THE STATE OF THE RETAIL SUPPLY CHAIN

Essential Findings of the Fourth Annual Report

Developed By

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RILA

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"The choices available at the customer level will require us to segment our supply chain very differently than we do today."

The 2013 retail storyline is a matter of data interpretation, particularly regarding the holiday season. Mastercard Advisors called it a Merry Christmas for retailers while NPD Group lamented slower-than-expected sales. The true bright spot for the year was online and mobile activity. These channels achieved double-digit sales increases during the year. However, the last minute surge in Christmas orders strained delivery networks.

As consumers continue to exercise these broader shopping options, retailers will need to develop tailored supply chain capabilities that optimize cost and meet service commitments. Supply chain leaders are already taking necessary steps in that direction. Their strategies and initiatives are highlighted in this installment of the State of the Retail Supply Chain (SRSC) Report.

Recap: Third Annual Report

Retail supply chains provided a solid operating foundation for the much-needed growth in consumer demand. At the same time, retail supply chain executives wrestled with an uneven economic recovery, the continued growth of non-store channels, and a shifting supply base. The best retailers deftly navigated these challenges, efficiently fulfilling store and consumer orders.

Throughout the study period, supply chain executives continued to emphasize a balanced service/cost strategy. Their investment plans focused on integrative technologies and supply chain process improvements that enhance cross-chain visibility, speed to market, and service dependability. Each is essential in an ultra-competitive omni-channel retail environment.

The sourcing side of the retail supply chain also generated interesting storylines during the third annual study. The global supplier base further expanded as manufacturers shifted operations from China to other locations. Retailers responded by reducing their number of suppliers and seeking near-shore options. These initiatives reflect supply chain executives’ collective efforts to drive product availability and maintain product consistency while reducing acquisition costs.

Research Objectives: Fourth Annual Report

The goal of the SRSC Report is to investigate the supply chain practices that directly impact retail organization success. Our fourth annual study addresses five important issues to SCM leaders:

Supply Chain Strategy: What are the key trends in retail supply chain strategy and investment priorities?

Talent Management: How successful are retailers in developing and retaining the next generation of supply chain leaders?

Omni-channel Inventory Control: What tactics are used by retailers to integrate inventory and fulfillment across their selling channels?

Managing with Data: How effectively are retailers performing versus goals for their key supply chain metrics?

On the Horizon: What challenges, risks, and strategic opportunities will SCM executives encounter in 2014?

In the pages ahead, we present an in-depth analysis of each question. The results can be used by retailers and their supply chain partners to benchmark their strategies and practices against those of major U.S. retailers.
"Our primary focus is to put in place a supply chain that will deliver an interconnected universal retail experience that happens in-store and elsewhere."

**Study Methodology**

The focus of the current research initiative was derived from hot topics in SCM, executive input, and emergent issues identified in the third annual 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 and an online survey. A total of 75 retail supply chain executives took part in our research this year. Table 1 provides demographic highlights of the participant pool.

**Table 1: Demographic Characteristics of Participants**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company revenues exceed $1 billion</td>
<td>76%</td>
</tr>
<tr>
<td>Company has omni-channel activities</td>
<td>86%</td>
</tr>
<tr>
<td>Director-level or above</td>
<td>88%</td>
</tr>
<tr>
<td>Supply chain experience</td>
<td>21 years</td>
</tr>
</tbody>
</table>

Given the aforementioned preferred participant profile, the results sections of this report largely reflect the strategies and activities of larger retailers with sales in excess of $1 billion.

**Senior Executive Interviews**

We began this year’s study with a series of expert interviews. An interview script with 18 questions served as the foundation of the discussions. These semi-structured interviews typically lasted 40 minutes, which allowed for insightful dialogue that covered multiple topics. The supply chain executives’ candid comments helped us understand the critical issues that drive retail supply chain strategy and operations.

**Online Survey**

We developed an Internet-based survey to analyze the research objectives and issues discussed during the interviews. A survey link was distributed via RILA publications and direct email requests. The effort generated valuable responses from senior-level retail supply chain executives.

Our research team compiled the data, reviewed interview transcripts, and analyzed the results. This report reveals our key findings via discussion, graphics, and expert quotes.

**Fourth Annual Study Participants**

We want to thank each supply chain executive who participated in our research during 2013. Their collective contribution of time and insights make the SRSC report possible each year. As the sample below indicates, our participants cover a range of retail formats and product categories:

- Abercrombie & Fitch
- Academy Sport
- ALCO Stores
- AutoZone
- Barnes & Noble Booksellers
- Bass Pro Shops
- Canadian Tire
- CVS Caremark
- Dick’s Sporting Goods
- Dillard’s
- Dollar General
- Dollar Tree
- Famous Footwear
- Floor & Décor
- Foot Locker
- Hayneedle
- H.E. Butt Grocers
- The Home Depot
- JCPenney
- Jo-Ann Stores
- The Jones Group
- Lifeway Bookstores
- Limited Brands
- Lowe’s
- Meijer
- Michaels Stores
- Neiman Marcus
- Nordstrom
- Office Depot
- Pep Boys
- Petco
- Sears Holding Co.
- Staples
- Target
- Toys R Us
- Walgreens
- Walmart
- The Vitamin Shoppe
“Omni-channel is on everybody’s minds. How do you build a supply chain around unknown future demand so that you can be profitable in the short-term if it doesn’t change dramatically, but also be ready if it does change dramatically?”

