

Increasing Supply Chain Visibility Teppanyaki Style

Abstract

The retail supply chain has evolved from its traditional backend persona to playing a more visible, front-and-center role. This transformation can be compared to the difference between a traditional restaurant and the Japanese teppanyaki steak houses, which emphasize cooking meals in front of patrons, moving the chef and the kitchen from the backend to the forefront and become the focal point of the entire dining experience.

Similarly, the traditional retail supply chains played a backend role in ensuring that the required quantity and assortment of products were available at retail stores. The shopper had no visibility or understanding of the complex supply chain supporting the operation from the backend. However, as the retail industry progresses towards a seamless omni-channel environment, formerly invisible elements of the supply chain will slowly come to the forefront.

Discussed below are the 'must haves' for ensuring seamless customer experience and an efficient and cost effective supply chain.

Integrated Forecasting for Cross-Channel Availability

Customers formerly relied on specific physical stores to fulfill their everyday needs. If a product was out of stock at the store, most customers would return another time. However, digital technologies allow omni-channel customers to track product availability at their preferred location in real time. In addition, they can check its availability not only at the retailer's other stores and/or channels, but also at competing retail stores.

In such a scenario, it is imperative for retailers to have a more robust forecasting mechanism that ensures product availability across all stores and channels. Forecasting as a business function will need to be tightly coupled with customer demand, while being responsive to offers, promotions, and external factors such as weather fluctuations and local events. Forecasting must help to project holistic, channel-agnostic demands and prioritize combinations that are likely to generate higher sales and profitability, and more importantly, enhance customer experience.

Customer Landed Cost Management

Traditional retail focused on fulfillment at fixed destinations or the physical stores, and hence, took into consideration only the static store landed cost—the cost incurred to get the product into the store. Today, the omni-channel customer expects all retailers to offer the full range of fulfillment options. The additional modes of fulfillment introduce three variations to landed cost—direct-to-store, direct-to-remote-location, and direct-to-customer fulfillment.

As the fulfillment locations become more dynamic, frequent evaluation of the source is necessary to arrive at the optimal combination of cost and fulfillment. Retailers must understand the costs involved in scaling up to such flexible fulfillment capabilities. They will have to identify, compute, and analyze customer landed cost, or break down the costs involved in the movement of a product from the source all the way to the customer. This helps in arriving at the optimal product assortment and fulfillment modes. Better visibility into landed cost will also allow retailers to influence customer behavior and incentivize them to choose the most profitable path.

One, True View of Cross-Channel Inventory

Additional fulfillment capabilities have allowed retailers to handle multichannel complexities with minimal disruption to the traditional brick-and-mortar retail. Retailers achieved this by investing in parallel supply chains with separate inventory, storage, and fulfillment processes. As multichannel steadily evolved into omni-channel, many retailers simply patched together the multiple supply chains. This has led to islands of inventory which offer retailers only a fragmented view of inventory availability across channels. This problem is exacerbated when customers have visibility into product availability across retailers and channels, while a retailer is unable to complete the sale because of lack of internal visibility.

Retailers need to synergize inventory silos to optimize availability and source location, minimize mark downs by location and the cost of fulfillment, as well as meet customer service commitments effectively.

Complex Order Configuration

In omni-channel retail, store orders coexist with individual customer orders. However, order management systems have also evolved incrementally in a fragmented manner. This means that retailers continue to capture in-store purchase data through Point of Sale (POS) systems in stores, while a separate e-commerce platform captures transactions from other channels. The challenge with such disparate systems lies in the determination of the best fulfillment source to satisfy customer purchases in near real time.

Retailers need to invest in sophisticated and flexible order configuration and management capabilities to address these issues. Order management applications need to move from the backend to the center of retailers' ecosystem, with other applications such as customer relationship, warehouse, and inventory management systems positioned around it for greater cross channel visibility.

Intelligent Warehousing

Warehousing in traditional brick-and-mortar retailing focused only on the movement of large volumes of goods across the supply chain until they reached the stores. The stores handled goods at a unit level, and distribution centers (DCs) received pallets that were then broken down into cartons. With respect

to upstream distribution, goods were transported in pallet loads. This linearity supported the movement of larger volumes across the supply chain and helped achieve efficiency.

In omni-channel retail, the warehouse has to excel not just in its traditional role of store order fulfillment but also simultaneously cope with customer orders. The DC must be able to handle traditional orders, as well as customer orders shipped direct-to-customer and direct-to-stores at an optimal cost. This capability will need to be augmented through real-time and flexible control over elements such as slotting in the DC, allocation and access of inventory, and picking and packaging. In addition, small volume shipments will require parcel shipping and complex route management capabilities to handle both store and customer orders efficiently.

Last Mile Logistics

The supply chain elements discussed earlier ensure availability of the right product and the allocation of the order to the most optimal location. The execution of the fulfillment is dependent on effective planning of the last mile logistics, with routing and scheduling being the most important focus areas. This is because store and customer orders could potentially originate from the same source and travel to multiple locations. A robust and responsive routing and scheduling will also help manage the demand variability inherent in an omni-channel environment.

Order Lifecycle	Building Blocks-Omni-channel Supply Chain		
Order Creation/Capture	1 One View of Inventory	2 Customer Order Management Orchestration Including DSV	3 One View of Customer
Order Transmission/ Distribution		4 Network Design	
Order Scheduling/ & Prioritization		5 Node Ranging	
Order Picking & Packing		6 Source to Customer	
Order Dispatch/Ready for Pickup		7 Capacity Visibility	
Order Picking & Packing	8 In-store Picking Operations	9 Dedicated Online Store Operations	10 Integrated Intelligent Warehouse
Order Dispatch/Ready for Pickup			
Delivery/Collection	11 In-store Collection Operations	12 Remote Location Operations	13 Transport Planning and Execution
Returns	14 Returns Strategy	15 Returns Operations and Reverse Logistics	
Order Track & Trace	16 One View of Order and Product Delivery		

Key building blocks of an omni-channel supply chain



Conclusion

Delivering a superior omni-channel customer experience offering must be supported by enhanced capabilities and efficiencies across the retail supply chain that is now at the forefront.

By focusing on the building blocks across the order lifecycle, retailers can better address the needs of the omni-channel supply chain. Consequently they can improve business outcomes and enhance customer experiences.

About The Authors

Dheeraj Shah

Dheeraj Shah, Head, Retail Supply Chain Practice, has over 17 years of experience in the retail industry, helping global retail customers realize their omni-channel supply chain aspirations.

Dheeraj has authored a patent on Retail Distribution Center Management in the supply chain area.

Prasanna Iyengar

Prasanna Iyengar, Retail Supply Chain Consultant, has 12 years of experience across industries including banking, finance, manufacturing, and retail. Now a senior member of the TCS Retail Supply Chain Practice, he has worked on supply chain transformation engagements for major retail and CPG customers across the globe.

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Visit TCS' Retail unit page for more information

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