

2018

STATE OF RETAIL SUPPLY CHAIN



AUBURN

HARBERT COLLEGE
OF BUSINESS

*Center for Supply Chain
Innovation*

In Conjunction with

RILA

RETAIL INDUSTRY LEADERS ASSOCIATION

Media Partner

DC *VELOCITY*

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A Brief Note of Introduction

Auburn University's Center for Supply Chain Innovation, the Retail Industry Leaders Association, and DC Velocity are pleased to present you with the 2018 State of the Retail Supply Chain Report. This eighth annual installment of our study covers highly relevant topics that impact success or failure in the hyper-speed omnichannel retail environment.

This year's study tackles significant challenges in the retail supply chain arena: the change agents of disruptive technology; the growing imperative for efficient urban fulfillment; the evolving roles of logistics service providers; and, the ever-present need for sustainability. As always, the report addresses supply chain strategy, spending, and emerging issues – including the growing concerns about a trade war between the U.S. and China. In sum, the report provides considerable insight about retailers' efforts to create dynamic supply chains for any economic conditions.

We thank everyone who participated in phone interviews and/or completed the survey. Your insightful and honest input is greatly appreciated. The annual report is valuable only because each of you took the time to engage.

Thank You and Best Regards,

Dr. Brian Gibson

Executive Director
Auburn University CSCI

Lisa LaBruno

Senior VP, Retail Operations
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THE IMPERATIVE

“We’ve got to respond to customers faster, partner with service providers better, and create flexible response more than ever.”

ABOUT THE STUDY

*“And it was life in the fast lane
Surely make you lose your mind
Life in the fast lane
Everything all the time”¹*

Back in 1976, songwriters Joe Walsh, Glenn Frey and Don Henley certainly weren’t thinking about supply chains or omnichannel retailing. Still, their words are spot on for retail supply chain management (SCM). Retail supply chains are all about the “fast lane” with product being developed, produced, and delivered to customers quicker than ever.

And about those customers... Their ordering habits and service expectations surely can make supply chain executives lose their minds. Today, consumers can shop from anywhere, even from a La-Z-Boy recliner using a smart home speaker – no computer, no clicks, no stress, and typically, no delivery fee. Those physical shopping tasks increasingly fall to a retail associate or crowdsourced freelancer that picks, packs, and delivers the order.

The situation is only intensifying. In the fourth quarter, and in 2017 as a whole, U.S. online retail grew faster than it has since 2011. E-commerce now represents 13% of total retail sales in 2017 and 49% of the growth.² No longer can retailers view e-commerce as a side gig that may or may not pan out. It is the primary future growth engine that must be mastered to remain competitive and relevant.

It is within this environment of unprecedented omnichannel speed and customer convenience that we set forth on the journey to produce the 8th Annual State of the Retail Supply Chain (SRSC) Report. Over the last five months, we collected information and analyzed the supply chain initiatives by which retailers are facilitating sales and customer retention.

In the pages ahead, our survey analysis provides insights into retail SCM trends. In contrast, the interview quotes and interpretations generate visibility to the go-forward plans of retail supply chain experts. We hope that you gain valuable takeaways to manage your *life in the (retail) fast lane*.

Recap: 7th Annual Study

The most recent installation of the SRSC Report analyzed the retail shakeout. It was a tough year for many retailers with some perishing and some on life support. Healthy retailers were making strides to improve operations and invest in technology. Maintaining a balance between cost and service remained their top supply chain strategy.

Omnichannel integration and advanced analytics are two strategic capabilities that help supply chain executives create cost/service balance. Effective integration avoids the inefficiencies of channel-specific operations and inventory.

Analytics play a critical role in serving customers with accuracy, timeliness, and consistency. Supply chain professionals are pursuing robust tools that will help them diagnose problems, predict demand, and prescribe action.

We also investigated efforts to monetize supply chain capabilities. Retailers cannot survive merely by cutting costs. Revenue growth through differentiated supply chain capabilities are also needed. This key to customer retention and profit growth is a work in progress for most retailers.

Research Objectives: 8th Annual Study

Our 8th annual study tackles substantive issues that warrant a supply chain leader's earnest engagement:

Disruptive Technology: Which game-changing tools will drive omnichannel excellence?

Urban Fulfillment: How can retailers best serve the growing populations in high density core cities?

Service Provider Relationships: How are retailers' connections with strategic service providers changing?

Supply Chain Sustainability: What can retailers do to meet green mandates and achieve omnichannel targets?

In the pages ahead, we present in-depth analyses of each question, along with actionable takeaways. The report also highlights supply chain strategies, investment trends, and future issues that warrant consideration.

SRSC FOCUS

The SRSC Report investigates supply chain strategies that directly impact retailer success. This information serves as a benchmark for retailers and their supply chain partners.

KEY NUMBERS

8TH annual study

61 retailers represented

\$1.2T sales, collectively

21 executive interviews

62 survey responses

Study Methodology

This year's research focal points were 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 larger organizations with: (1) annual revenues above \$1 billion; (2) omnichannel capabilities; and, (3) broad geographic activity.

We gathered information via executive interviews, an online survey, and industry publication analysis. This approach generated 83 engagements with retail supply chain professionals representing 61 different retailers. Collectively, they amassed revenues of nearly \$1.2 trillion in 2016.

Thus, this report highlights the strategies and activities of our desired target – senior executives representing a diverse group of larger retailers.

Senior Executive Interviews

The research team developed a 15-question script to facilitate interviews with senior supply chain executives from a variety of retailers. The 30 to 40 minute discussions took place between October 2017 and February 2018. Each participant provided insightful and candid comments, shedding light on the critical issues that drive retail supply chain strategy and operations toward success.

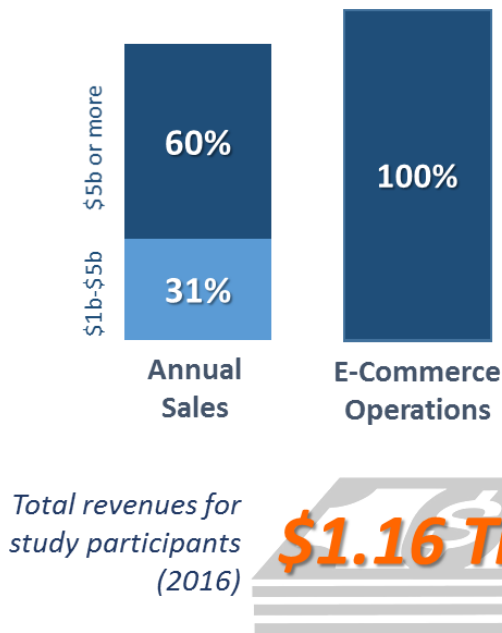
Online Survey

Building on key insights from the interview transcripts, we developed a 25-question online survey. The survey included recurring questions about supply chain strategy and investment. The main set of questions focused on the current year's research themes.

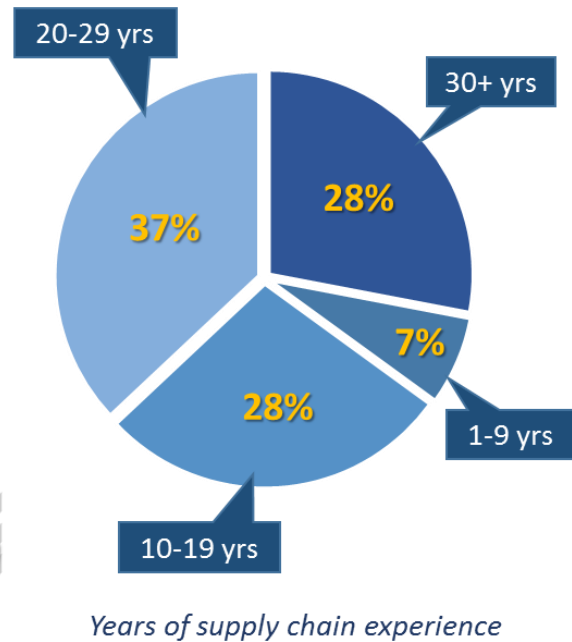
The survey was conducted during December 2017 and January 2018. It was distributed via email to previous SRSC participants, RILA members, DC Velocity readers, and Auburn contacts. Responses were collected using Qualtrics software and the results were analyzed using standard statistical tools.

