

THE STATE OF THE RETAIL SUPPLY CHAIN

Essential Findings of the Sixth Annual Study



AUBURN UNIVERSITY

CENTER FOR SUPPLY CHAIN INNOVATION

Brian J. Gibson, Ph.D.
C. Clifford Defee, Ph.D.
Rafay Ishfaq, Ph.D.

In Conjunction With



Sponsored By



Helping Retailers Grow Profitably

TABLE OF CONTENTS

About the Study	1
Current Issues and Strategies.....	4
Best-In-Class Capabilities	8
<i>Demand Planning Finesse</i>	9
<i>Store-Based Fulfillment Consistency</i>	13
<i>Customer Returns Dexterity</i>	18
On the Horizon.....	22
Summary.....	25
The CSCI Research Team.....	26
About the Organizations	27
Contact Information	28

About the Study

Overview of the Sixth Annual State of the Retail Supply Chain Report

“This is such a dynamic business. To do it really well, you have to be incredibly agile and responsive. You need to quickly and frequently turn data into insight that allows you to make smart business decisions.”

The good, the bad, and the downright interesting... that’s the storyline of retailing in 2015. On the good side, fewer transportation bottlenecks boosted inventory availability. The U.S. unemployment rate hit a 7½ year low.¹ Oil prices fell 30 percent.² And, the rate of inflation dipped to 0.7 percent.³ This combination of consumer-friendly factors would seemingly set the stage for robust retail growth.

The bad? That growth never materialized. Retail sales rose only 2.1 percent in 2015, the weakest year since 2009.⁴ Sales actually declined in December as the warm, wet El Niño weather pattern wreaked havoc on winter apparel sales. Stock market volatility did little to help consumer confidence. And, the “R” word is being heard more often as economists suggest that recession risks are rising.

The downright interesting came from, you guessed it, online retailing. Amazon captured 51 cents of every additional dollar spent online during 2015 and is reportedly taking steps to build its own delivery capabilities.⁵ Walmart poured an estimated \$900 million into e-commerce technology and fulfillment centers.⁶ And, India is quickly becoming the new e-commerce battleground for global retailers.⁷

Flat sales, rising delivery costs, and online competition create a difficult environment. Yet, we have learned one recurring truth in six plus years of conducting our research – retail supply chain professionals thrive under fire. Their ability to rise to the latest challenges is revealed in this edition of the State of the Retail Supply Chain (SRSC) Report.

Recap: Fifth Annual SRSC Report

Reaching the five year milestone gave us a chance to look back on the 2009-2014 retail landscape. By far, the biggest storyline was the mercurial transformation from e-commerce to multi-channel to omni-channel retailing and the implications for supply chain strategy. We developed a maturity model outlining the evolution from omni-channel initiation to competitiveness, based on key supply chain attributes. The model provides a roadmap for omni-channel progress.

Transportation was in the limelight in 2014-15. A perfect storm of port problems, trucking capacity shortages, and intermodal congestion threatened to disrupt inbound merchandise flows. To maintain transportation flows, we reported that retailers moved product early through less congested channels and crafted “carrier friendly” operational strategies to secure critical capacity.

The report also addressed last-mile strategy and the growing list of deliver-from locations needed to serve consumers. Related concerns included managing split-shipments, achieving last-mile economies of scale, and weaning consumers from free shipping expectations. In their effort to satisfy customer demands while protecting margins, retailers are pursuing cost-efficient last-mile options.

“We’re really focusing our attention on the rule set that we use to decide when to send orders to the store and what store should fulfill them.”

Research Objectives: Sixth Annual Study

The goal of the SRSC Report is to investigate the supply chain activities and actions that directly impact retail organization success. Our Sixth Annual study tackles substantive issues that warrant a supply chain leader’s earnest engagement:

Supply Chain Strategy: How are retailers pursuing success in a hyper-competitive arena?

Demand Planning: Who is accountable for detecting and satisfying marketplace requirements?

Store-Based Fulfillment: How can brick-and-mortar infrastructure support multiple channels?

Returns Management: What must retailers do to alleviate reverse flow complexity?

On the Horizon: Where will supply chain executives encounter peril and promise in 2016?

In the pages ahead, we present an in-depth analysis of each question, along with actionable takeaways. The report also reveals best supply chain practices for competing effectively in a changing marketplace. This information serves as a benchmark for retailers and their supply chain partners.

Study Methodology

The focus of the current research initiative was derived from industry hot topics, executive input, and the emergent issues identified in the most recent SRSC Report. To gain meaningful insights from the major players in retailing, we sought participation from organizations with: (1) annual revenues above \$1 billion; (2) omni-channel capabilities; and, (3) broad geographic activity.

Information for this report was gathered via senior executive interviews, an online survey, and industry publication analysis. This approach generated 98 direct engagements with retail supply chain management (SCM) professionals. Table 1 provides demographic highlights of the participant pool. Based on this profile, our report primarily highlights the strategies and activities of our desired target – senior executives representing a diverse group of large retailers.

Table 1: Demographic Characteristics of Interview and Survey Participants

Characteristics	Summary
Company revenues exceed \$1 billion	78%
Company has omni-channel activities	92%
Director-level or above	88%
Supply chain experience	23.5 years

“Our strategic imperative is to use the supply chain as much as a lever to drive growth as a lever to reduce operating cost. It’s having that dual element to it.”

Senior Executive Interviews

We began this year’s study with a series of 24 expert interviews. A 14-question interview script drove the discussions. Most of these semi-structured interviews were 30 minutes in duration, which allowed for insightful dialogue across the research topics. The supply chain executives’ candid comments helped us understand the critical issues that drive retail supply chain strategy and operations.

Online Survey

After gleaning key information from the interview transcripts, we developed a 23-question online survey. Questions related to supply chain strategy are asked yearly. Other questions focused on the current year’s research themes which ranged from demand planning to returns management.

The survey was distributed in December, 2015 to retail supply chain executives using Qualtrics online survey software. We wish to thank the 50 individuals who completed the entire survey and the 24 additional individuals who provided information on select topics. The results of the survey were analyzed using standard statistical tools.

This report reveals our key findings via discussion, graphics, and expert quotes.

Sixth Annual Study Participants

We thank the supply chain professionals who participated in this year’s study. Their collective insights support a vibrant and timely analysis of the hottest retail SCM issues. As the participant sample indicates, a wide range of top retailers contributed to the initiative:

Abercrombie & Fitch	Delhaize Group	Meijer
Academy Sport	Dick’s Sporting Goods	Neiman Marcus
AutoZone	Dillard’s	Petco Animal Supplies
Badcock &more	Dollar General	Petsmart
Bass Pro Shops	Dollar Tree	Sears Holdings
Batteries Plus	Giant Eagle	Stage Stores
Bed, Bath, and Beyond	HEB Grocery	Staples
Belk	Hibbett Sports	Target
Bob’s Stores	JCPenney	The Home Depot
Boscov’s	Lifeway Christian	Toys R Us
Caleres (Famous Footwear)	Limited Brands	VF Outlet
Canadian Tire	Lowe’s	Walgreens
CVS/pharmacy	Macy’s	Walmart

Current Issues and Strategies

Omni-channel Customer Service is Key to Retail Growth

“Most of us have run supply chains before, but we didn’t need this level of agility – real time, hour by hour decision making kind of stuff. It’s a new world in which most of us are having to compete.”

After years of cautious engagement in the online sales channel, retail supply chain executives are fully committed to building requisite capabilities for the online segment of their business. Many retailers report making long term investments in acquiring powerful, full-featured technology platforms as well as expanding their network of distribution centers (DCs) and order fulfillment facilities. This strategic commitment to the online channel by store-based retailers comes at a time when their mammoth competitor in the online channel, Amazon, continues to make inroads into the retail markets.

Retail supply chain executives state that they are now focusing on leveraging technology and infrastructure investments made in prior years, to gain a much needed competitive edge. The next step for them is to review and upgrade business processes around the new technology and fulfillment capabilities. These restructuring efforts are not only directed at business processes, but at organizational and human resource aspects of change management as well.

The Critical Issues

In this year’s study, we asked retail supply chain executives about their strategic priorities and primary areas of investment. The 24 interviews produced the important themes listed in Figure 1.