The rapid expansion of omni-channel retailing and attention grabbing strategies of Amazon.com are a call to action for supply chain executives. While most goals remain unchanged and many current practices transfer effectively to new fulfillment channels, a narrow focus on supply chain cost containment may be counterproductive. Supply chain executives must fine-tune their strategies to support emerging opportunities, provide seamless customer experiences regardless of the channel used, and enhance company earnings.

The Critical Issues of 2013

The supply chain environment is constantly evolving which creates new challenges each year for retailers. Key issues identified by retail supply chain executives during the interview phase of the research are listed in Table 2.

Table 2: Issues of Interest and Concern

<table>
<thead>
<tr>
<th>Topic</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing network growth</td>
<td>1</td>
</tr>
<tr>
<td>Serving omni-channel demand</td>
<td>2</td>
</tr>
<tr>
<td>Optimizing resource utilization</td>
<td>3</td>
</tr>
<tr>
<td>Navigating regulatory environment</td>
<td>4</td>
</tr>
</tbody>
</table>

After years of belt tightening, network growth is on the docket for strong retailers. They are judiciously entering international markets or expanding their store bases. Supply chain leaders must develop fulfillment realignment or expansion plans that support both geographic and omni-channel growth.

Network expansion does not give supply chain leaders a free pass to accumulate assets. Our study participants identified the need to optimize inventory turnover, transportation flows, and fulfillment capabilities. They are pursuing new strategies and leveraging technology solutions.

Regulation was a hot button issue for retailers in 2013, with labor-related issues at the forefront. Healthcare, heightened OSHA activity and NLRB initiatives generated concerns among our study participants. They are actively evaluating options to ease the financial impact of higher labor costs.

“The healthcare laws will change the cost of employment to a level that justifies automation.”

Looking Toward 2014

A positive future is anticipated by the survey respondents with 68 percent projecting higher year-over-year revenues. In contrast, just nine percent of the respondents expect a decline.

Future investment plans reflect this revenue growth scenario. Spending is expected to grow, mainly in process improvement and technology to foster optimization and omni-channel success. Figure 1 reveals these spending plans.
“While you’re trying to figure out how to invest in the future, you’re also trying to be cost-conscious in the short-term. Balancing those two needs is our challenge.”

**Strategic Focus**

The critical issues listed in Table 2 require supply chain leaders to continuously monitor existing strategies and adjust to changing conditions. In addition, the growth of omni-channel activity is driving many retailers to conduct comprehensive strategic planning initiatives. Supply chain leaders recognize the need to adjust their structure and focus to become more customer-driven.

Each year, we ask the survey participants to identify their primary supply chain strategy for the current and upcoming year. Figure 2 summarizes the shift in retailers’ strategic priorities over the life of the SRSC Report.

*Figure 2: Strategic SCM Focus*

As the economy has stabilized, the intense focus on survival via supply chain cost control has given way to a broader and more sustainable perspective on supply chain strategy. The retail executives realize that cost cutting alone is not a long range recipe for growth and prosperity. Hence, the balanced strategy (with its dual focus on customer service and cost containment) was the priority strategy for the third straight year in 2013 among our survey participants.

Looking forward to 2014, revenue growth will be a key driver of supply chain strategy. Figure 2 reveals that it is the top priority (tie) for the first time in the SRSC Report. Retailers are creating flexible, value-creating supply chain capabilities to drive sales, as indicated in the Retailer Profile.

**Key Takeaways**

Despite some uncertainty about healthcare costs, discount-focused customers, and omni-channel growth patterns, retail supply chain executives are optimistic about the future. Most of our study participants project revenues to increase which is driving their growth-oriented strategies and spending on processes, technology, and facilities. Aligning these strategies and investment with company initiatives will be the key to success.

**Retailer Profile: Rethinking Supply Chain Strategy**

A supply chain executive for a big box retailer described his blank slate opportunity to develop a supply chain strategy that underpins the organization’s transformation from traditional retailer to a marketplace for businesses. The product assortment will grow by a million SKUs and business units are being reorganized around key customer segments rather than fulfillment channels. “We are basically saying that we will provide anything you need to run your business,” says the executive.

The new supply chain strategy must support varying customer service requirements and provide optimal inventory deployment. The executive notes that it will be necessary to segment supply chain very differently than today and to invest in more sophisticated analytics. He concludes: “It’s the big issue on the table. You don’t get to do something like this every year and it’s just fun to do.”
Best-In-Class Capabilities
Pursuing Supply Chain Excellence in an Omni-Channel World

A recurring theme of our research is to uncover supply chain capabilities that help differentiate leading retailers from the competition. Though no single retailer possesses every best-in-class attribute that our research has identified, leaders are pursuing excellence on multiple fronts.

