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SCM FOR SMALL- TO-MEDIUM BUSINESSES (SMBs): THE FRAMEWORK LEADERS HAVE IN PLACE

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ABERDEEN



Small-to-medium-sized businesses (SMBs) face many of the same supply chain pressures as their larger competitors: managing customer service levels, right-sizing inventories, and reducing costs to address customer needs and execute operations. This report examines supply chain practices, policies, capabilities, and technologies adopted by SMB Leaders that create a supply chain management (SCM) blueprint for success.

Supply Chain Management Framework for SMBs

Taking a holistic view of the supply chain helps SMBs resolve immediate pain points. Creating an SCM framework to address potential future process and data integration issues helps avoid further crises. The SCM framework incorporates all supply chain planning and execution processes from demand management to customer delivery.

A holistic view begins by matching supply with demand to create a feasible plan defining the operating levels and resources needed to meet customer requirements. Once in line with expectations, right-sizing investments to achieve desired service levels provides the balance to control inventory assets.

A holistic view also includes managing suppliers from source-to-settle, which creates a framework for collaborative supplier management. To avoid supply disruptions, upstream visibility and supplier collaboration capabilities are critical. Having end-to-end supply chain components in place closes the loop between planning and execution. Tying these together enables and/or improves on-time fulfillment for greater customer satisfaction.

Business Pressures

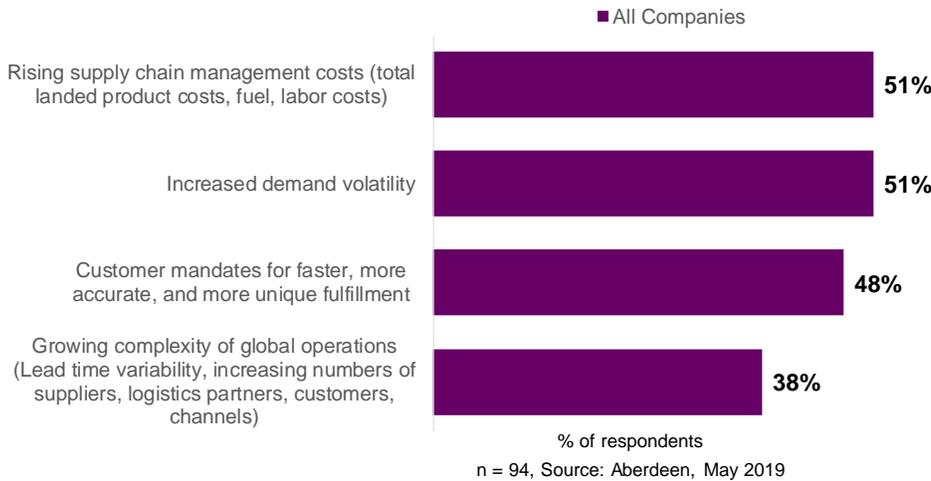
Let's first review the pressures that supply chain leaders are facing while managing their supply chains summarized in Figure 1 (on the next page). Demand volatility is always a challenge — even more so when companies must face the erosion of traditional channels and simultaneously support new ones that have been created by direct-to-customer shipments. Rising

The Aberdeen maturity class framework for this report is comprised of two groups of survey respondents. This data is used to determine overall company performance. Classified by their self-reported performance across several key metrics, each respondent falls into one of two categories:

- ▶ Leaders: Top 30% of respondents based on performance
- ▶ Followers: Remaining 70% of respondents based on performance.

supply costs, always at or near the top of the pressures list, are the result of increasing supply chain complexity and the incremental value-adds required to address service level mandates.

Figure 1: SMB Supply Chain Business Pressures



Empowered consumers have increased their influence, necessitating faster, more accurate fulfillment options. Growing complexity further exacerbates the pressures of rising costs, demand volatility, and customer mandates. These pressures drive the behavior and decision making of supply chain Leaders, as evidenced by investments in critical capabilities and the actions they take to offset these pressures.

Strategic Supply Chain Capabilities Create the Framework for a Holistic SCM Approach

The strategic supply chain capabilities identified in Figure 2 (next page) establish a foundation for an end-to-end SCM approach. Addressing customer expectations begins by using inventory optimization to determine the precise levels required to support customer service. S&OP/IBP (see sidebar next page), one of the most effective processes used to manage supply chains, is adopted by 56% of Leaders, which is 30% greater than Followers at 45% — a significant competitive advantage.