The executives are tenaciously pursuing capabilities that can rapidly and economically support customer demand from anywhere in the supply chain. How will retailers know when they have achieved this strategic goal? It will take place when they no longer think about specific channels or buckets of demand. As one forward thinking supply chain executive succinctly put it: *“We don’t really think about e-commerce and regular commerce. We just think about commerce.”*

Infrastructure-demand alignment is on the docket of many supply chain executives. For some, this means building out fulfillment networks. For others, the focus is on improving current infrastructure utilization through automation. And others point to an opportunity to leverage the store network as distribution points. The respondents indicated that integrated technology tools are needed and the information systems evaluation process is frequent.

Figure 1 – Strategic Supply Chain Priorities



"Most companies are revisiting the design of their supply chain much more dynamically than they have in the past."

Improve Speed and Reduce Cost of Omni-channel Fulfillment

When retailers' DC upgrades become fully operational, they must pursue improvement of product flows and inventory availability. *"We know that the speed in which we can work orders through our building and give them to customers is becoming an ever more important aspect of the entire fulfillment strategy,"* noted one executive. The focus is not just on faster store replenishments and better in-stock position. Reducing variance is also important as another executive added: *"... this year, it is really about trying to make sure we minimize the variance in the supply chain from service and speed standpoints."*

While these executives value the benefits of a faster and more consistent supply chain, they are also mindful of operational costs associated with the faster pace. A chief supply chain officer surmised, *"We want to go faster ... but not to throw lots of dumb money at it."*

When asked how the oft-conflicting speed/cost goals would be achieved, retailers focused on a variety of solutions. Some discussed strategic inventory placement at stores, store-facing DCs, and/or direct-to-customer fulfillment centers. Another popular strategy was to increase store delivery frequency. Other retail executives mentioned leveraging information technology and data analytics solutions to make real-time decisions regarding the tradeoff between speed and costs.

Supply Chain as a Growth Lever

Another critical priority cited by participants in this year's study is employing supply chain capabilities as revenue drivers. One supply chain executive put it as follows: *"I've been in supply chain for many decades and it is pretty exciting to participate in discussions about how the supply chain could drive sales. That's not typically a conversation that you have in the supply chain."* In this context, omni-channel supply chain capabilities such as home order delivery, shorter order cycle time, and returns processes are seen as sales drivers. Another executive explained: *"... now the differentiator is not price, it is customer experience, speed of delivery and convenience for the customer."*

The view of the supply chain as a growth driver makes superior supply chain execution a competitive advantage in omni-channel retail. Customers will flock to whomever can fill their needs quickly and with more convenience. The goal, according to one interviewee is: *"We are building capability that basically allows customers to get, within our assortment, what they want, when and how they want it."*

Optimize Inventory Placement

Rationalizing and optimizing inventory remains a critical issue for retailers. Interviewees noted that significant efforts are underway in their organizations to synchronize SKU assortment around demand. *"We have a big opportunity to right-size the breadth and the depth of our SKU assortment. And really just drive more ROI out of that inventory investment,"* noted a supply chain leader. The appetite for large size stores is waning among retailers which presents a challenge to be creative around how to best utilize space. Most retailers are gravitating towards IT-based solutions to synchronize the point-of-sale system and store/warehouse management system for smaller, more frequent replenishment.

“One key focus area for us is to improve our ability to serve customers when, where and how they want to be served.”

Change Management

Longstanding supply chain processes and procedures are being upended by the shift to omni-channel retailing. The challenge of new processes and technologies is to get the organization, the team, and the individual worker to think differently about what they do. They also must adapt to the new processes. Supply chain leaders must manage the migration and not let resistance to change derail new initiatives. That’s not easy, noted one executive: *“The complexity is in the evolution. It’s in the change.”*

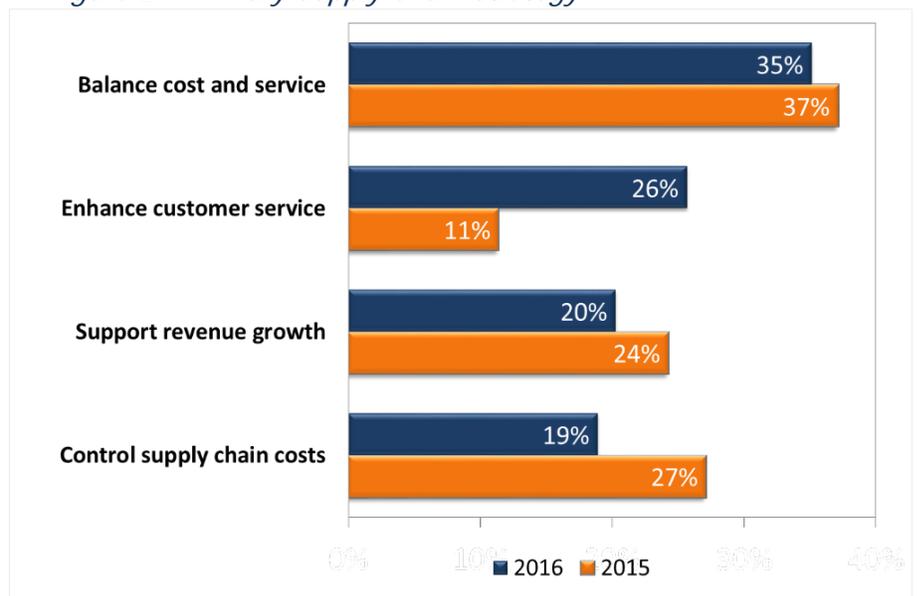
As retailers make heavy investments in system upgrades and operational capacity, there is a direct impact on human resource management. Employee training and education about new processes and technologies are needed. To address this concern, supply chain executives report that they are organizing cross functional teams to support execution and get better performance out of the new organizational structure. *“There continues to be a human element about buy in – getting everybody to utilize the new technology and omni-channel processes that you’ve invested in – but we’re still finding our way through that,”* explains a supply chain executive.

Strategic Focus

Each year, we ask the survey participants to identify their primary supply chain strategy for the current and upcoming year. Figure 2 summarizes the anticipated shift in the strategic priorities from 2015 to 2016. One obvious shift is a greater prioritization of customer service enhancement. It is critical to achieve supreme customer satisfaction related to product availability and order delivery. This shift is consistent with the actions of our retailers to enable multiple access points, offer shopping convenience, and simplify the purchase process.

Retailers must also maintain a cost-service balance. After many years of chasing all online sales, retailers are starting to take measure of what it costs them to service online customers. Similar to last year’s study, the largest contingent of our current respondents indicated that “balancing cost and service” is their strategic focus. Coupled with the diminished focus on pure cost control, some retailers appear to be directing their energy toward profitable growth.

Figure 2 – Primary Supply Chain Strategy

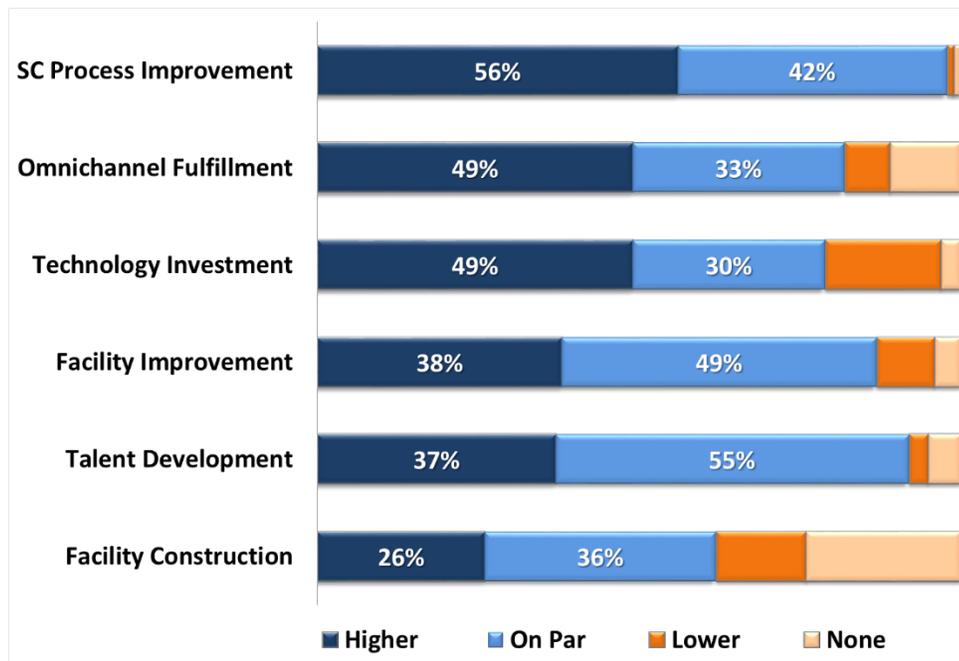


“We are spending a lot of time focusing on improving home delivery performance, and being able to integrate that together with product availability.”