Study Highlights

Company Facts



Participant Profile



8th Annual Study Participants*

7-Eleven	CVS Health	J. Crew	Petsmart
Abercrombie & Fitch	Dick's Sporting Goods	JCPenney	Publix
Academy Sports	Dillard's	Kohl's	REI
American Eagle Outfitters	Dollar General	Kroger	Target
Bealls	Eddie Bauer	Land's End	The Home Depot
Best Buy	EVO.com	Lifeway Christian Stores	Tractor Supply
Big Lots	Footlocker	Lowe's	True Value
Calares	GAP	Meijer	Ulta
Canadian Tire	Giant Eagle	Michaels Stores	Walgreens
Car Toys	H-E-B	Neiman Marcus	Walmart
Chico's FAS	Hibbett Sports	O'Reilly Auto Parts	Wegmans

* Some survey participants chose to remain anonymous

CHANGE, OR ELSE...

"I've never been in an environment in my supply chain career like this. Every company says they're in a transformative stage."

CURRENT ISSUES AND STRATEGIES

This is the most dynamic era in retailing and the only constant is change. Top retailers thrive despite this perpetual state of flux. Their success requires ongoing reassessment of strategies, realignment of functional roles, and revision of processes to meet changing customer requirements.

The need to constantly reconsider and reformulate approaches is nowhere more profound than in SCM. Over the seven previous editions of the SRSC Report, we have chronicled the supply chain strategies and methods deployed by top retailers to thrive in this environment. To gain further insight into their plans for managing change head-on, we began our research by asking supply chain leaders to identify their supply chain strategies and investment priorities.

Strategic Focus

The survey results indicate a slight shift in retailers' strategic supply chain focus from the previous year. Nearly half of the retailers will continue to balance cost and service. A growing number of the participants are seeking to enhance customer service in 2018.

In contrast, the two other strategies are relatively stable. Revenue growth is the agenda for almost 20 percent of the retailers and the balance are staying laser-focused on the traditional strategy of supply chain cost control for 2018.

Future Investment Plans

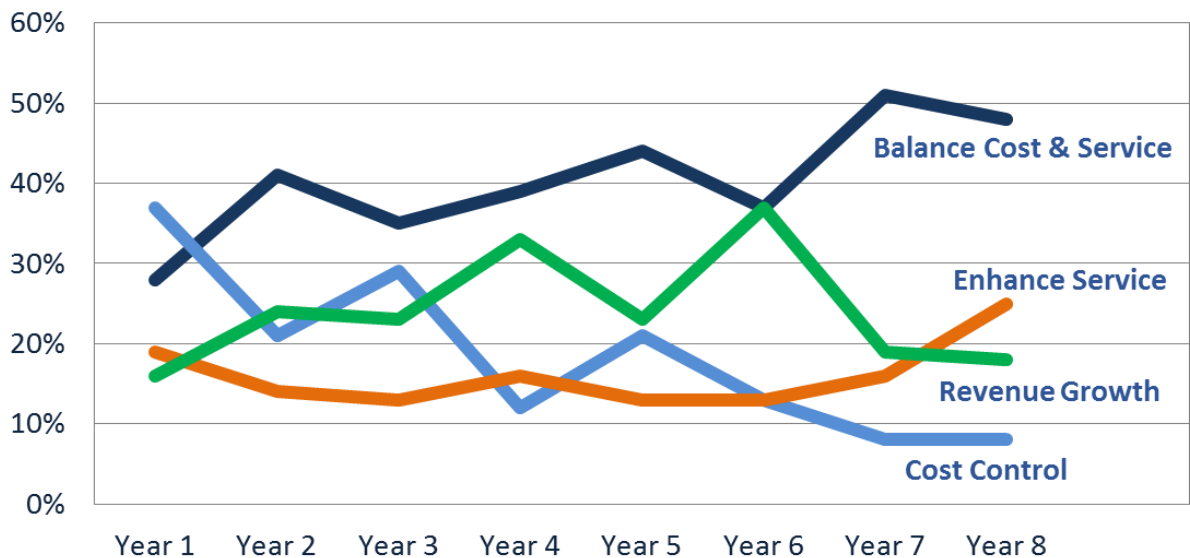
According to our survey results, retailers will make major investments in supply chain service capabilities. More than half of the participants expect to spend more in 2018 versus 2017 to improve SCM processes, expand omnichannel fulfillment capabilities, and upgrade technology.

These anticipated spending levels suggest that retailers are investing in supply chain capabilities that will enhance service quality and competitiveness. Better supply chain execution through such investments will provide retailers with greater agility, especially in the omnichannel space where speed and responsiveness are rewarded.

2018 Priorities



SCM Strategic Focus History



ON THE SAME PAGE

"We are now better at sharing information across the company because we needed to be omnichannel in information before we could become an omnichannel retailer."

The Critical Issues

Our interviews with supply chain executives this year highlighted their concern regarding strong headwinds created by the transformative forces of today's retail landscape. Executives acknowledged that the industry is at an inflection point where retailers must step back and re-evaluate their age-old ways of doing business. Supply chains of these forward-thinking retailers are undergoing transformative changes due to shifting customer requirements.

Transformative Change

A realization is setting in that consumers are much more adaptable and savvy than retailers previously believed. As one supply chain executive said: *"I think today's customers are incredible bargain shoppers and they know where to get product and how to get it cheap. We, as a company, need to figure that out."*

It's not just that customers are savvier; they can switch their allegiance away from a retailer's brand quickly if their needs are not met. In contrast, retailers can be like giant ships that take too long to change direction. This concern was shared by many supply chain executives. One said: *"We're so far behind in some of this stuff compared to our customers. They know a great deal more about their options than us."*

The realization of being behind the curve is not new for retailers, but the level of urgency is much higher now. These retailers are deliberating on how they can best handle this fluid environment. In response to our question about their approaches, retailers identified information sharing in a more complete and timely fashion is a key enabler of successful transformation.

Replenishment is another focal area for change. Retailers are transforming their sourcing practices with global vendors and brand partners to achieve rapid inventory restocking. *"We've been trying to cut down to 30 days what used to be a six-month replenishment cycle,"* noted one supply chain leader.

Responding to Service Expectations

Many supply chain executives point to the impact of the innovative retailers on their supply chain strategy. One executive stated: *“Amazon has changed everything. Now, people are going to become used to two-day shipping and start thinking that’s normal.”*

The changing norms of customer service are often at odds with the traditional supply chain structure of large regional DC networks. Leading retailers are leaning toward smaller, fulfillment-focused facilities to improve demand proximity. *“We have to get closer to customers and figure out another way on that final mile,”* a supply chain leader explained. *“The customer doesn’t care how we do it. They just want fast delivery and they want it cheap.”*

The expanded fulfillment network includes cross-docks, stores doubling as local fulfillment centers, and transfer hubs. With this localized footprint, same-day and next-day service become feasible. To remain competitive in a Prime Now world, this kind of transformative change is exactly what retailers need.