During the third annual study, we focused on three areas that facilitate SCM excellence for retailers. They include:

Multi-channel Dexterity  The rapidly evolving retail environment forces supply chain leaders to rethink their mix of fulfillment capabilities. Top retailers are refining their supply chains to accommodate a wider array of products and rising consumer demands for fast, accurate, and free fulfillment. They realize that consistent service is critical as glitches will drive consumers elsewhere.

Supply Transformation  Key sourcing strategies seek to take cost out of the system and optimize the network. Leading retailers are consolidating their supplier bases, shifting some sourcing from China to low-cost locations. They are also improving alignment via collaboration and supplier councils to promote product and service quality.

Technology Leadership  In their pursuit of process alignment and automation, supply chain leaders are investing heavily in proven SCM planning and execution tools. Best-in-class retailers are going a step further, deploying cutting-edge tools like Distributed Order Management to promote cross-channel integration, visibility, and speed to market.

These three capabilities align well with the best-in-class practices revealed in the initial SRSC Reports. Year 1 focused on developing the SCM team, building a cost efficient network, creating scalable capacity, and strategic alignment. Year 2 covered supply chain agility and extending a retailer’s SCM control from manufacturing to the store shelf.

Over time, these best-in-class SCM capabilities are emulated and become standard operating procedures across the retail industry. At that point they no longer generate distinct benefits. Likewise, changing conditions may limit the impact of current methods and drive the need for innovation. Supply chain leaders must seek to regularly deploy differentiating strategies.

“Our ultimate goal is to follow the guest. Whatever they want – pick it up in the store or same day shipping – we want to be able to provide it for them.”

Retailer supply chain executives realize that the industry is quickly morphing from mass volume, low cost fulfillment channels to highly flexible channels that cater to the changing needs of consumers. This requires a shift in SCM strategies and a broader focus on enterprise costs and goals. Leading retailers are working to develop the ideal mix of people, product, and insight to flourish in this environment. Figure 3 highlights these building blocks of best-in-class capabilities. In the next pages, each is discussed in detail.

Figure 3: Best-in-Class Capabilities

Talent Management
Transforming high potential individuals into cross-enterprise supply chain leaders.

Omni-Channel Inventory Deployment
Sharing resources to handle unknown volume growth and fulfill anytime, anywhere demand.

Managing with Data
Broadening the scope of supply chain metrics & analytics to leverage big data.
"We must attract good people, develop them, and give them a great career path. If we keep them on the team, they will become our future supply chain leaders.”

The Key Issues

Finding qualified talent with the appropriate mix of supply chain capabilities, general management aptitude, and relevant industry knowledge is a growing challenge for retailers. Recent studies allude to a dearth of available supply chain talent that is well-prepared for this dynamic profession. This talent shortage is driven by strong demand for supply chain talent. The growing recognition among retail executives that SCM is essential to organizational success is creating greater competition. The US Bureau of Labor Statistics further indicates: “Employment of logistics is expected to grow 26 percent from 2010 to 2020, faster than the average for all occupations.”

The talent supply-demand gap is a growing concern for retail supply chain leaders. As their omni-channel operations increase and markets expand, ad hoc methods to develop and retain supply chain talent will not suffice. A much more proactive talent management process is needed to address the situation, particularly at the middle management level, as indicated by Figure 4.

The Response

Our study participants recognize the importance of supply chain talent management as highlighted in Table 3. Nearly 98 percent strongly agree or agree that the organization will benefit from having well-prepared supply chain talent. Likewise, the vast majority clearly recognize the link between talent development and retention.

Table 3: Value of SCM Talent Initiatives

<table>
<thead>
<tr>
<th>Statement</th>
<th>Level of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>An effective SCM talent program positively impacts company performance.</td>
<td></td>
</tr>
<tr>
<td>An effective development program is critical to the retention of SCM talent.</td>
<td></td>
</tr>
</tbody>
</table>

Forward-thinking retail supply chain executives are taking swift action to address this growing need. These leaders are establishing talent management programs that revolve around the development, retention, and advancement of essential personnel. The goal is to build highly skilled supply chain teams that deliver on the promises of customer service excellence and competitive advantage across all retail channels.

Talent Development

After spending the time and effort to acquire talented supply chain professionals, retailers must effectively prepare these individuals for success. Efforts must be made to both train people for their current roles and prepare them for future opportunities.

"Our high-potential associates get regular changes of responsibilities and challenging assignments to help them develop.”
"We have an emerging leader program to ensure that talented individuals gain early career exposure to different areas of the company and to strong leaders."

To achieve these goals, our study participants employ a wide variety of talent development methods. Table 4 reveals their use and confidence in learn-by-doing methods that require active engagement of supply chain associates.