Future Investment Plans

This year’s survey respondents are making major investments in the improvement of supply chain efficiency and processes. The 5th Annual Study reported that retailers were investing heavily in facility upgrades and the addition of distribution and order fulfillment capacity. Figure 3 indicates that retailers are approaching their target infrastructure capacity and are now turning their attention to utilizing that new capacity by synchronizing supply chain processes. Retailers are also widely investing in omni-channel capabilities that support faster “click-to-deliver” times. Investments in capabilities such as store-based fulfillment and efficient last mile order delivery are the omni-channel priorities.

Figure 3: SCM Investment Areas – 2016 versus 2015



Aligned with these investment areas, retailers are devoting resources to software upgrades and technology improvements. The goal is to achieve higher productivity and efficiency from their expanded distribution processes and omni-channel operations.

Key Takeaways

Not surprisingly, omni-channel is a major concern, strategic opportunity, and investment priority for retailers. They are trying to synchronize supply chain processes to promote convenience, speed, and a superior customer experience. These supply chain capabilities are viewed as a key to expanding sales growth. Finally, retailers are not overlooking the importance of cost control and will continue to optimize costs and pursue a positive return on their investments.

Best-In-Class Capabilities

Pursuing Supply Chain Excellence in an Omni-channel World

Each year, our research seeks to identify those supply chain capabilities that must be developed to remain on the leading edge of retail supply chain innovation. As always, we find that retailers are in constant pursuit of that elusive and legendary best-in-class status. In truth, that status is a moving target and just when a retailer thinks that it has reached supply chain superiority, a new channel or process emerges that requires new capabilities. Hence, supply chain leaders must continuously pursue differentiating competencies that support in-stock availability, seamless fulfillment, and revenue growth. In this section, you will read about this year's priorities for retail supply chain excellence.

Looking Back

We began this research initiative back in 2009 by investigating the foundation elements of a best-in-class retail supply chain. Our research focused on retailers that were developing their SCM teams, building cost efficient networks, creating scalable capacity, and achieving strategic alignment. Year 2 of the study took a deep dive into supply chain agility and extending a retailer's SCM control from manufacturing to the store shelf. The Year 3 report analyzed multi-channel network dexterity, sourcing strategy transformation, and the pursuit of integrative technology to promote cross-channel visibility, speed, and integration. In Year 4, we added best practices for elevating talent management, deploying inventory across omni-channel operations, and leveraging business analytics for improved supply chain decision making. Last year, we highlighted the importance of inbound transportation strategies for a chaotic environment, last-mile delivery capabilities, and omni-channel maturity.

Over time, the most relevant and timeless of those capabilities become standard operating procedures across retail supply chains. At that point they are basic capabilities and offer little in the way of differentiation. A few capabilities lose relevance as marketplace requirements change. Hence, the pursuit of supply chain excellence and best-in-class capabilities is a never-ending mountain climb.

Looking Forward

"Getting inventory in the right places at the right times is the eternal challenge"

The current retail discussion is dominated by the continued migration of shoppers to the online world. Call it omni-channel retailing, channel agnostic retailing, or just plain retailing, but the ways people shop for and purchase products have changed forever. Consumers want real-time access to inventory information, fulfillment flexibility, and speedy delivery to wherever they may be at a given time.

These demands make it extremely difficult for retailers to profitably serve demand. Supply chain leaders must make their strategies more inclusive and their processes more flexible to support changing customer requirements. In addition to the capabilities discussed above, retail supply chain professionals must: become more adept at a more granular level, integrated demand planning; establish productive store-based fulfillment processes; and, adopt a more proactive role in returns management. These essential capabilities are detailed in the following pages.

Capability 1: Demand Planning Finesse

Balancing Availability and Cost in a Complex Environment

“We’re operating on a 25 year–old system that’s been enhanced through customization. We need to invest in a more sophisticated, integrated planning, forecasting, and replenishment system.”

The Key Issues

Demand planning has become an enigma for supply chain professionals. An ever increasing number of SKUs, tremendous price pressures, demanding customers willing to switch loyalties in a moment, and a multitude of order fulfillment options create a challenging planning environment. Supply chain executives face a huge challenge to bridle the demand planning horse and saddle it up in time to compete in the profitability race. Not doing so has serious consequences. As one supply chain executive in this year’s study put it: *“We end up either leaving money on the table or losing even more money in markdowns because we don’t have the tools to make the right demand planning decisions.”*

In this year’s study, we invited retail supply chain leaders to share their current challenges and demand planning practices. They also articulated their improvement strategies.

The Challenges

The challenge of gathering relevant, correct and timely information for use in the demand planning process still stumps many retailers. In this year’s study, supply chain executives stressed the need to better predict demand quantities and the origin of demand. Figure 4 also reveals that it is no longer sufficient to achieve forecast accuracy at the aggregate level unless it is accompanied by the anticipated point of sale and corresponding sales quantities.

Seasonal variation is another demand planning issue. As demand during peak holiday seasons fluctuates between channels, retailers find it harder to predict where to position inventory. Beside the traditional holiday season, retailers face new demand planning headaches. Amazon Prime Day in July and other major promotional events make it truly difficult to accurately predict demand.

Figure 4 – Primary Demand Planning Challenges



“In this whole notion of omni-channel... It really matters where you put inventory the first time. It still matters. It may even matter more.”

As with others aspects of SCM, the complexity of omni-channel retailing has affected demand planning. The reduced planning horizon leaves little time for retailers to adjust their demand forecasts, putting pressure on the supply chain groups when executing the demand plan. To counter this pressure, demand planners are now being asked to provide forecasts with greater detail. As a result, identifying an appropriate level of demand aggregation is another primary planning challenge.

While omni-channel retailers attempt to leverage their store network as a last-mile origin point, the journey to execute this strategy is rife with peril. Additional difficulties arise when retailers attempt to manage inventory levels and accuracy at multiple shipping points.

These challenges translate into complications and a lack of confidence in omni-channel demand planning processes for retailers. Not surprisingly, survey respondents were more confident about their firms' ability to forecast in-store sales than on-line sales. Table 2 shows that over 60 percent of respondents believe that their organization does an excellent job of forecasting in-store demand. In contrast, about 30 percent are confident in their e-commerce forecasting capabilities. Many survey respondents also expressed concerns with their firms' technological capabilities to support effective demand planning in the omni-channel environment.

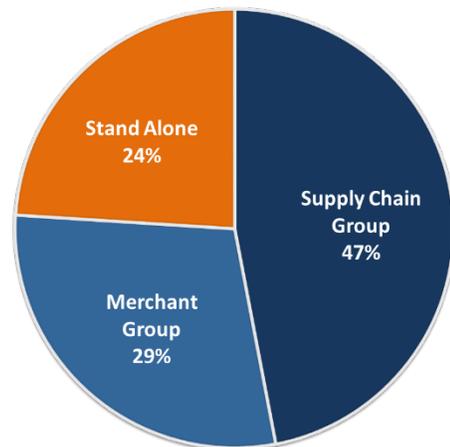
Table 2: Forecasting Perspectives of Retailers

Topic	Agree
Our ability to forecast STORE demand is excellent	63%
Our functional boundaries for demand planning are disappearing	63%
E-commerce greatly complicates demand planning activities	61%
Our ability to forecast E-COMMERCE demand is excellent	31%
Our existing technologies effectively support e-commerce demand planning	27%

Demand Planning Roles

Demand planning is a role traditionally associated with the merchant division of retailers. However, Figure 5 highlights a noticeable shift. About half of the organizations in this year's survey task the supply chain group with managing the demand planning activities. In this scenario, the merchants focus on what to buy, the assortment, and dollar spend. The SCM group then takes responsibility for forecasting demand volume, timing, and location. They also take responsibility for inventory allocation.