The demand and forecasting ability to plan across multiple channels and levels within acceptable margins of error is instrumental toward creating reliable and repeatable business processes. The demand forecast is the starting point for supply-demand match within the S&OP/IBP process.

Maturity Class Performance Metrics

Complete and on-time delivery:

- ▶ Leaders: 96%
- ▶ Followers: 88%

Internal schedule compliance:

- ▶ Leaders: 95%
- ▶ Followers: 88%

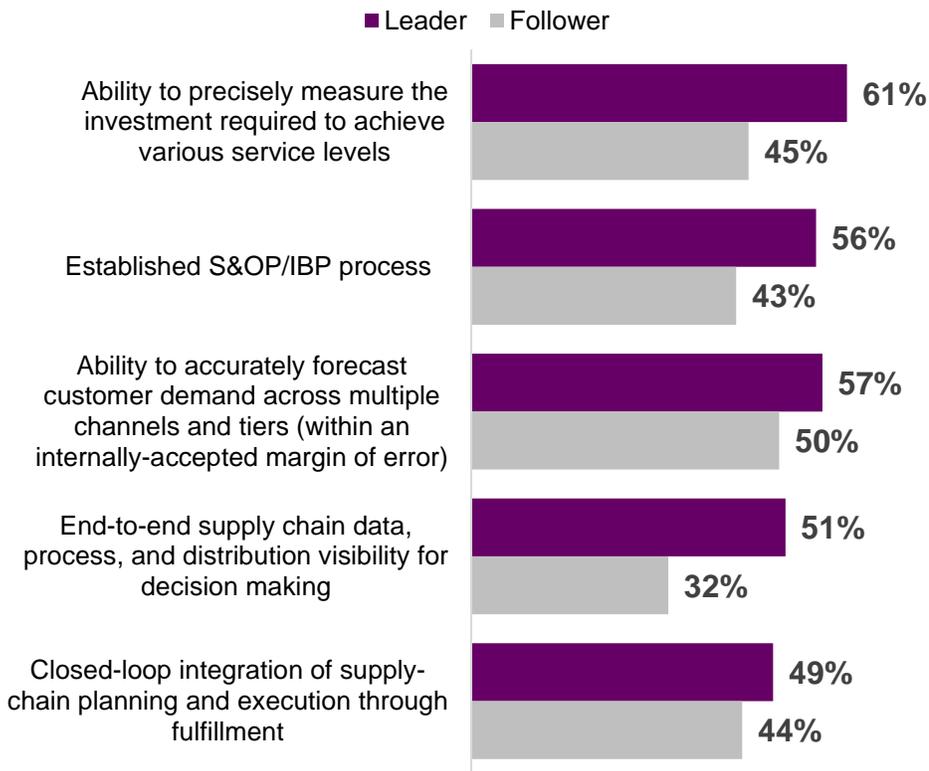
Improvement in profitability over the past two years:

- ▶ Leaders: 7%
- ▶ Followers: -2%

Improvement in productivity over the past two years:

- ▶ Leaders: 13%
- ▶ Followers: 1%

Figure 2: Supply Chain Strategy Capabilities



% of respondents, n=94, Source: Aberdeen, May 2019

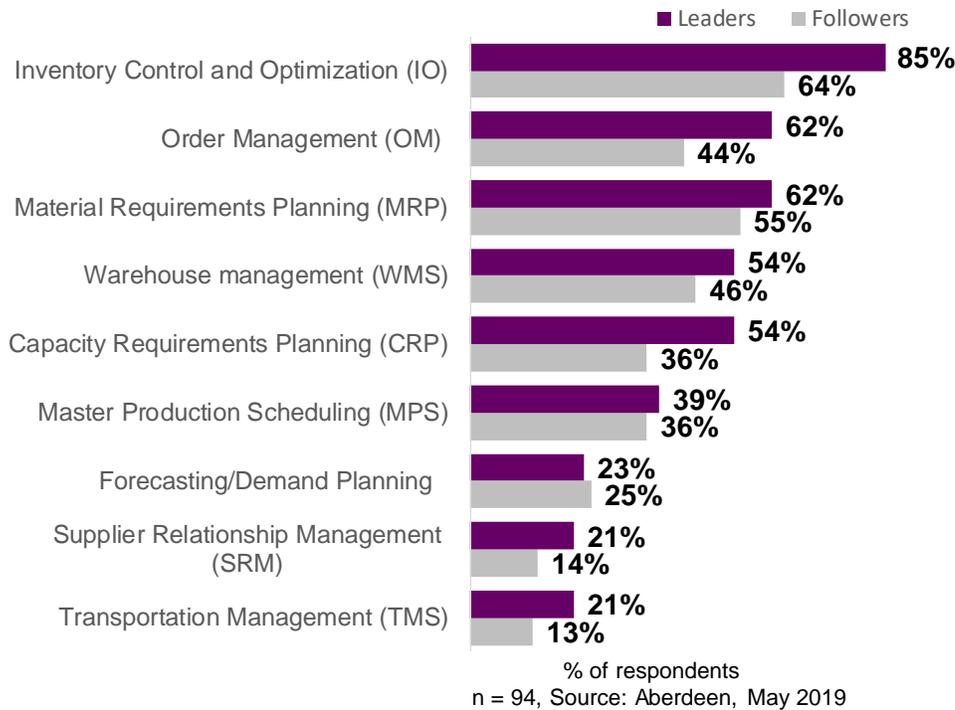
At a 51% adoption rate, Leaders are 59% more likely than the Followers to have visibility and access to end-to-end supply chain data and processes for improved decision-making. Closed-loop integration of supply chain planning with purchasing, warehouse management, and transportation creates an end-to-end, cohesive supply chain, from planning to execution to delivery.

Technology Investment: A Critical Requirement for Creating a Holistic Supply Chain Management Framework

Achieving an end-to-end SCM framework requires an integrated suite of supply chain solutions and a standard data model deployed on a common platform. Leaders are decidedly more willing to adopt technology for supply chain solutions across the board. Figure 3 (on the next page) shows investment in significant supply chain modules, extensions, and best-of-breed supply chain solutions. The modules show planning, logistics, transportation, procurement, and order management functionality. More specific modules within these groupings — contract management, procurement,

S&OP/IBP — were not listed, in addition to other various scheduling modules or tools.

Figure 3: Technology Adoption



With the SCM framework in mind in mind, Leaders continuously move forward with technology investments. Their performance results compared to Followers (shown in sidebar on page 3) indicate that their investment in technology has paid off. Their capability adoption as compared to that of the Followers across the SCM framework demonstrates the competitive advantage they have in place resulting from these investments.

Integrated Business Planning/Sales and Operations Planning: Critical Components in Creating/Designing a Holistic Supply Chain

S&OP/IBP is one of — if not the most — critical business processes for any product or service-based business. One of its underlying principles is management ownership over critical decisions they should make (priorities for service, customers, and production levels). Figure 4 (next page) compares critical S&OP/IBP capabilities of Leaders versus Followers.

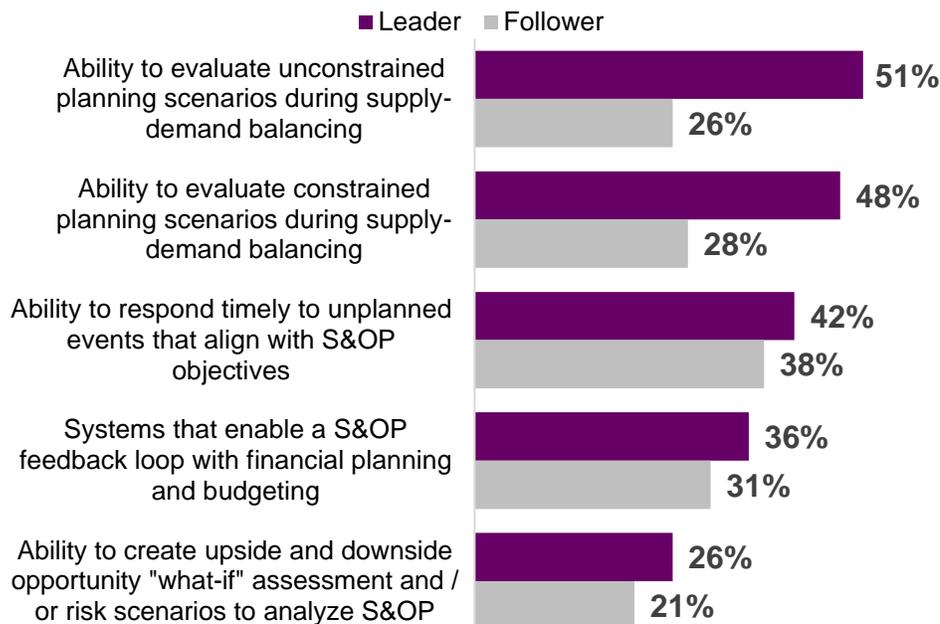
S&OP/IBP Process

An integrated business management process through which the executive team aligns the organization to one feasible operating plan that synchronizes all functions and processes across the business. The focus is on future actions to achieve goals/ KPI's.

