

# Reducing Supply Chain Costs Through Improved Network Design



# Introduction

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- As supply chain complexity and globalization continue to increase, controlling costs becomes tougher and tougher to accomplish.
- Virtually all companies now have some form of direct-to-customer workflows, resulting in the rise of parcel shipments and in turn, increasing total freight costs.
- As channels and customers shift and change, keeping up with the supply chain network design is more critical than ever.
- Today's supply chain leaders no longer review their network design only once a year.
- Chief Supply Chain Officers (CSCOs) are using network design capabilities on a continuous basis, constantly upgrading their model to keep shipping costs in line.
- In this Analyst Insight, we will examine how top performing companies use network design technology to address changing channels and the freight benefits that come with it as a result.

# Defining the Leaders: Best-in-Class Maturity Matrix

- Best-in-Class performance is superior across the board, compared to All Others.
- Best-in-Class are 18% higher in service level.
- They are 20 days (35%) less in their cash-to-cash cycle.
- They also have a 52% higher gross margin, compared to All Others.
- The Best-in-Class have nearly a 2x higher productivity gain over the last two years.
- The superior metrics warrant attention to understand what the Best-in-Class are doing differently in their actions and investments.

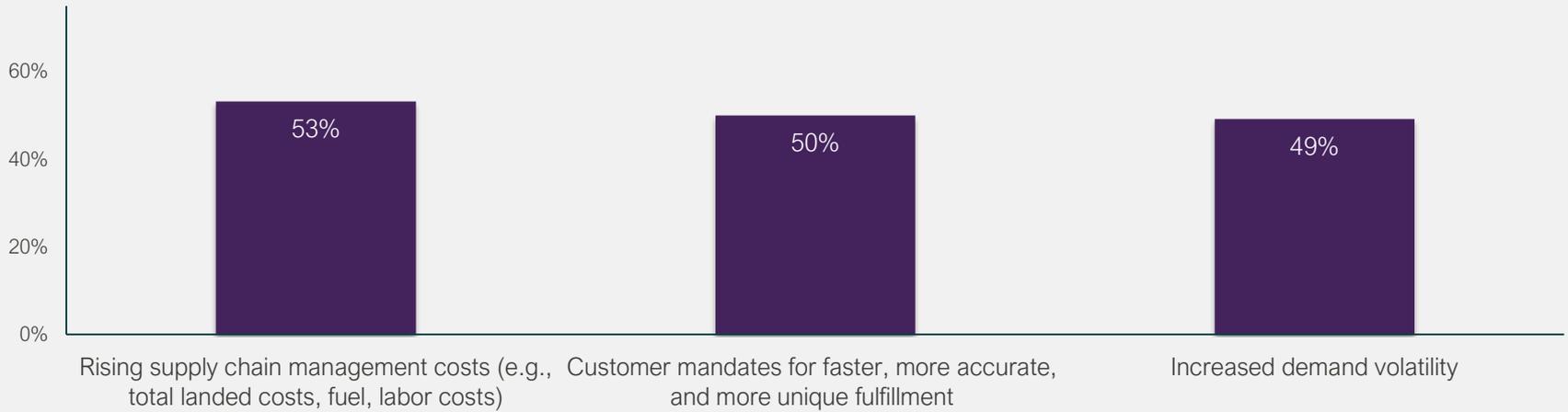
## Maturity Class Matrix

Performance Metric	Best-in-Class Top 20%	All Others Bottom 80%	Comparison Best-in-Class vs. All Others
Complete and on-time delivery	93%	79%	18% >
Cash-to-cash cycle days	39 Days	59 Days	35% <
Gross Margin	35%	23%	52% >
Improvement in productivity over the past two years	26.9%	9.7%	1.8x >

# Supply Chain Market and Business Pressures

- Rising supply chain costs is the number one pressure that supply chain organizations are facing.
- Understanding the benefits of supply chain network design is essential in order to cut costs.
- Demand volatility is a key factor in increased costs. Companies must react quickly to offset erratic changes in demand, both positive and negative.
- Customer mandates for faster, more unique services are driving up cost-to-serve metrics for freight and labor to support.