A New P&L Focus

The transition from traditional efficiency-based distribution to one focused on speed and service across multiple channels is rendering the staple supply chain concept of scale less relevant to many retailers. Unit-level orders based on demand are becoming the norm. *“In an environment that can serve all channels where we have to be closer to customer, we’re not replenishing at the pallet level hardly at all anymore,”* a retailer noted.

Despite the added labor cost at the DCs, orienting the supply chain for unit-flows facilitates e-commerce and store-friendly deliveries. In-store efficiency, inventory availability, and shrink are improved, keeping the total cost of fulfillment to the shelf within reason. This plays well in the field and in the boardroom. One executive noted: *“We are able to get support (for supply chain process investment) from a coalition of our store leaders due to the time they save replenishing the sales floor.”*

REFOCUSSED GOAL

“Our view is: let’s take on a little bit more supply chain cost because, ultimately, the payback that we’ll generate for the retail enterprise is bigger than the added costs.”

SELL FROM EVERYWHERE

“Historically, all my sales came out of stores. Now, there are virtual cash registers in our DCs.”

While this approach has benefits for store management, the real possibilities for transformation are in the supply chain organization. *“For the first time we now have our own P&L. I’m actually generating a revenue line because I am selling directly to e-commerce customers. I can also sell fulfillment as a service,”* said a supply chain vice president.

Whereas, the traditional supply chain model was built on minimizing per unit processing cost, lowering DC inventory, and quickly shipping in bulk, a different future is emerging. Going forward, a new supply chain structure, built on unit-flow and speed, offers retailers additional opportunities to grow sales revenues through their supply chain organizations. Hence, SCM is no longer just a cost center on the P&L statement.

Key Takeaways

The future poses both major challenges as well as a transformative opportunity for retail supply chains. While the initial need for transformation at many retailers was driven by Amazon and other innovators, proactive retailers are addressing the competitive challenge head-on with their own innovation solutions.

Forward-thinking retailers are in a renaissance period where the traditional fulfillment paradigms and methods are giving way to new processes and distribution structures. It’s time for them to aggressively transform each element of their supply chains, from reevaluating service level agreements with suppliers to re-organizing the store replenishment process.

This transformation is resulting in a shift of product flows, away from large pallet-loads towards smaller-sized and more frequent replenishments. The corresponding changes in DC processes highlight the next chapter in retail supply chain evolution that started a few years ago when the buy online, pickup in store fulfillment method gained traction as a better way to serve omnichannel customers.

Ultimately, the stakes are high, but so is the resolve of supply chain executives to drive their organizations toward greater levels of success.

BEST-IN-CLASS CAPABILITIES

Each year, we analyze the supply chain capabilities that top retailers deploy to differentiate themselves from the competition. It's important to note that *best-in-class* (B-I-C), as we define it, refers to capabilities rather than specific retailers. Everyone, including the biggest players, must be in constant pursuit of competitive advantage through these types of initiatives.

In this section, you will read about four essential priorities for success and how retail supply chain executives are pursuing them. They are the means to remaining relevant in the fast-changing retail environment.

Looking Back

We initiated the SRSC research with a goal of analyzing B-I-C retail supply chain capabilities. The sidebar highlights the key competencies that we have explored over the years.

Over time, many of these leading-edge capabilities have become standard practices across retail supply chains. As such, they are no longer strategic differentiators. This reinforces the need for retailers to continuously pursue supply chain innovations that create competitive advantage.

Looking Forward

There's always a new challenge around the corner. A steady stream of new competition, new technology, and new market demands mean that retailers can't rest on their laurels. That will only put them far behind the leaders.

Aggressive retailers are constantly pursuing supply chain strategies that better serve customers and drive growth. *"We are focusing on strategies around the customer experience, flexible capacity, efficiency, and talent,"* noted one executive. *"We are heavily focusing our brands around differentiation of the customer journey."*

Using our previously analyzed B-I-C capabilities as the foundation, retailers must consider strategies for disruptive technology deployment, urban fulfillment readiness, service provider partnerships, and supply chain sustainability.

B-I-C ANALYSIS

Year	Capabilities Investigated
1	Scalable distribution Flexible capacity Internal/external alignment
2	Supply chain agility Shelf-driven operations Internal manufacturing
3	Supply transformation Technology leadership Multi-channel dexterity
4	Talent management Inventory deployment Data-driven performance
5	Last-mile strategies Transportation agility Omnichannel evolution
6	Demand planning Store-based fulfillment Returns management
7	Omnichannel integration Supply chain analytics Monetizing fulfillment

RISK CONTROL

"We're fast followers. Let someone else jump on these things and kick the tires. As a technology starts to prove out, we will look at it."

Capability 1: Disruptive Technology Deployment

Technology – specifically internet and mobile – has fueled the omnichannel revolution of the past decade and forced retail supply chains to rapidly adapt their operations. In response, a variety of technology-driven options have been suggested to deal with shifting demand patterns including futuristic concepts of airborne warehouses, productivity wristbands, and in-store robots.³

This year we asked executives to comment on disruptive technologies that are impacting their supply chains now and those that are anticipated to impact operations in the future.

Technology Adoption Strategy

Arguably, tech savvy companies should be good at seeing around the corner to identify the next big disruptor. However, it is a challenge for any company to gaze into the crystal ball and accurately predict how a specific software or technology will affect their business.

We asked executives about their firm's perspective on the adoption of new technologies. The survey results are spilt almost down the middle in terms of organizations that routinely seek to access innovative technologies in the first 24 months after its introduction (first movers, early adopters) and those that choose to delay until the technology gains greater traction (followers, avoiders).

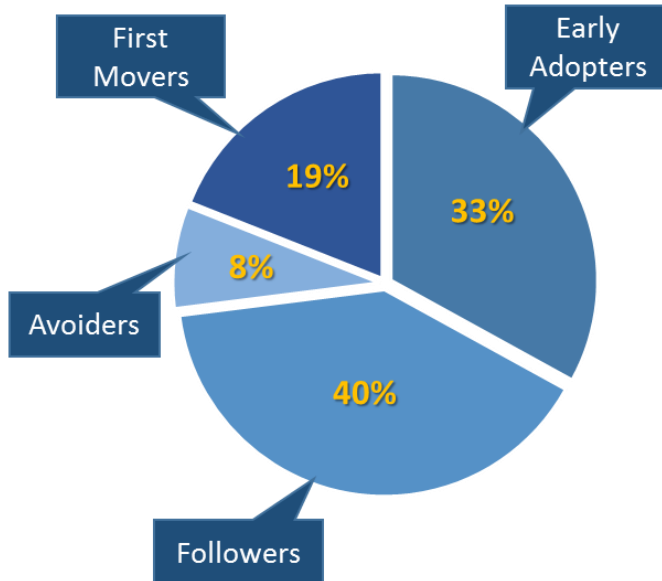
Why do half of our respondents tend to slow-play technology opportunities? The most frequently mentioned impediments included conservative company approaches to technology adoption, funding shortfalls, and limited internal expertise. Concerns regarding the tangible benefits of disruptive technology also exist. One executive noted: *"Getting black and white ROI numbers is a challenge. We've got to unlock the true value."*

Despite these obstacles, the first movers and early adopters are forging ahead. They see opportunities to address a variety of omnichannel needs through disruptive technology.

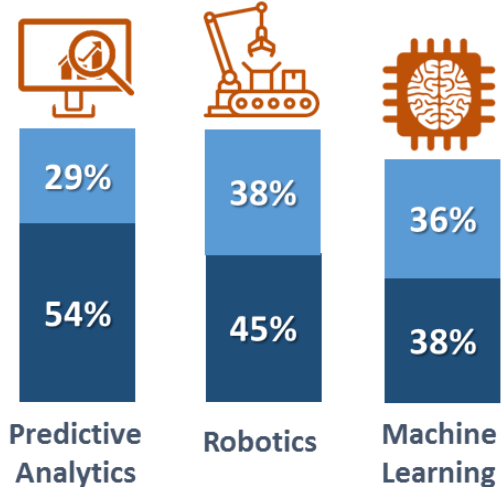
Disruptive Technology Insights

Strategy

What is your approach to technology adoption?