Table 4: Development Method Use & Effectiveness

<table>
<thead>
<tr>
<th>Method</th>
<th>Usage Level</th>
<th>Usefulness Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>On the job training</td>
<td>100%</td>
<td>1</td>
</tr>
<tr>
<td>Cross functional training</td>
<td>100%</td>
<td>2</td>
</tr>
<tr>
<td>Individual development plan</td>
<td>98%</td>
<td>3</td>
</tr>
<tr>
<td>Attend industry conferences</td>
<td>87%</td>
<td>4</td>
</tr>
<tr>
<td>Leadership development program</td>
<td>87%</td>
<td>5</td>
</tr>
<tr>
<td>Job rotation program</td>
<td>87%</td>
<td>6</td>
</tr>
<tr>
<td>Mentoring program</td>
<td>87%</td>
<td>7</td>
</tr>
<tr>
<td>Company training courses</td>
<td>87%</td>
<td>8</td>
</tr>
<tr>
<td>External training courses</td>
<td>87%</td>
<td>9</td>
</tr>
<tr>
<td>Professional certification</td>
<td>66%</td>
<td>10</td>
</tr>
<tr>
<td>Advanced degree support</td>
<td>57%</td>
<td>11</td>
</tr>
</tbody>
</table>

Development methods that focus on training, certification, and advanced degrees were ranked consistently low. Though these tools do not focus heavily on current roles and activities, well-chosen programs address supply chain topics and general management skills needed by individuals for advancement. Supply chain leaders should support inclusion of these future-oriented methods in the individual development plans of high potential supply chain associates.

Our research highlights a noteworthy opportunity to better prepare SCM talent. Only 30 percent of our study participants indicated that: “Our SCM talent development program is excellent.” To address this weakness, supply chain leaders should partner with HR to upgrade capability- and retention-boosting SCM development programs.

Talent Retention

Turnover can be a major challenge for retailers. An exodus of supply chain professionals depletes the talent pool, impairing efforts to attract, develop, and advance future leaders.

Among our participating organizations, the majority have low turnover of supply chain talent and indicate that their retention rates are excellent. Still, Figure 5 reveals that some retailers experience an undesirable churn rate.

Figure 5: Talent Retention Perspectives

With replacement costs estimated at 100 percent to 300 percent of a former employee’s base salary, even low turnover rates are expensive. Supply chain leaders must work to understand the causes of turnover and develop appropriate retention strategies. Table 5 reveals the most widely deployed components of this effort.

Table 5: Retention Method Use

<table>
<thead>
<tr>
<th>Method</th>
<th>Usage Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engage leaders in talent development</td>
<td>80%</td>
</tr>
<tr>
<td>Establish individual development plans</td>
<td>76%</td>
</tr>
<tr>
<td>Provide career paths for SCM talent</td>
<td>74%</td>
</tr>
<tr>
<td>Employ formal onboarding process</td>
<td>67%</td>
</tr>
<tr>
<td>Conduct in-depth succession planning</td>
<td>63%</td>
</tr>
</tbody>
</table>
“My job is to find two or three people that could step into my role if I win the lottery tomorrow. Why? It’s the right thing to do for the organization.”

Succession Planning

Historically, succession planning has focused on C-level roles. However, three trends signal a need for supply chain talent succession planning:

1. The focus on leaner organizations reduces opportunities to build bench strength.
2. The improving economy increases the risk of high potential talent turnover.
3. The growing number of retirement eligible supply chain executives creates a threat of institutional knowledge loss.

Despite its importance, Figure 6 indicates that only four in ten retailers have established formal processes to prepare future SCM leaders.

Table 6 suggests that our study participants recognize the need to significantly enhance their focus on this activity. Only 30 percent are highly confident in their succession planning processes.

Table 6: Succession Planning Evaluation

<table>
<thead>
<tr>
<th>Statement</th>
<th>Level of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our succession planning process is excellent.</td>
<td>High</td>
</tr>
</tbody>
</table>

Key Takeaways

The potential benefits of SCM can only be realized by retailers that develop and retain top talent. Thus, supply chain leaders must put people investment on equal footing with process and technology initiatives. This builds teams that can deliver on the promise of supply chain excellence and competitive advantage in an increasingly complex omni-channel environment.

An improving economy in 2014 will increase the risk of turnover. To avoid a potential talent shortage, supply chain leaders must create cohesive talent management programs that foster professional growth, retention, and advancement. The Retailer Profile highlights an initiative to build and sustain a strong SCM team.

Retailer Profile: Building a Comprehensive Talent Management Program

Creating a unified talent program that fosters promotion from within is a worthwhile effort, notes a retail supply chain executive. The specialty retailer uses individual development plans, nine-box grids, and mentoring to evaluate and foster the growth of supply chain talent. Additionally, special project assignments are used to enrich the capabilities of promotable individuals. A college internship program is being established to recruit and cultivate emerging talent.

In preparation for advancement, high potential directors rotate into new functions to expand their skills. Top performers are promoted to VP roles in their areas of expertise. “I move people into jobs where they are not comfortable, surround them with good talent, and give them individual guidance. They emerge with a broader understanding of the supply chain,” says the executive.
Capability 2: Omni-Channel Inventory Deployment
Creating Flexible, Channel-Agnostic Inventory Strategies and Fulfillment Processes

“What are people going to buy? Where are they going to buy it? Is it dot.com? Is it mobile? Is it at a store? What type of service do they want? Do they want to pick it up at the store? Do they want it shipped to their home or work? Everybody’s thinking about that.”