The frequency and planning horizons vary by industry but are driven by the need to manage demand volatility, product life cycles, and other changing conditions that might occur. The goal is to keep the operating plan on track and in sync to meet financial projections.

Creating a feasible plan as part of the S&OP/IBP process requires establishing the supply/demand match. This involves finding the balance between projected incoming demand (forecast) and the resources needed to provide it (capacity/material, equipment, people).

Figure 4: IBP and S&OP Capabilities



% of respondents, n=94, Source: Aberdeen, May 2019

Unconstrained Planning: what are the resources (material, labor, equipment) required to meet demand.

Constrained Planning: how much can be provided along with the existing capacity?

Striking this balance relies on evaluating both unconstrained and constrained scenarios (see sidebar). In both cases, at 51% and 48% adoption, Leaders are much more likely to have these capabilities in place than Followers. Leaders work through scenarios to arrive at the supply-demand match as well as the upside and downside risk, making them more likely to quickly respond to unplanned events in a way that aligns with S&OP objectives.

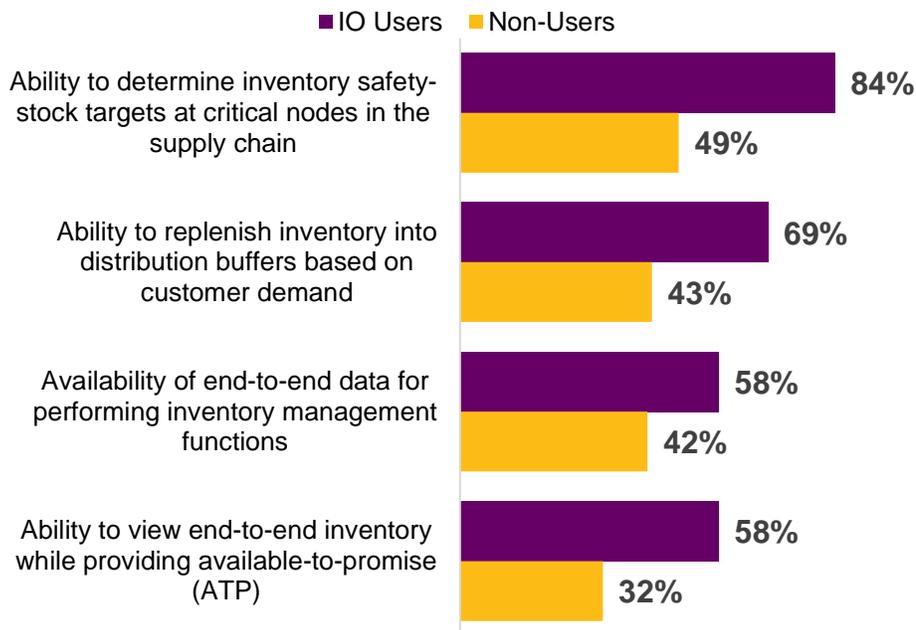
Having a feedback loop between the S&OP/IBP process and the financial planning and budgeting process provides the organization with the financial projection for the plan of record. Thirty-one percent of Leaders have this in place. Testing the plan with "what-if" scenarios and predicted outcomes allows SMBs to determine the best scenario for better financial results. Twenty-six percent of Leaders are able to create upside/downside opportunities as well as "what if" assessments and risk scenarios, compared to 21% of Followers. The next level of sophistication is to test prescriptive alternatives that might alter the predicted outcome of existing

plans positively (revenue, profitability, service level, inventory level). Use of management-vetted scenarios instills confidence in the plan by getting everyone on the same page.

Inventory Management and Optimization: Critical Backbone to the SCM Framework

In conjunction with planning, the ability to determine the precise inventory investment to achieve service level goals is a key component of the SCM framework. Inventory management and inventory optimization (IO) are required to determine these levels. Figure 5 (below) reflects the capability advantages that IO Users have over Non-users. At an 84% adoption level, IO Users are 68% more likely than Non-users, at 49%, to determine safety stock targets at critical stocking points/levels in support of the inventory plan to meet service level goals. These data-driven targets are generated at the subassembly, component, and raw material levels in the supply chain.