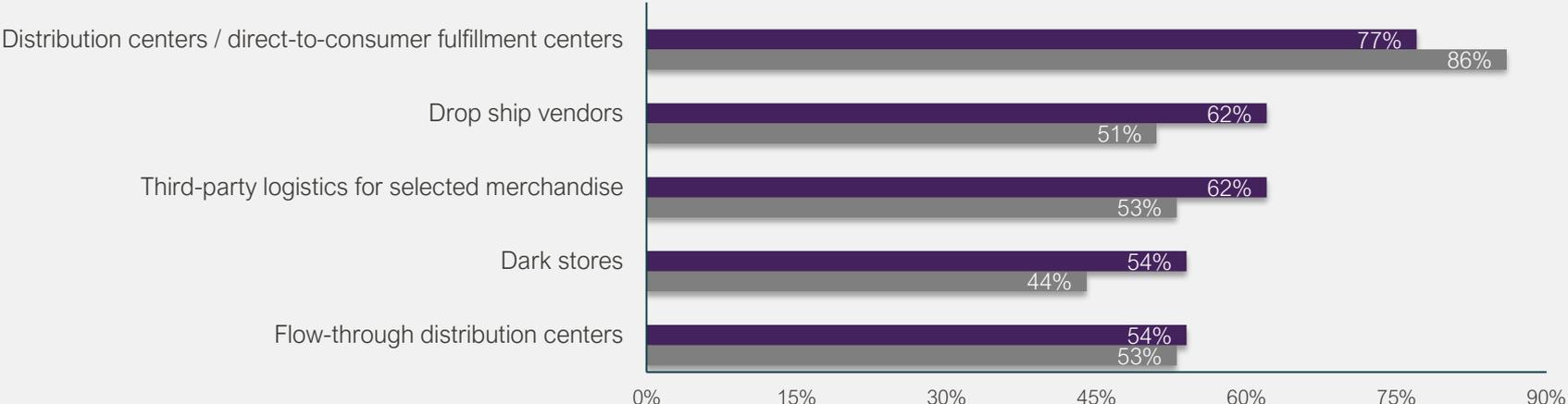
## Market and Business Pressures



# Evolving Strategies for Retailers

- In a recent survey of 100 North American retailers, the Best-in-Class achieved 59% lower freight costs compared to All Others.
- The one capability that stood out as a real differentiator was the structure of the retailers' fulfillment network.
- It was initially surprising to find that the Best-in-Class are 10% less likely to ship through their own distribution centers, which hurts their capacity utilization and their cost efficiency.
- The Best-in-Class are incorporating partners and additional locations beyond their traditional structure.
- The Best-in-Class are 17-25% more likely to utilize drop ship vendors, third-party logistics providers (3PLs), and dark stores.
- As a result, the Best-in-Class are reducing their total cost in getting the product to the customer.

## Retailers Distribution Profile and Strategic Structure



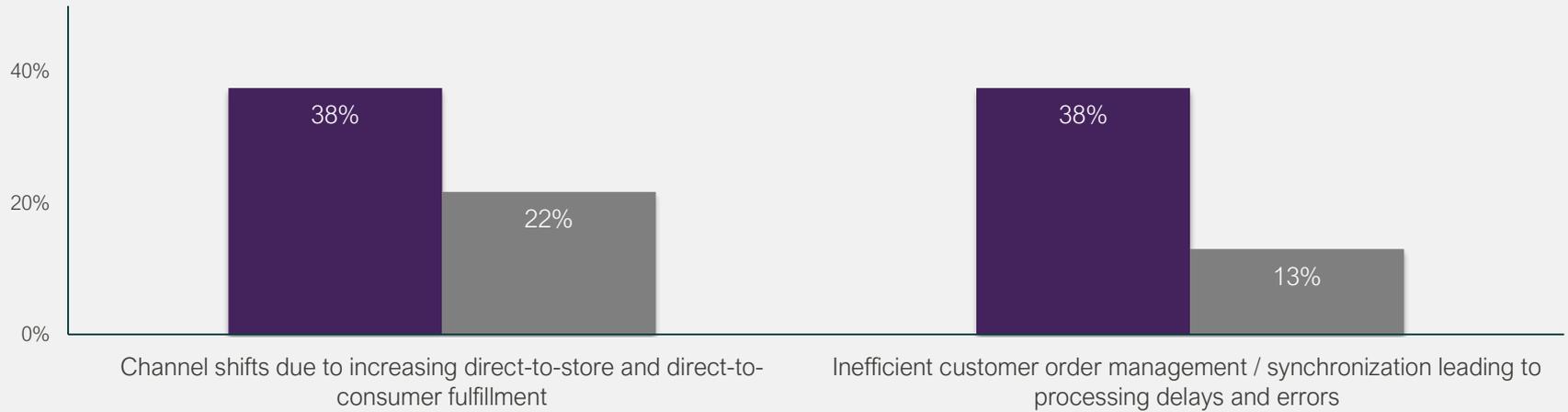
Best-in-Class All Others

n=154 • Source: Aberdeen, June 2018

# Sell-Side Challenges Due to Demand Shifts

- The Best-in-Class identified shifting channels as a challenge, due to increasing direct-to-customer and direct-to-store shipments.
- The increase in direct shipments to customers have resulted in freight changes from bulk to parcel, and a rate increase in the range of 3x-5x, the difference in bulk compared to parcel rates.
- All levels of the supply chain are now in the retail business, whether by design, or by force.
- Since traditional distribution channels have dramatically changed and new ones continue to form, the supply chain needs to be able to model and segment the demand accordingly.
- This must be done in a way that facilitates inventory deployment to match demand, which will decrease inefficient order management, processing delays, and errors.