The Key Issues

Customers aren’t changing their buying habits. In many respects they have already changed, it’s just a matter of greater scale! Today’s shoppers expect convenience in terms of where they shop (increasingly via mobile apps), when they shop (anytime), and how they obtain the product. And, the price better be the lowest available or they are off to the next option.

With these trends in mind, retailers have been feverishly re-tooling their store designs, websites, and fulfillment operations to capture and retain more fragmented customer segments. The problem is that they are somewhat “flying blind” as the introductory retailer quote indicates. Nobody is quite sure how big the omni-channel opportunity will eventually be or how much will flow through each channel. The only certainty is that one-size fits all strategies and processes will create the risk of market share losses. Flexibility is a must to keep pace with this fluid situation.

The Response

The good news is that many of our study participants have already identified the best-in-class approach to managing their burgeoning omni-channel business. The bad news is that the solution is “it depends” according to retail supply chain executives. The reality is that most retailers are deploying a mixed set of fulfillment solutions and are actively developing new strategies.

Most of the omni-channel solutions for inventory management and order fulfillment discussed in this year’s study modify long-established distribution operations. Only a few retailers are introducing innovative infrastructure specifically designed for e-commerce. This makes sense because consumer needs are rapidly changing and a state-of-the-art solution designed this year could well become outdated in short order.

This section reports on the omni-channel inventory management and fulfillment trends that are shaping the supply chain strategies and processes of our study participants.

Managing Stock to Meet Each Customer’s Needs

“One of the reasons the inventory levels were higher is because we couldn’t have thought of losing a sale. How many sales am I willing to lose in order to have a more manageable inventory level?”

Inventory is necessary to support demand regardless of the channel in which the customer’s order originates. The omni-channel inventory question is often thought of as a choice between managing separate inventories for retail store replenishment and customer direct orders. However, many retailers manage additional channels like wholesale and B2B. Thus, omni-channel inventory decisions must consider all the channels to be served.

At the advent of e-commerce a decade ago, many retailers chose to support customer demand with separate inventories. This was the most expeditious method for supporting the new channel given the retailers’ legacy system capabilities. Since then, their on-line order volumes have grown dramatically. One executive discussed an increase of 47 percent this year.
“You don’t want to have separate pools of inventory to flow to separate demand streams. But, it takes a lot of systems work to pull that off.”

Multiple inventories mean greater safety stock. As online sales have grown some retailers find that their inventory investment has grown. A solution is to share retail and online inventories for common SKUs. Figure 7 reveals that retailers are sharing inventories, with only 29 percent relying on dedicated inventories or limited inventory sharing. The majority are effectively leveraging their inventory across multiple channels.

This inventory sharing strategy will continue. Less than 10 percent of our respondents expect to have dedicated inventories in three to five years. Instead, inventory sharing at the store and DC levels for online order fulfillment will supplant much of the difference. Vendors will also be expected to hold more inventory in the future.

“Our customers expect these multiple channels to look transparent – like one channel.”

SKU availability by channel is an important omni-channel consideration. Most respondents offer a greater variety of SKUs online than in stores. As Figure 8 reveals, less than 10 percent align their store and online SKU assortment.
"We experienced almost 50 percent growth in our direct-to-consumer channel. It’s something we really like but I’m not sure our DCs are set up to handle it."

Omni-channel Facility Considerations

Many of the retailers that have migrated to a single inventory strategy have done so because their model has inherent overlap between store replenishment and customer direct order requirements. Retailers that ship to stores in less than full case quantities can more easily fit customer direct orders into existing order picking routines in the DC. Likewise retailers that handle a large percentage of store replenishment from a single DC, or few DCs, have found it easier to combine retail replenishment and customer direct orders within the same operation.

Retailers are using a variety of methods to fulfill customer direct orders, according to Figure 9 and the Retailer Profile. DC operations serving both stores and customer direct orders continue to grow with 43 percent of our respondents using these integrated facilities as their primary fulfillment method. This is an increase from last year’s study results.

In contrast, 29 percent of the respondents mainly depend on dedicated facilities for online order fulfillment. Some use a single central DC or regional DCs. This is a reduction from last year’s SRSC report.

![Figure 9: Primary Fulfillment Location](image)

**Key Takeaways**

Retailers are pursuing a variety of strategies to support omni-channel inventory management and order fulfillment operations. The trend appears to be in the direction of combining inventories and fulfillment where possible to gain efficiencies. No one approach fits all situations. SKU assortment breadth, product characteristics, retail vs. on-line demand patterns and other retailer-specific considerations must be evaluated to determine the best solution in each case.

**Retailer Profile: Using Multiple Fulfillment Methods to Smash the Competition**

Omni-channel fulfillment is a top priority for almost all the executives we spoke with this year. Their key focus is how to best organize operations to support both store replenishment and customer direct order fulfillment. Our analysis finds that most retailers use two or more fulfillment methods to serve online and mobile customers. This is driven by customer desire for rapid fulfillment and delivery location choice, as well as retailers’ desire to leverage their inventory and facilities.