Figure 5 – Who Manages Demand Planning?



“Our engagement with the merchant group has absolutely gotten better. We are embedding supply chain analysts within the merchant teams on the planning side”

Strategic Initiatives

A major initiative identified by SCM executives is stronger engagement among the supply chain group, merchants, and stores. Going forward, they are focused on ensuring alignment between different functional units when establishing demand planning strategy. One retailer explained how this will play out: *“We’re learning that we need a supply chain planner career path, something that combines inventory planning, merchandising capacity planning, and maybe time in operational planning. It’s not about going back to being a merchant. It’s about being a supply chain planning expert.”*

Beyond their collaboration efforts and talent sharing initiatives, retailers are actively pursuing new demand planning initiatives. Among the most promising opportunities are a *single inventory* approach and integrated demand planning activities. Each strategy is intended to improve forecast accuracy and inventory availability in an increasingly complex planning environment.

Channel Agnostic Inventory

Retailers are adopting a channel agnostic approach toward the execution of their demand plans. This “seamless inventory strategy” treats demand the same regardless of channel or fulfillment location, and requires retailers to build inventory positioning flexibility across the network. The capability to quickly reposition inventory across fulfillment nodes in the distribution network is also needed. The challenge is that demand patterns can be highly erratic for individual items at each store. This problem dissipates when a broader view is taken according to a grocery chain executive: *“When you aggregate across multiple stores, you can get some better demand forecasting capabilities and that’s where inventory centralization comes into play.”*

Retailers, especially ones developing store-based order fulfillment capabilities, are experimenting with more aggressive pull-based store replenishment processes in their demand management plans. These approaches call for smaller stock levels in stores with greater inventories held upstream in the DCs. The replenishment process is then focused on how much of an item sells in a store instead of a min-max store replenishment system.

The proposed shift in the store replenishment process calls for an increase in the frequency of shipments from DCs to stores. In cases where a store was receiving one delivery per week, it is now receiving multiple shipments per week. A vice president highlighted the importance of flexibility in the frequency of delivery to support inventory availability: *“You just have to adjust delivery frequency based on the rate of sale. We’ll change the delivery schedule so that stores get replenished quickly.”*

In this strategy, the mix of items in the store replenishment order would also change with a higher proportion of split cases. That can impact pick and pack efficiency in the DC. During the interviews, some executives shared their plans for building new distribution facilities with greater automation and improved layout to better handle the operational needs of this approach. This capability will also help with omni-channel order fulfillment which requires single unit order picking.

“In the future, we need to get to a more granular level of the demand forecast, rather than a high-level unit forecast”

Integrated Demand Planning

Historically, retailers have forecasted demand for in-store and online channels separately. In an effort to improve demand planning, retail supply chain executives are focused on understanding the extensive demand variation within and between channels. They are also trying to better identify where demand occurs to ensure inventory availability when and where customers need it. This effectively means that correctly forecasting aggregate demand is no longer sufficient. Retailers must also be able to accurately predict the origin of demand (region, store, and channel). For this reason, many executives indicated that they need demand planning at a finer level of detail (item level, store level, channel level).

With the proportion of online sales increasing, retailers have a need to establish a single, integrated demand planning process. Figure 6 reveals that nearly 80 percent of survey respondents are using, developing, or investigating the ability to integrate demand planning across all channels. This approach pursues a more granular level of demand forecast than what the retailers have done in the past.

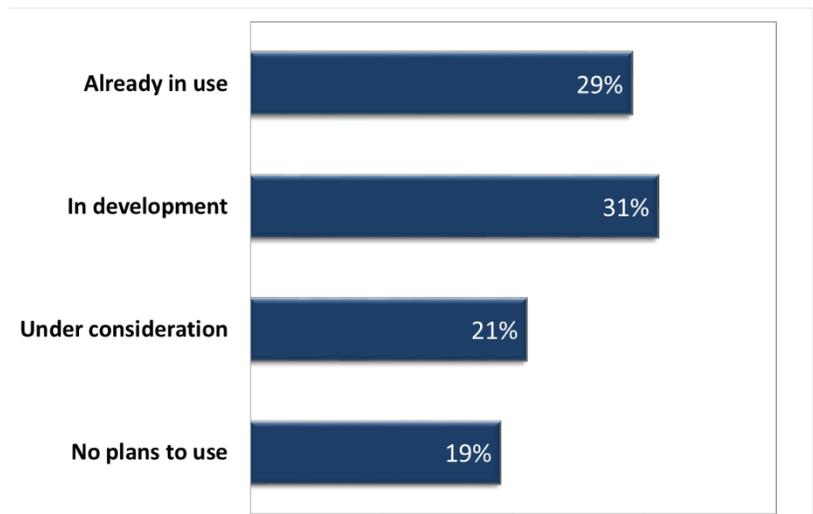
Integrated demand planning requires a shift away from the top-down demand forecasting approach currently in use. Instead, a bottom-up approach focused on aggregating demand at the store-level and by sales channel is needed.

Integration of channels into demand planning will help retailers expose all inventory – in-store and in the DC – to omni-channel customers. Implementation of this strategy will require retailers to acquire greater analytics and technology firepower. These tools must be capable of handling the vast data requirements of planning at the product category level in stores and across different sales channels.

Key Takeaways

The role of demand planning is not for the faint of heart or the analytical lightweight. Demand planning in a complex omni-channel retail world calls for new approaches, heavy data crunching, and analyst finesse. Smart retailers are responding by establishing cross-functional teams of merchant, supply chain, and store operations professionals who develop granular-level demand plans covering multiple demand streams and fulfillment nodes. They must couple these plans with innovative store replenishment and delivery processes to respond to changing demand dynamics in this complex planning environment.

Figure 6 – Integrated Demand Planning Usage



Capability 2: Store-Based Fulfillment Consistency

Stores Must Seamlessly Perform Traditional DC Roles

“You’ve got to make a concerted effort to make sure that people fulfilling orders for customers online aren’t disrupting the shopping experience for people that are in the store to buy organically.”

The Key Issues

Retailers continue to intensely focus on expanding and improving their omni-channel capabilities. This represents the fourth consecutive year that our executive interviewees have emphasized the importance of improving and expanding omni-channel operations capabilities. This year, we tackled the growing area of store-based fulfillment. Retailers realize the importance of stores in their anytime, anywhere customer service role. One executive’s simple comment spoke volumes about store-based fulfillment: *“We definitely see stores as an important part of our omni-channel strategy.”*

This year executives spoke extensively about the need to fully engage their networks of brick-and-mortar stores in the fulfillment of customer demand. They realize that serving customers strictly from DCs can have negative repercussions on speed to market, transportation costs, and inventory utilization. Leveraging the full range of facilities and system-wide inventory allows omni-channel retailers to provide the best service and creates customer proximity advantages against pure-play internet retailers.

Our interviews and survey focused on four aspects of a store-based fulfillment strategy. The discussion focuses on: the relative use of omni-channel fulfillment methods, the scope of store fulfillment activities, the delegation of fulfillment roles between store and SCM organizations, the need to coordinate these activities, and the need to establish order management rules.

The Growing Role of Store-Based Fulfillment

Strategies surrounding omni-channel order fulfillment have rapidly evolved since the inception of the SRSC Report. Initially, executives focused on how to best ship customer orders from a DC. They sought the best options for picking and packing individual consumer orders in a cost efficient manner via either dedicated e-commerce DCs or integrated DCs originally designed as case processing operations. Pushing orders to a store for fulfillment was little more than an exception based activity.

Fast forward to 2015 and retailers clearly recognize that store inventory can effectively support demand from multiple channels. Using stores as fulfillment centers is now a primary strategy. It was widely discussed during the interviews, with some retailers describing their long-term use of store fulfillment and some describing their plans for pilot tests in the coming year. Figure 7 reveals that two-thirds of retailers surveyed use in-store pickup as a way to combat same-day and next-day delivery pressures. In addition, 60 percent are providing package shipping from stores. Both store-based approaches are projected to grow in the coming years.

“Customers really like the flexibility to be able to order and pick up at store versus home delivery where they’ve got to be available during a fixed window.”