Figure 5: IO VS. Non-IO User Capabilities



% of respondents, n=248, Source: Aberdeen, February 2019

Visibility into all upstream inventory allows the right people to make informed and intelligent decisions for customers and allocations that would otherwise be impossible.

IO Users, at 69% adoption, are 60% more likely than Non-users, at 43% adoption, to support inventory replenishment into distribution based on customer demand (commonly referred to as a pull system). This

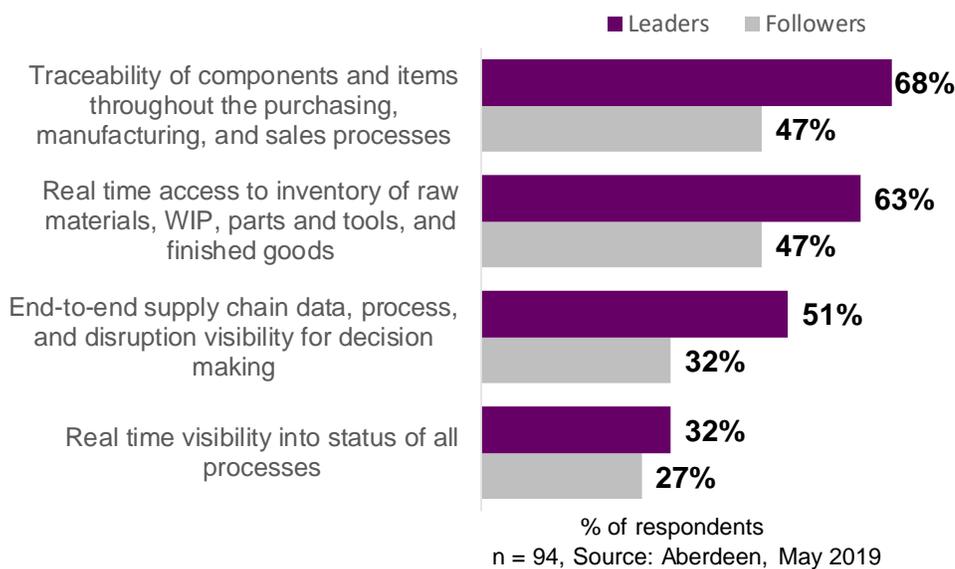
approach eliminates steps and reduces errors in setting inventory staging levels for customer replenishment.

Availability of end-to-end data visibility (which, in this context, refers to inventory within the four walls, on order, and in-transit) is critical to perform inventory management functions. Visibility into all upstream inventory allows the right people to make informed and intelligent decisions (for customers and allocations) that would otherwise be impossible. Next-day (and same-day) delivery requires an end-to-end view of inventory for ATP (available-to-promise) commitments and response to inventory management functions. At 58% adoption, Leaders are 81% more likely to use inventory visibility in their ATP commitments.

The Ability to “See” is Imperative for Successful SCM

Having end-to-end supply chain data, process, and disruption visibility for decision making is the key pillar in the SCM framework. Figure 6 (below) shows the importance of visibility into key SCM processes.

Figure 6: Visibility at All Levels in All Areas



Knowing the current status for the movement and commitment of goods and services at all levels in the supply chain enables informed decision making. For several industries such as food and beverage, pharmaceuticals, automotive, medical supplies, and even some consumer goods, product traceability from raw material through to the finished item and customer shipment is now mandatory. At 68% adoption, Leaders are 45% more likely than Followers (47%) to have this capability