## Impact of Direct-to-Customer and Direct-to-Store Shipments



Best-in-Class All Others

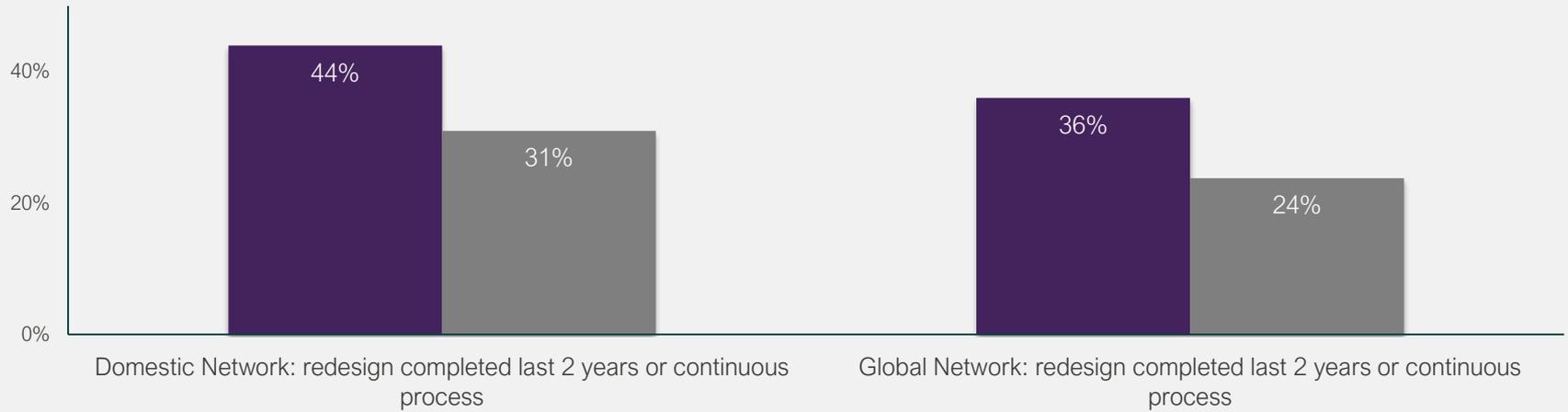
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Source: Aberdeen, June 2018

# Supply Chain Network Design

- The chart below indicates the supply chain network redesign for both global and domestic supply chains for the Best-in-Class vs. All Others.
- Considering the shifting channel and fulfillment changes that companies are facing, all maturity levels need to be evaluating and redesigning their network to adjust.
- This applies to virtual partnerships as well, such as the retailers' approach in further leveraging their partner network.
- Based on the superior performance of the Best-in-Class (see table on page three), All Others should strongly reassess their network design to improve their position.
- Best-in-Class are 42% more likely to have redesigned their domestic supply chain, or are continuously in design mode. In their global supply network, they are 51% more likely to have reworked, or are continuously designing their network.

## Global and Domestic Network Redesign



Best-in-Class All Others

n=154 • Source: Aberdeen, June 2018

# Transportation Cost Improvements for Best-in-Class

- The Best-in-Class are superior across the board compared to All Others.
- The first metric shows that the Best-in-Class costs are 59% less as a percentage of annual revenue, compared to All Others. The direction to leverage the partner network by the Best-in-Class directly contributes to the level of savings.
- The second freight metric is the change in total landed cost per unit handled, and the Best-in-Class are 9% less over the last 12 months
- The third metric is the change in domestic costs per unit shipped over the last 12 months, where the Best-in-Class are 21% less than All Others.
- For international transportation costs per unit shipped, top performers spend 33% less than All Others
- Domestic and international shipping costs are over 20% less and much more structural in nature. They are a function of the network design, which determines the flow of goods throughout the network.

## Transportation Cost Savings for Best-in-Class vs. All Others

Transportation Cost Metric	Best-in-Class Top 20%	All Others Bottom 80%	Comparison Best-in-Class vs. All Others
Organization's total shipping costs as a percentage of sales revenue	1.10%	2.70%	59% <
Total landed costs per unit handled, including warehousing, transportation costs, and import / export duties and tariffs over the last 12 months	3.00%	3.30%	9% <
Change in domestic transportation costs per unit shipped	3.08%	3.88%	21% <
Change in international transportation costs per unit shipped	2.58%	3.86%	33% <

# Conclusions / Recommendations

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## The Challenge

- Ever increasing supply chain costs are still the top pressure among All Companies.
- One of the key things that most supply chain leaders look at is whether the elements involved, and the possible alternatives in the supply chain network, are a net add or a net decrease to its cost structure.
- Could closing, moving, or reducing facilities be a net improvement?

## The Situation

- As the retail approach and the sell-side challenges indicate, the impact of direct-to-customer shipments from all levels of the supply chain are having a significant impact on shipping cost.
- This is due to increased parcel shipments to support the virtual channels dictated by customers, reflecting a shift away from the number of bulk shipments used in traditional brick and mortar channels.

## Conclusions and Recommendations

- Best-in-Class companies are far more likely to use network design capabilities to redesign, improve, and adjust their constantly evolving supply chain.
- Best-in-Class performance and clear advantage in freight costs are reason enough to follow their lead when it comes to improving supply chain costs through network design.