For one retailer, the goal is to provide a seamless and simple ordering interface for the customer regardless of the delivery method. A supply chain executive says: “In-store pickup, parcel shipping, and much more intricate home delivery – all of that needs be real easy for you on the front end.” To support fulfillment of these orders and “smash their competitors,” the retailer fills orders from DCs, stores, and vendor locations. "We need to utilize the infrastructure we have – in most every community – to get product to you at the lowest cost and highest service so that we can compete.”
“Visibility and analytics is really getting more and more important to help us make decisions, make them much more quickly, and make them much more accurately.”

The Key Issues

The global nature of retail product sourcing and increasing omni-channel fulfillment combine to create a highly complex supply chain network. Though the goals remain the same – balance quality of service and product availability with control of operating costs – traditional methods of assessing retail supply chain opportunities and performance are quickly becoming outdated.

No longer is it effective to run supply chains with a functional focus, be driven by expert opinion, or depend wholly on traditional execution systems. Instead, retail supply chain leaders must become more sophisticated in their approaches to performance planning and analysis. Supply chain analytics and cloud based data management tools can be used to transform the growing pool of available data into valuable quantitative insights and KPIs for enterprise-focused decision making on sourcing, demand planning, and fulfillment.

The Response

Our study participants recognize the need to build stronger diagnostic and decision support capabilities. These supply chain leaders are adopting a broader performance analysis focus and are looking for sophisticated tools to help them optimize supply chain performance in an increasingly complex operating environment.

“Our new tool set will provide better end-to-end visibility, better aggregate forecasting capability. Ultimately, it will yield better analytics.”

Scope of Performance Measurement

Two survey questions focused on the scope of supply chain performance measurement being used in the current retail environment. The most micro level of measure occurs at the functional area level, and expands through company-wide measures to upstream/downstream partners and the end-to-end supply chain. The results are summarized in Table 7.

Table 7: Measurement Use & Effectiveness

<table>
<thead>
<tr>
<th>Type of Measure</th>
<th>Usage Level</th>
<th>Usefulness Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company-wide</td>
<td>91%</td>
<td>1</td>
</tr>
<tr>
<td>Functional area</td>
<td>85%</td>
<td>2</td>
</tr>
<tr>
<td>Downstream w/ customers</td>
<td>54%</td>
<td>3</td>
</tr>
<tr>
<td>End-to-end supply chain</td>
<td>61%</td>
<td>4</td>
</tr>
<tr>
<td>Upstream w/ suppliers</td>
<td>57%</td>
<td>5</td>
</tr>
</tbody>
</table>

Those measures highlighting company specific performance were identified as most important by the surveyed executives. One aspect of this is reflected in the many comments from executives stating they were willing to take on additional costs in order to support company profitability and earning per share results rather than optimizing results of the SCM function.

Over 60 percent of respondents described the use of measures that attempt to reflect supply chain wide performance incorporating the activities of all organizations involved in the supply chain. Although the smallest percentage of respondents use downstream measures of supply chain performance, the retailers rated these DC-to-consumer metrics as third most important behind company-side metrics and functional area metrics.
"There’s no ‘on time per share’ in the Wall Street Journal. It’s earnings per share! The only metric that’s in the Wall Street Journal is earnings per share."

Key Performance Metrics

Retailers use a wide range of metrics to evaluate supply chain performance. However, a handful of KPIs were identified frequently by the study participants. These focal KPIs include:

- Cost / Productivity measured via Cost per Carton and Space Utilization for example
- Service Level measured via Store In-stock Percentage and Fill Rate
- Inventory Turnover
- Employee Safety

The cost, service and inventory turn metrics are long standing and expected. This was the first time we have heard safety mentioned repeatedly.

Two reasons for the growing interest in safety are apparent. First, as the economy has improved over the last two to three years retailers are finding it more difficult to attract and keep quality employees in their SCM operations. The focus on safety demonstrates commitment to employees without further escalating pay.

Second, several executives discussed their growing concern with increasing government regulation, such as expanded OSHA reviews. Additional emphasis on safety metrics could be a direct result of increased regulatory scrutiny.

As Figure 10 shows, performance continues to be particularly strong in the areas of transportation cost and service. In stock availability and order accuracy are very important and the performance of each has greatly improved over the four years of our study. Inventory turns, while important to the participants, continues to be an area that needs improvement.

Leveraging Analytics

Most supply chain metrics are descriptive in nature and focus on past activity. While POS data can be used to plan demand and supply chain KPIs summarize what happened, they depend heavily on the aggregation of previous discrete events being an accurate predictor of the future. More rigorous analysis is needed to fully benefit from the vast supply chain data available today.

Figure 10: Performance Across Key Metrics
Only recently have best-in-class retailers begun to invest in analytical capabilities to draw in-depth insights from “big data” sources such as POS, suppliers, and customer loyalty programs. As the Retailer Profile highlights, supply chain leaders are beginning to use more sophisticated tools to optimize performance. Predictive analytics and prescriptive analytics are helping on this front.

"We have a better understanding of our customer, how they shop, and what they’re looking for. We are tying that into our supply chain now so it’s not just a reactive, demand-based supply chain."

Predictive analytics automatically synthesizes big data, and makes predictions of future outcomes using analysis tools and business rules. Predictive analytics is the branch of data mining concerned with the prediction of future probabilities and trends. Because multiple data sources are utilized – along with advanced techniques such as machine learning and game theory – predictive analytics searches for patterns that result in an improved view into future outcomes.