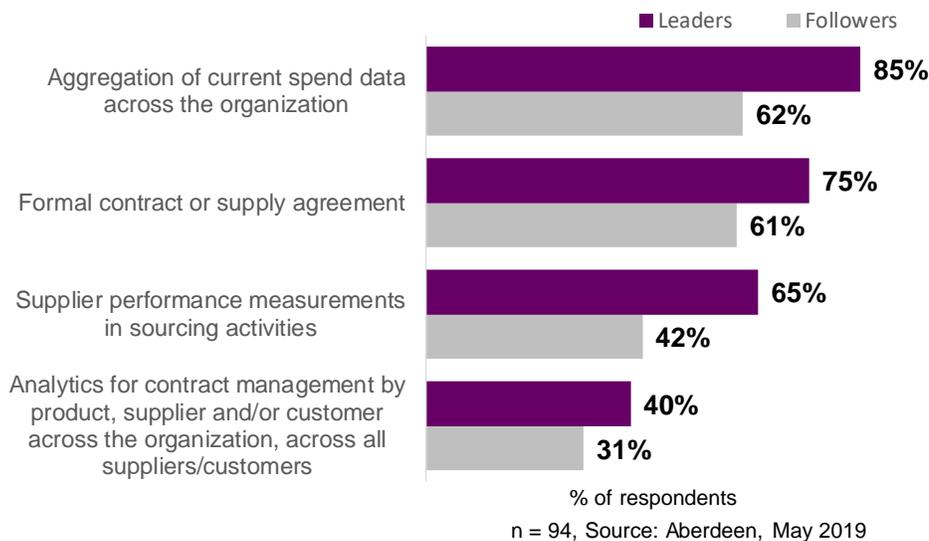
in place. Traceability requires upstream visibility to suppliers and inbound shipments from all levels — from the longest-tail supplier and raw material sources up through all levels in the bill of materials for purchased products. It also includes traceability through internal processes and shipment to the customer to provide end-to-end product traceability.

Real-time status visibility into all processes supports real-time decision making for customers/partners and can improve fulfillment or production course corrections. Real-time status visibility also provides instant access to inventory levels and process status across all locations and functions.

Sourcing and Procurement: Critical Execution Component

The SCM framework includes sourcing and procurement as key functions in closing the loop of an end-to-end supply chain. Aberdeen research finds that the primary role of sourcing and procurement is to drive bottom-line cost savings. However, they also play a critical support role in managing suppliers, controlling spend, providing upstream visibility, and ensuring on-time product delivery. Figure 7 (below) identifies the capabilities that Leaders have compared to Followers for key sourcing and procurement functions.

Figure 7: Sourcing and Procurement Capabilities



Procurement Performance:

Spend Under Management:

- ▶ Leaders: 71%
- ▶ Followers: 43%
- ▶ Leaders/Followers: 37%

Average Yearly Realized Savings:

- ▶ Leaders: 18.6%
- ▶ Followers: 6.8%
- ▶ Leaders/Followers: 167%

At 85% adoption, Leaders are 37% more likely compared to Followers (at 62% adoption) to aggregate current spend data across the organization. Their 85% adoption rate indicates they are managing carefully and are in

firm control of spend. Having more control over spend is key to realizing more significant savings, as Leaders, who are 166% higher in annual realized savings compared to Followers, demonstrates (see sidebar on previous page for a breakdown of procurement performance). For Leaders, spend under management is 61% higher than for Followers. This spend is controlled by some formal agreement such as purchase orders, contract, or a formal supplier agreement.

Having a formal contract, supply agreement, or negotiation document in place is the basis for governance and control over supplier relationships. A formal agreement establishes terms and conditions for the relationship, including cost for goods/services, delivery expectations, quality requirements, communication and visibility requirements, and any special conditions either party would like to establish. In conjunction with the formal contract or supply agreement, having performance measurements in place puts teeth in the agreement to hold suppliers accountable. These measurements are usually for cost improvement, delivery, and quality expectations. Supplier performance measurement is more closely aligned to the existence of formal contracts for Leaders (65% and 75%, respectively) than for Followers (42% and 61%). This indicates that Leaders are more formalized in holding suppliers accountable than Followers.

Applying analytics to tracking results by contract for products, suppliers/customers, and across all locations can be a challenge for many companies, with adoption levels at 40% for Leaders and 31% for Followers. Applying analytics to contract management can highlight areas of revenue leakage and raise alerts to potential opportunities, such as rebate thresholds and volume discounts. Software solutions that support sourcing, procure-to-pay (P2P), supplier management, and contract management are often areas to consider for improvement.