Value Prop

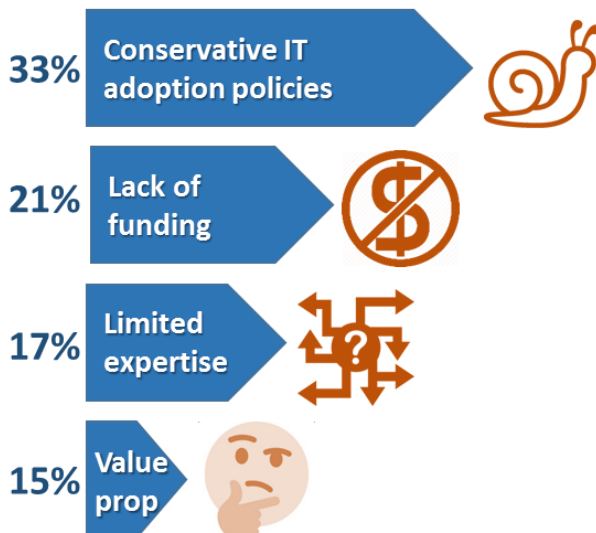


Moderate
High

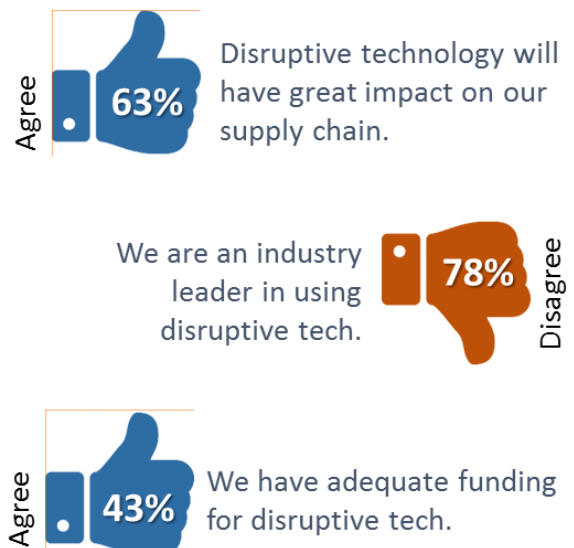
Impact Potential

Challenges

Barriers to SCM technology adoption



Perspectives



WORK THE DATA

“I believe there’s going to be more focus around in-depth analytics – tools that really provide better insights and support better decisions.”

Impactful Disruptors

Throughout the study, it became evident that the widely used term “disruptive technology” does not have not a widely recognized definition. To facilitate discussion, we asked the study participants to focus on *any technology that will significantly change the way your supply chain works.*

Despite the media hype surrounding some technologies, retailers are not convinced about their imminent disruptive impact. Among many respondents, drones, chatbots, autonomous vehicles, and blockchain are not viewed as game changers over the next three years. For example, one executive opined: *“Blockchain is a great concept, a great whitepaper, but how do you make it work in a supply chain? That’s what we’re trying to learn.”*

In contrast, there was much stronger agreement that predictive analytics, robotics, and machine learning are the near-term retail supply chains disruptors. Respondents believe that these technologies will have a profound impact on retail operations inside the next few years.

Predictive Analytics

Because most leading supply chain organizations have been actively working on analytical capabilities in recent years, many executives articulated a strong future vision. Their focus is shifting from reactive analysis of how the business ran yesterday to proactive analytics that accurately predicts demand to drive operational priorities.

Several retailers are also providing front-line supervisors with access to real-time analytics to facilitate better decision-making. One executive said: *“We need dashboards that transition information directly to iPads on the floor to evaluate productivity and to use labor more efficiently.”*

Historically, analysis and decision-making have been based on internal company data. This year, executives talked about incorporating previously untapped external data sources into decisions. Some are pursuing the use of social media feeds and weather predictions to better position inventory.

Machine Learning

Closely tied to predictive analytics are the algorithms that will provide automatic, continuous improvement of the analysis. Machine learning is a form of artificial intelligence that allows computer systems to learn and improve solutions over time without being programmed.

The end game is to allow the system to develop the plan, freeing people to focus on process execution. One retail executive plans to use machine learning to drive greater productivity, stating: *"We are dabbling in bots and artificial intelligence to see where they can play a role eliminating repetitive human tasks."*

A prime machine learning opportunity exists in demand forecasting. A senior executive noted that his organization is trying to use machine learning to *"anticipate demand in a way where we're not just throwing inventory at the stores with hope that we can fulfill it."*

Robotics

Like analytics, several retailers in the study pointed to practical implementations of robotics in their operations. With fewer workers available to fill front-line fulfillment roles, deployment of this technology has become increasingly important and impactful.

Ease of implementation and the flexibility to meet changing business needs are prime reasons why robotics have gained traction in retail supply chain operations. One executive explained: *"The technology is creative, intuitive, and simple. Some of these robots can quickly map out your building and drive faster results. You don't have to spend a lot of money on railway and underground structures."*

An interesting application is found at the intersection of store replenishment and customer fulfillment. Forward-thinking retailers are using robotics to facilitate efficient piece picking that aligns with current store capacities and customer demand patterns. *"With shelf space at a premium and back rooms that don't exist, we need to ship in the right unit of measure,"* said one executive.

FUTURE DRIVER

"I think that AI and bots will revolutionize the industry, but it's early days and there's a lot to learn."

BALANCING ACT

“How do you pick each quantities to meet customer needs and not kill yourself financially? We believe that automation is a big part of that equation.”

Making Tech Pay

Three words have limited disruptive technology adoption in supply chains: *Return on Investment*. Justifying the payback on supply chain tech spending has long been a challenge. However, three trends are facilitating CAPEX rationalization of automation. The first change is the increasing need for piece picking for both individual order fulfillment and store replenishment. One executive stated: *“I can justify automation because we’re sending everything out at the each level.”*

The second change is the shrinking distribution labor pool. Increasingly, the decision to implement new technology is viewed as necessary to maintain throughput. *“We’ve decided on more automation to help us mitigate labor shortages and rising costs,”* noted an interviewee.

The third element is flexibility. In the past automation often meant fixed-in-place conveyors and sorters built for a specific process flow. Such systems are difficult to modify. Today, equipment is being developed for flexibility and rapid implementation. An executive noted: *“We are installing automation that is very modular. We can move it around. We can expand or contract it.”*

The Takeaway

In the retail sector, disruptive technologies present promising opportunities to improve decision making, realign operations, and better serve both stores and customers. Those technologies with viable use cases and burgeoning track records like advanced analytics, machine learning, and robotics will gain traction in the near term.

In contrast, supply chain executives will continue to take a measured approach to cutting-edge technologies – like autonomous vehicles and blockchain – that are currently more concept than reality. Because these promising tools are largely unproven, it is difficult to articulate the benefits and ROI needed to capture funding support. Still, supply chain executives would be wise to monitor the development of these emerging disruptive technologies and be ready to act when individual use cases make sense.

Capability 2: Urban Fulfillment Expertise

Urban areas are becoming a major retail battleground. Research indicates that, between 2010 and 2015, the core cities of the 33 largest metro areas added 1.52 educated Millennials for each one added to their surrounding suburbs.⁴ Lacking household storage capacity, parking for vehicles, or ample shopping options, these affluent urban dwellers are prime candidates for rapid omnichannel fulfillment. They not only want stuff now, they may truly need it now.