Figure 7: Frequently Used Omni-channel Order Fulfillment Methods

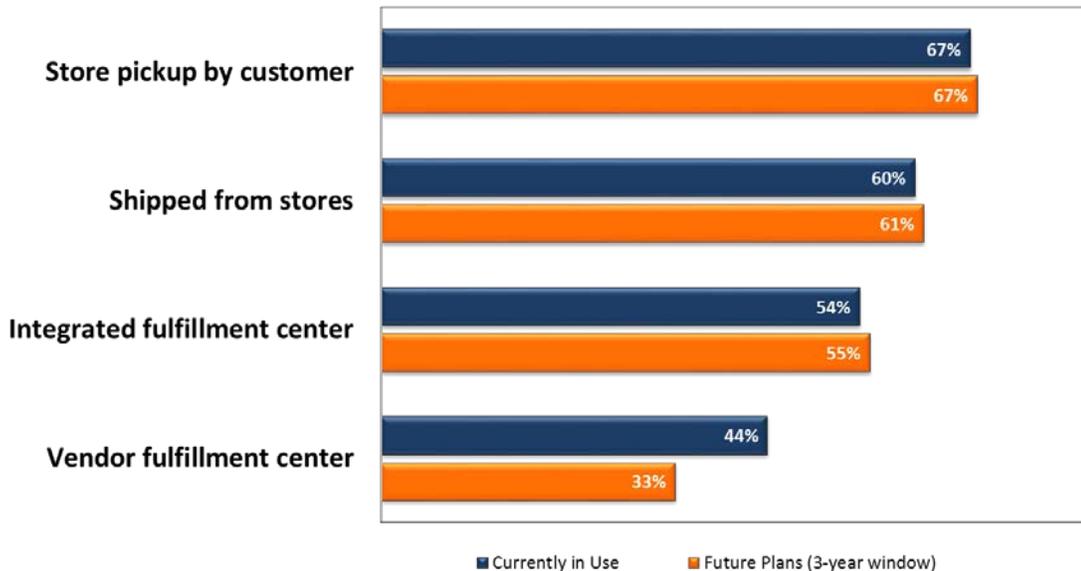


Figure 7 also reveals a continued reliance on integrated DCs. Direct shipping from vendors is projected to decline in the future. The future use of dedicated e-commerce DCs is the wildcard. In our study, survey respondents indicate that they will rely on these facilities less in the future, though some other studies predict greater use. The logical conclusion is that a single method will not suffice in the future. Hence, retailers are pursuing a multi-pronged approach to fulfillment, relying on both store and DC assets. *“There’s a place for shipping from stores and there’s a place for central fulfillment. I think you have to do both,”* an executive explained.

Store-Based Fulfillment Strategies

As more omni-channel orders are directed to stores, effective strategies must be established. The need for greater customer service for online orders must be balanced against preserving the shopping experience of the in-store customer.

Numerous retailers are following a hub store strategy, and this method is expected to grow significantly over the next 3-5 years. This approach consolidates store fulfillment inside larger and/or centrally located stores rather than establishing fulfillment capability across the entire store network. The hub store may keep larger inventories across the board or have extra backroom space to support picking of high volume items.

“With multiple stores in a small radius, there is no value in including fulfillment from each store. It makes sense to service customers from one or a few stores.”

Benefits of the hub store approach include reduced inventory management complexity, reduced associate training, and consistent quality of order preparation and customer service. A downside of this approach is that the customer desiring in-store pick-up may be directed to a location that is not the closest, most convenient store.

Figure 8 highlights the use of hub stores and three additional aspects of store fulfillment operations. Split shipments have been viewed as a limiting factor to store fulfillment in the past. Over half of the retailers sampled allow online orders to be filled from multiple locations if the chosen store doesn't have all the needed items in stock. The option to fill an order from more than one location is expected to be used by more than 60 percent of the survey respondents in the coming years.

Figure 8: Organizing for Omni-channel Fulfillment



The use of store associates specifically dedicated to order fulfillment activities is another growing trend with more than 50 percent of respondents pursuing this approach. Retailers have learned through earlier experimentation that expanding the role of store associates to include both in-store customer service and omni-channel order fulfillment often results in poor performance in both areas. Clearly, the trend is to use separate resources to manage fulfillment. An executive noted: *“We have dedicated roles that are responsible for getting fulfillment orders out of the store.”*

Almost half of respondents restrict the volume of orders released to a given store, and this number is also expected to grow in the future. The reasoning is twofold. First, as store fulfillment volumes grow retailers want to avoid negatively impacting the in-store shopper's experience with a high volume of concurrent in-aisle order picking activities. In addition, retailers are concerned that filling too many omni-channel orders at the store will create stockouts. This worry exists even among retailers that are confident in the accuracy of store inventory records.

“It’s still an evolution from ‘my sale versus your sale’ to ‘our sale’. It has proven to be a bit of a challenge and is still seen as an intrusion into store payroll.”

Delegation of Responsibilities

Store and SCM organizations have historically been separate divisions with separate goals. The store-based fulfillment movement has the potential to change that relationship dynamic, bringing these groups together. No longer does the role of SCM end at the dock door of the store for some retailers. Others are still defining role- and responsibility-sharing strategies.

An important area of convergence is the need to train store associates on order picking, packing, and shipping processes. Expertise for these techniques resides in the DC operations, but that expertise must be spread across the organization for fulfillment from store orders. Often, SCM personnel are assisting with the development of store fulfillment processes. One executive explained: *“It’s a support/consultative function. We’re not running the labor on the store floor, but we’re providing insight and ideas, processes, and best practices for picking and packing.”*

Additionally, SCM experts are helping stores to identify system change requirements and train store associates on fulfillment. One supply chain leader discussed how to support stores with their pick/pack/ship roles: *“It’s really how do we get access to all of our inventory, all of our transportation resources, all of our ability to fulfill a customer order and do that optimally to meet the customer’s needs.”*

Ongoing challenges revolve around fulfillment costs and credits. A primary hurdle has been deciding who gets credit for a sale. Does an online order that is filled from a store get credited to the omni-channel organization or the store? That question captures the attention of store leadership. However, SCM executives also realize that the discussion should not be about who gets the sale. It’s about where it can best be fulfilled to balance cost, service, and profit.

Despite these challenges, we anticipate that alignment will improve over the next few years. Stores, omni-channel, and SCM organizations will develop a cohesive focus on a single goal. That is, profitably serving the customer regardless of order origination and fulfillment point. A senior executive summed up the opportunity and challenge, stating: *“We have to differentiate on experiences and deliver value. And, omni-channel is about being simple and seamless, regardless of how you choose to engage with us. It is really important for us and we’re far from it. Lots of work to do there.”*

Development of Order Management Rules

There are many store-based fulfillment challenges that must be overcome. SCM executives are very concerned that poor performance will lead to customer dissatisfaction and defection – an outcome that retailers universally try to avoid! To better understand the potential pitfalls of store-based fulfillment, we asked survey participants to rank their top execution challenges. Their top concerns are highlighted in Table 3.

Table 3: Store-Based Fulfillment Concerns

Challenge
1. In-store inventory accuracy
2. Labor Scheduling
3. Timely fulfillment
4. Managing peak order volume
5. In-store inventory visibility

“The challenge is making sure inventory is available when it looks like it’s available. One POS error and you don’t have the product where that you thought you did.”

As noted in last year’s SRSC Report, inventory accuracy at the store level is a foundational requirement for store fulfillment to take place. Two of this year’s top five challenges are inventory-related. One way to minimize customer disappointment is to avoid allocating the last few items in a store’s inventory to an omni-channel order. Several retailers indicated that they have established minimum inventory levels that must exist for an order to be allocated to the store.

Additionally, retailers are testing the configuration of orders that can be effectively handled and the volume each store can support. Retailers in the early stages of store-based fulfillment have limited fulfill from store order complexity. They allocate single item orders to stores and try not to overwhelm the stores as they learn how to fulfill orders. One executive indicates: *“We’ve been testing multi-line orders in some of the stores, as well as how many orders a store can take in a day.”*

If the store’s inventory system says they’ve got one of an item, we won’t direct an omni-channel order to that store because we don’t trust that we are that accurate with our inventory.”