Prescriptive analytics seeks to determine the best solution or outcome among various choices. Prescriptive analytics can also suggest decision options for how to take advantage of a future opportunity or mitigate a future risk, and illustrate the implications of each decision option. In practice, it can continually and automatically process new data to improve the accuracy of predictions and provide better decision options.

"We’re migrating to a new tool set because we have to do a better job...and analytics is a part of that."

Key Takeaways

Retail SCM executives are striving to make improvements to supply chain performance, but doing so in the context of contributing to overall organizational performance, perhaps more so today than in the past. The move to incorporate “big data” and analytics into SCM planning is in the early stages. Much remains to be learned but the use of sophisticated analytical tools is expected to grow quickly in the coming years.

Retailer Profile: Leveraging Data for Objective Decision-Making

Merchants have historically been highly involved in replenishment ordering. A problem is that often this leads to inefficient inventory decisions when the merchant uses “gut feel” or instinct to increase or decrease reorder quantities beyond amounts suggested by the replenishment system.

A sporting goods retailer has recently begun to use business analytics to reengineer its order replenishment process and drive down inventory. It eliminated safety stock at its DCs, thus more closely connecting order flow from supplier to stores. Additionally, abilities to change replenishment quantities were limited with future orders determined by replenishment system algorithms. The resulting data-driven reordering process has improved inventory significantly. The supply chain executive states: "I’ll listen to your anecdote [concerning inventory reordering levels], but now that we’ve talked about that let’s talk about some facts and let’s talk about the data. It’s amazing how powerful the data can be.”
“Nobody wants to wake up four years from now and say, ‘We thought we were great but we’re getting our clock cleaned.’ Being appropriately paranoid is very important in retail right now.”

The dynamic retail industry generates both perennial and intermittent challenges for supply chain executives. Each year, we ask them about the potential hot button issues and stress inducers for the coming year. Six of the most interesting outcomes from those conversations are reviewed.

Amazon the Disruptor

There seems to be no part of the retail world that is completely immune to Amazon.com’s stated mission of becoming “Earth’s most customer-centric company.” In less than 20 years, Amazon has grown into a $17 billion behemoth that pushes the envelope (at least conceptually) on retail fulfillment innovation and service levels. And no category seems safe with Amazon’s recent tests of Prime Fresh for groceries and its Procter & Gamble venture for consumer products.

Amazon’s announcements range from being very aggressive (same day fulfillment) to downright zany (delivery drones on your doorstep), but they regularly capture media and consumer attention. Retailers must remain on their toes and consider strategic responses to counteract initiatives like Amazon Prime that quickly gain traction.

“They are a disruptor. I don’t know exactly what they’re trying to accomplish in all facets of their business, but we’re staying close to them.”

Looking forward, retail supply chain executives must expect Amazon – as well as eBay and other nontraditional retailers – to challenge the status quo. Close attention is highly recommended.

The Regulatory Environment

Highlighted as an “on the horizon” issue in a previous SRSC Report, retail supply chain leaders continue to closely monitor political activity inside the Beltway. A prime concern is the increased enforcement activity of regulatory agencies. Some executives are skeptical about the focus of these activities. They believe the goal is revenue generation based on fines for record-keeping errors rather than a legitimate drive for product safety and working conditions improvement.

“There are increased regulatory pressures. We see more of that on the horizon from all facets of the government: the CPSC, the FDA, Customs compliance. They all seem to be ratcheting up, so we’re making some investments.”

Labor Availability

Maintaining a viable supply chain workforce that is both productive and affordable, is a primary concern of retailers. The situation is driven by an aging labor pool and a general unwillingness of the younger generation to work in warehousing and transportation. With omni-channel order fulfillment being so labor-intensive, retailers must develop creative solutions to attract new employees or turn to automation.

“The pipeline of labor going into this type of work is becoming more and more limited.”

The labor availability issue is further exacerbated by the rollout of the Affordable Care Act. Many retailers are grappling with part-time labor rules. Others are considering automated warehousing and order picking systems to avoid ACA-driven costs. Finally, the ACA could make labor contract negotiations more complex and generate work disruptions over healthcare cost sharing.
“We need to optimize fulfillment based upon where the inventory is, where the customer is, and what time frame they need the product in.”

Store Format Changes

The strategic upheaval in retailing is not limited to the emergence of omni-channel selling and fulfillment. Retailers are also rethinking their longstanding brick-and-mortar strategies. The conceptual pendulum is swinging from the big box focus to a smaller store footprint. This allows the retailer to create an accessible store layout that holds a narrow mix of high velocity, “need it now” inventory. In-store kiosks provide access to the full product line for home delivery.

To support the smaller store format, supply chain leaders must alter fulfillment processes. Smaller stores often require partial case quantities, higher replenishment frequency, and/or front door delivery. Though the supply chain may sacrifice volume efficiencies and low fulfillment expenses, there is an enterprise cost reduction opportunity.

“We’re getting the same revenue for about half of the original overhead, inventory carrying costs, and real estate lease costs.”