The revival of city living creates both an opportunity and a challenge for retailers. Re-population and rising demand bode well for revenue growth. However, it can be difficult to profitably serve demand in highly congested areas when order profiles trend toward small quantities, high frequency, and high velocity. How best to serve these urban consumers is the key question.

The Strategic Imperative

Urban markets present an expansion opportunity for many retailers and they clearly recognize the need to establish a strong foothold in core cities. Nearly 80 percent of the survey respondents believe that urban fulfillment is a growth area. *“I keep saying that urban logistics is the new battleground,”* a senior executive claimed.

This opportunity comes with a speed requirement. Retailers widely expect customer demand for same-day delivery in urban markets to grow. That’s an issue to manage but there is also good news. Most retailers also believe that customers are willing to pay for the convenience of rapid fulfillment.

The strategic imperative to compete with e-commerce competitors on same-day and next day fulfillment has traditional retailers pursuing the urban opportunity with vigor. Among the survey respondents, a clear majority operate in major cities and offer omnichannel fulfillment options for their customers. One executive noted: *“Having store locations that can also deliver product is very powerful. It puts the inventory close to your customers which is critical for quick delivery times.”*

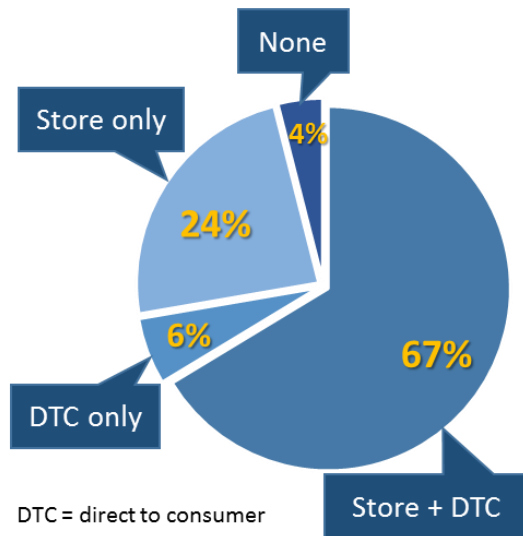
THE IMPETUS

“Given the cost of last mile, urban fulfillment is something that we have to do. If we can build (demand) density and have the right amount of capacity available, then it will be the most effective way to serve customers.”

Urban Fulfillment Insights

Strategy

How do you serve demand in urban markets?



Challenges



47%

39%

Final mile cost



52%

33%

Labor availability



50%

28%

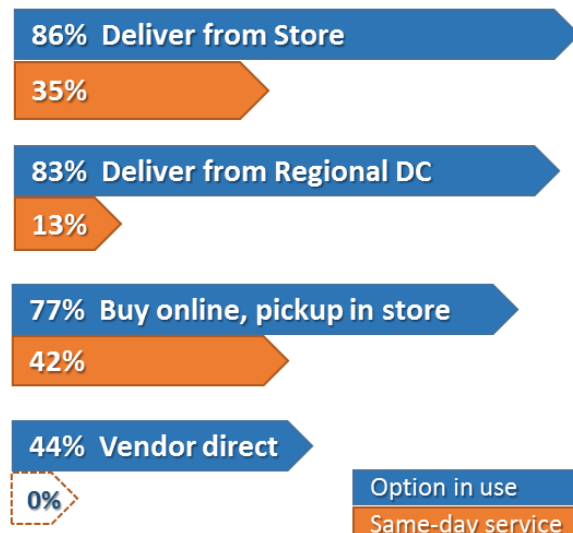
Order growth

Moderate
Major

Challenge level

Process

Urban fulfillment options offered

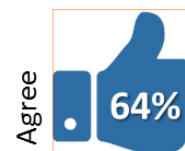


Perspectives



Urban fulfillment is a growth area for us.

Urban fulfillment costs outweigh the value.



Customers are willing to pay a reasonable fee for same-day delivery.

Urban Solutions

In their pursuit of urban consumers, retailers are adopting omnichannel approaches to both inbound inventory flows and outbound order fulfillment.

Store Replenishment

For the inbound replenishment of urban store locations, there is almost universal reliance on company-owned DCs. These internal flows are frequently augmented by product deliveries from vendor facilities and third-party fulfillment centers. Nearly two-thirds of the survey respondents use multiple inventory sources to restock stores and forward position inventory for direct-to-consumer fulfillment.

More than 83 percent of the respondents ship product from company-owned fulfillment centers to urban stores each day or multiple times per week. Vendor direct deliveries also occur with high frequencies at 68 percent of the retailers' urban stores. Given the small footprint and limited backroom capacity of urban stores, it is not surprising that source-to-store delivery frequency is high.

While high frequency delivery can be an expensive proposition, it is necessary to maintain adequate stock levels and support store-based fulfillment for consumers. *"We're thinking differently about our routes and the types of equipment we use. We need to do continuous replenishment – milk runs throughout the day,"* an executive explained.

Customer Fulfillment

Retailers are ramping up their ability to serve urban demand through a wide array of channels. Nearly 70 percent of our respondents rely on their existing network. They leverage a combination of regional fulfillment centers, buy online, pickup in store, and deliver from store options. One VP revealed: *"We think that over the next three years, 80 to 85 percent of our e-commerce will be fulfilled from our stores."*

Customer fulfillment from vendors is another option used by nearly half of the respondents. However, the more novel methods of dark stores or multi-tenant fulfillment centers have yet to gain widespread adoption.

NEED FOR SPEED

"With stores in the mix, we have next day shipping in play. We are working toward same-day delivery capability."

LAST MILE FIX

“We’re pursuing some pretty creative delivery options – using Uber and store associates to deliver to customers – to help us overcome capacity constraints during peak.”

The store-based options provide local capability to meet same-day and next-day demand. They also avoid the potential delays and heavy delivery expenses associated with delivery from suburban or regional facilities. *“We can’t thrive with just big storage centers, we need store locations that can quickly deliver product,”* noted one respondent.

In contrast, none of our retailers provide same-day delivery from vendor facilities or third-party fulfillment centers.

Overall, retailers feel well-poised to manage customer demand with these methods. Among the survey respondents, 75 percent indicated that they have effective internal processes to support urban fulfillment. Should the urban demand for same-day delivery grow, retailers may need to alter these processes to ensure inventory availability and last-mile capacity. One respondent acknowledged the issue: *“You need the right balance of inventory to support both the omnichannel experience and the in-store experience. It takes different thinking about demand forecasting than the way we’ve viewed it in the past.”*

Urban Challenges

While retailers are confident that they can meet the growing demands of urban consumers, flawless execution of omnichannel fulfillment in high density markets is a considerable task. Common supply chain challenges are greatly magnified in urban settings due to congestion, infrastructure limitations, and regulation. *“The complexities of trying to deliver in the New York market, where you have zoning restrictions and store back rooms that are so compressed, causes major headaches,”* explained one executive.

Retailers worry most about the expense, execution, and expansion of urban fulfillment. The largest of the expense concerns is last mile delivery. While retailers believe that customers will pay for same-day delivery, it won’t necessarily cover the full cost of providing the service. A vice president noted: *“We’re dipping our toe in the water in a lot of different areas with delivery because – given the costs associated with last-mile – there’s still a lot to be learned.”*

Execution is only possible with adequate labor to meet demand. Retailers believe that not having enough fulfillment and delivery labor could derail their urban strategies. Fresh approaches to order picking and last-mile delivery – using employees after hours, contracting with on-demand service providers, and expanding the use of local couriers – are being tested. *“We have to customize the service to and from our stores based on their market location, their volumes, and their specific needs,”* noted one executive.