Capacity constraints are another logical concern and few retailers understand how many orders can be handled at a store. They are testing various order volumes to find the sweet spot that balances volume, order quality, and efficiency without affecting service quality to in-store shoppers. Retailers reported that the number of orders placed on a store spans a wide range of volumes, from 50 – 1,500 per day. Higher volumes are associated with retailers that have been refining the store fulfillment process over several years and those that have implemented the hub concept. *“Can we give them 50 orders or 100 order per day? Right now we’re trying to see how far we can push the stores,”* a supply chain leader explained. He went on to describe how the organization is trying to understand the staffing model and inventory levels required to fulfill varying order volumes in 24 hours or less.

Through the interviews, we learned that there is no single best approach for staffing the store-based fulfillment operation. Some retailers allocate a percentage of associates’ time to fulfillment, other retailers train and dedicate specific personnel to customer order fulfillment, and others outsource the responsibilities. Some retailers mentioned using Instacart and other third party organizations for order picking and delivery.

Key Takeaways

Omni-channel fulfillment has evolved from a primarily DC-based model to one that leverages all inventory nodes across the network, especially the store. For the same-day / next-day delivery being demanded by omni-channel, stores often provide the best fulfillment option for retailers. While there are still kinks to be worked out in the store fulfillment process, we believe retailers are moving aggressively toward a model that removes orders from the DC network and places a large percentage of these orders in stores.

Capability 3: Customer Returns Dexterity

Reverse Flows Must Emerge from the Shadows

“No one really wants to spend too much time on the reverse flows side of the house. It’s not something that’s front and center in a lot of people’s minds.”

The Key Issues

Traditional wisdom (as expressed above) holds that customer returns are little more than a necessary evil. As such, limited time, effort, and funding have been allocated to returns management and reverse product flows over the years. So why did we choose to address returns as a focal point of this year’s study? It’s simple. Omni-channel retailing raises the stakes with higher returns frequency, complexity, and cost.

Many of the executives interviewed for the study were intrigued by our returns-focused questions. Their reaction wasn’t due to disinterest. Instead, it was because returns management is quickly emerging as a strategic priority. Supply chain executives find themselves engaged in pilot efforts to upgrade reverse flow capabilities. This section will explore the challenges of omni-channel returns, the opportunities for change, and the logical solutions being developed by leading retailers.

The Challenges

The buy anywhere, deliver anywhere philosophy of omni-channel retailing creates a conundrum. Customers also expect to return anywhere – in person at the store or via package delivery to a DC or returns processing facility. This requires a level of returns process flexibility and technology sophistication that are not fully developed, according to many interviewees. Given these comments, we asked survey participants to rank seven frequently mentioned concerns. Figure 9 summarizes their primary challenges.

With returns flowing to multiple locations in the supply chain, retailers find it difficult to keep track of everything. This is especially true when online orders are returned to stores. Access to customer order data and proper product disposition policies are needed to promote efficient in-store handling of returns.

The respondents also worry about financial repercussions of returns.

“Moving returns around not only has cost implications but you lose time. When you lose time, you lose margin, especially in fashion,” noted a senior supply chain executive.

Figure 9: Returns Management Challenges



“Make it easy and seamless for our customers. Then, make it easy and seamless for our stores in a way in which we can drive out as much waste as possible.”

Operating Roles

Dealing effectively with customer returns in an omni-channel environment requires a team effort. Store and supply chain leaders must align policies with existing capabilities, assign appropriate roles, and monitor collective success. Figure 10 highlights how our survey participants allocate the workload. Only through active collaboration and proper orchestration of returns processes will a retailer successfully protect margins, minimize dead stock, and create seamless customer experiences.

Figure 10: Primary Responsibility for Returns Management Activity

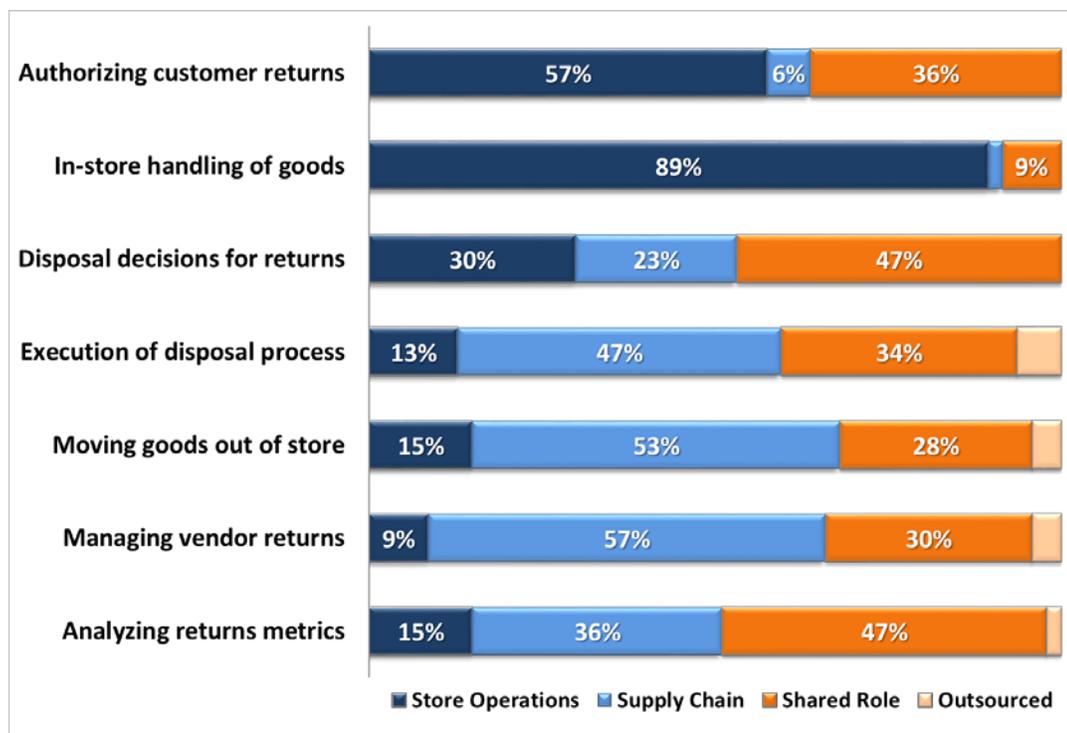


Figure 10 also reveals that there is not a universal process for managing the primary returns activities. In general, store personnel take the lead on direct customer interactions. The responsibilities take a supply chain shift as product moves outside the four walls of the store, though a large proportion of the retailers in our study share the responsibilities. They indicated that a team-based approach is valuable for tackling the growing volume and complexity of returns.

To ensure effective returns processing with proper credits to customers for purchase price plus taxes, store personnel need direct access to the order management system. Then, sensible decisions must be made regarding the status of goods. *“Build better work rules and better disposition logic at the store to get all of the product that’s effectively new back to the sales floor,”* recommends one executive. *“Ticket it and sell it in the store. That’s far more cost-effective than scrapping or liquidating the goods.”*

“Returns is one of our biggest challenges – it is just not well-choreographed. We have people doing different things and we need to standardize processes.”

Capability Gaps

The interviews and survey results revealed a noticeable chasm between retailers regarding their returns management programs. Table 4 highlights that some retailers were fairly critical of their internal competencies, a large contingent was trying to develop capabilities, and others were highly confident in their processes. Comments ranged from *“We’ve got a number of challenges to get past”* to *“It’s very much in the forefront of the things we’re working on”* to *“I think that we’ve got the returns process nailed down.”* Narrowing the gap is especially important for retailers that have fallen behind.

Table 4: Retailers’ Returns Management Capabilities

Topic	Disagree	Neutral	Agree
Our return process is highly effective.	21%	48%	31%
Returns management is a strategic priority for our organization.	27%	38%	35%
We need to develop a more effective strategy for omni-channel returns.	17%	38%	45%
Our customer returns policy is appropriately aligned with our supply chain capabilities.	13%	15%	72%

This divergence of opinions also extends to returns strategy as highlighted by Table 4. Looking across the respondents’ feedback, three takeaways emerge about existing capabilities.

1. Greater prioritization of returns is needed in many organizations. It is critical for supply chains that deal with SKU complexity, high value goods, seasonal apparel, and marketplace offerings.
2. Stronger strategies are required. Returns cannot be an area of benign neglect. Those “as is” tactics that support standard store returns flows are no longer viable in an omni-channel world.
3. The strong alignment that exists between policy and capabilities is solid – for now. Any changes to priorities or strategies must be accompanied by supply chain process upgrades. Otherwise, the strong alignment will quickly deteriorate.