Transportation and Logistics Management are Key Elements in the SCM Framework

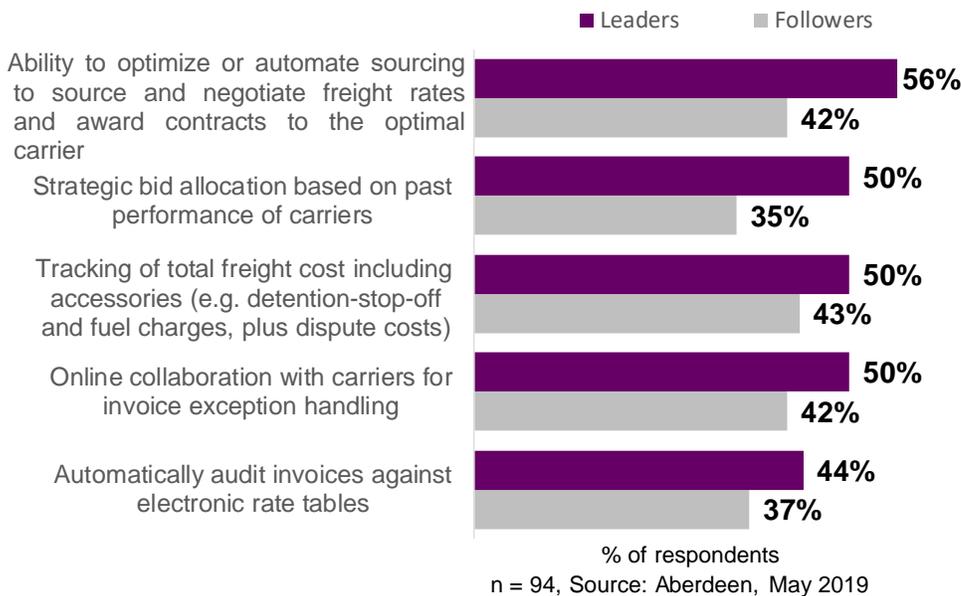
Transportation management is the management of freight/goods from origin to destination in a manner that is both cost effective and efficient while supporting the key SCM elements. Upstream visibility and procurement require input from all carriers and logistics providers for inbound shipments. Outbound shipments, fulfillment operations, and warehouse/distribution management all rely on collaboration with logistics service providers at all levels on a daily basis. However, many SMBs are stuck in the world of spreadsheets and lack the modern tools needed to

Many SMBs lack the modern tools to overcome the complexity of choosing the best carriers for their business to minimize logistics costs. A transportation management system (TMS) is designed to solve that issue and automate the process.

choose the best carriers for their business to minimize logistics costs. A transportation management system (TMS) is designed to solve that issue and automate the process. Figure 8 (below) shows key capabilities SMB Leaders have in place.

Fifty-six percent of Leaders have adopted the ability to optimize or automate sourcing and negotiating of freight rates and award contracts to the optimal carrier, greatly reducing the complexity of the carrier selection process, while 42% of Followers can say the same. Further augmenting their business strategy, Leaders, at 50% adoption, are 43% more likely than Followers, at 35% adoption, to incorporate past performance to allocate bids strategically. The bidding process is the largest variable in the cost equation but being able to incorporate all accessorial charges provides a complete picture of the true total freight cost, which Leaders are 50% likely to be able to do. In many cases, having visibility to incremental charges highlights obvious errors that can be corrected immediately. Aberdeen research indicates that TMS users demonstrate lower freight costs than non-users.

Figure 8: Transportation Management Capabilities



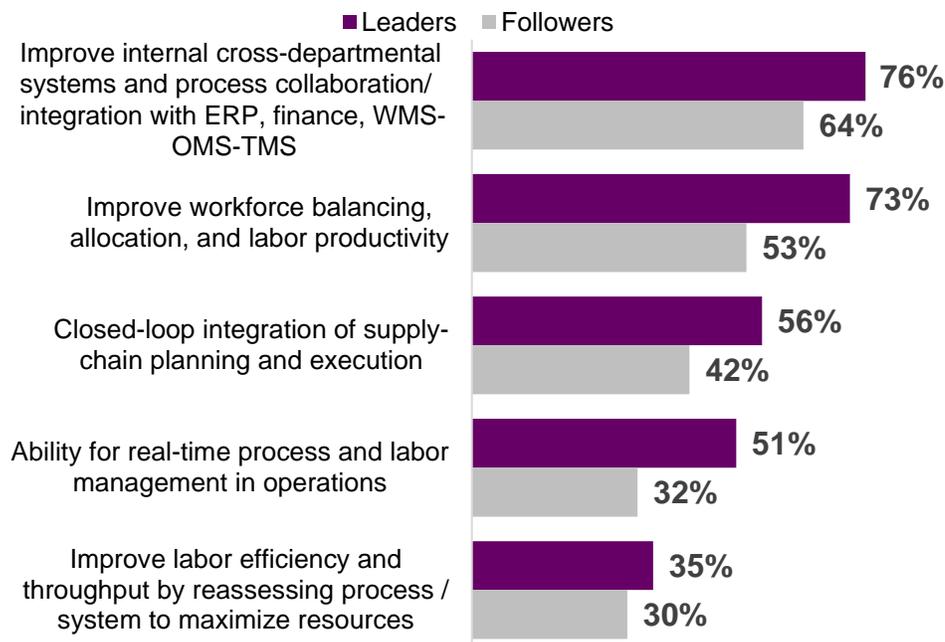
Manually reviewing freight bills should be left in the past. Electronic invoice presentation speeds up the review process and shifts efforts away from processing and into analyzing statements for potential discrepancies. Automatically auditing invoices against the electronic rate tables also improves processing efficiency and provides exception management for mismatches, which further simplifies invoice handling.