While expansion of urban retailing is the goal, supply chain executives are monitoring order volume growth and the delivery speed requirements of customers. The study participants expressed concerns that demand could outstrip inventory levels and fulfillment capacity. They are working to ensure that their on-time, in-full service commitments to customers can be met now and as demand grows in urban markets.

Some retailers’ urban expansion strategies may drive significant change to the competitive landscape. Target has purchased Shipt and Grand Junction to bolster its local delivery capabilities; Amazon has introduced free, two-hour delivery from Whole Foods stores to its Prime members in four cities; and, Walmart has tested using store staff for last-mile deliveries.⁵

Clearly, the race to win urban markets is on! Supply chain leaders would be wise to continuously monitor the changing dynamics of urban fulfillment and respond accordingly.

The Takeaway

Retailers envision a valuable growth opportunity via urban fulfillment. They are not overly worried about operational costs outweighing the potential value and they are confident that their processes can support rapid fulfillment.

For now, their efforts rely heavily on the existing supply chain footprint with store-based fulfillment and distribution center fulfillment handling the bulk of activity. This tactic keeps costs under control while minimizing ramp up time. However, they must be careful not to overwhelm store operations as their urban fulfillment activity grows.

PROXIMITY WINS

“Having inventory close to your consumers is very critical for a short delivery time.”

EVOLVING ROLES

“We have altered our strategy over the last couple of years. We would rather work with fewer LSPs that can provide us with dedicated service.”

Capability 3: LSP Relationship Excellence

As consumer demands on companies stretch resources thin and drive service area expansion, enhanced fulfillment capabilities are needed. That leads to the question – invest or outsource? Often, the decision is the latter which leads to a greater reliance on logistics service providers (LSPs) for enhanced fulfillment capabilities, efficient supply chain execution, and expanded data to support operations.⁶

Retailers have long used LSPs for a variety of activities, particularly transportation. Whether retailers have embraced the concept of broader reliance on LSPs is the relevant issue. We asked executives how the shifting retail landscape has shaped their views of strategic LSP partnerships.

Strategic Priorities

Retailers are seeking much stronger strategic partnerships, but with a core group of LSPs. Our interviews revealed that retailers find it difficult to work with a wide variety of service providers that offer different capabilities, service levels, and systems. It’s better to align with strategic partners that support a cohesive omnichannel vision. One executive noted: *“I think over the years we’ve gone to probably fewer, stronger partnerships. We will be even tighter coupled with our service providers as we go forward.”*

This strategy encompasses working with LSPs that provide dedicated, asset-based services. This ensures adequate capacity and labor during peak seasons. *“We are focused on developing our 3PL muscle as part of our strategy,”* stated a senior supply chain director.

According to retailers, a critical element of the relationship is a strong customer focus by the LSP. Nearly 96 percent of the survey respondents want their strategic LSP partner to focus on customer needs. They also expect solutions that protect margins – 81 percent of the respondents want LSP partners that offer innovative ways to reduce their costs. *“We can’t afford to put stuff in the air. We have to get closer to the customer, keep it on the ground, and figure out another way on that final mile, yet still be quick,”* said one executive.

Outsourcing Insights

Strategy

Reliance on logistics service providers (LSP)



Satisfaction

LSP delivery of value proposition

Customer Focus



Cost Reduction



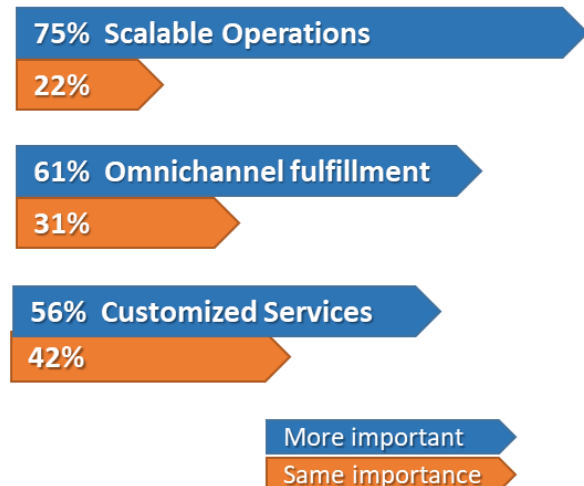
Capacity Flexibility



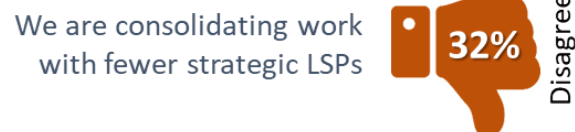
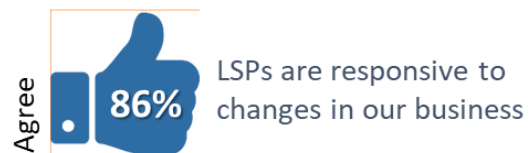
Not Satisfied ← Fully Satisfied

Process

Importance of LSP capabilities vs. 3 years ago



Perspectives



BIG AMBITIONS

“Service providers have to bring solutions to the table – different tools, different tactics, and a high willingness to support customization.”

Retailer Requirements

To meet the increasing demand of omnichannel retailing, LSPs are being asked to take on a greater variety of tasks. They must also display a wide range of flexible capabilities.

Functional Offerings

Retailers rely on LSPs, not only for traditional services such as moving domestic freight across their distribution network, but increasingly for omnichannel delivery support. Almost half of the survey respondents make extensive use of LSPs for last-mile delivery, which was second only to their use of LSPs for domestic freight service.

The reliance on LSPs for omnichannel capabilities is anticipated to grow over the next three years among our study participants. Driving the growth will be greater use of LSPs for omnichannel last-mile delivery. More than 44 percent of the respondents indicated that their demand will increase in this area.

Omnichannel fulfillment will also be a key driver of LSP involvement as activity levels will rise sharply. Currently, 15 percent of the survey respondents make extensive use of e-commerce fulfillment. In three years, more than 36 percent expect to rely heavily on LSPs for these services.

It is interesting to note that the projected growth of LSP activity in these two areas is expected to be significantly higher than the growth for traditional services. While retailers' need for outsourced freight and warehousing services will rise, their value focus and needs are shifting in tandem with consumers' e-commerce requirements.

Critical Capabilities

These evolving service needs suggest that LSPs have and will become more involved in the omnichannel retail segment. Often, this is driven by retailer initiatives to leverage stores for e-commerce fulfillment. A supply chain executive noted a key opening to leverage LSP capabilities: *“When you move from two distribution points to 600+ distribution points, it creates an opportunity to unlock 3PL value that’s currently being untapped.”*

This comment reflects the expanding value proposition of LSP engagement. Retailers need strong LSPs to help them navigate the uncharted territories of omnichannel fulfillment. The flexibility to scale operations, rapidly develop omnichannel fulfillment solutions, and create customized services will help LSPs become the trusted partners that retailers are seeking.

Relationship Growing Pains

As in any evolving relationship, retailer-LSP strategic partnerships are a work-in-progress with room for improvement. Asked about their level of satisfaction with LSPs, the majority are moderately satisfied with the performance of LSPs. However, only 21 percent of survey respondents indicated that they are fully satisfied with their current provider's focus on customer needs.

Another pain point is cost. A mere 12 percent are completely satisfied with the ability of LSPs to reduce costs. An executive stated: *"Over the course of the last three years, we've seen rates increase pretty steadily, from 2 to 7 percent on average."*

Another executive attributes part of the problem to the merger dynamics in the LSP marketplace. He noted: *"The prices of those more M&A-oriented 3PLs are going up. At times, they've priced themselves out of a lot of business."*

Despite these concerns, supply chain executives noted that potential benefits can be derived from a successful LSP partnership. Retailers often find it beneficial to work with large LSP firms that offer access to extensive networks, broad industry knowledge, and customized service offerings.