Strategic Initiatives

The growing recognition of reverse flows as an omni-channel critical success factor is beginning to drive action in the returns space. Supply chain executives and their store counterparts are taking tangible steps to control the reverse flow of goods. They are upping the ante across the people-process-technology spectrum with initiatives intended to establish logical returns protocols, boost returns team performance, and improve control.

"It's our plan this year to implement engineered standards. We will definitely improve our returns handling throughput and productivity."

Develop a Foolproof Escalation Process

Retailers need to establish a straightforward, rules-based protocol for dispositioning customer returns. New product should be added into the store's inventory and made visible across the network, even products that may not be in a store's planogram. This avoids handling costs, transportation expense, and the risk of product misplacement. Open box product can be sold "as is" at a discount or sent to a pre-approved liquidator. Unsellable product should be taken out of inventory and destroyed at the store. This is far more efficient than moving unsellable goods to a returns processing center. Moving goods to a returns center or DC should be reserved for re-stocking, refurbishment, or return to vendor purposes.

Invest in the Returns Team

Given the customer service implications and financial impact risks of returns management, it is not a process that should be staffed by temporary services employees or new associates. In recognition of the increasing importance and complexity, leading retailers are assigning talented people to the returns process. One retailer noted: *"It is a fairly challenging position with a lot of questions that must get answered and deals with issuing customer credits. It's actually one of our most skilled positions."*

Another way to ensure that appropriate skills reside in the returns team is to invest in training and then establish performance standards. A few retailers are looking at team measures of success like returns processing cycle time and P&L statement impact, while others are focusing on individual performance with engineered time standards.

Increase Information Access

Accurate information regarding customer orders, visibility of inventory, and action protocols must be provided to the returns team members and decisions makers. This requires improved linkages of systems between stores and the supply chain for greater access and update capabilities. *"We're building returns functionality into our system to make it easier to bring inventory in, disposition it, and create visibility. That will help the allocator group determine what to do with returns,"* an executive explained.

Investments in technology can also help organizations understand the cost of different flow paths and determine optimal transportation methods. Importantly, technology can also help analyze returns. *"How can we reduce the volume of returns? We do a lot of analytics and create really good report cards on the frequency and reasons for the returns,"* noted a senior executive. The results are shared across the supply chain to focus efforts on product packaging and quality improvements.

Key Takeaways

Retailers increasingly realize that treating returns as an afterthought is dangerous. Doing so increases the potential for supply chain challenges and financial decay. In response, leaders are establishing logical returns strategies, improving team capabilities, and leveraging information technology. However, the learning curve is steep and returns excellence remains a work in progress for most retailers.

On the Horizon

A Look Forward at Issues, Opportunities, and Challenges

“Our burning challenge is how to get more capacity out of our existing footprint and to continue to be able to service our stores as effectively as possible, given the changing business environment that we’re in and this changing supply chain model.”

Throughout this SRSC Report, we have discussed a number of important issues that are driving major change in the supply chain strategies and operations of major retailers across the country. To paraphrase an old advertising campaign – *this is not your father’s supply chain*. The reality is that there is no end in sight to the supply chain turmoil and disruption created by omni-channel retailing. Thus, we always ask the supply chain executives to peer into the crystal ball and identify the hot button issues that will consume their time in the coming year. Four of the most interesting and widely discussed topics from these conversations are covered in the following pages.

A Two-Dimensional Talent Shortage

“The people challenge is the biggest challenge going forward and that’s on two fronts. One is the talent from a leadership perspective and the other one is the availability of people that want to do the work in distribution centers, drive trucks, and those types of things.”

The supply chain talent shortage at the professional level was discussed extensively in our 4th Annual Report. However, the problem is not limited to the managerial ranks. In this year’s interviews, executives pointed to a dual talent availability threat – hourly labor shortages and promotion-ready professionals.

The growing scarcity of hourly workers affects retailers across the entire supply chain, but the areas of DC labor, truck drivers, and store associates top the list. Demographics and the service economy are primary reasons given by economists for the issue.⁸ The baby boomer generation is in the midst of retiring from the workforce and replacements from follow-on generations have not kept pace. With the Millennial generation attending college and earning university degrees in greater proportion than any earlier generation, there will likely be a dearth of younger talent willing to work in hourly labor positions.⁹

The challenge is compounded during peak holiday season. Amazon is expanding its network and paying premium wages. That causes a talent drain for retail DCs in close proximity and an over-reliance on temporary labor. The logical option of increasing wages is unpalatable for many retailers. This will promote further consideration of DC automation investment.

“More companies are going all-in with online fulfillment. In the peak seasons, it just gets tougher and tougher to find good quality people to support the business.”

“A pretty significant percentage of supply chain executives, at least in the U.S. and Western Europe, are at or above retirement age.”

One casualty of the Baby Boomer retirement trend is the impending loss of senior supply chain leaders. With subsequent generations being smaller, the population of promotion-ready SCM talent is thin. Part of this is due to the flattening of managerial levels with fewer opportunities to develop cross-functional skills and reduced training budgets. In addition, the growing recognition among C-level executives that SCM is essential to organizational success is creating external competition for top talent. Finally, the talent being developed by SCM programs in universities will not be ready for top leadership positions for years to come.

Retailers are being forced to fill their SCM leadership talent gap in novel ways. Retailers can incent existing leaders to remain in their roles longer, re-design roles so that leaders can transition out slowly on through part-time roles, or remain attached to the organization as consultants or mentors for a period of time. This will mitigate rapid brain drain and support new SCM leaders as they ramp up their comfort levels with expanded roles.

The Amazon Effect (Again!)

With the growth of retail spending coming largely from online and mobile shopping, supply chain leaders will need to innovate or lose out on this lucrative segment of their business. Amazon is capturing the lion's share of new online shopping dollars and continues to capture the attention of the supply chain executives in our study. Whenever the conversation turns to the competition, Amazon is a focal point. Over the years, Amazon has gone from a minor distraction to the elephant in the room. The conversations are a mix of frustration, curiosity, and grudging respect.

“Most companies, including and especially Amazon, don't make money fulfilling ecommerce-type orders. And I believe Amazon's the root cause of that, quite honestly. They lose money on everything that they fulfill themselves. And that subsidy model is changing retail, in my opinion.”

There's no doubt that Amazon's empire is expanding with growing sales, distribution network expansion, and new innovations. Amazon Prime continues to add new members and Sunday delivery is now a staple offering. Amazon Flex provides a contingent workforce to offer same-day delivery in major metro areas. Drones are still part of the delivery plan. And, there are numerous reports of Amazon developing delivery capabilities through covert programs with names like Aerosmith and Dragon Boat. In a bold proclamation, Stifel Financial Corporation says that Amazon will emerge as “the world's top logistics company” over the next ten years.

Retailers, FedEx, and UPS may not agree with the Stifel assessment, but retailers do indicate that the best approach to combat Amazon is to leverage their existing assets – particularly their stores – rather than attempt to *out-Amazon* the online competitor. This has contributed to the growth of in-store fulfillment and easy to use customer pickup options. We anticipate the pace of retail supply chain innovation will increase in the next 3-5 years to combat the Amazon effect.

“How do we continue to delight our customers when our customers’ expectations change year-over-year because of Amazon?”

The “I Want it Now” Syndrome

Responding to the speed and convenience options provided by online retailers – particularly in major markets – requires omni-channel fulfillment operations to evolve rapidly. With the inflated expectations of some online customers for hyper-speed order delivery, retailers are left with little choice but to cut out days (not hours) from the order processing timeline. This requires a boost in DC capacity, productivity, and throughput. The fast click-to-deliver order cycle expectation not only holds during the peak holiday season; it has become the norm for the convenience seeking customers that expect to receive orders shortly after clicking “purchase” on their devices. The growing attitude is this: if a customer can get a semi-customized pizza delivered in 45 minutes at 2 a.m., then why not a waffle maker or a designer purse?

With package carriers charging a premium for fast home delivery and non-business day service, retailers are focusing inward to find ways to speed up the fulfillment process without getting crushed on cost. Adding DC shifts or moving to a 24/7 operation will be the norm among omni-channel retailers. Store-based fulfillment combined with contingent workforce delivery service will become more common. And, expanding the delivery cycle beyond the 8 a.m. to 6 p.m. time frame will absolutely be required.

