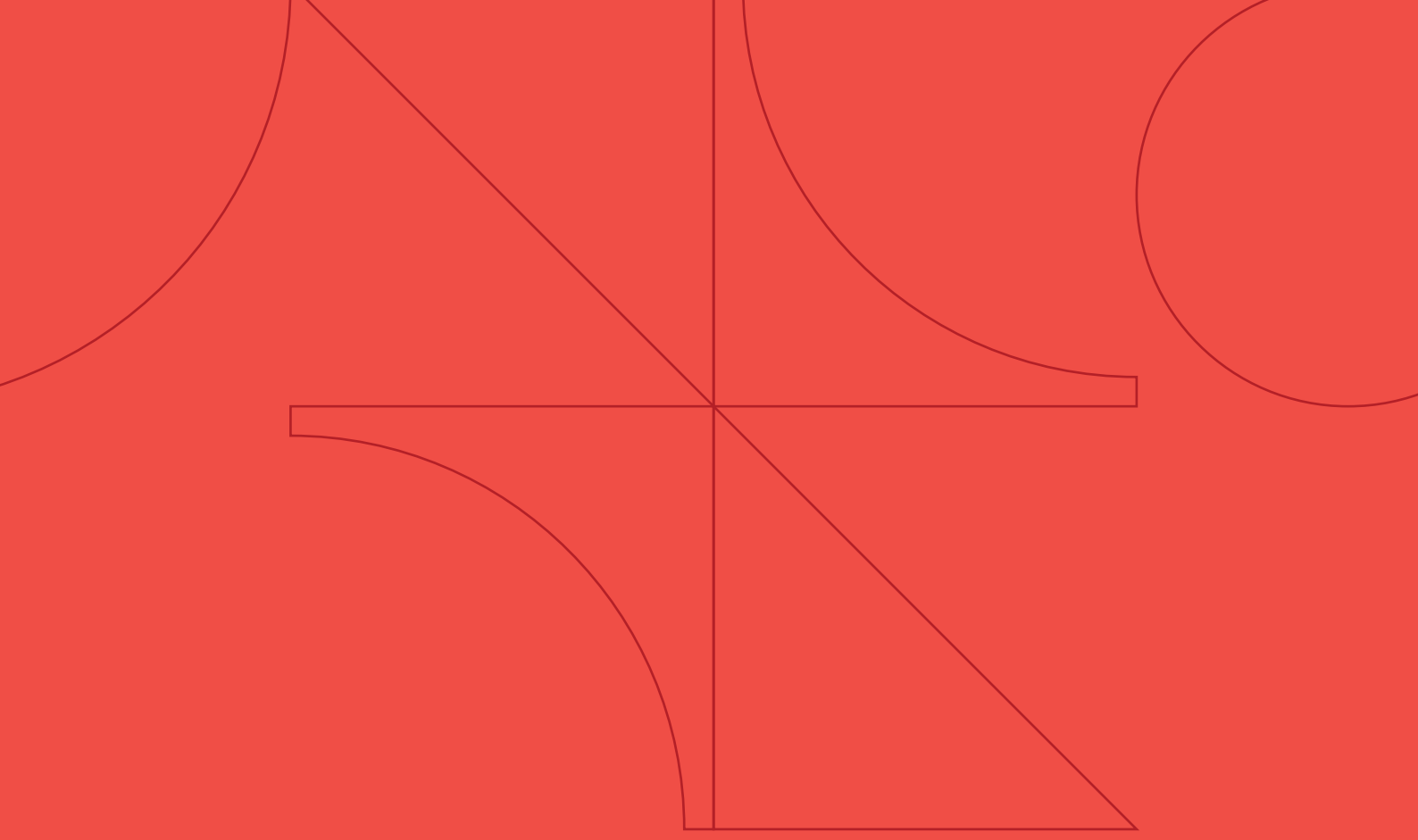
Measurable Outcomes, Powered by the Latest Digital Technologies

To make the move towards a brand-new definition of supply chains in the Industry 4.0 era, it is vital to base the transformation strategy on tangible outcomes.

Mothercare, one of UK's leading retailers, leveraged the Manhattan inventory management system to achieve the scalability it required. After its de-merger in 2000, the company was looking to expand quickly. A refreshed supply chain helped to keep up with international growth, while increasing productivity and lowering costs. Similarly, one of our retail clients was able to achieve a 60% reduction in delayed delivery by using a combination of cloud, automation, and warehouse management tools, designed for retail.

Our outcome-centric solutioning approach is complemented by partnerships with certified expertise in some of the leading supply chain technologies today. We are a Manhattan Warehouse Systems Gold partner, having delivered 50+ WMS instances with 200+ subject matter experts in this domain. Also, SIERRA is an automated testing platform by Keystone Logic (a Zensar company) that helps to reduce testing time and cost for digital supply chain management platforms.

With the supply chain function being positioned as a critical cog in the retail landscape, enterprises must assess their existing systems and identify areas of value add. At Zensar, we are committed to furthering the bounds of innovation and bringing the latest technologies to retailers across the world, helping to turn their digital vision into executed reality.



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With headquarters in Pune, India, our 10,500+ associates work across 30+ locations, including Milpitas, Seattle, Princeton, Cape Town, London, Singapore, and Mexico City.

For more information please contact: **velocity@zensar.com | www.zensar.com**