Distribution and Warehouse Management: WMS and OMS

Warehouse management is a vital execution element in the Leaders' SCM framework and critical to closing the loop between planning and fulfillment. The reason a strong WMS solution is so critical is due to the complex fulfillment processes required to support omnichannel shipments for not only B2B workflows but also B2C shipments. The result of omnichannel support is direct-to-customer shipments from all levels in the supply chain. Retailers, distributors, and manufacturers all experience structural labor increases in their distribution centers (DCs)/warehouses as a result of incremental labor required for picking/packing/shipping of "eaches" versus the labor needed for traditional bulk shipments to stores and/or DCs. Freight costs have risen structurally as well due to increased direct-to-customer parcel shipments and the trend away from bulk. This change results in a factor of 3-5x the cost to ship *individual* items compared to the bulk rate for pallets or truckloads of the same items. Omnichannel fulfillment creates real challenges for distribution and warehouse operations that try to offset labor and freight increases through more efficient processes. Figure 9 (below) exhibits the primary capabilities Leaders have in place to offset these costs.

Omnichannel fulfillment has created a real challenge for distribution and warehouse operations to offset the labor and freight increases by maximizing throughput through better labor efficiency.

Figure 9: WMS and OMS Capabilities



% of respondents, n=94, Source: Aberdeen, May 2019



Improving internal cross-departmental systems and process collaboration is the basis for closed-loop integration; it ties all the pieces together. Once integrated, workforce balancing is more likely to have an impact due to the presence of a stable environment. Leaders (at a 73% adoption rate) are 38% more likely to incorporate workforce balancing than Followers (at a 53% adoption rate). All means of communication to and from workers via voice, RFID, wearables, and scanning are in play. Simplifying what the worker must do is the approach to take. No extra steps, clicks, log-ons, calls — other than what is required to update and communicate — is the best method to provide real-time system updates from the floor.

Beyond the traditional picking algorithms that are available in most WMS systems, using a dynamic scheduling system allows real-time incorporation of same-day and next-day orders into the schedule. This minimizes floor disruption by incorporating these orders into the picking queue in the least disruptive manner. One-piece orders can always be disruptive, but dynamic scheduling reduces the impact.

Summary and Key Takeaways

When it comes to managing their supply chain, all SMBs face challenges. Following a holistic end-to-end approach favoring a planned and synchronized supply chain can minimize the effort and response time to keep a supply chain on track and address any problems that arise.

At the planning level, the strategic elements necessary include syncing supply with demand at an aggregate level to meet customer service standards. This requires setting SKU-level safety stock targets within a formal data-driven process to hit specific, individual targets. At the execution level, accurate delivery commitments can be assured based on real-time collaboration and visibility. S&OP/IBP should enable quick response-to-market events while executing to the plan.

Leaders demonstrate superior performance in the core areas of customer service levels, profitability, and productivity, with high schedule compliance and lower inventories. They also have capability advantages across all supply chain functions, from planning to execution, with an end-to-end perspective that enables superior performance.

Aberdeen Recommendations: Follow the blueprint for technology investment and establishment of critical capabilities to create a supply chain framework from an end-to-end perspective, similar to one Leaders currently have in place.



Related Research

Right Sizing Inventory Strategies for Manufacturers; February 2019

Maximize Your Supply Chain Effectiveness with Superior Modeling, Planning, and Analytics; September 2018

ERP's Role in the Modern Manufacturer: Supporting the Needs of Industry 4.0; February 2017

Inventory Optimization: Juggling the Tradeoffs Between Service Level and Inventory Investment; May 2016

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