The Takeaway

Retailers need strategic LSP partners, particularly for omnichannel execution. LSPs can provide much-needed services and capabilities to flexibly support e-commerce.

To ensure success, these relationships must evolve. Retailers need to consolidate operations with fewer providers, calibrate their service expectations, and pay for capacity. LSPs must provide desired services, control costs, and be accountable for results. Doing so will enhance the future value proposition of for both parties in the partnership.

THE VALUE PROP

"Sometimes spending a little bit more money is better in the long run because of the reliability of the 3PL partner."

DOUBLE TROUBLE

“Customers say: ‘Hey sustainability is important to me, but I also want my next day delivery.’ They hold us accountable for sustainability but also expect us to give them what they want.”

Capability 4: Supply Chain Sustainability Focus

Companies tout their ability to improve processes, meet growth objectives, and create value by taking a strategic approach to environmental sustainability. Research supports growing expectations from consumers: 63 percent of U.S. consumers want businesses to lead environmental change, and 76 percent of Americans expect companies to address climate change specifically.⁷

Large retailers must be particularly sensitive to consumers’ green expectations. Publicly traded retailers with global supply chains are receiving extra scrutiny. As a result, retailers are implementing initiatives, publicly sharing goals, and developing metrics to assess and minimize their environmental footprint.

Accountability includes reducing the environmental footprint of retail operations and distribution networks. Opportunities to create lean operations and simultaneously minimize the company’s environmental footprint are a natural fit.

The challenge on the horizon is the impact of omnichannel fulfillment processes on sustainability goals. As more consumers want quick delivery to their doorstep, retailers are challenged to serve them profitably. Last mile delivery also comes with a bigger environmental footprint. We expect that retailers will soon need to resolve this Catch-22.

Managing the Tension

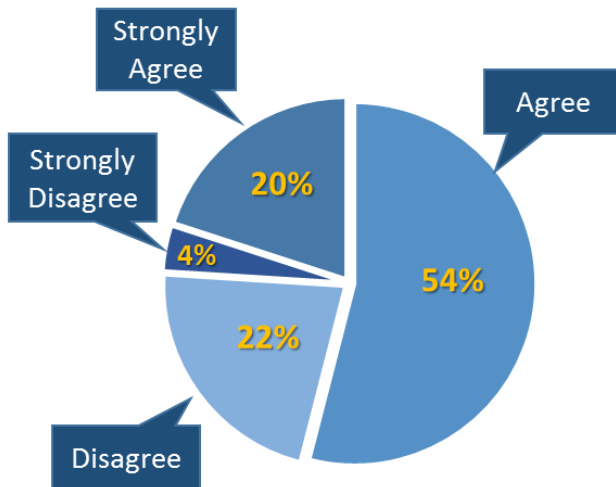
Sustainability initiatives are being pushed from the top levels of the organization. Nearly 75 percent of our survey respondents agree that sustainability initiatives are being addressed in their supply chain strategy. That number jumps to nearly 90 percent when projecting three years out. *“The primary contributor to reducing our carbon footprint has been supply chain efficiency,”* one executive noted.

The primary place for improvement is in goal-setting and measurement. Only 50 percent of the retailers indicated that they have clear goals and specific sustainability metrics in place. The numbers jump to nearly 80 percent when they project plans three years out.

Sustainability Insights

Strategy

Sustainability is incorporated into my organization's SCM strategy.



Challenges

Sustainability Challenges



38%

44%

Balancing objectives



61%

20%

Resource Availability



44%

31%

Quantifying ROI

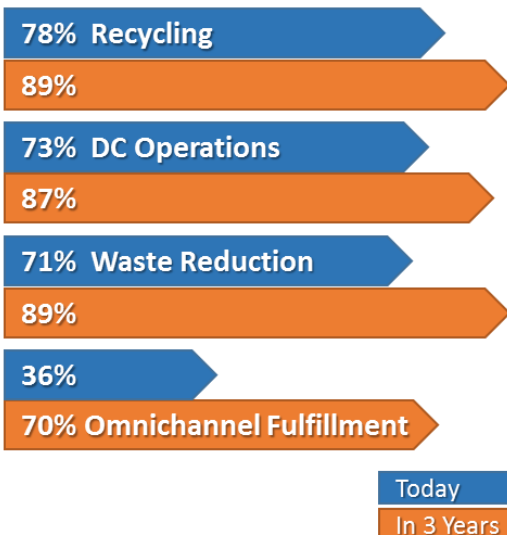
Moderate

Major

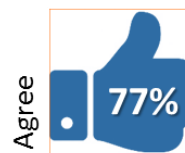
Challenge level

Process

Influence of sustainability on SCM activity



Perspectives



Ship-to-home demand makes it more difficult to meet sustainability goals.

We have considered the impact of omnichannel fulfillment on sustainability.



There's an inherent conflict between sustainability and omnichannel fulfillment

\$\$\$ AND SENSE

“...99 percent of the time, when we’re trying to save money, we are also doing something that would be viewed positively through the sustainability lens.”

Although retailers feel pressured to demonstrate sustainable supply chain practices, challenges stem from access to resources, uncertainty in the regulatory environment, and difficulty quantifying the ROI of sustainability investments. Among 80 percent of the respondents, the most tension comes from trying to balance customer demands, supply chain objectives, and sustainability goals. As one respondent noted: *“Consumers are conditioned to convenience, and retailers have to match it to stay in the game.”*

The friction in meeting sustainability goals is especially prevalent for omnichannel retailers. Over 75 percent of respondents agreed that last mile fulfillment makes it more difficult for their companies to meet sustainability objectives.

Only one-third of respondents indicated that their company has a plan to measure their omnichannel environmental footprint. One executive acknowledged that *“Every retailer wants to continue to compete in omnichannel. It’s on the radar screen at such a large scale that I don’t think sustainability is really in play at all.”*

The Sustainability Evolution

Respondents addressed the extent that current and future sustainability goals are being influenced by specific supply chain activities. Recycling activities and DC operations are currently most influential in meeting sustainability goals. Omnichannel activities are the least influential, but respondents expect that influence to grow over the next three years.

The survey results also reveal that retailers are at different stages of evolution as they try to integrate sustainability more holistically into their supply chain strategies.

Crawl: Supply Chain Efficiencies

Retailers who may not have clear sustainability goals or metrics understand that lowering costs through supply chain efficiencies can reduce their environmental impact. Tactics like avoiding peak congestion periods cut idle time, fuel use, and emissions. Pursuing the low hanging fruit is where many retailers start their green journey.

Smaller and privately-owned retailers have been under the radar, but they recognize the sustainability business case. They take a “dollars and sense” approach by looking for ways to be more efficient. As one respondent said: *“I want to maximize the cartons per trailer to minimize the miles. That minimizes fuel usage and carbon but those are things that we would do anyway.”*

Walk: Strategic Sustainability Investments

Retailers that develop sustainability goals and measure the impact of their activities are making strategic decisions and investments in innovative solutions to decrease their environmental footprint.

In transportation, this includes activities like factoring the Smartway status of carriers into selection decisions, giving preference to green port terminals, and investing in fleets with aerodynamics packages and automatic transmissions. Many intentionally look for opportunities to use alternative fuel or hybrid vehicles. For example, Walmart, Meijer, and Loblaw have placed orders for the all-electric Tesla Semi.⁸

In operations, retailers are being more aggressive about measuring water and electricity usage, tonnage to landfills, and packaging waste. Several large retailers are negotiating with energy companies and utilities for solar and wind power. Retailers are investing heavily in LED lighting, system-wide recycling programs, and vendor partnerships to reduce packaging.