“What is a business day in a virtual world and should we consider different timing from a speed perspective? We’ve got competitors that deliver on Sunday and so will FedEx if you set up a certain agreement with them. You’ve got post offices that are now delivering on Sundays.”

Severely compressed click-to-deliver order cycle time is the strategic battlefield for retailers, especially in the competitive online apparel retail. Soon, we believe that few segment of omni-channel retail will be immune from these “I want it now” expectations.

A Continuing Infrastructure Crisis

Google *crumbling infrastructure* and you will find hundreds of articles that consistently boil down to: “The USA’s once gleaming interstate highway system [or port system, or rail system, you get the idea] is in crisis”.¹⁰ Furthermore, the aging US transportation system is not being adequately maintained and the government funding system for maintenance is woefully undercapitalized.

In addition, expansion of key elements in the transportation system is lagging. US ports are behind many industrialized nations in terms of port capabilities and use of technology to drive efficiency.¹¹ No US port (or the expanded Panama Canal) can accept the newest generation of Triple E class container ships.¹²

What can be done about such colossal issues that are beyond the control of any single company? In our view retailers need to drive awareness through coordinated lobbying efforts. Creatively boosting awareness and turning up the heat on Washington is needed. For example, an advertising campaign that focuses on the lack of infrastructure funding and the ultimate impact on consumer product prices could create much needed awareness and momentum.

Summary

Final Remarks from the Sixth Annual Study

2015 was another challenging year in retailing, with tepid revenue growth that shifted between channels. As omni-channel continues to take center stage in our research, it is apparent that retail supply chain executives spend an enormous amount of time trying to understand the customer-driven landscape. Thus, it is no surprise that the strategic SCM go-forward response will be customer service enhancement for a growing number of retailers. Investment is needed for greater visibility and flexibility across the supply chain. Standard operating procedures for traditional DC-to-store flows must be supplanted by integrative processes.

The new modus operandi starts with demand planning finesse. High level sales forecasts must be segmented into much more finite projections of what will be sold at the category, store, and SKU levels. In this environment, retailers will need to become far more adept at channel-agnostic inventory control and integrated demand planning. Next, store-based fulfillment must rapidly evolve as a cost-efficient, accurate, and easy to use omni-channel option for consumers. To make this a reality, SCM professionals will need to school their store counterparts on how to properly fulfill orders. Finally, these store-supply links must also work toward more logical reverse flows of customer returns. Without a concerted effort to effectively manage increasingly complex returns, the cost of doing so will have a detrimental effect on margins.

As we look toward 2016 and beyond, integration will be the key word. Retail supply chain executives need to pursue further alignment with merchant and store professionals to cost-efficiently enhance demand planning, inventory sharing, fulfillment excellence, and customer satisfaction. Even as the retail supply chain becomes more important, it needs to become even more transparent to the consumer. Remember, they only care that their order is right, not who fulfilled or delivered it.

Research Resources

1. Bureau of Labor Statistics, "The Employment Situation – December 2015," January 8, 2016
2. Friedman, "U.S. Oil Prices End 2015 Down 30% for the Year," *The Wall Street Journal*, December 31, 2015.
3. YCharts, "U.S. Inflation Rate," February, 2016.
4. Chandra, "Retail Sales in U.S. Decrease to End Weakest Year Since 2009," *Bloomberg Business*, January 15, 2016.
5. Tabuchi, "It's Amazon and Also-Rans in Retailers' Race for Online Sales," *The New York Times*, December 30, 2015.
6. Nash, "Wal-Mart to Pour \$2 Billion into E-Commerce Over Next Two Years," *The Wall Street Journal*, October 14, 2015.
7. Morgan Stanley, "Get Ready for India's Internet Boom," <http://www.morganstanley.com/ideas/rise-of-internet-in-india>, June 5, 2015.
8. "Beyond Jobs Numbers, Labor Shortage Looms: Our View", Editorial, *USA Today*, May 7, 2015.
9. "15 Economic Facts About Millennials", The President's Council of Economic Advisers, October 2014.
10. Preston, "Taking a Road Trip This Summer? Enjoy America's Crumbling Infrastructure," *The Guardian*, July 27, 2015.
11. Statista, "Ranking of the Countries with the Highest Quality of Port Infrastructure in 2014/15," 2016.
12. McCabe, "New Generation of Giant Ships Leaves Colossal Wake," *The Virginian-Pilot*, January 11, 2015.

Center for Supply Chain Innovation Research Team



Brian J. Gibson, Ph.D.
CSCI Executive Director
Wilson Family Professor

Throughout his career, Dr. Gibson has been recognized as an innovative supply chain educator. He has co-authored numerous SCM research studies and books. Dr. Gibson's academic career was preceded by nine years in retail distribution management. He now leads the Auburn University Center for Supply Chain Innovation and stays connected to industry through corporate training, practical research, and service to the supply chain profession. He serves on RILA's SCM Steering Committee, on CSCMP's Board of Directors, and as NASSTRAC's Education Advisor.



C. Clifford Defee, Ph.D.
EBSCO Associate Professor

Dr. Defee has co-authored the SRSC study since its inception and *The Definitive Guide to Integrated Supply Chain Management*. His work has won multiple awards from national organizations including best article awards from the *Journal of Business Logistics* and *Transportation Journal*. Dr. Defee enjoyed a 20 year career prior to joining academia including stints as Chief Operating Officer for PSFweb and as a consultant with Accenture. He has worked with over 100 retail companies during his career.



Rafay Ishfaq, Ph.D.
Assistant Professor and HCoB Research Fellow

Dr. Ishfaq conducts research on omni-channel fulfillment and logistics processes. His research has been published in multiple academic journals, as well as covered by TV and print media. Prior to academia, Dr. Ishfaq worked in industry for close to a decade, holding management positions in Production Operations and Supply Management. He is actively engaged with supply chain practitioners through multiple research projects, serving on a corporate advisory board, and consulting for retail and wholesale-distribution firms.

About the Organizations

Auburn University SCM Programs

Ranked #8 nationally by Gartner and #10 globally by Supply Chain World, the Supply Chain Management program brings the unchanging values of Auburn University – practical education and research, honesty, and hard work – to a changing world. The Center for Supply Chain Innovation serves as the conduit for faculty, student, and industry engagement. We support the supply chain industry through insightful research, tailored professional enrichment programs, and industry-ready talent. For additional information about the Center, visit www.AuburnSCM.org



Retail Industry Leaders Association

RILA is the home of the world's largest and most successful retail companies, whose executives participate in RILA for its unique educational forums, its effective public policy advocacy, and its advancement of the retail industry. RILA membership includes more than 200 member companies - from Abercrombie & Fitch to Walmart - representing more than \$1.5 trillion in sales. Through its board of directors, Leaders Councils, committees and working groups, RILA members determine the issues and focus areas for public policy, educational offerings and research. Visit www.rila.org



Checkpoint Systems

Checkpoint Systems (www.checkpointsystems.com) is a global leader in merchandise availability solutions for the retail industry, encompassing loss prevention and merchandise visibility. Checkpoint provides end-to-end solutions enabling retailers to achieve accurate real-time inventory, accelerate the replenishment cycle, prevent out-of-stocks and reduce theft, thus improving merchandise availability and the shoppers' experience. Checkpoint's solutions are built upon 45 years of radio frequency technology expertise, innovative high-theft and loss-prevention solutions, market leading RFID hardware, software and comprehensive labeling capabilities, to brand, secure and track merchandise from source to shelf. Checkpoint's customers benefit from increased sales and profits by implementing merchandise availability solutions, to ensure the right merchandise is available at the right place and time when shoppers are ready to buy.



Contact Information

For additional copies of this publication or for more information about the study, please contact any of the following:

Brian Gibson, Ph.D.

Executive Director
Wilson Family Professor of SCM
Auburn University
brian.gibson@auburn.edu
T: 334.844.2460



Lisa La Bruno

Executive Vice President, Retail Operations
Retail Industry Leaders Association
lisa.labruno@rila.org
T: 703.841.2300



Carlos Perez

Vice President, Global Marketing
Checkpoint Systems
carlos.perez@checkpoint.com
T: 704.206.7849



Copyright 2016, Center for Supply Chain Innovation

All rights of any nature reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, without written permission from the copyright owners.