End-to-End Optimization

Making the most effective use of supply chain resources remains a retailer priority. Moving forward, they are trying to maximize cross-chain performance rather than optimize individual supply chain functions. Top retailers will seek to elevate supplier alignment, enhance demand planning, and support store performance.

Technology is essential for optimization. Industry leaders are deploying powerful tools to boost in-stock availability, end-to-end visibility, and inventory efficiency. Patience will be another key issue as optimization is not a short-term project.

“It’s a multiyear initiative that will carry us a good five to seven years into the future.”

eGroceries 2.0?

The meteoric rise and fall of Webvan, which went bankrupt in 2001, quashed interest in online grocery sales for a decade. The company’s network of high tech warehouses and delivery fleets never gained traction with shoppers. CNET dubbed it the #1 dot.com flop of all time.9

In the interim, only a handful of online grocers have successfully carved out niches in high density markets. Peapod is the largest and most successful, with operations in a dozen states. Ocado (UK) has been in operation since 2000.

As retailers build out their omni-channel fulfillment capabilities and consumers increase their online purchasing activity, it may be an opportune time to pursue the grocery segment again. Amazon rolled out its Prime Fresh service to Los Angeles and San Francisco in 2013. Brick-and-mortar grocers that participate in our study are assessing the opportunity and some are conducting limited scale concept testing.

“We’re still in the infancy stages of it with some order online and pickup in store. In the future we want to be fully capable for direct to home or pickup in store, just like anybody else.”

Perhaps that Jupiter Media Metrix analyst had it right, with his 2001 postmortem: “Webvan may well have been 10 or 20 years ahead of its time.”

The Takeaways

As retailing becomes more competitive, the six issues discussed here will influence the strategies and actions of supply chain executives. They must remain vigilant and responsive to protect organizational resources and drive success. We will monitor developments involving these topics during our next research cycle.
The 2013 retail story can be summed up in a single concept that means anything but one option: omni-channel. Consumers continue to expand their buying activities to take full advantage of online and mobile shopping. They increasingly expect low prices and an “endless aisle” of product, easy ordering, and free delivery to their location of choice.

To profitably meet these shopper requirements, retail supply chain executives employ a strategy that balances service and cost. Leaders are pursuing flexible inventory practices and fulfillment processes to serve demand at optimal financial performance. Investments in process and technology upgrades are being made to support the drive for stronger omni-channel capabilities. Future growth strategies also play into this spending activity.

Highly capable supply chain talent is needed to navigate this complex retail environment. With a short supply of supply chain professionals and an improving job market, retailers must establish talent management programs to attract, develop, and retain high caliber individuals. Best-in-class retailers are creating supply chain career paths, employing individual development plans, and developing succession plans to prepare their future leaders.

Inventory is the lynchpin to omni-channel success, particularly with the promise of same day, next day, and last minute holiday availability. As consumers’ buying options increase, dedicating inventory to specific channels is detrimental. Leading edge retailers are using shared inventories, integrated facilities, and store fulfillment to reduce inventory levels and maximize availability across channels.

Optimizing performance across multiple channels requires an enterprise-wide perspective and strong analytical capabilities. In response, supply chain leaders are supplementing traditional KPIs and descriptive tools with more holistic measures and forward-focused methods. Best-in-class retail supply chains are beginning to establish “big data” capabilities and employ sophisticated predictive and prescriptive analytics. These tools can be leveraged for deciphering demand and determining responses.

As we look forward to 2014, omni-channel will continue to be a focal point for supply chain leaders. They must be prepared to refine fulfillment methods and create innovative responses to competitive challenges, regulatory requirements, and labor market realities. Changing internal strategies and growth opportunities must also be supported by the supply chain team. We have no doubt that our study participants are up to these tasks and will cultivate capabilities that contribute to bottom line growth.

“Our supply chain is optimized for freight. We’ve got to figure out how to be a lot more nimble in providing value to our customers.”

Research Resources
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Throughout his 20 year academic career, Dr. Gibson has been recognized as an innovative supply chain educator. He has published over 50 SCM research studies and is author of the video textbook Supply Chain Essentials. Dr. Gibson serves as co-author of the market-leading textbooks Supply Chain Management: A Logistics Perspective and Transportation: A Supply Chain Perspective. His latest collaboration is The Definitive Guide to Integrated Supply Chain Management.

Dr. Gibson’s academic career was preceded by nine years of retail distribution management experience. He is widely engaged in corporate training, executive education, and service to the supply chain profession. Currently, Dr. Gibson is a member of the RILA Logistics Steering Committee, the CSCMP Professional Certification Committee, and is Education Advisor for NASSTRAC.

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Auburn University Harbert College of Business

The Supply Chain Management program brings the unchanging values of Auburn University – practical education and research, honesty, and hard work – to a changing world. We actively collaborate with supply chain professionals to ensure that our research, academic degree programs, and industry outreach events effectively reflect current supply chain theory and application. Auburn SCM graduates are well-prepared for the classroom-to-workplace transition and our alumni enjoy successful supply chain careers with retail, manufacturing, 3PL, transportation, and service firms. For additional information, visit www.business.auburn.edu.

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