Aggressive “zero waste to landfill” goals are within reach, and technology is helping retailers meet sustainability goals. One executive explained: *“We have some food product that goes to compost and there is a very small amount that goes to landfill. We have also grown our number of products that we recycle beyond just cardboard and plastic. Our goal is to get to that zero landfill, zero waste status.”*

Run: Changing Consumer Behavior

Evolution to this stage reveals retailers that are looking ahead to the impact of omnichannel activities. They are starting to address the handwriting on the wall – last mile fulfillment to the consumer can negatively impact margins and hamper sustainability goals. They understand that their ability to influence consumer behavior leads to effective solutions.

NEW APPROACHES

“Energy management systems can record, measure, and provide better solutions for energy consumption. It helps you do things in a completely different way.”

FINAL FRONTIER

“You want to build enough demand from the customer on the given transaction that you somewhat neutralize the inefficiencies or the negative impact of the carbon footprint.”

One executive noted that retailers need to incentivize buying in larger order quantities. *“The more items you get in the box, the better the math works. As you’re able to fill that box, cube it out, much like we do our trucks, you’re immediately reducing the environmental impact.”*

It is important to note that this tactic runs counter to many “free delivery” policies by which consumers are incentivized to make small, frequent buys. Their habits will only change if the buying rules change to minimum order size for free shipping, greater discounts for quantity buys, or fees for return shipping. This won’t be easy in an Amazon Prime world.

Another consumer-based initiative is to adopt more sustainable packaging practices, and to make it easy for consumers to do returns in the same packaging. One executive noted: *“Online buying is creating a lot more trash. It’s not going away but creating recyclable and reusable packaging is probably one of the best ways to address it.”*

The Takeaway

Consumers expect retailers to address environmental issues stemming from their operations. The evolution suggests that the industry is on a positive trajectory. However, retailers who are still crawling will soon need to start walking.

At the same time, consumers want convenience and speed. One executive summed it up nicely: *“If that’s what the consumer wants and where the competition is driving us, then obviously we have to do that just to be sustainable as an organization.”*

The very consumers who are demanding accountability for environmental sustainability are likely the same ones getting direct deliveries. Many do not make the connection between their ordering patterns and their impact on sustainable operations. Retailers cannot resolve this quandary alone – consumers must also be part of the answer.

Thus, it is up to all stakeholders – businesses, NGOs, regulators, and SCM academics – to increase consumer awareness and drive more sustainable buying behavior.

ON THE HORIZON

Given the ongoing transformation of retailing, trying to predict the next retail game-changer could easily be considered a fool's errand. There is no shortage of possibilities and some predictions can come true long before the ink is dry on the SRSC Report. Still, asking executives to be prognosticators of the next big supply chain issue or burning platform for retailers can provide valuable food-for-thought about their long-range concerns and priorities.

With this outcome in mind, we regularly conclude the senior executive interviews with a simple question of "what keeps you up at night?" Often, these concerns converge around key themes. In the paragraphs that follow, four of the most interesting and widely discussed topics from these conversations are highlighted.

Culture Wars: Competing for Scarce Talent

The talent shortage in SCM is not a new topic. We have discussed various aspects of the problem in multiple SRSC Reports – driver and DC labor shortages, rising wages, and attracting future leaders, to name a few. Still, talent continues to be a top-of-mind concern among supply chain executives.

While automation can mitigate talent shortages, the core need for people with supply chain expertise remains critical. To satisfy this need, retailers need to focus as much on culture as money to attract and retain talent. One executive crystallized the sentiments of multiple interviewees, saying: *"It's more important now than it has ever been to create the right culture with great core values and cutting-edge methods that are intriguing to young professionals."*

Trade Skirmishes: Sabre Rattling or Looming Crisis?

Last year, we correctly speculated that the "Trump Factor" could pose both positive and negative impacts for retail supply chains. While the Administration's 2018 tax reform was welcomed by retailers, the growing tit-for-tat threats of increased tariffs between the U.S. and China is a huge concern among retailers.

Currently, apparel and footwear are spared from the targeted list of Chinese products but appliances and televisions are among the 1,300 products that may be impacted.⁹ Will these tariff increases materialize or will compromises get negotiated? Only time will tell.

IT'S THE CULTURE

"Our focus is always on making sure that we create an environment for our folks that is second to none."

MAJOR CONCERN

“Everybody in the industry is talking about the last mile and how to best service changing customer expectations.”

In the interim, retailers supply chain leaders will need to develop contingency plans for worst-case scenarios. Issues ranging from downward revision of consumer demand forecasts to alternate country sourcing locations must be considered before the dust settles.

Raising the Bar for Suppliers

The ability to serve consumer demand faster is increasingly reliant on store inventory for order fulfillment. This approach requires a well-executed inventory strategy and a deeper pool of store stock, tough tasks with limited shelf space and storage capacity. Rapid replenishment from DCs is a viable solution IF the inventory is readily available from suppliers. However, this is a mounting challenge for some retailers.

“We’ve seen a ton of allocation issues with CPG suppliers where product is just not available,” noted one executive.

To reduce the impact of this issue, large retailers are putting pressure on suppliers to provide perfect fulfillment. Walmart has enacted an on-time in-full (OTIF) mandate, requiring its key suppliers to ensure a 95 percent OTIF service or face a 3 percent penalty on the value of the invoice. Target has a similar program and other retailers are likely to follow suit.

Autonomous Delivery Vehicles in Your Neighborhood

While not viewed as a near-term disruptive technology solution for retailers, long-range interest in autonomous vehicles is strong. It is a potential solution to the looming driver shortage discussed by executives. *“There’s an extremely high percentage of drivers that are going to be retiring. The ability to attract people into this line of work is getting harder and harder,”* lamented one executive.

While much focus has been placed on long-haul highway operations with semis, there is increasing chatter about autonomous last-mile delivery. Companies like Waymo and Udelv have launched pilot tests this year, while Nuro raised \$92 million to support urban fulfillment.¹⁰ *“Transportation is going to continue to evolve, whether it is driverless vehicles or other ways to get speed and responsiveness,”* noted one executive.

SUMMARY

During an 1898 speech, British diplomat Joseph Chamberlain stated: *“I never remember myself, a time in which our history was so full, in which day by day brought us new objects of interest, and, let me say also, new objects for anxiety.”*

This 120-year-old comment is an uncanny, prescient assessment of modern retail supply chains where opportunities and threats are abundant. Retailers must act decisively to meet the growing requirements of customers and the radiating threat of innovative, non-traditional retailers.

Prospering in this environment requires continuous reinvention of fulfillment capabilities. Supply chain executives must selectively adopt disruptive technologies, deftly develop urban fulfillment processes, and actively build strategic relationships, all while maintaining a steadfast commitment to sustainability. That’s a tall order, but after eight years of studying this industry, we believe that top retailers possess the innovative spirit and supply chain savvy to master the demands of omnichannel fulfillment.

Research Resources

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NO TURNING BACK

“The evolution of online shopping has made customers realize that they don’t have to get in their cars and drive to the store anymore. That has changed retail forever.”

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Auburn University Center for Supply Chain Innovation

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, advisory services, and industry-ready talent. Each spring, CSCI hosts the SCM Fusion Symposium where industry leaders discuss best practices in supply chain technology, talent, and tactics. Visit www.AuburnSCM.org

Retail Industry Leaders Association

The goal of RILA's supply chain efforts is to help retailers facilitate the efficient movement of goods. Through the collaboration of members, RILA prioritizes issues, provides relevant information, performs benchmark studies and develops pragmatic solutions to current challenges. RILA advocates for policies that promote the interests of the retail industry and opposes unfair or inappropriate barriers to free and open commerce. Visit www.rila.org

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